



Netherlands Enterprise Agency



Digitale infosessie

2^e Call for Proposals
Clean Aviation Joint Undertaking

16 februari 2023



Georganiseerd door



Netherlands Enterprise Agency



Ministry of Economic Affairs
and Climate Policy





Inhoud programma

- 13:00-13:05** **Introductie, Niek Lobé (EZK)**
- 13:05-13:10** **Prestatie Nederland 1e Call for Proposals Clean Aviation JU 2022-2023, Fatma Saçli (RVO)**
- 13:10-13:20** **Toelichting 2e Call for Proposals Clean Aviation JU 2022-2023, Ron van Manen (Clean Aviation JU)**
- 13:20-13:30** **Q&A with Clean Aviation JU**
- 13:30-13:35** **Hoe kan RVO u ondersteunen, Fatma Saçli (RVO)**
- 13:35-13:45** **Ervaringen vanuit de 1e Call for Proposals, Tim Buiting (NLR) & hoe NLR en NAG u samen kunnen ondersteunen, Tim Buiting (NLR) en Frank Jansen (NAG)**
- 13:45-13:55** **Q&A met Fatma Saçli (RVO), Tim Buiting (NLR) en Frank Jansen (NAG)**
- 13:55-14:00** **Rondvraag, Niek Lobé (EZK)**
- 14:00** **Eind programma**



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Clean Aviation Joint Undertaking, 1e Call for Proposals

List of Topics for Calls for Proposals

Identification Code	Title	Type of Action	Ind. Value (Funding in M€)
Hydrogen-powered aircraft topics			
HORIZON-JU-CLEAN-AVIATION-2022-01-HPA-01	Direct Combustion of Hydrogen in Aero-engines	IA	115
HORIZON-JU-CLEAN-AVIATION-2022-01-HPA-02	Multi-MW Fuel Cell Propulsion System for Hydrogen-Powered Aircraft	IA	50
HORIZON-JU-CLEAN-AVIATION-2022-01-HPA-03	Large Scale Lightweight Liquid Hydrogen Integral Storage Solutions	IA	10
HORIZON-JU-CLEAN-AVIATION-2022-01-HPA-04	Near Term Disruptive Technologies for Hydrogen-Powered Aircraft	IA	7



Clean Aviation Joint Undertaking, 1e Call for Proposals

Hybrid-electric powered regional aircraft topics			
HORIZON-JU-CLEAN-AVIATION-2022-01-HER-01	Multi-MW Hybrid-Electric Propulsion System for Regional Aircraft	IA	75
HORIZON-JU-CLEAN-AVIATION-2022-01-HER-02	Thermal Management Solutions for Hybrid-Electric Regional Aircraft	IA	40
HORIZON-JU-CLEAN-AVIATION-2022-01-HER-03	Electrical Distribution Solutions for Hybrid-Electric Regional Aircraft	IA	40
HORIZON-JU-CLEAN-AVIATION-2022-01-HER-04	Innovative Wing Design for Hybrid-Electric Regional Aircraft	IA	20
Short/short-medium range aircraft topics			
HORIZON-JU-CLEAN-AVIATION-2022-01-SMR-01	Ultra Efficient Propulsion Systems for Short and Short-Medium Range Aircraft	IA	175
HORIZON-JU-CLEAN-AVIATION-2022-01-SMR-02	Ultra Performance Wing for Short and Short-medium Range Aircraft	IA	55
HORIZON-JU-CLEAN-AVIATION-2022-01-SMR-03	Advanced Low Weight Integrated Fuselage and Empennage for Short Range and Short-Medium Range Aircraft	IA	40



Clean Aviation Joint Undertaking, 1e Call for Proposals

Transversal activity topics			
HORIZON-JU-CLEAN-AVIATION-2022-01-TRA-01	Aircraft architectures & technology integration for aircraft concepts ranging from regional to short-medium range applications	IA	90
HORIZON-JU-CLEAN-AVIATION-2022-01-TRA-02	Novel Certification Methods and Means of Compliance for Disruptive Technologies	IA	18
HORIZON-JU-CLEAN-AVIATION-2022-01-CSA-01	Developing a European Clean Aviation Regional Ecosystem (ECARE)	CSA	0.72



Clean Aviation Joint Undertaking, 1e Call for Proposals

14 topics

gehonoreerde voorstellen: 20
(vanuit 25 ingediende voorstellen)

Totaal gehonoreerde budget:
€653,91M

Deelname Nederland

In 14 gehonoreerde voorstellen
27 keer deelname

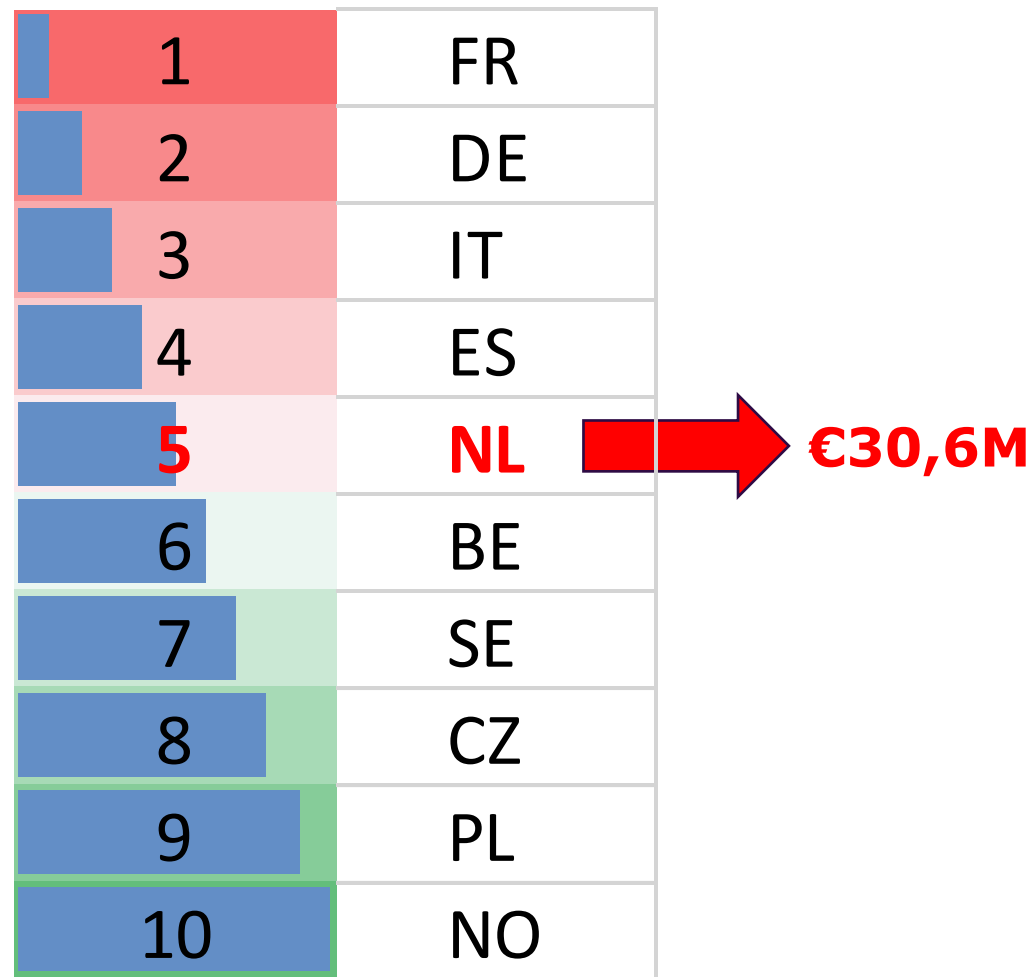
Door 10 Nederlandse partijen (als partner)

NL partijen
- €30,6M ontvangen

Retourpercentage Nederland ~4,7%



Top-10 landen per gehonoreerde bedrag 1e Call for Proposals, CAJU





Top-10 landen per # deelnemers 1e Call for Proposals, CAJU

1	FR
2	ES
3	DE
4	IT
5	UK
6	NL
7	BE
8	PL
9	AT
10	PT

 **10 partijen**



Co-funded by
the European Union

Clean Aviation's daring new projects

	PROJECT TITLE	PROJECT COORDINATOR	PROJECT TOPIC
HYBRID ELECTRIC POWERED AIRCRAFT	HE-ART	ROLLS-ROYCE DEUTSCHLAND LTD & CO KG	Multi-MW Hybrid-Electric Propulsion System
	AMBER	GE AVIO SRL	
	TheMa4HERA	HONEYWELL INTERNATIONAL SRO	Thermal Management Solutions
	HECATE	COLLINS AEROSPACE IRELAND, LIMITED	Electrical Distribution Solutions
	HERWINGT	AIRBUS DEFENCE AND SPACE SA	Innovative Wing Design
HYDROGEN POWERED AIRCRAFT	CAVENDISH	ROLLS-ROYCE DEUTSCHLAND LTD & CO KG	Direct Combustion of Hydrogen in Aero-engines
	HYDEA	GE AVIO SRL	
	NEWBORN	HONEYWELL INTERNATIONAL SRO	Multi-MW Fuel Cell Propulsion System
	H2ELIOS	ACITURRI ENGINEERING SL	Large Scale Lightweight Liquid Hydrogen Integral Storage Solutions
	fLHYing tank	PIPISTREL VERTICAL SOLUTIONS DOO PODJETJE ZA NAPREDNE LETALSKE RESITVE	Near Term Disruptive Technologies
	HyPoTraDe	PIPISTREL VERTICAL SOLUTIONS DOO PODJETJE ZA NAPREDNE LETALSKE RESITVE	

Nederlandse partners zijn betrokken in de omcirkelde projecten



ULTRA EFFICIENT SHORT & MEDIUM RANGE AIRCRAFT	OFELIA	SAFRAN AIRCRAFT ENGINES	Ultra Efficient Propulsion Systems
	SWITCH	MTU AERO ENGINES AG	
	HEAVEN	ROLLS-ROYCE DEUTSCHLAND LTD & CO KG	
	UP Wing	AIRBUS OPERATIONS GMBH	Ultra Performance Wing
	FASTER-H2	AIRBUS OPERATIONS GMBH	Advanced Low Weight Integrated Fuselage and Empennage
TRANSVERSAL AREAS	HERA	LEONARDO - SOCIETA PER AZIONI	Aircraft concepts enabling 30 to 50% reduction in emissions
	SMR ACAP	AIRBUS OPERATIONS GMBH	
	CONCERTO	DASSAULT AVIATION	Novel Certification Methods and Means of Compliance for Disruptive Technologies
SUPPORT ACTION	ECARE	AEROSPACE VALLEY	Developing a European Clean Aviation Regional Ecosystem (ECARE)

Nederlandse partners zijn betrokken in de omcirkelde projecten



Gehonoreerde NI-deelnemers (geen ranking), 1e Call for Proposals CAJU

TECHNISCHE UNIVERSITEIT DELFT

STICHTING KONINKLIJK NEDERLANDS LUCHT - EN RUIMTEVAARTCENTRUM

FOKKER ELMO BV

STICHTING DUIITS-NEDERLANDSE WINDTUNNELS

OPTICS11 BV

AIRBUS DEFENCE AND SPACE NETHERLANDS BV

NETHERLANDS AIRCRAFT COMPANY NV

FOKKER SERVICES BV

Unified International (SME)

FOKKER AEROSTRUCTURES BV

Newcomers!

In Nederland

- dominante participatie door kennisinstellingen en universiteiten
- bescheidene industriële participatie, waarin minimale SME-deelname



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CLEAN AVIATION

Clean Aviation Call #2 info

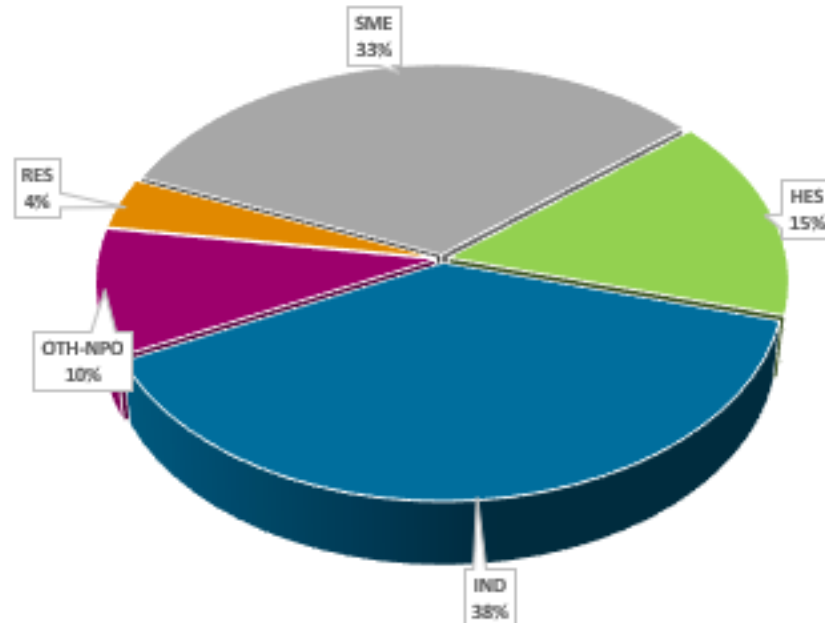
NL Event 16 Feb. 2023



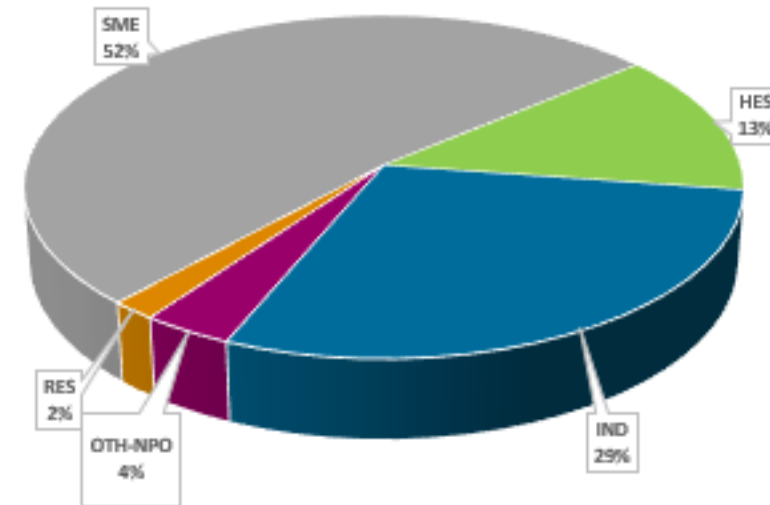
Co-funded by
the European Union

Newcomers – Number of single participation, percentage and EU contrib. in m€

Number of New comers Vs CS2 & CS (single parti) -
Total 52



Budget for new comers: 37.43 MM€



New Comer = an entity that is, for the first time, a beneficiary of a grant awarded by the JU or its preceding initiatives (CS or CS2) and that is not a founding member of the JU or Leader in its preceding initiatives (CS or CS2).

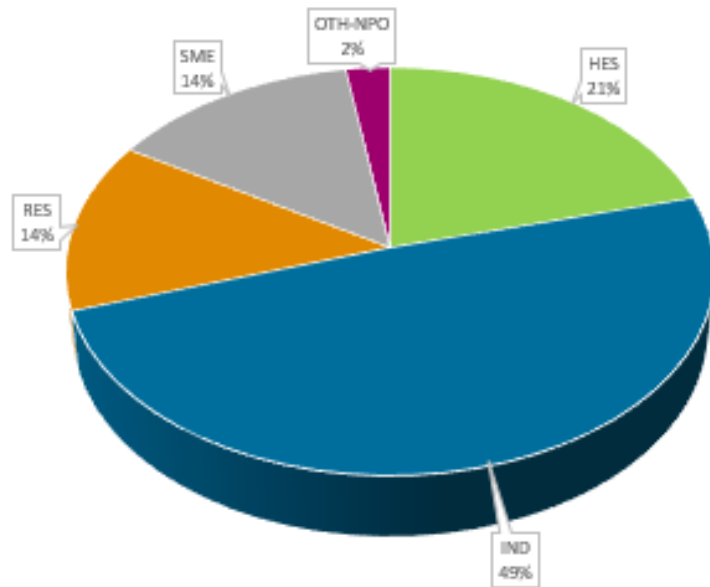
*IND= Industry; SME=Small & Medium Entity; RES= Research Organization; HES= University or Higher or Secondary Education Establishment ; OTH-NPO= Other Non-profit Org.



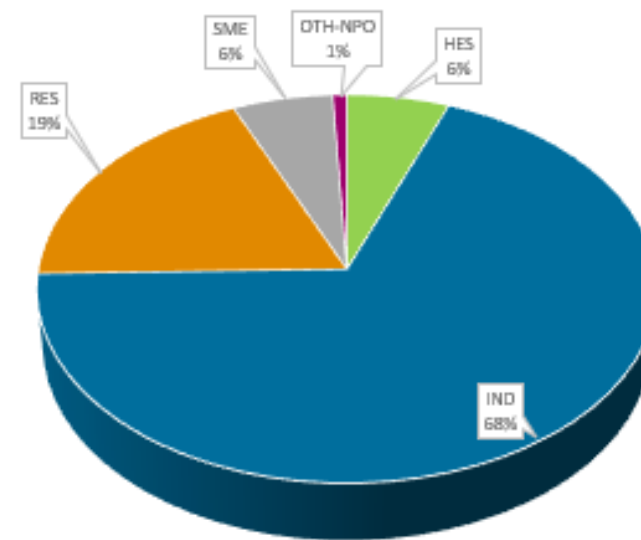
Participation breakdown per participant type (single participation)

PARTICIPATION BREAKDOWN PER PARTICIPANT TYPE IN NUMBER

244 participants



PARTICIPATION BREAKDOWN PER PARTICIPANT TYPE IN FUNDING 653.91MM€



IND= Industry; SME=Small & Medium Entity; RES =Research Organization; HES= University or Higher or Secondary Education Establishment. ; OTH-NPO= Other Non profit Org.



CA CALL 2 - LIST OF TOPICS

Hydrogen Powered Aircraft (HPA)		Funding (M€)	Number of projects
HORIZON-JU-CLEAN-AVIATION-2023-02-HPA-01	Hydrogen fuel system for direct burn engine ground test execution and flight test preparation	20	1
HORIZON-JU-CLEAN-AVIATION-2023-02-HPA-02	Aircraft Liquid Hydrogen Fuel Distribution System Technologies for Direct Burn Applications	10	1
HORIZON-JU-CLEAN-AVIATION-2023-02-HPA-03	Multi-MW Fuel Cell Propulsion System for Hydrogen-Powered Aircraft	35	1
Hybrid Electric Regional Aircraft (HER)			
HORIZON-JU-CLEAN-AVIATION-2023-02-HER-01	Innovative Fuselage/Empennage Design for Hybrid-Electric Regional Aircraft	25	1
HORIZON-JU-CLEAN-AVIATION-2023-02-HER-02	Open Digital Platform for Hybrid-Electric Regional Design	7	1
Short & Medium Range Aircraft (SMR)			
HORIZON-JU-CLEAN-AVIATION-2023-02-SMR-01	High-TRL Flight demonstration means for Ultra Efficient Propulsion Systems for Short and Short-Medium Range Aircraft	20	1
HORIZON-JU-CLEAN-AVIATION-2023-02-SMR-02	Ultra Performance Wing Technologies and Integration for Short and Short-medium Range Aircraft	13	1
HORIZON-JU-CLEAN-AVIATION-2023-02-SMR-03	Advanced Cabin and Cabin Systems Integration for Short Range and Short-Medium Range for Hydrogen-Powered Aircraft	7	1
Support Action			
HORIZON-JU-CLEAN-AVIATION-2023-02-CSA-01	Aviation Climate and Technology Impact Monitoring Methodology	0.75	
Total funding value		137.75	

CALL 2 – TIMELINE

Call Launch	09-Feb-23
Submission System open	09-Mar-23
Call Closure	11-May-23
Q&A opens until*	Mid-Apr-23
Evaluation Phase	
Briefing of Experts + Access to proposals	22-23 May 2023
Individual Reading & Evaluation	23 May- 22 June 2023
Consensus Week	26-30 June 2023
Hearings	17-20 July 2023
Call Review Panel	24-25 July 2023
Results outcomes	
Sending of letters	30-Aug-23
Grant Prep Phase	
Kick-Off event in Brussels	Mid-September 2023 (tbd)
Grant Signature (at the latest)	Mid-December 2023
*Q&A will be published on the Funding and Tenders Opportunities Portal.	



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Contact your Horizon Europe advisors @ RVO

Orientation

- Infodays
- Guidance during one-on-one meetings

Advice

- Feedback on project idea/consortium
- Review of project proposal
- Legal/financial

Training

- Basics
- How to prepare
- Impact!
- Legal / Financial

Networking

- EU network
- Partner search
- International match-making & missions

EC liaison

- ‘Klankbord-groepen’
- Identify R&D priorities
- Link with policy makers





Thank you!

**National Contact Point Horizon Europe Cluster 5:
Climate, Energy and **Mobility****

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<https://english.rvo.nl/subsidies-programmes/horizon-europe-research-and-innovation>

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088 0424210



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Dedicated to innovation in aerospace

Meedoen in Clean Aviation

Tim Buiting (NLR) & Frank Jansen (NAG)

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Waarom zou je dit (niet) willen?

- Significante financiële boost
 - Versnelt innovatie en productontwikkeling
- Maar... EU subsidies zijn geen gouden bergen
 - Focus op dingen die je toch al wilde doen
 - Bovendien is de administratie complex
- Samenwerking
 - Direct positioneren in waardeketen
 - Dicht op de concurrentie
- Exposure
 - One of a kind innovatie → men wil er meer van weten...
 - ...maar wil je dat wel delen?





Tips & Tricks

- M.u.v EIC gaat het altijd om internationale samenwerking
 - Wat wil je delen, en wat niet?
 - Met wie wil je samenwerken (waardeketen)?
- RVO is je vriend
 - Veel hulp beschikbaar
 - Een andere blik op
- MKBs zijn de heilige graal
 - Buit je positie uit
- EU = Champions League
 - Zoek een 'gids', een 'way in'
 - NLR is er voor NL-MKB



NLR & NAG...

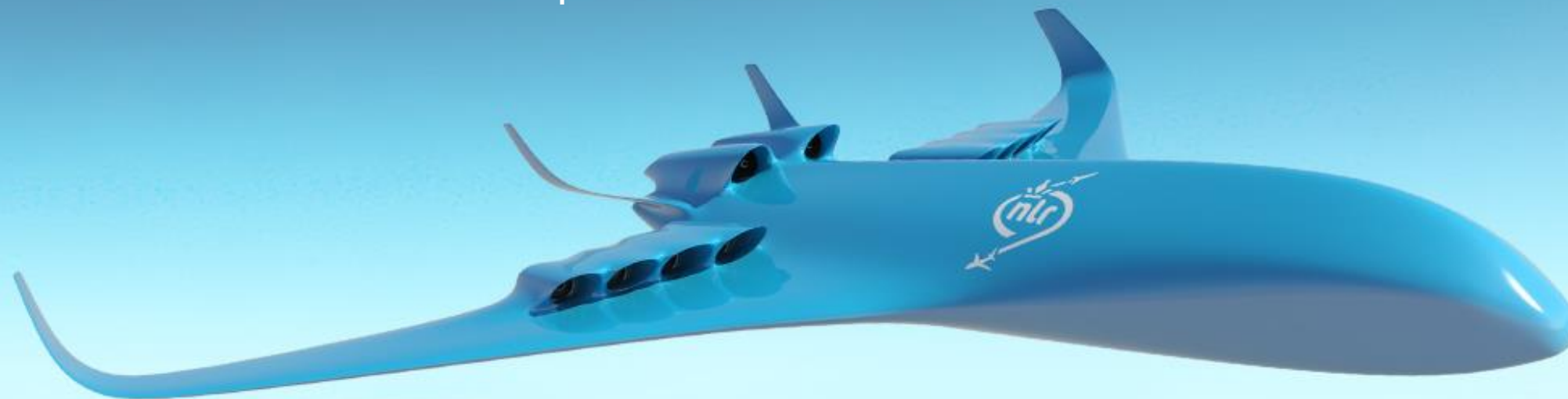
- ...zijn beschikbaar voor vragen en advise;
- ...volgen actief de ontwikkelingen, werkprogramma's en consortiumvorming en nemen met NL-bedrijven contact op indien er kansen;
- ...kunnen helpen bij het vinden van partners via het uitgebreide Europese network can (e.g. via EACP, EREA, IMG's, EASN)';
- ...kunnen partners zijn in het project en –vanuit die positie- ondersteunend
- ...kan ondersteunend zijn in de valorisatie en het optimaliseren van supply chain kansen



Dedicated to innovation in aerospace

Fully engaged

NLR - Netherlands Aerospace Centre



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