

Call: HORIZON-CL5-2021-D5-01

Hyperconnected simulation ecosystem supporting probabilistic design and predictive manufacturing of next generation aircraft structures

CAELESTIS

Deliverable D8.2

MAC Plan

Work Package 8

Dissemination, exploitation, communication, and collaboration

Document type	Deliverable / Plan
Version	2
Date of issue	30/10/2022
Dissemination level	CONFIDENTIAL (CO)
Lead beneficiary	RTDS

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or [EUROPEAN CLIMATE, INFRASTRUCTURE AND ENVIRONMENT EXECUTIVE AGENCY (CINEA)]. Neither the European Union nor the granting authority can be held responsible for them.



Funded by the European Union

The information contained in this report is subject to change without notice and should not be construed as a commitment by any members of the CAELESTIS Consortium. The information is provided without any warranty of any kind. This document may not be copied, reproduced, or modified in whole or in part for any purpose without written permission from the CAELESTIS Consortium. In addition to such written permission to copy, acknowledgement of the authors of the document and all applicable portions of the copyright notice must be clearly referenced. © COPYRIGHT 2022 The CAELESTIS Consortium. All rights reserved.





Document Control Information		
Title	Initial MAC Plan	
Scope / purpose of deliverable	Elaboration of the specific impleme objectives.	entation of CAELESTIS' MAC
Expected outcomes / contribution to impact	Successful completion of CAELESTIS' MAC objectives.	
Author(s)	Tristan Bath & Luis Rodrigues – RTDS	
Reviewer(s)	-	
Dissemination level	CO Confidential (please provide	Publishable Summary)
(select one, as in DoA)	PU Public	
Target audience	CAELESTIS Consortium, European Commission	
Approved by	⊠ AIM ⊠ UDG ⊠ ADD ⊠ ESI ⊠ JVN ⊠ ITA	⊠ BSC ⊠ EBOS ⊠ GKN ⊠ RTDS ⊠ TUD
IPRs underlined	Does the deliverable include relevant IP content? No	
Datasets underlined	Does the deliverable include releva	nt datasets? No

Date	Version	Change/Comment
16/11/2022	1	Initial draft. Requires input from consortium to ch. 7.3
28/11/2022	2	Updates made by RTDS to 7.1 (Invitation Letter). Ch. 7.3 input still pending.
19/12/2022	3	Additional inputs from the consortium for Ch 7.3 included





DECLARATION

The designations employed and the presentation material in this information product (deliverable) do not imply the expression of any opinion whatsoever on the part of the CAELESTIS Consortium. The mention of specific companies, events, products of manufacturers, do not imply that these have been endorsed or recommended by the CAELESTIS Consortium.

The views expressed in this deliverable are those of the author(s) and do not necessarily reflect the views of the CAELESTIS Consortium.

Third party materials: Users wishing to reuse material from this work that is attributed to a third party, such as tables, figures, or images, are responsible for determining whether permission is needed for that reuse and for obtaining permission from the copyright holder. The risk of claims resulting from infringement of any third party-owned component in the work rests solely with the user.





TABLE OF CONTENTS

-	-	N	-	
-		RES	-	
-	-		-	
LIST 1		REVIATIONS ABLE SUMMARY		
2		THE MAC	-	
3		LTI-ACTOR APPROACH METHODOLOGY		
3.1		ulti-Actor Approach perspective in previous projects		3
3.2	Best A	vailable Practices		£
4	GOALS 8	OBJECTIVES	11	
5		OMPLIANCE		
6		OCESSES & SOPS		
6.1		ied Stakeholder groups & strategies for engagement		
6.2		STIS Network		
	6.2.1	New Members of the CAELESTIS Network		5
	6.2.2	Diversity in the Network		5
	6.2.3	Google Sites Platform		5
6.3	Proto	ol & Methods		7
	6.3.1	Methods		7
	6.3.2	Involvement of CAELESTIS Network Members		7
	6.3.3	Protocols for Integration of Gathered Inputs		3
	6.3.4	Events & Joint Activities Protocol		3
6.4	SOP fo	r Co-Design, Knowledge-Sharing, and Engagement)
	6.4.1	Types of Activities)
	6.4.2	Intellectual Property Protection & GDPR Compliance		L
7	TOOLS 8	NOTIFICATION	22	
7.1	CAELE	STIS Network Invitation		2
7.2	GDPR	– Letter of Consent		3
7.3	Expec	ed Feedback / Consultation Topics		3
8		(PLAN		
9	REFEREN	ICES	27	



CAELESTIS Project HORIZON-CL5-2021-D5-01



LIST OF FIGURES

Figure 1: GDPR Compliance & Stakeholder Engagement, SOP	. 12
Figure 2: Stakeholders in the CAELESTIS Network	. 14

LIST OF TABLES

Table 1: CAELESTIS Network Members (August 2022)	. 15	5
Table 2: Expected Feedback from a WP (Template)	. 23	3

LIST OF ABBREVIATIONS

DECDissemination, Exploitation and CommunicationDETDistributed Engineering TeamsDoADescription of ActionD-SOPDissemination - Standard Operating Procedure(s)ERAEuropean Research AreaE-SOPExploitation - Standard Operating Procedure(s)FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling PropositionsWPWork Package(s)	AB CA	Advisory Board Consortium Agreement
DETDistributed Engineering TeamsDoADescription of ActionD-SOPDissemination - Standard Operating Procedure(s)ERAEuropean Research AreaE-SOPExploitation - Standard Operating Procedure(s)FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	DEC	-
D-SOPDissemination - Standard Operating Procedure(s)ERAEuropean Research AreaE-SOPExploitation - Standard Operating Procedure(s)FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	DET	•
D-SOPDissemination - Standard Operating Procedure(s)ERAEuropean Research AreaE-SOPExploitation - Standard Operating Procedure(s)FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	DoA	0 0
E-SOPExploitation - Standard Operating Procedure(s)FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	D-SOP	•
FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	ERA	
FTOFreedom To OperateGAGrant AgreementHPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	E-SOP	Exploitation - Standard Operating Procedure(s)
HPCHigh-Performance ComputingIPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	FTO	
IPIntellectual PropertyIPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	GA	Grant Agreement
IPRIntellectual Property RightsISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	HPC	High-Performance Computing
ISEInteroperable Simulation EcosystemITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	IP	Intellectual Property
ITFInnovation Task ForceKERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	IPR	Intellectual Property Rights
KERKey Exploitable ResultKPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	ISE	Interoperable Simulation Ecosystem
KPIKey Performance Indicator(s)M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	ITF	Innovation Task Force
M&SModel & SimulationMROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	KER	Key Exploitable Result
MROMaintenance, Repair, OverhaulNDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	KPI	Key Performance Indicator(s)
NDANon-Disclosure AgreementOCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	M&S	Model & Simulation
OCPOriginal Component ProducerOEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	MRO	Maintenance, Repair, Overhaul
OEROther Exploitable ResultOGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	NDA	Non-Disclosure Agreement
OGVOutlet Guide VanePSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	OCP	Original Component Producer
PSMProtectable Subject MatterRPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	OER	Other Exploitable Result
RPReporting PeriodRTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	OGV	Outlet Guide Vane
RTOResearch & Technical OrganisationSDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	PSM	Protectable Subject Matter
SDGSustainable Development GoalSHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	RP	Reporting Period
SHMStructural Health MonitoringSOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	RTO	Research & Technical Organisation
SOPStandard Operating Procedure(s)TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	SDG	Sustainable Development Goal
TRLTechnology Readiness LevelUQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	SHM	Structural Health Monitoring
UQ&MUncertainty Quantification and ManagementUSPUnique Selling Propositions	SOP	Standard Operating Procedure(s)
USP Unique Selling Propositions	TRL	Technology Readiness Level
	UQ&M	Uncertainty Quantification and Management
WP Work Package(s)	USP	
	WP	Work Package(s)





1 PUBLISHABLE SUMMARY

This deliverable presents a plan and common guidelines for the CAELESTIS consortium to execute activities relevant to the Multi-Actor Approach to Collaboration (MAC) throughout the development of the project.

Within this plan, partners can find details regarding the MAC activities envisaged to take place throughout the course of CAELESTIS, wishing to draw upon the input and experience of experts from relevant industries, related Horizon Europe / Horizon 2020 Projects, and representatives of key stakeholders. This input will be sought into two thematic areas: i) technological areas (seeking to define requirements and needs for technical features of the virtual prototyping ecosystem), and ii) non-technological areas (regarding barriers/opportunities to usability, e.g., work processes, gendered workplace, etc.)

One of the key factors for securing successful input from MAC activities is in the creation of the CAELESTIS Network, a dedicated channel for coordinating and communicating MAC activities involving actors in relevant fields such as aviation, additive manufacturing, green transition, computer simulations, smart manufacturing, and more. The different actors in the consortium are requested to call upon their technical expertise and pre-existing networks to maximise the impact of MAC activities. Consortium partners will take responsibility for leading respective MAC activities, facilitating co-creation and knowledge sharing with members of the CAELESTIS Network through interactive means, including workshops, surveys, and interviews.

The project has identified ideal representatives to join the CAELESTIS Networks, able to provide useful inputs to the project, and qualified to receive the practical information that will produced during the project. Finally, an initial list of expected activities and interactions foreseen in each technical Work Package has been drafted and is included in this MAC Plan.