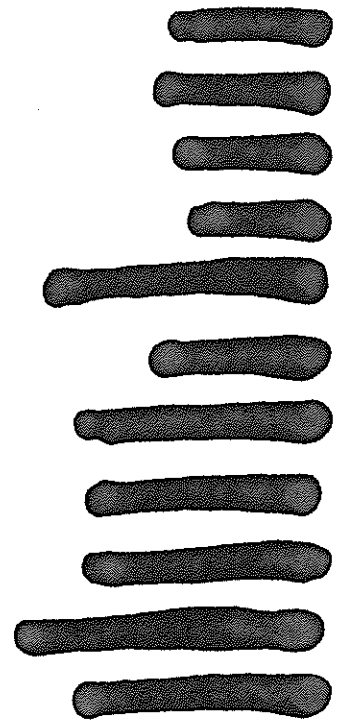


PROJETO/ PROJECT EMSA – RPAS Long Endurance	RESPONSÁVEL DE PROJETO/ PROJECT MANAGER [REDACTED]	HOUR/ PLACE 09:30 @ EMSA HEADQUARTER IN LISBON
PARTICIPANTES/ PARTICIPANTS	FUNÇÕES/ ROLE	CONTATO/ CONTACT (EMAIL)
[REDACTED]	CEIIA - Senior Board Advisor	[REDACTED]
[REDACTED]	CEIIA - Project Manager	[REDACTED]
[REDACTED]	CEIIA - Quality Responsible	[REDACTED]
[REDACTED]	Elbit - Senior Diretor	[REDACTED]
[REDACTED]	EMSA – Head of Unit Maritime Surveillance	[REDACTED]
[REDACTED]	EMSA – Head of Department	[REDACTED]
[REDACTED]	EMSA – Senior Project Manager for RPAS	[REDACTED]
[REDACTED]	EMSA - Senior Project Manager for RPAS	[REDACTED]
[REDACTED]	EMSA – Senior Project Officer for RPAS	[REDACTED]
[REDACTED]	EMSA – Senior Project Officer for RPAS	[REDACTED]
[REDACTED]	EMSA – Project Officer for RPAS Services	[REDACTED]

Kick Off Meeting Agenda:

Please refer to email from EMSA with agenda proposed and accepted by CEIIA.

Time	Agenda Item	Speakers
09:30 – 09:45	Introduction and welcome (objective of the meeting)	EMSA
09:45 – 10:00	<ul style="list-style-type: none"> Objectives of the contract: EMSA expectations and priorities Description of the contract: modules, specific contracts, schedule Follow-up the contract: EMSA points of contact, visits, working procedures, common project management and document repository [REDACTED] for use by service providers	EMSA
10:00 – 10:30	<ul style="list-style-type: none"> Presentation of Companies Presentation of the RPAS system Project Management Plan Team composition Risks of the project and mitigation plan 	Contractor



Time	Agenda Item	Speakers
10:30 – 11:15	<ul style="list-style-type: none"> ■ Current status of the system (Configuration, capabilities and limitations) ■ Activities to complete the RPAS <ul style="list-style-type: none"> ○ [REDACTED] ■ Training program including information of the CEiia staff hired ■ Using of EMSA SATCOM services for the Hermes 900 	Contractor
11:15– 11:30	Coffee break	All
Module 1: Set-up of services		
11:30 – 11:415	<ul style="list-style-type: none"> ■ Description ■ Permit to fly: countries, identification number, Operational limitations, class of airspace, ATM ■ Site survey ■ Deliverables, milestones and schedule ■ Mandatory configuration and Capability tests 	EMSA
Module 2,3 and 4: Mobilisation, On-site activities, Flights		
11:45 – 12:00	<ul style="list-style-type: none"> ■ Description ■ Deliverables, Milestones and schedule ■ Weekly Flight Schedule / Flight reporting ■ Flight durations and frequencies ■ Data analysis and reporting ■ Data exploitation ■ Operations personal management: substitutions ■ Operational Risks and mitigation plan 	EMSA
Module 5: Interfacing		
12:15 – 12:45	<ul style="list-style-type: none"> ■ Description ■ Planning ■ Solution ■ Implementation plan 	EMSA, Contractor
Documentation		
12:45 – 13:00	<ul style="list-style-type: none"> ■ Status of the documentation ■ Configuration management ■ RPAS portfolio ■ RPAS passport and related information 	Contractor
13:00 – 13:15	Conclusions / Summary follow-up actions Questions and clarifications AOB	All
13:15 – 14:30	Lunch	All
14:30 – 16:00	Optional continuation if necessary	All

11

ITEMS PRESENTED AND DISCUSSION:**1 – OBJECTIVES AND PROJECT DESCRIPTION BY EMSA**

1.1 – After a round table presentation for everyone present (see list of attendees), Mrs. [REDACTED] introduced the main objectives for the project and goals for start of operations, stating that there is interest from the countries (more than 10 countries) to have the services provided by CEIIA and Elbit as per OP/01/2018 Framework Contract.

1.2 – After introduction a brief presentation (see attachment X) was held by Mr. [REDACTED] with expectations from EMSA were it was asked to:

- Always have a culture of transparency between EMSA and CEIIA people;
- Necessary to make the process of documentation generation and update more agile;

2 – CONTRACTOR PRESENTATION AND PROJECT DOCUMENTATION

2.1 – Following topic of the agenda consisted of:

- CEIIA general presentation (see attachment X)
- Elbit general presentation (see attachment X)
- Draft Project Management Plan (PMP) document and Project Gantt was showed (see attachment X)
- CEIIA organisation, Recruiting and Training Plan was showed and discussed;
- Draft CEIIA Risk Management document was also Showed;

Regarding the above topic EMSA provided the following feedback:

- EMSA is concerned about the team availability and necessary manpower to attain permit to fly with necessary documentation
- EMSA expected to have documentation already issued and with more maturity level
- EMSA expected to have a presentation of topics related to PMP and a review of the document as provided by CEIIA
- EMSA requested the detailed training syllabus for operators such it can be verified that this capability will be available in CEIIA team

CEIIA replied to EMSA concerns reassuring that all efforts will be performed to achieve EMSA expectations

ACTIONS:

AI1 – CEIIA to send draft versions of documents to be reviewed and discussed by EMSA personnel and CEIIA in following meetings

AI2 – CEIIA to send training syllabus for operators

[REDACTED]

[REDACTED]

[REDACTED]

3 – RPAS STATUS

3.1 – The following status regarding aircraft was provided by Elbit:

- Elbit will need to follow export licence procedures to be able to send the RPAS to Europe, mainly:
 - Achieve an export licence from Israel MOD (although a pre-approval has been achieved during the tender) and would not take more than [REDACTED] weeks. This activity is already ongoing.
 - Achieve an export licence from Italy MOD for [REDACTED]. To attain this licence an end-user declaration is needed.
 - In relation to this Elbit will provide the forms necessary to EMSA evaluate if can provide this declaration signed by them or if need to wait and sign it with hosting country of services end user.
- [REDACTED] availability:
 - Elbit already issued a Purchase Order for a new [REDACTED]
 - Elbit already have a requested [REDACTED] to replace [REDACTED] of available system. Elbit will access was shall be the best solution and inform EMSA as soon as possible. Nevertheless, the usage of the radar is dependent on export licence issued by [REDACTED]
 - Regarding the radar antenna, EMSA informed that it will need proof of repair/substitution order such it can attached to ICT approval justification from EMSA;
- EPIRB
 - Implementation of system is following plan showed during ICT and will be achieved as planned
- RPAS Configuration
 - Configuration demonstrated in ICT is available to deploy
 - Elbit will evaluate during fist deployment if it is needed to manufacture a platform specific to this project.
- [REDACTED]
 - Demonstrated [REDACTED] payload is installed and will be used for first deployment mission
 - Elbit does not have a plan to integrate the payload [REDACTED] offered in tender) in RPA available to perform the deployments

A13 – Elbit to provide export licence documentation to EMSA to be assessed.

4 – MODULE 5 (item discussion was performed during morning due to availability from EMSA personnel)

4.1 – EMSA made a brief presentation of RPAS-DC tool and requirements for interfacing (see attachment X)

4.2 – CEIIA also made a brief presentation were a scheme of the high-level architecture envisioned to enable delivery of Mission data to the RPAS-DC according to tender requirements (see attachment X)

4.3 – To continue discussion of this topic a dedicated meeting was scheduled to happen on the 12/11/2018 @ 16h. Meeting requests already sent to POCs for this task on EMSA and CEIIA side. From CEIIA the POC for this activity will be [REDACTED] and from EMSA, [REDACTED] and [REDACTED]

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5 – SATCOM

5.1 – EMSA made a brief presentation with status of ongoing tender to be able to [REDACTED] and for data [REDACTED] (see attachment X). Contract signature for this tender is imminent. This will make available [REDACTED]

5.2 – EMSA also informed that according to provided information on [REDACTED] available in the aircraft during ICT it should be compatible with the [REDACTED]. Elbit will verify if [REDACTED] changed from the ICT.

5.3 – It was agreed between all parts that if [REDACTED]

A14 – Elbit to inform EMSA if SATCOM terminal has changed from the ICT.

A15 – EMSA shall provide technical information of SATCOM service to CEIIA and Elbit

6 – DETAIL ACTIVITIES

6.1 – EMSA presented the activities envisaged for the module 1 such as:

- Capability Test Plan
- Site Survey
- Permit to Fly
- Deployment Plan

6.2 – EMSA also presented details on activities for other modules (see attachment X)

6.3 – EMSA also requested a specific procedure to communicate and approve changes to configuration of RPAS

6.4 – Questions were performed by CEIIA about RPAS PASSPORT document and a dedicated conference call meeting was scheduled to the 08/11/2018 @ 11h30 to discuss the document in detail. Meeting requests already sent to POCs for this task on EMSA and CEIIA side. From CEIIA POC for documentation will be [REDACTED]

6.5 – Regarding PORTFOLIO document already provided by CEIIA, EMSA is evaluating and will provide feedback on the content.

6.6 – A brief status on documentation was provided by CEIIA and a follow-up weekly meeting was agreed to happen every Thursdays at 10AM starting at 15/11/2018. Periodicity of the weekly meeting will be accessed as soon is considered not necessary such a short follow-up by EMSA.

6.7 – EMSA informed CEIIA that [REDACTED] tool is used to manage the project. It was requested a generic email from CEIIA to create a user to enable CEIIA to use the software and interact with EMSA project management team. For project management issues [REDACTED] are the POCs from EMSA side.

6.8 – All emails exchanged between POCs with regard to contract shall have in the subject OP1/2018 or CEIIA and generic email for this contract XXXXX shall be used.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

AI6 – EMSA shall provide feedback for the PORTFOLIO document.

AI7 – CEIIA to provide generic email to create access to [REDACTED] tool.

Meetings Scheduled:

Module 5 dedicated meeting scheduled to happen on the 12/11/2018 @ 16h

RPAS PASSPORT conference call meeting scheduled to the 08/11/2018 @ 11h30

Follow up every Thursday [REDACTED]

ACTION ITEMS:

Action ID	Action Description	Responsible	Due Date
AI1	<i>CEIIA to send draft versions of documents to be reviewed and discussed by EMSA personnel and CEIIA in following meetings</i>	[REDACTED]	12/11/2018
AI2	<i>CEIIA to send training syllabus for operators</i>	[REDACTED]	12/11/2018
AI3	<i>Elbit to provide export licence documentation to EMSA to be assessed.</i>	[REDACTED]	12/11/2018
AI4	<i>Elbit to inform EMSA if SATCOM terminal has changed from the ICT.</i>	[REDACTED]	12/11/2018
AI5	<i>EMSA shall provide technical information of SATCOM service to CEIIA and Elbit</i>		16/11/2018
AI6	<i>EMSA shall provide feedback for the PORTFOLIO document</i>		16/11/2018
AI7	<i>CEIIA to provide generic email to create access to [REDACTED] tool.</i>	[REDACTED]	16/11/2018

*These actions planned above will be followed in Action Items document for the project

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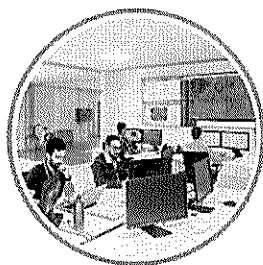
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7

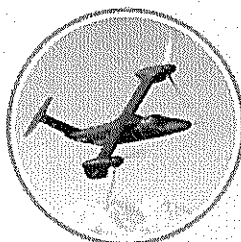
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CEIIA

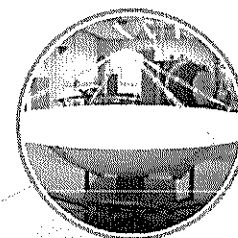
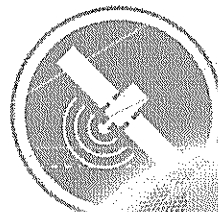
ENGINEERING AND
PRODUCT DEVELOPMENT



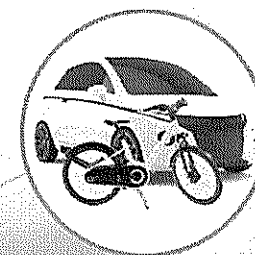
MOBILITY
mobi.me



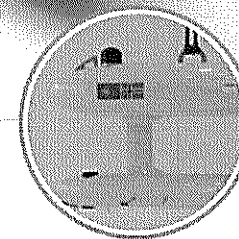
AERONAUTICS
AW609
Leonardo Helicopters



SPACE
MECSE
Nanosatellite



AUTOMOTIVE
BE02 and I.Bike
Smart Mobility Devices



OCEANS
MEDUSA
Deep Sea Autonomous
Underwater Vehicles

2018

CEIIA OVERVIEW

| ABOUT US

| MAIN CLIENTS AND BUSINESS PARTNERS

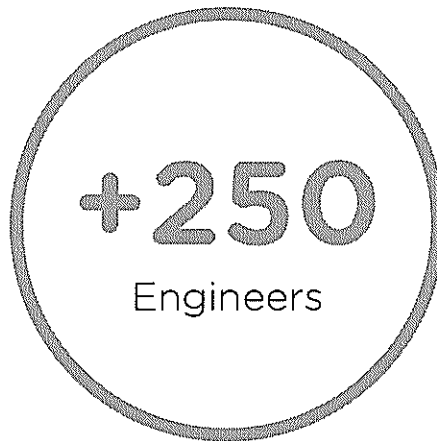
| MAIN R&D PARTNERS

| CERTIFICATIONS

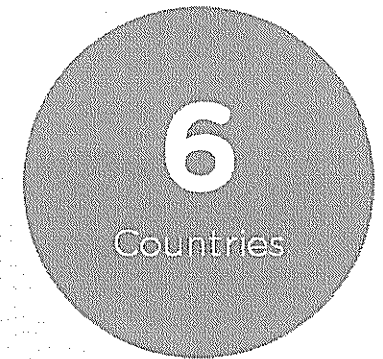
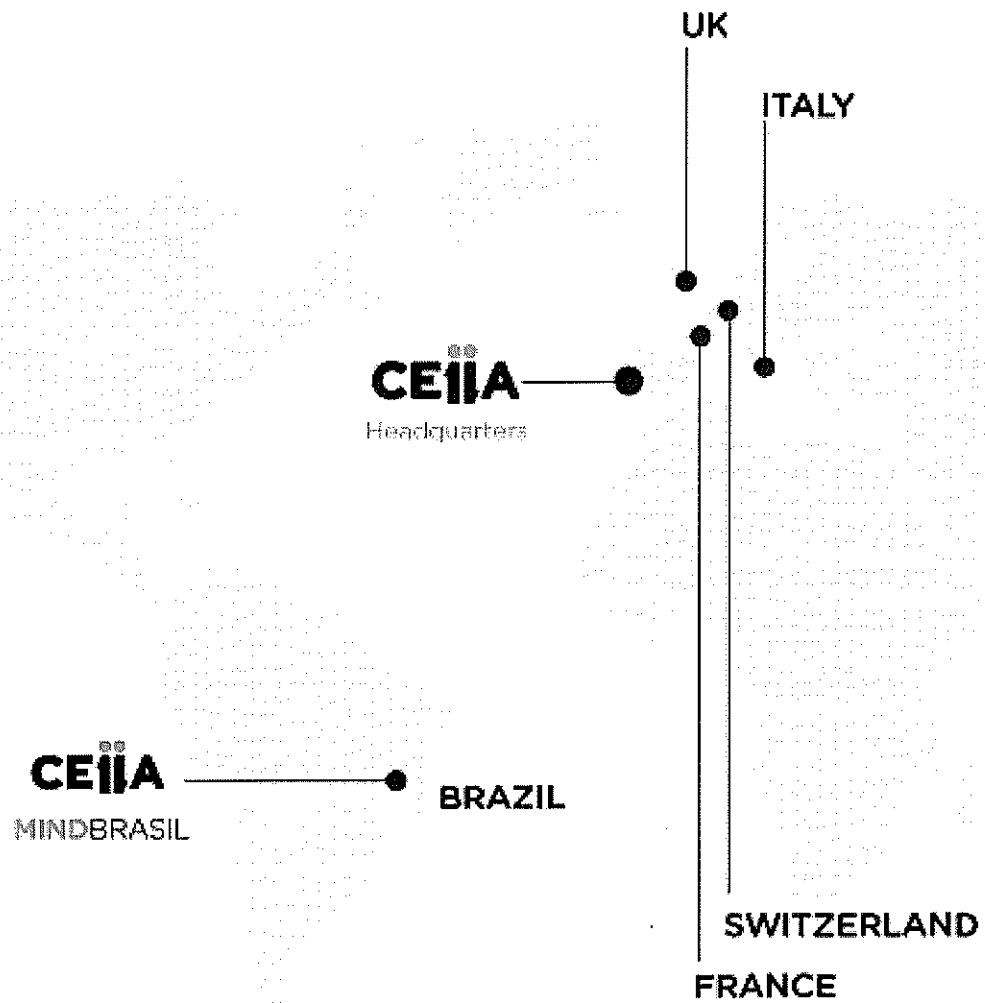
ABOUT US

CEiiA is a **Centre for Engineering and Product Development** that designs and operates innovative products and systems in cutting edge mobility industries, such as automotive, mobility, aeronautics, sea and space.

CEiiA offers complete solutions, covering all product development phases from concept to the production of small series, and operates intelligent systems.

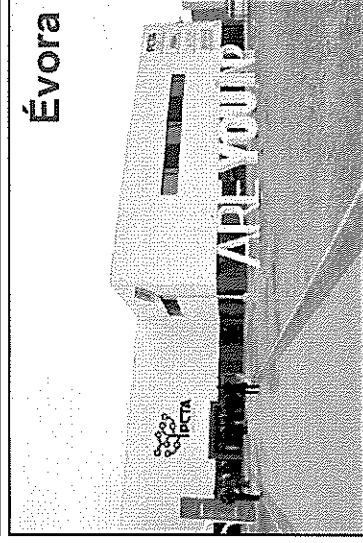
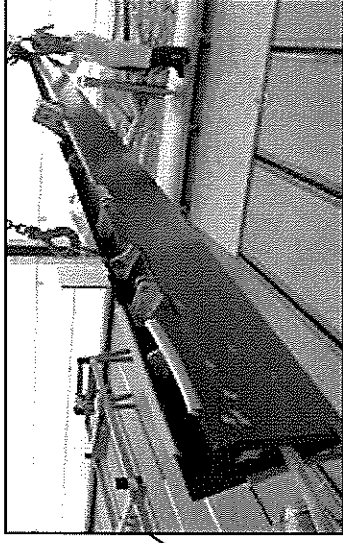
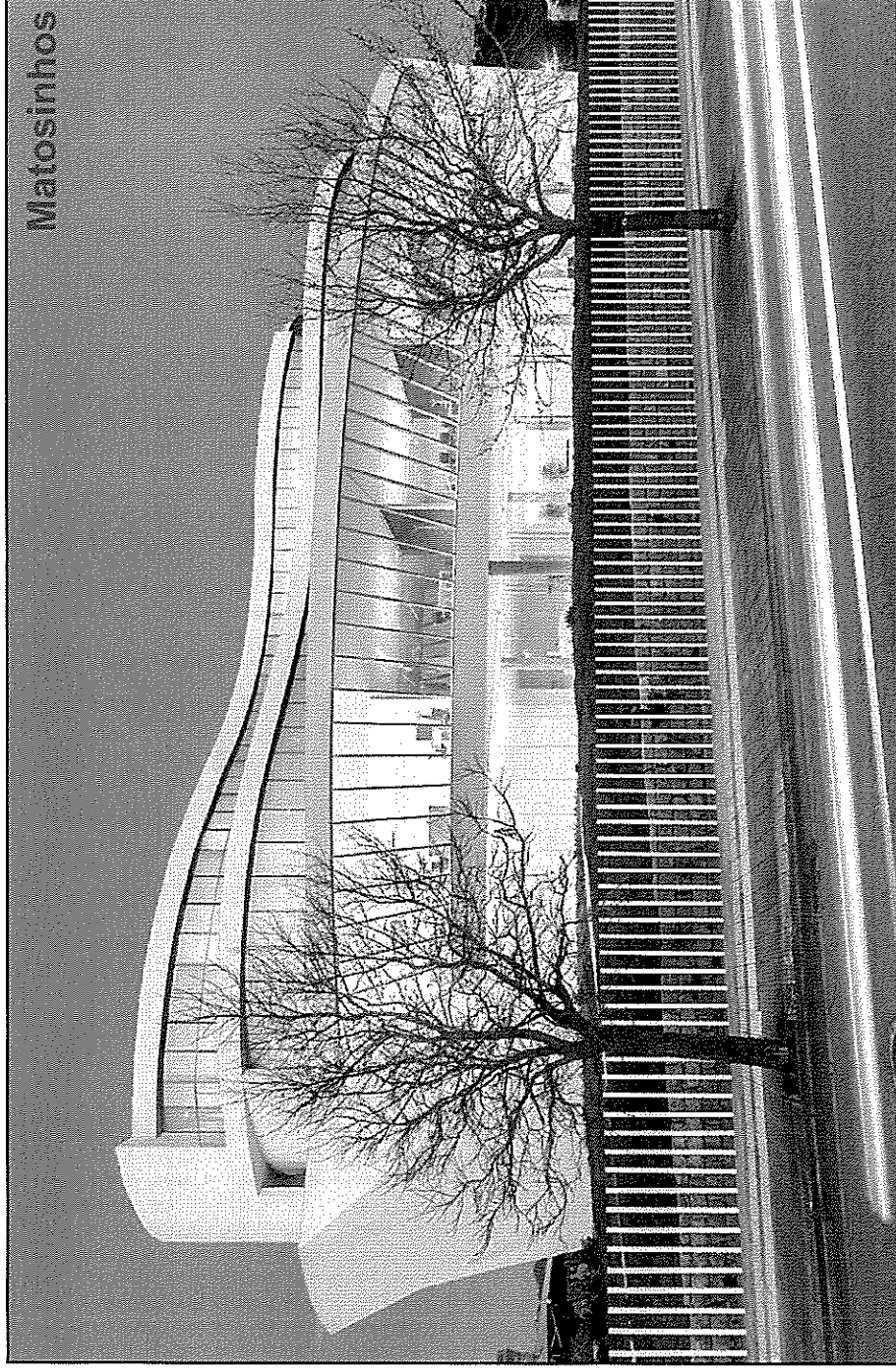


WHERE ARE WE?

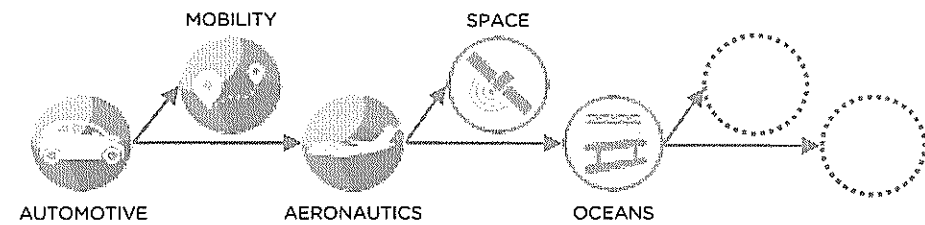


WHERE ARE WE?

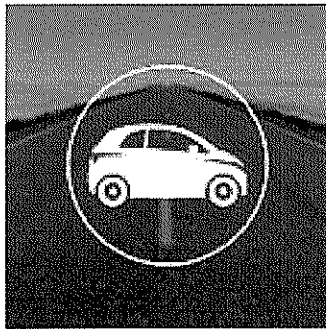
CEIIA



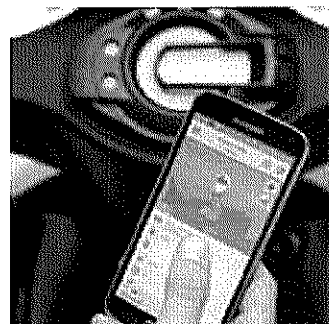
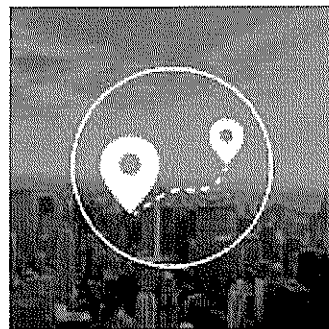
OUR FOCUS INDUSTRIES



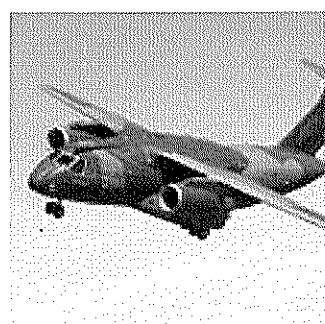
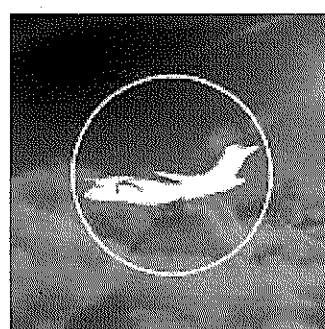
Automotive



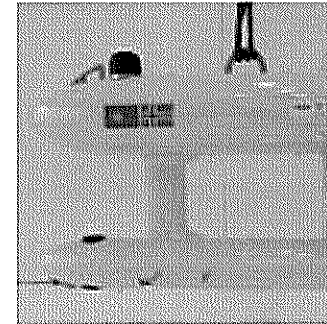
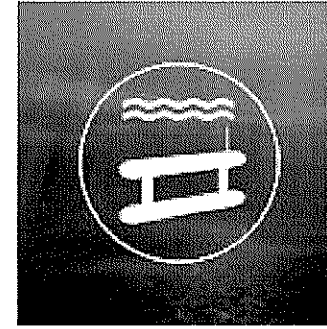
Mobility



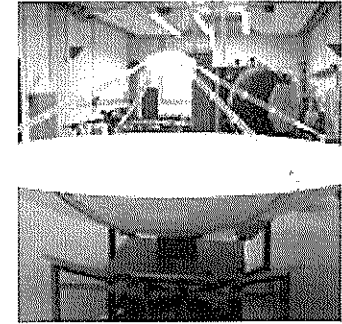
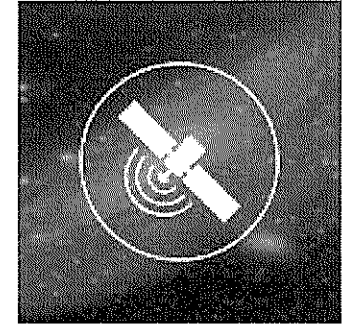
Aeronautics



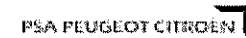
Ocean



Space



MAIN CLIENTS AND BUSINESS PARTNERS



MAIN R&D PARTNERS

Portuguese Universities



INSTITUTO
SUPERIOR
TÉCNICO

FEUP PORTO
FACULDADE DE ENGENHARIA
UNIVERSIDADE DE PORTO



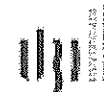
UNIVERSIDADE NOVA DE LISBOA



UTM
UNIVERSIDADE DE TRÁS-OS-MONTES E ALTO DOURO



UNIVERSIDADE DO ALGARVE



UNIVERSIDADE DO ESTADO DO RIO DE JANEIRO

International Universities

Cranfield
UNIVERSITY



DTU
DANISH TECHNICAL UNIVERSITY



Fraunhofer
IPT
INSTITUT FÜR PRODUKTIONSTECHNIK

MIT
MASSACHUSETTS
INSTITUTE OF
TECHNOLOGY



DLR

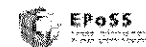
TU Delft

Carnegie
Mellon
University



International R&D Platforms

- Member of EREA (European Research Establishment in Aeronautics)
- Member of IFAR (International Forum for Aviation Research)
- Founder and Board Member of eMi3 (eMobility ICT Interoperability Innovation Group)
- Member of EGVI (European Green Vehicles Initiative)
- Member of EPoSS (European Technology Platform on Smart Systems Integration)



CERTIFICATIONS

EMBRAER (Commercial and Executive) qualified

Structures - Project (Design) / Structures - Analysis

AgustaWestland QRS01 qualified

Product Development / Composite Parts Production (on-going)



Recognised engineering supplier

VW, Siemens, Renault-Nissan and BMW



SIEMENS



PSA PEUGEOT CITROËN

RENAULT NISSAN

EN9100 | ISO9001 Certification

Design & development / Project management and execution /
Components production

ISO17025 Certification

Structural testing approval (on going)



CEIIA

CEIIA TECHNICAL AREAS

| INTELLIGENT SYSTEMS ENGINEERING

| PRODUCT DEVELOPMENT

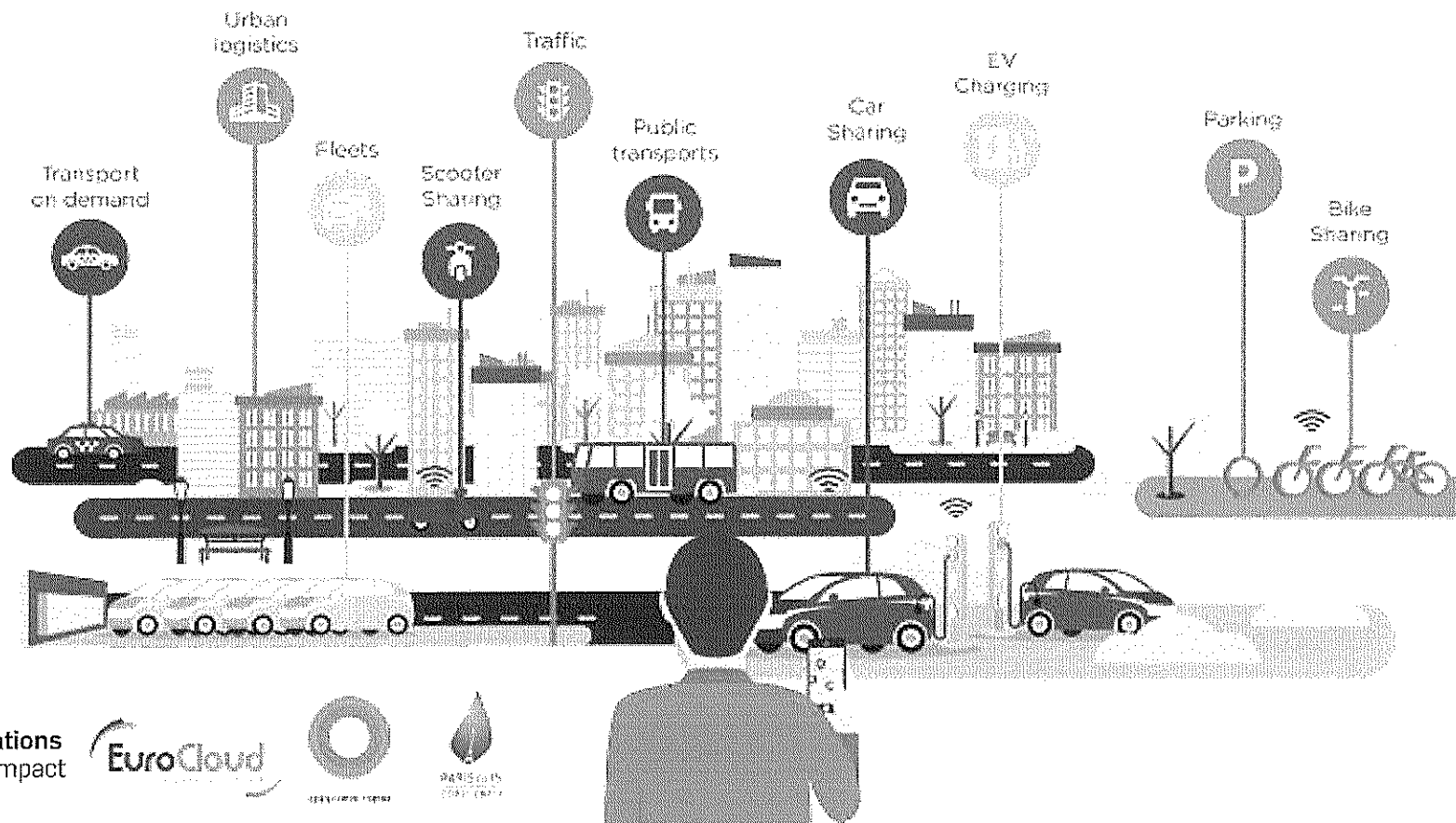
Mobility

UAVs, Ocean and Space

| PROJECT ENGINEERING

CEiiA | mobi.me platform

mobi.me is a mobility management platform for cities that connects all types of mobility devices in real time, allowing the management and operation of several shared and on-demand mobility services (vehicles, bicycles and motorbikes) in an integrated way with other services and with public transportation.



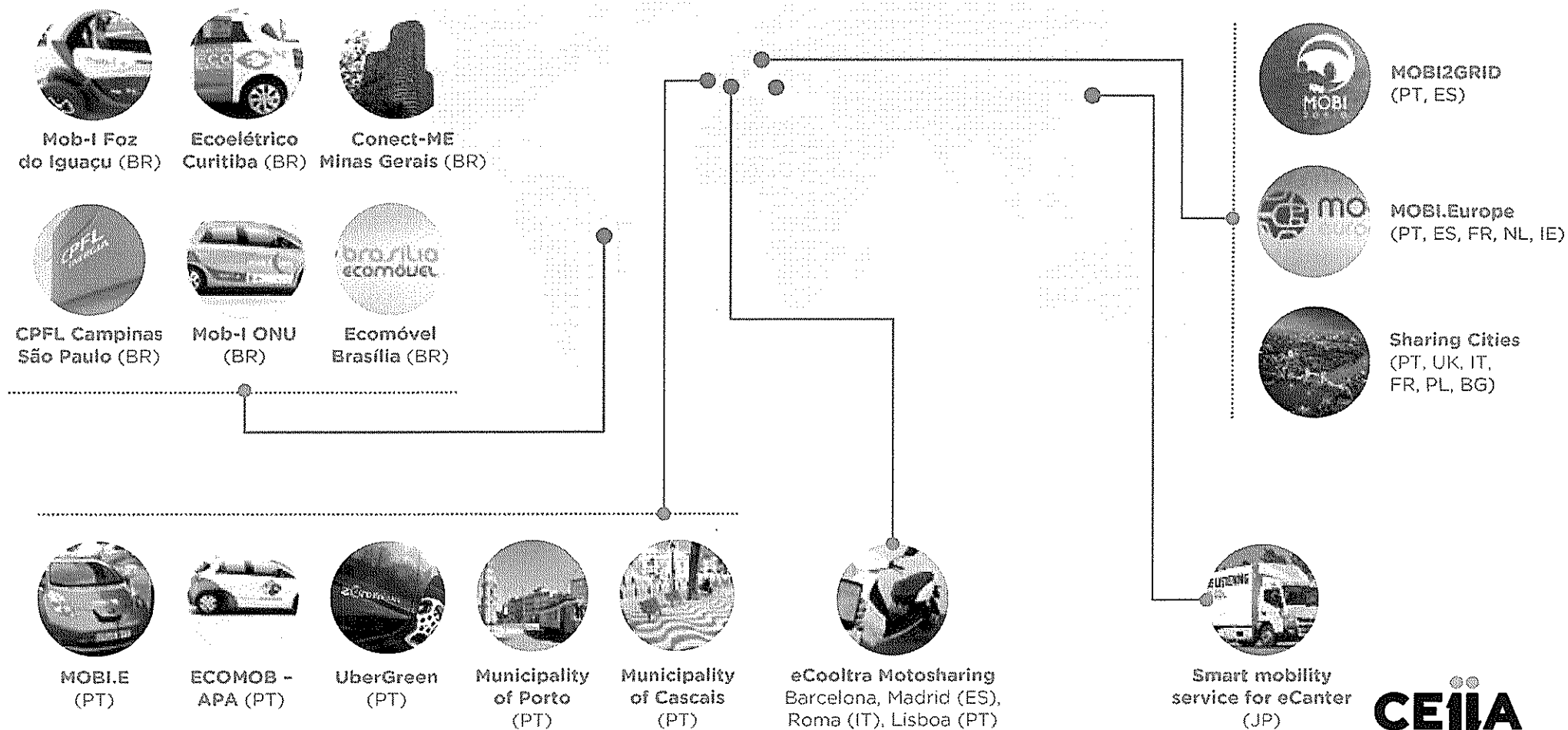
United Nations
Global Compact



CEiiA

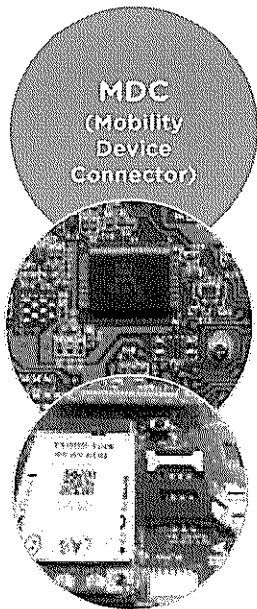
INTELLIGENT SYSTEMS ENGINEERING

Cases and services



MOBI.ME - THREE LEVELS STRUCTURE

ELECTRONICS



Electronic device to connect any object of physical mobility to mobi.me, with full HW and SW (FW) development by CEiiA.

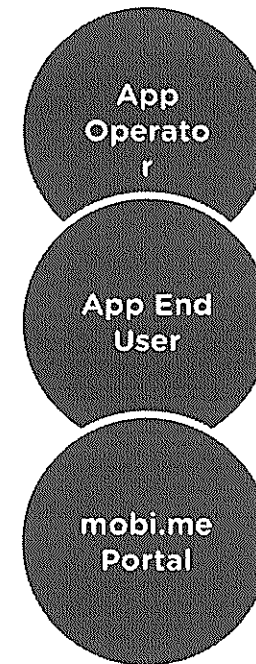
PLATFORM



Real-time management platform for all kind of connected devices

Business Intelligence and Big Data platform

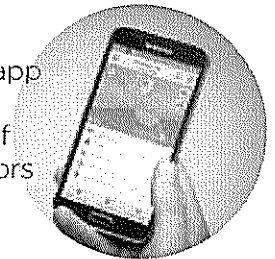
INFORMATION



Android tablet app customized for the business operation and maintenance information needs

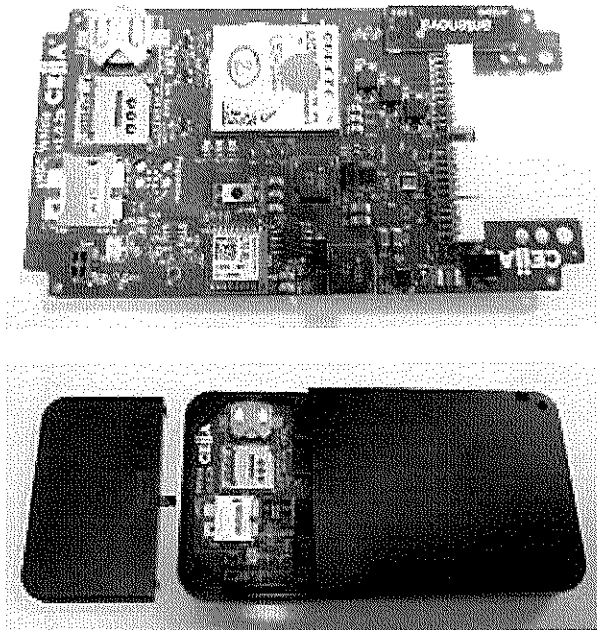
iOS or Android app customized to different users of different operators

Web Portal



MOBI.ME - MDC

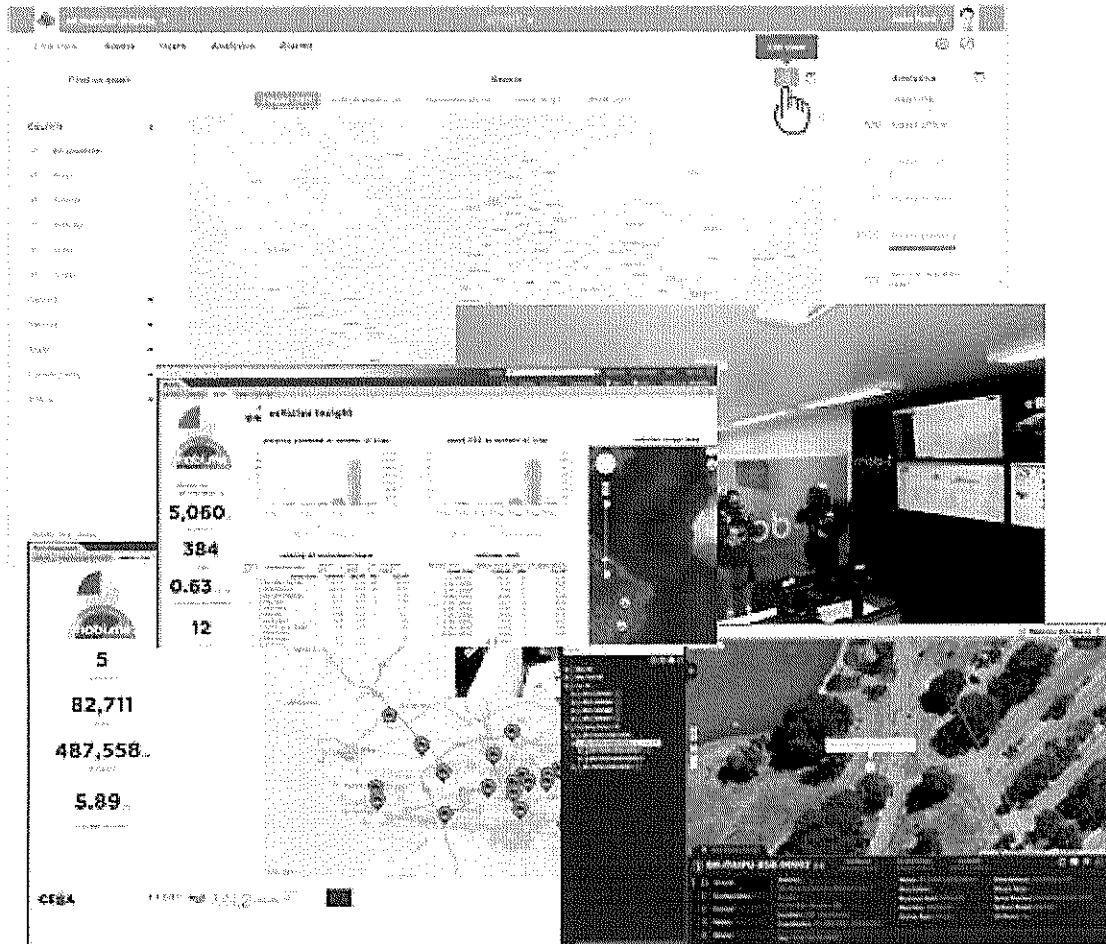
Electronic device to connect any object of physical mobility to mobi.me



- The MDC (mobility device connector) is the connectivity base element for the integration of services, allowing connection between object.
- For example by introducing the MDC in a vehicle, it automatically associates it with new services.
- Full HW and SW (FW) development by CEiiA.

MOBI.ME - Platform

Real-time management platform for all kind of connected devices



- Allows real-time management platform for all kind of connected devices.
- Allows asset management, connectivity and configuration management, CRM, billing, energy smart control.
- Business Intelligence system.
- Integrates Big Data and interactive visualisation technologies with a strong machine learning.
- Produces statistics.
- Supports Operation and Control Centres in different locations.

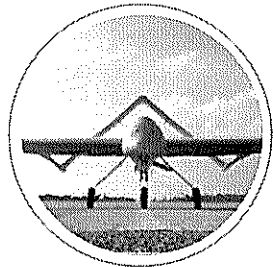
CEIIA NEW PRODUCT DEVELOPMENT AREAS

| UAVS

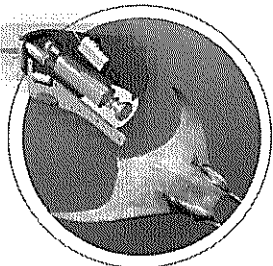
| OCEAN

| SPACE

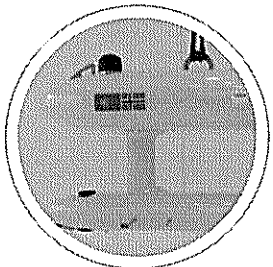
UAVs, Deep Ocean and Space



UAVs

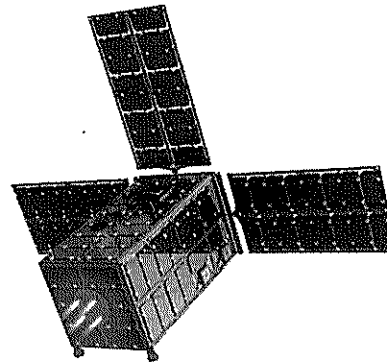


Non-Invasive Marcs

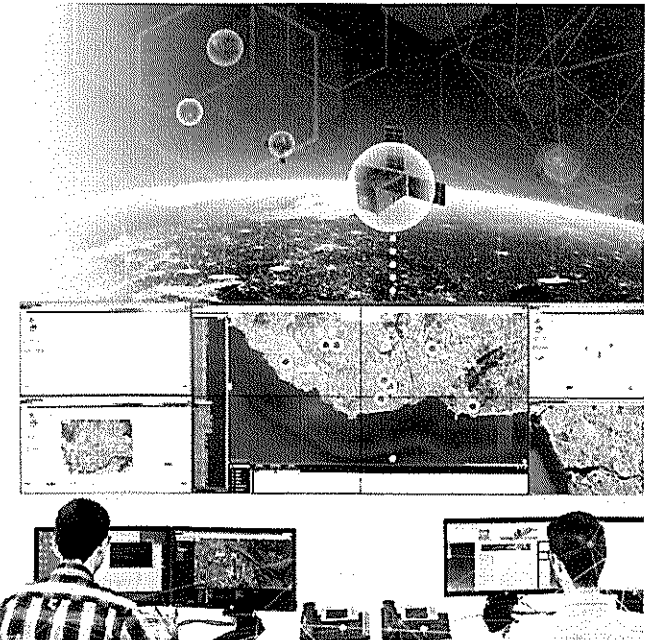


Unmanned underwater vehicles

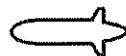
INFANTE
Micro Satellite



oceantech



Operations management system based on autonomous intelligent vehicles



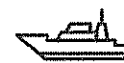
Torpedo AUV



Seafloor lander



Hybrid ROV



Top side



Communications



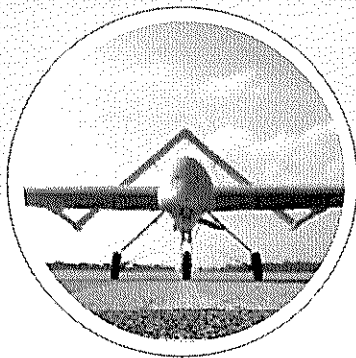
Management System

UAVs - UNMANNED AERIAL VEHICLES

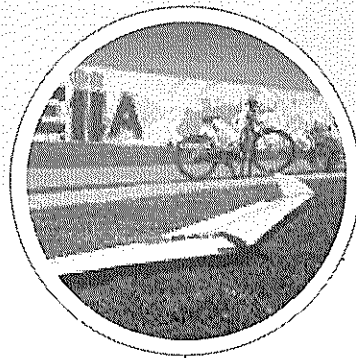
OVERVIEW

At the beginning of 2014 CEiiA has joined skills with the Portuguese Airforce to develop and operate fixed wing platforms for Power lines close inspection and surveillance missions. CEiiA was responsible for the aerodynamic analysis, CAD design, stress analysis, manufacture, assembly and payloads integration.

PRODUCT DEVELOPMENT

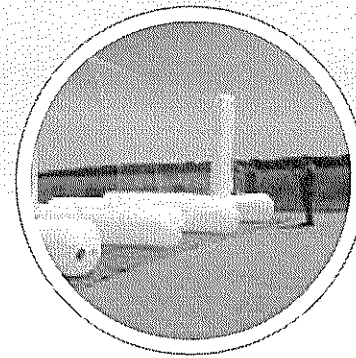
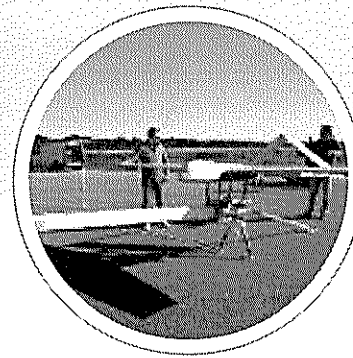


The UAS 30 was specifically developed for power lines inspection and surveillance missions and has accumulated more than 100 flying hours so far.



Delta spotter is a service based on small and low cost swarm UAVs with EO cameras and real time data processing. Delta spotter is being specifically developed for firefighting support missions.

TESTING & PROTOTYPING



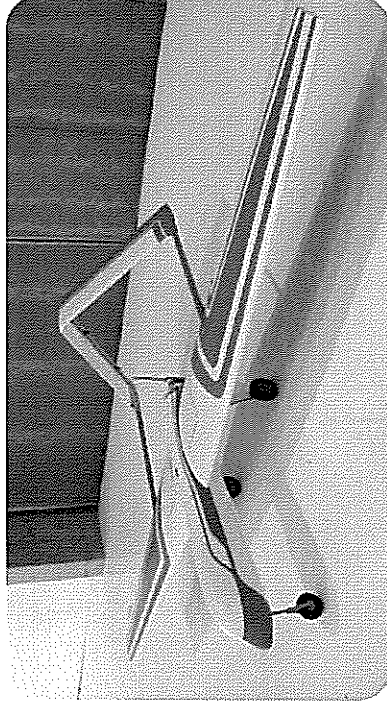
CEIIA UAVS - UNMANNED AERIAL VEHICLES

CEIIA



[REDACTED]

MTOW	[REDACTED]
Wingspan	[REDACTED]
Length	[REDACTED]
Propulsion	[REDACTED]
Endurance	[REDACTED]
Payload	[REDACTED]
Stall speed	[REDACTED]
loiter speed	[REDACTED]
Max speed	[REDACTED]
Sensors	[REDACTED]



[REDACTED]

MTOW	[REDACTED]
Wingspan	[REDACTED]
Length	[REDACTED]
Propulsion	[REDACTED]
Endurance	[REDACTED]
Payload	[REDACTED]
Stall speed	[REDACTED]
loiter speed	[REDACTED]
Max speed	[REDACTED]
Sensors	[REDACTED]

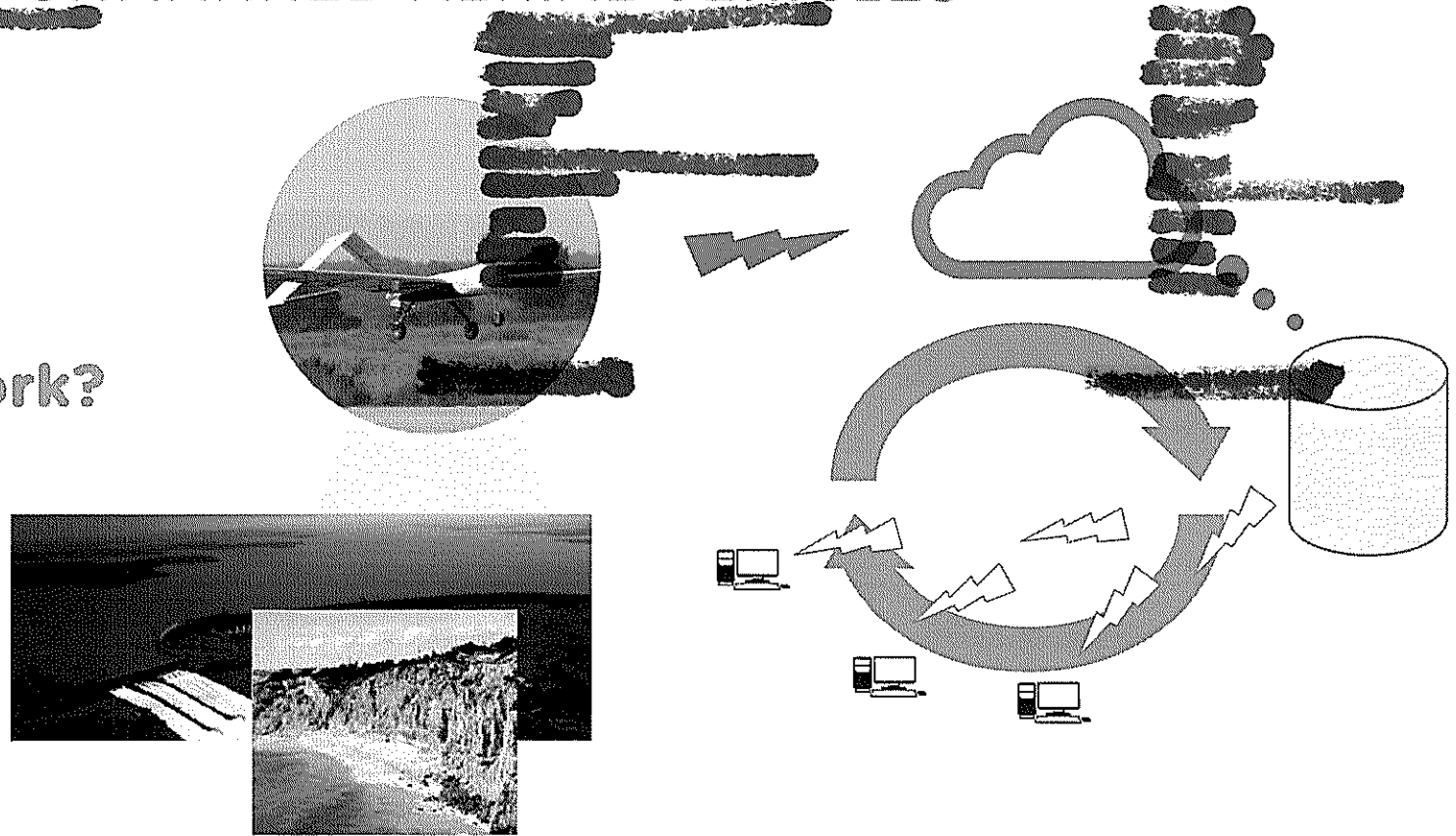


[REDACTED]

MTOW	[REDACTED]
Wingspan	[REDACTED]
Length	[REDACTED]
Propulsion	[REDACTED]
Endurance	[REDACTED]
Payload	[REDACTED]
Stall speed	[REDACTED]
loiter speed	[REDACTED]
Max speed	[REDACTED]
Sensors	[REDACTED]

CellA UAVs - UNMANNED AERIAL VEHICLES

How does it work?



- The UAV collects and transmit to the GCS all sensors DATA.
- An “online” tool gather all de DATA for decision making process (e.g. Search and Rescue, Pollution control, traffic schemes observation, fishery control, etc.).

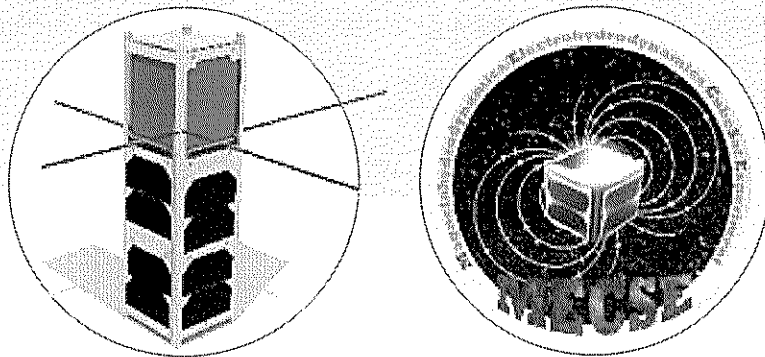
SPACE ENGINEERING

OVERVIEW

The activity of CEiiA in the space field is centred on the design, development and testing of aerospace structures, for both the space and ground segment.

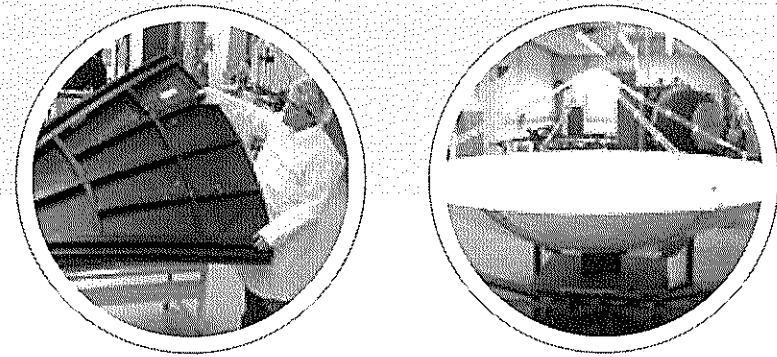
Focusing on the ground segment, CEiiA has in its past developed and manufactured 12 GALILEO Ground Station Antennas for Satellite Communications. Within the space segment, CEiiA has recently initiated a series of initiatives, built upon its knowledge and experience on the design, structural analysis and systems integration of aircraft structures.

PRODUCT DEVELOPMENT



MECSE Nanosatellite

TESTING & PROTOTYPING



Galileo Ground Station Antennas



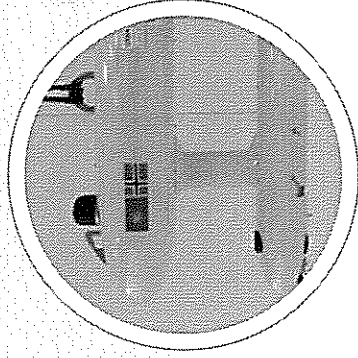
OCEAN ENGINEERING

OVERVIEW

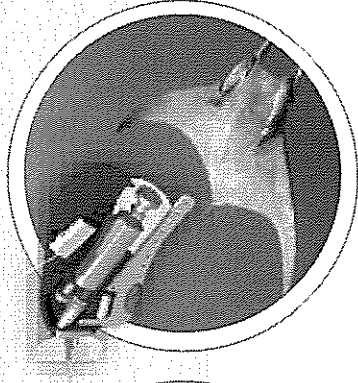
The Ocean Engineering area is one of the most recent working areas of CEiiA.

Built upon CEiiA's experience in design, structural analysis, hydrodynamic analysis and systems integration, this area conceives, develops, tests and operates underwater vehicles integrated within collaborative management and monitoring systems targeted to deep sea exploration.

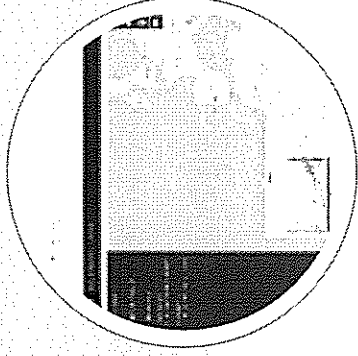
PRODUCT DEVELOPMENT



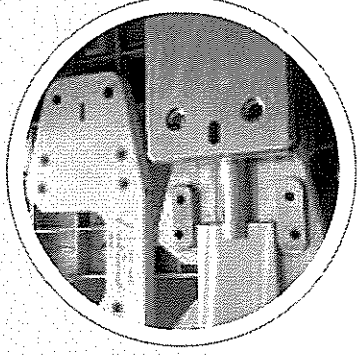
Deep Sea Autonomous Underwater Vehicle



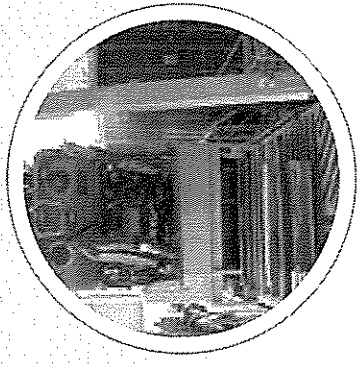
Towed Tagging Devices for Sea Animals



Ocean Data Management System



Underwater Structures and Tools



TESTING & PROTOTYPING

PROJECT ENGINEERING

OVERVIEW

Development of components, modules, systems and products for the industry. Among the core competences of this area, where design and structural analysis of advanced components and mechanisms stand out, it's worth to mention the safety and reliability analyses, the support for components and systems certification and manufacturing producibility analysis such as metal forming, plastic injection and molding simulation.

CEIIA is involved in the research and development of structures using advanced composite materials. The extensive experience, originally obtained in the aerospace industry, in the design and analysis of composites is now being used in the Automotive, Space, Sea and Defense sectors



Project Engineering team in Porto

CEIIA PROJECT ENGINEERING

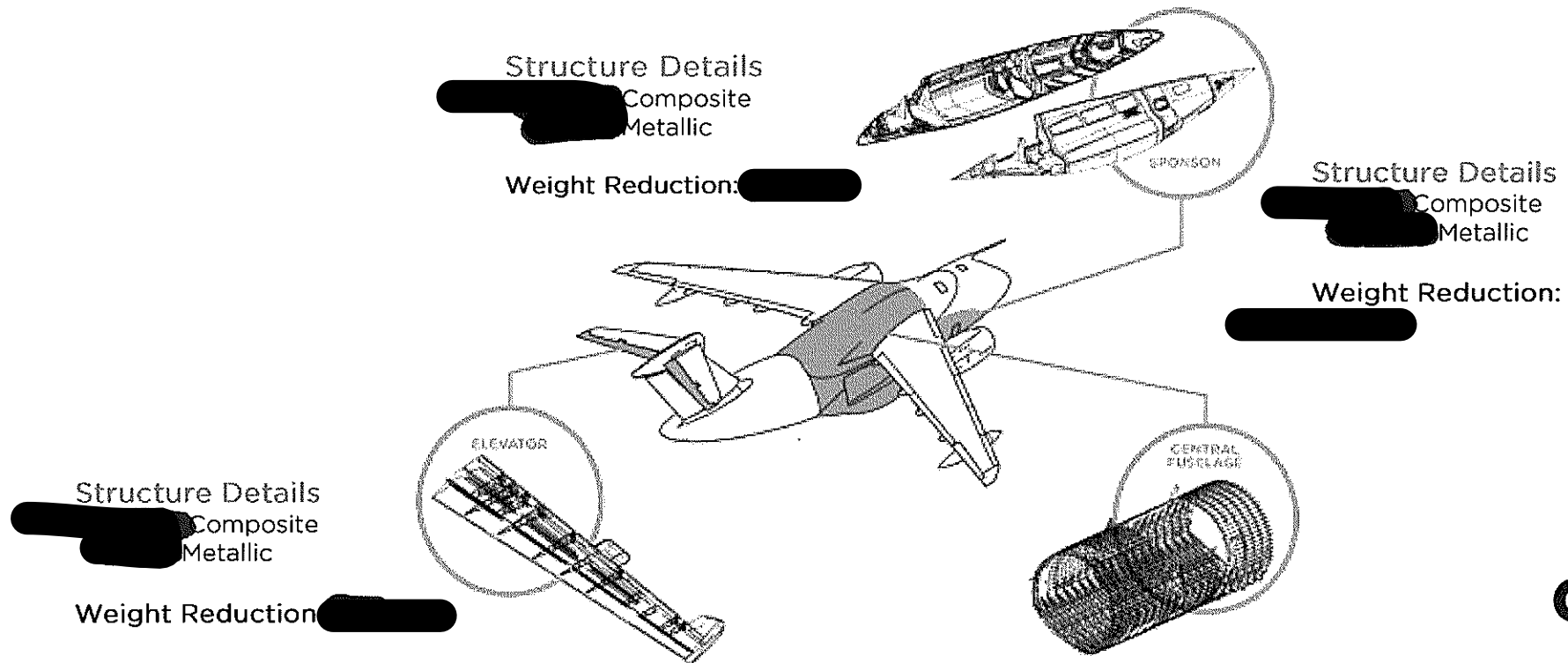
| AERONAUTICS

| AUTOMOTIVE

PROJECT ENGINEERING

For example: STRUCTURAL DEVELOPMENT AND OPTIMIZATION OF THE NEW EMBRAER KC-390

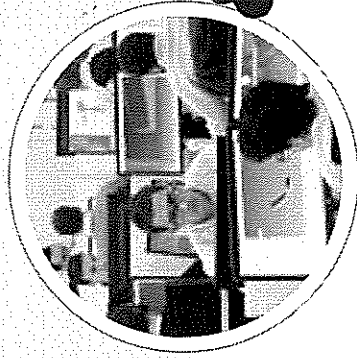
CEiiA is responsible for the development of three modules of the new KC-390, Embraer's largest airplane, two of those being critical primary structures of the aircraft. The Elevator and Sponson were entirely developed at CEiiA, from concept to certification, with the participation in the Central Fuselage being focused on the detailed design and weight optimization of the structure.





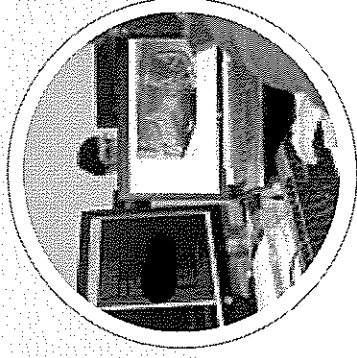
PROJECT ENGINEERING

OVERVIEW



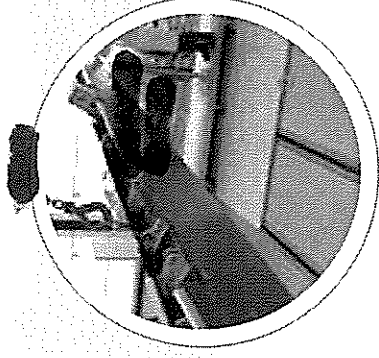
Design

Design of primary and secondary structure / Design Solution Trade-offs / Preliminary sizing / Preliminary and detailed design / Interface Control Drawings (ICDs) / Digital Mock-up (DMU) / Design Optimization – cost and weight reduction / System installation / Re-design



Structural analysis

Analysis (Static; Buckling; Non-Linear; Modal; Thermal; Vibro-acoustic; Fatigue & Damage Tolerance) / Structural Justification Reports / Tests definition and correlation / Design and Production support / In-Service Repairs / MRB support / SRM support



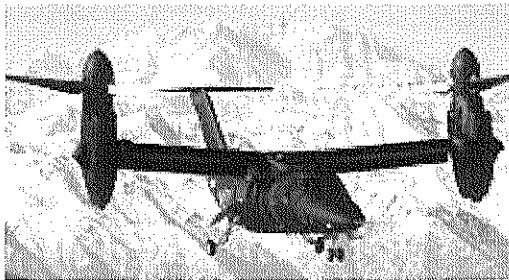
Others

Aerodynamics / Systems installation / Project Management / Configuration Management / Weight Management / Materials Analysis: Bill of Materials & Parts List / Documentation development (e.g. Certification)

PROJECT ENGINEERING

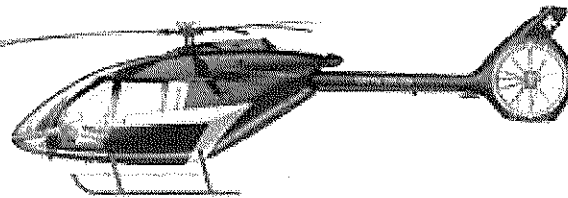
Other PROJECTS

LEONARDO
(EX AUGUSTA WESTLAND)
AW609



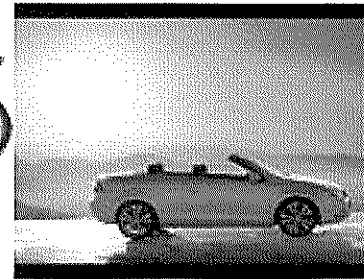
Drawing Conversion; Center Fuselage Modification to accommodate a Clam Shell Door; AC4 Retrofit and Production A/C; Feasibility and Weight Reduction Studies

MARENCO
Skye - SH09



Engineering services in structural analysis at Marenco facilities in Switzerland.

VW EOS



Reduce production line deformations and improve product quality in VW EOS

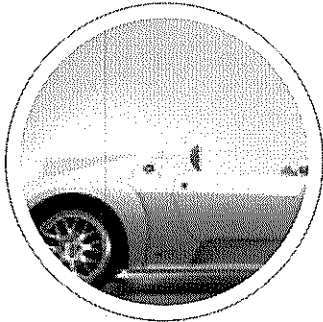
MODUTOP
Simoldes Plásticos



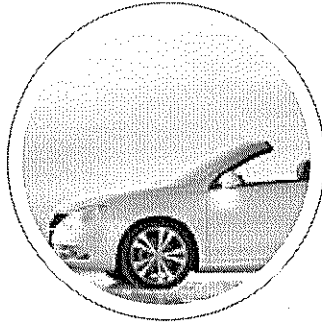
Development of a large central console for cars with a panoramic roof that allows a substantial cost reduction as compared to existing solutions.

PROJECT ENGINEERING

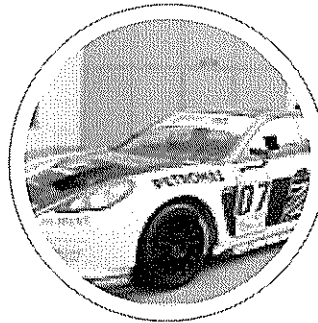
Other Auto PROJECTS



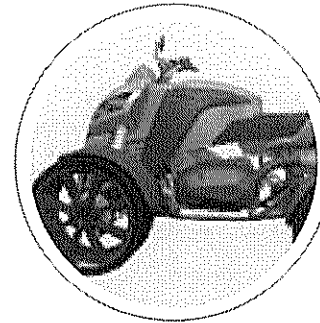
Enjoy



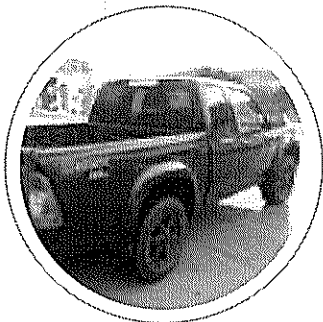
VW EOS



Porsche Panamera



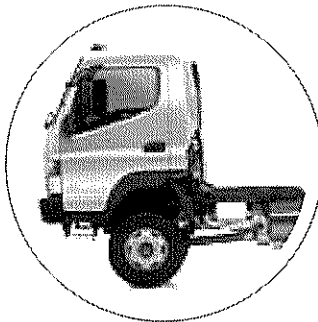
Haro Bullster



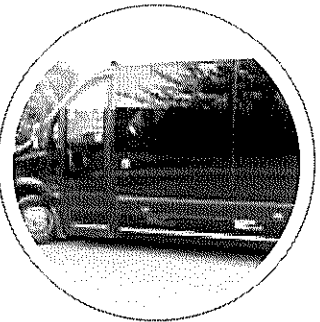
Isuzu D-Max



Volvo FL7



Mitshubishi Canter

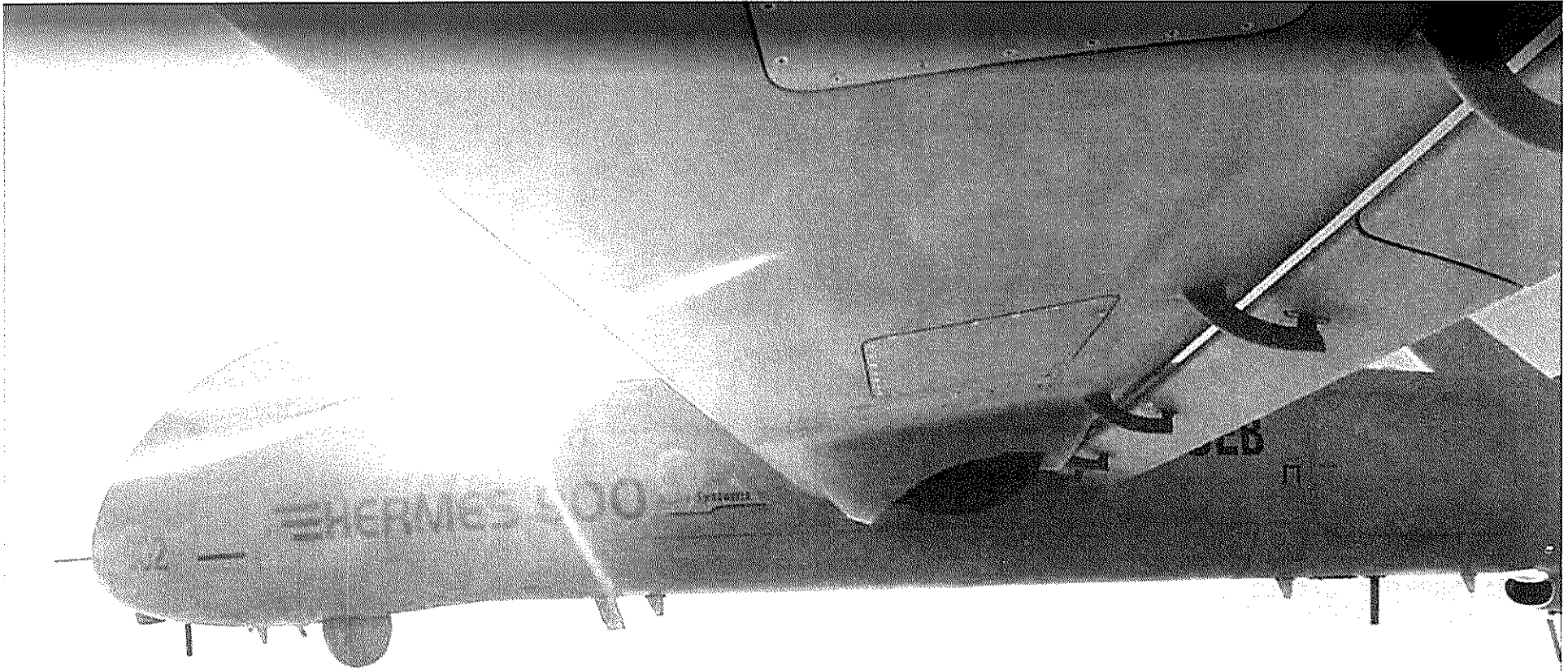


Mercedes Vito

IF YOU WANT TO GO FAST, GO ALONE
IF YOU WANT TO GO FAR, GO TOGETHER



TOGETHER, WE CAN GO FAR...
LET'S PARTNER?



Elbit Systems
ISTAR

ELBIT SYSTEMS UAS



Our Vision

To be a **world leading** source of **innovative, technology-based** systems for diverse defense, homeland security and commercial applications.

At a Glance (ESLT)

Multi-Domestic High Technology Company

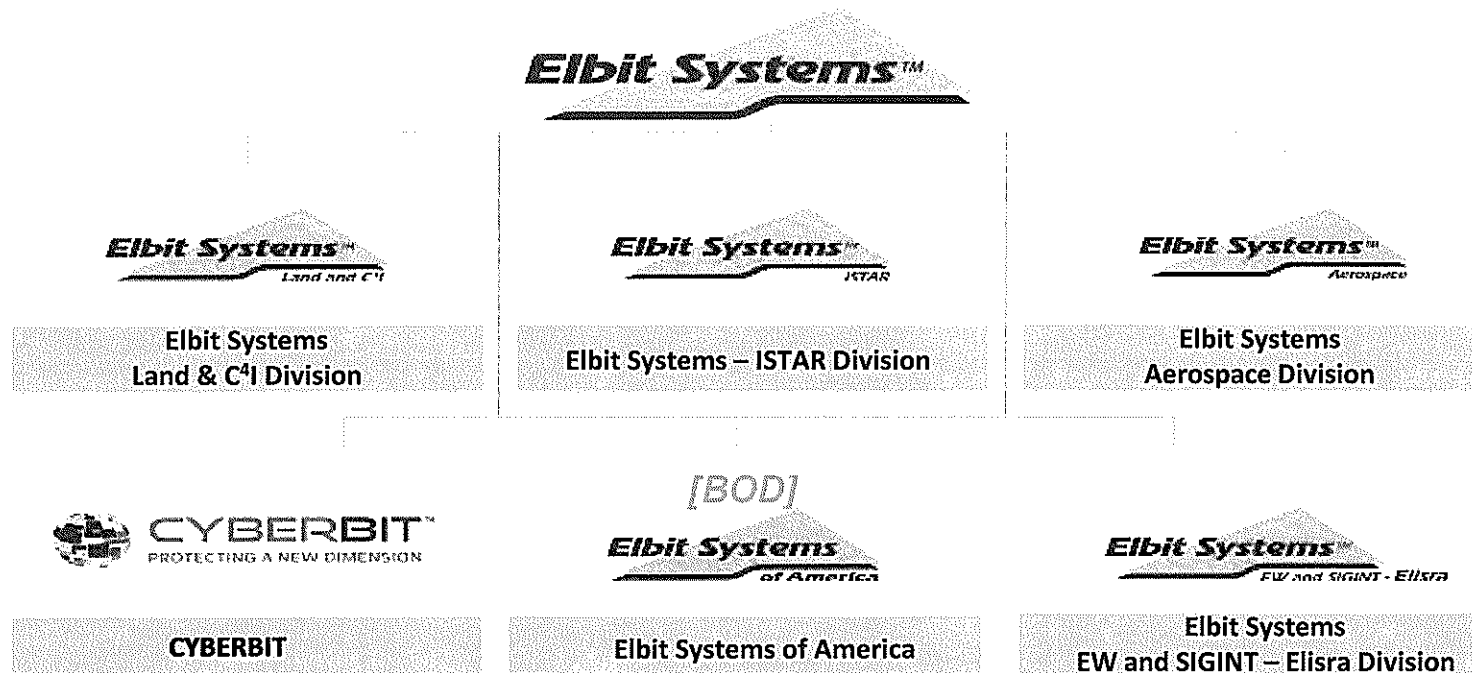
Publicly Traded on NASDAQ (ESLT) and Tel Aviv Stock Exchange



Annual revenues:	\$3.378B (2017)
Firm backlog of orders:	\$7.647B (2017)
Work Force:	12,800 employees

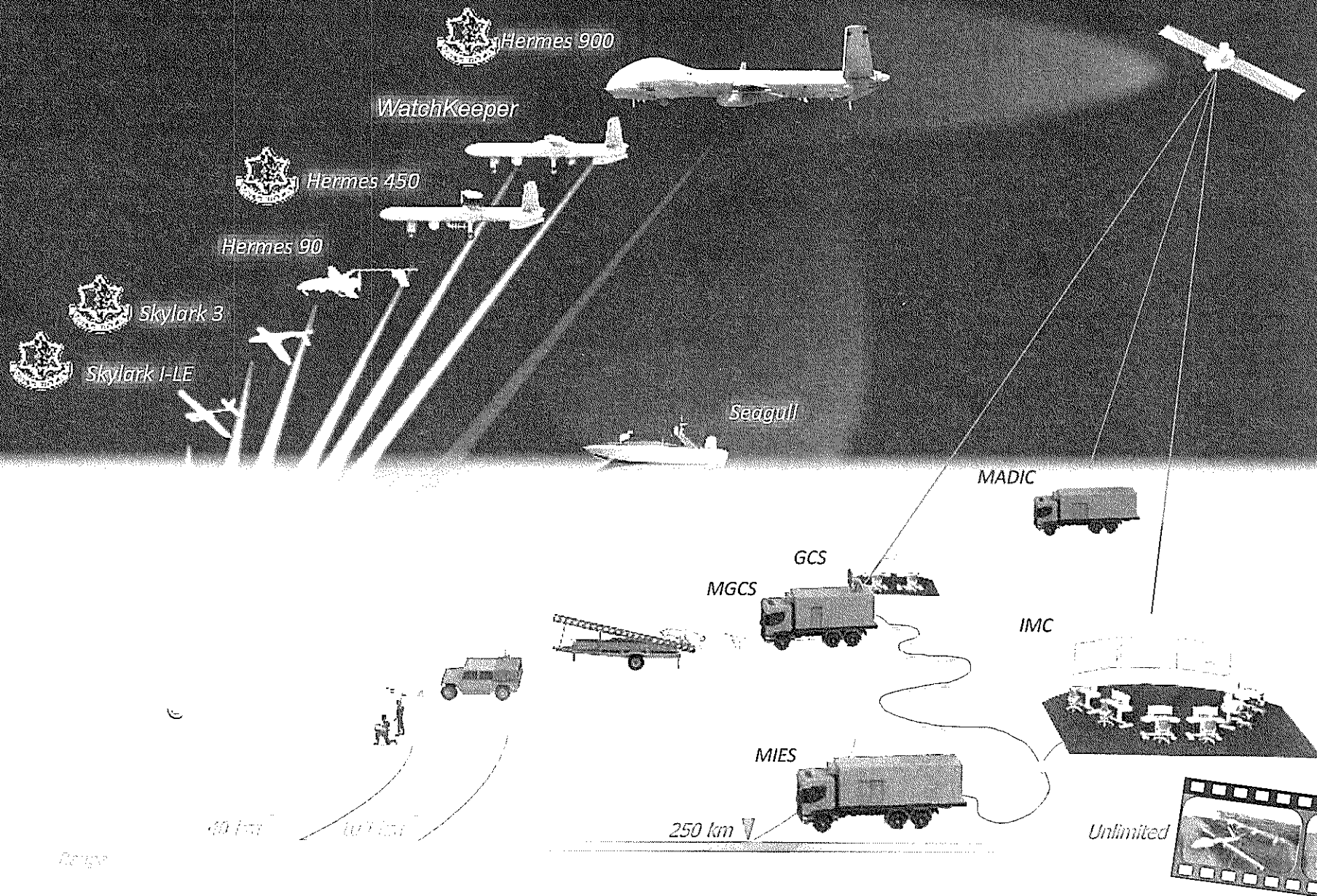
Ranking:	27th largest defense company in the world (Defense News Top 100 for 2017)
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Organization Chart



Our Systems

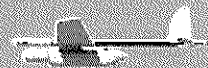
Eibit Systems



A UAS House

A UAS house

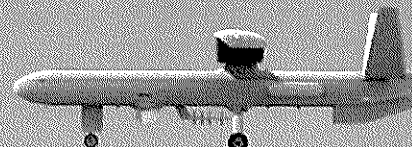
Platforms



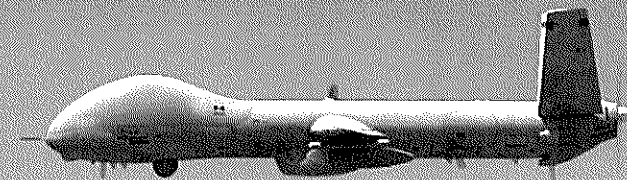
Skylark I-LE



Hermes 90



Hermes 450



Hermes 900

Payloads

EO/IR



LASSO



ELINT



COMINT DF



SkEye



AMPS



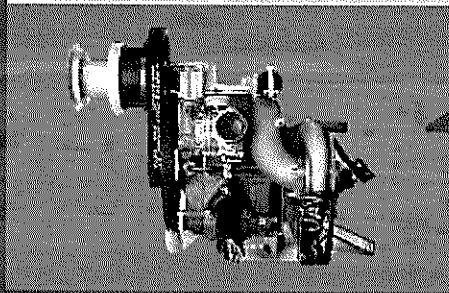
MPR



SAR/GMTI



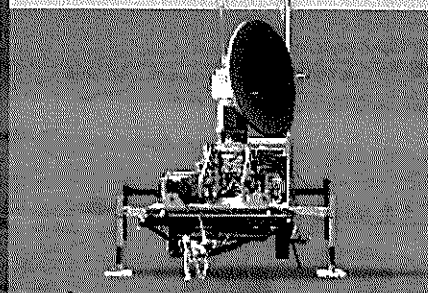
Engines



GCS



Communication



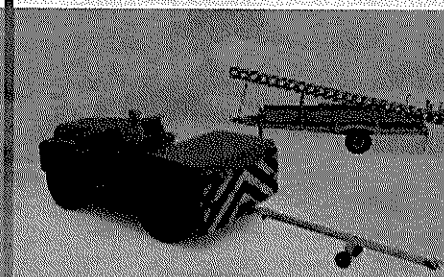
Trainer



Flight Test Facility



Ground Support System



RVT



Exploitation System



Full Scale Production Lines

Elbit Systems

ISR



Past Performance

Israel Defense Force



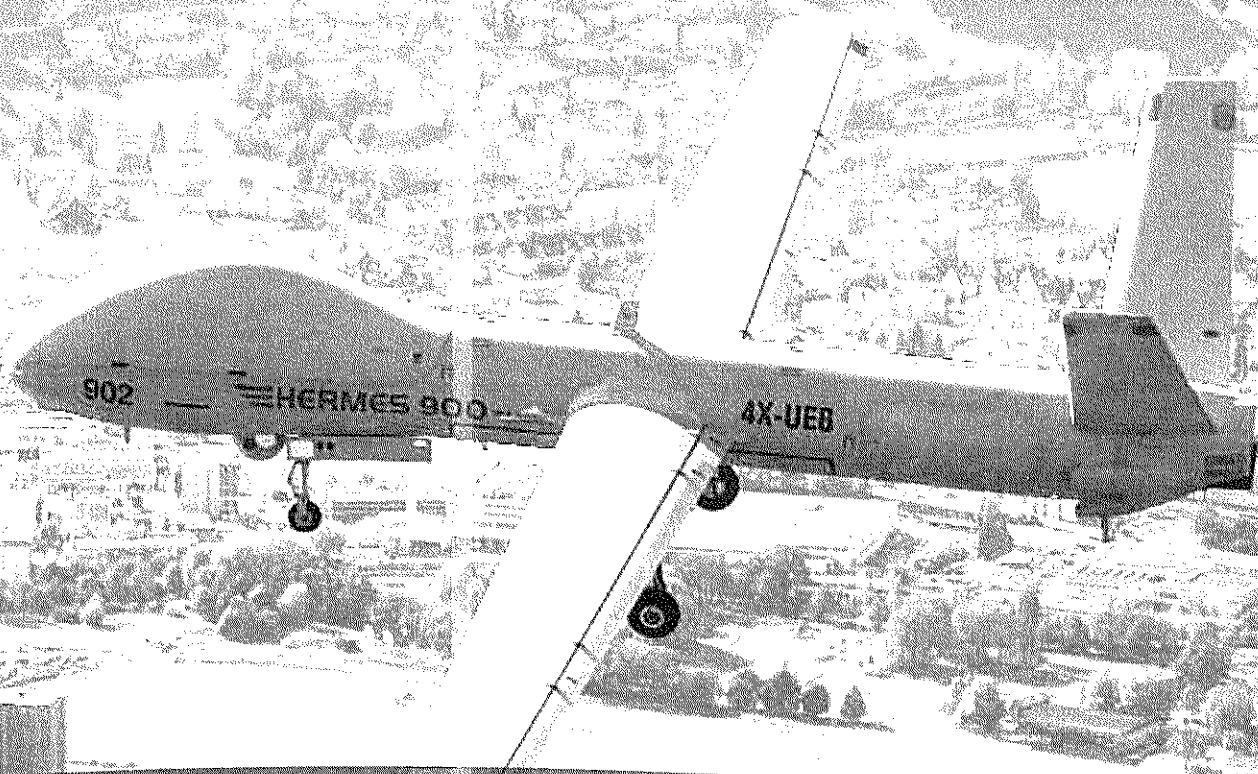
- ▶ Hermes™ 450 – Backbone of IDF UAS
- ▶ Over 300,000 flight hours in IDF alone
- ▶ Only tactical UAS currently in service with the IDF

Israel Defense Force



- ▶ Hermes 900 - “Star” - The IAF new MALE UAS
- ▶ Operational since Pillar of Defense

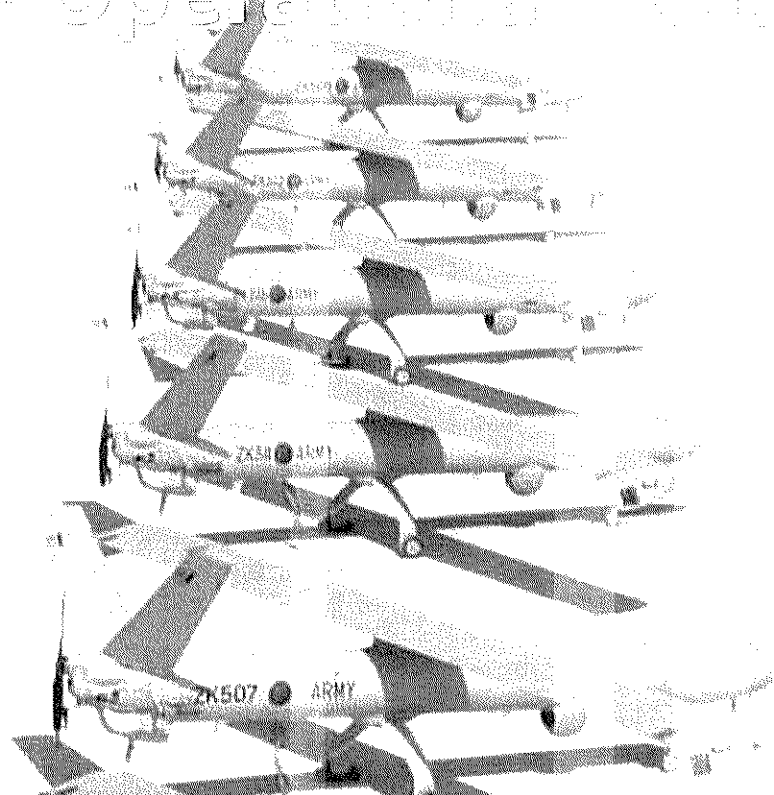
Switzerland



➤ Selected to be Swiss Air Force Next UAS

Photo by armasuisse, Evaluation campaign in Switzerland, Oct 2018

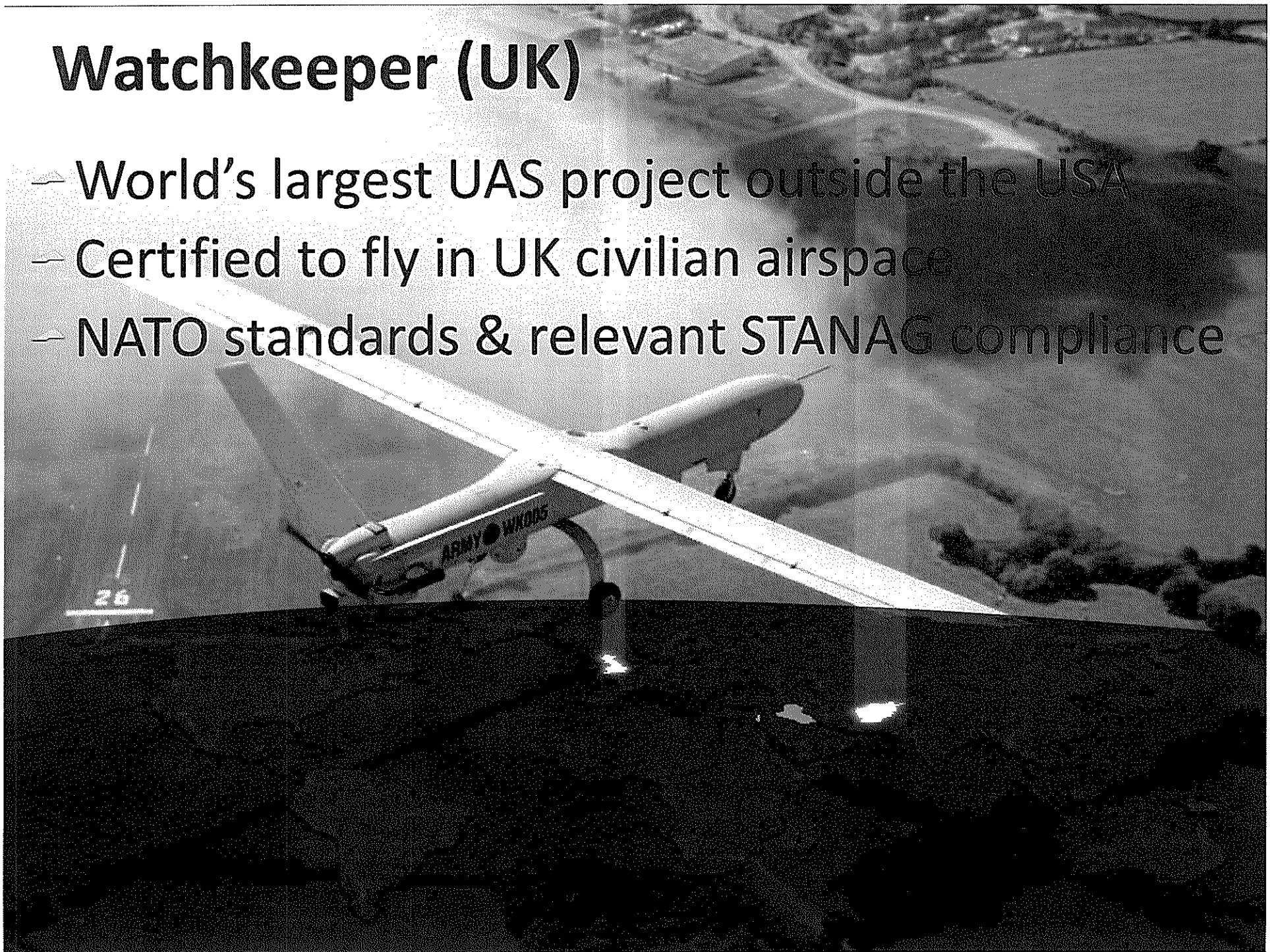
Lyddian (UK) - Operational - 4080



- ▶ “85% of the full-motion video that is available to Task Force Helmand” - www.mod.uk
- ▶ 100,000 operational flight hours

Watchkeeper (UK)

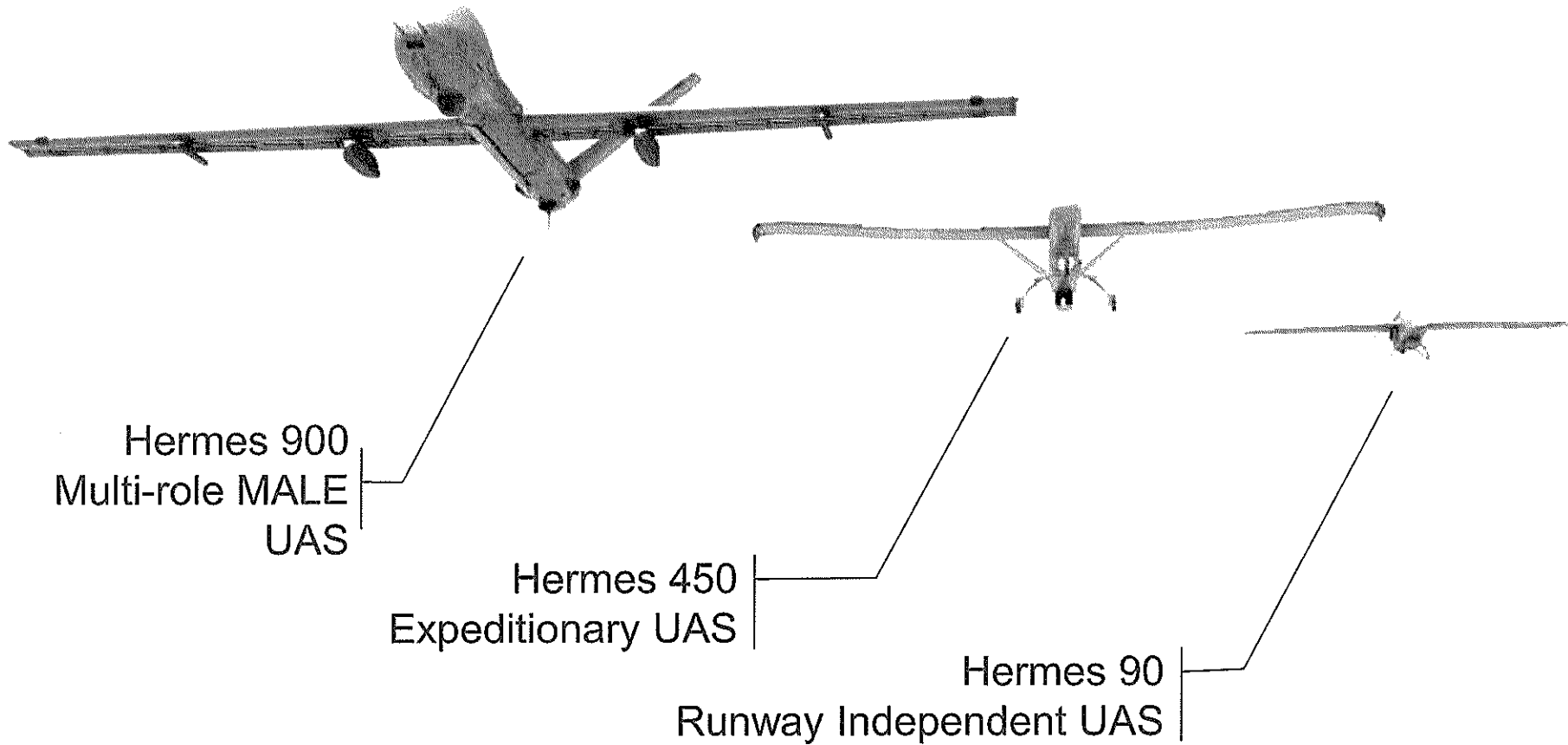
- World's largest UAS project outside the USA
- Certified to fly in UK civilian airspace
- NATO standards & relevant STANAG compliance

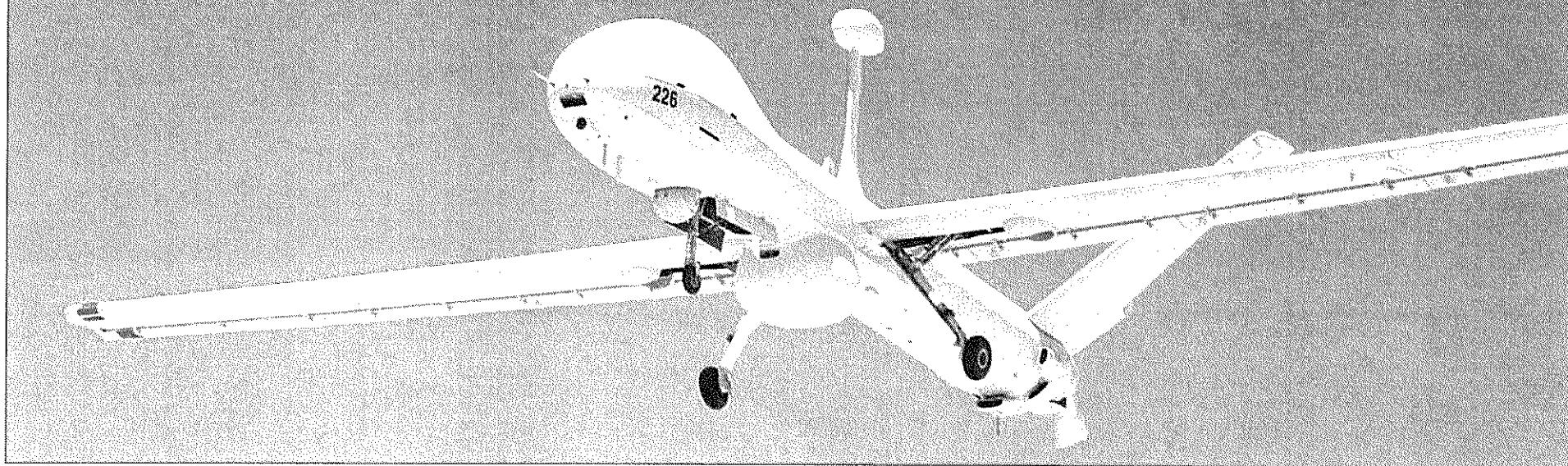


HermesTM UAS Family

Hermes™ UAS

Elbit Systems
ESTABLISHED 1982





Hermes™ 900

Multi-role MALE UAS

www.hermes-systems.com

Hermes 900 - Multi-role MALE UAS



Multi
Payload



Internal
Bay



Long
Endurance

Take-off weight
Payload weight
Endurance

1,180 kg

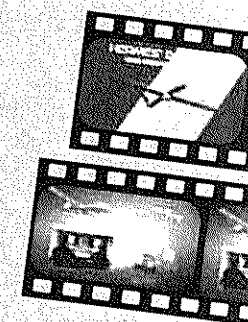
350 kg

up to 24 hours

Service Ceiling

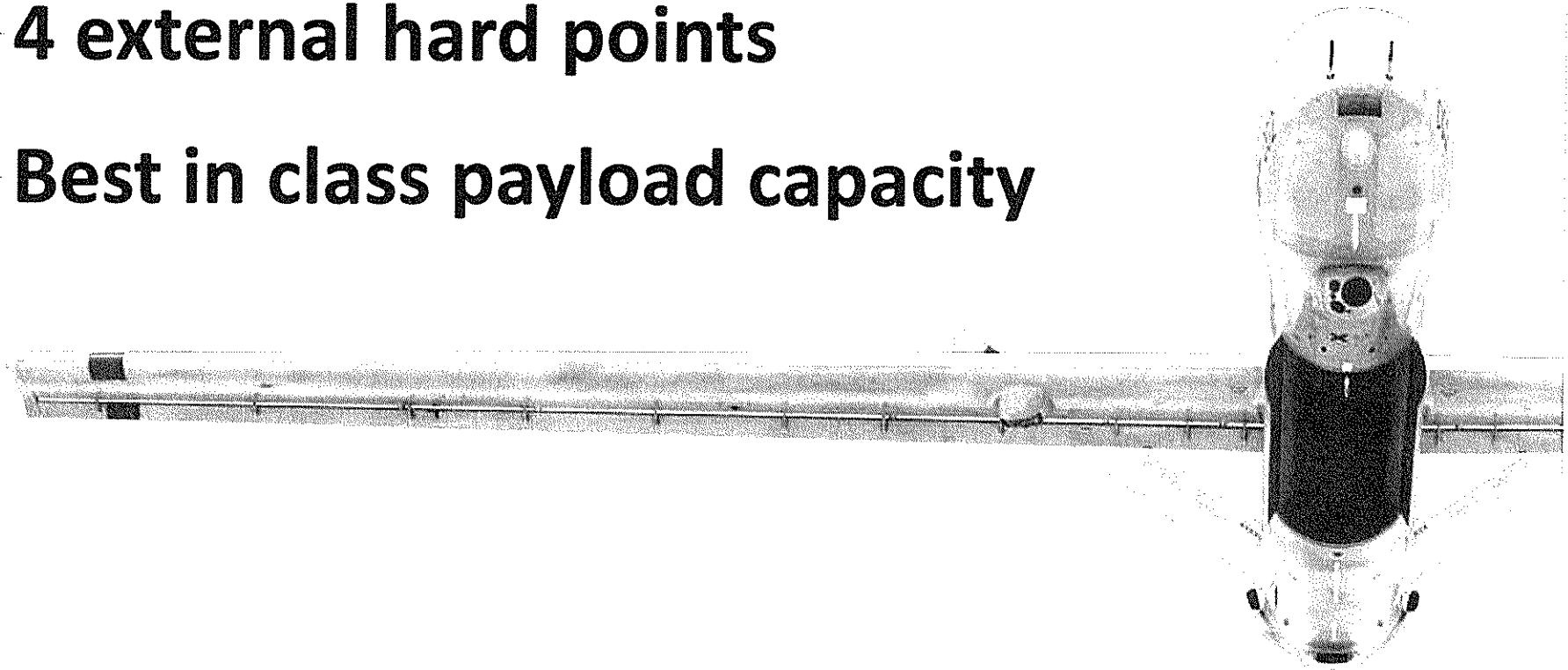
30,000 ft

15 m



Hermes 900 - payload capacity

- Internal 250kg bay
- 4 external hard points
- Best in class payload capacity



Hermes 900 global success



Israel Air Force - 2010

Chilean Air Force - 2011

Mexico - 2011

European customer - 2012

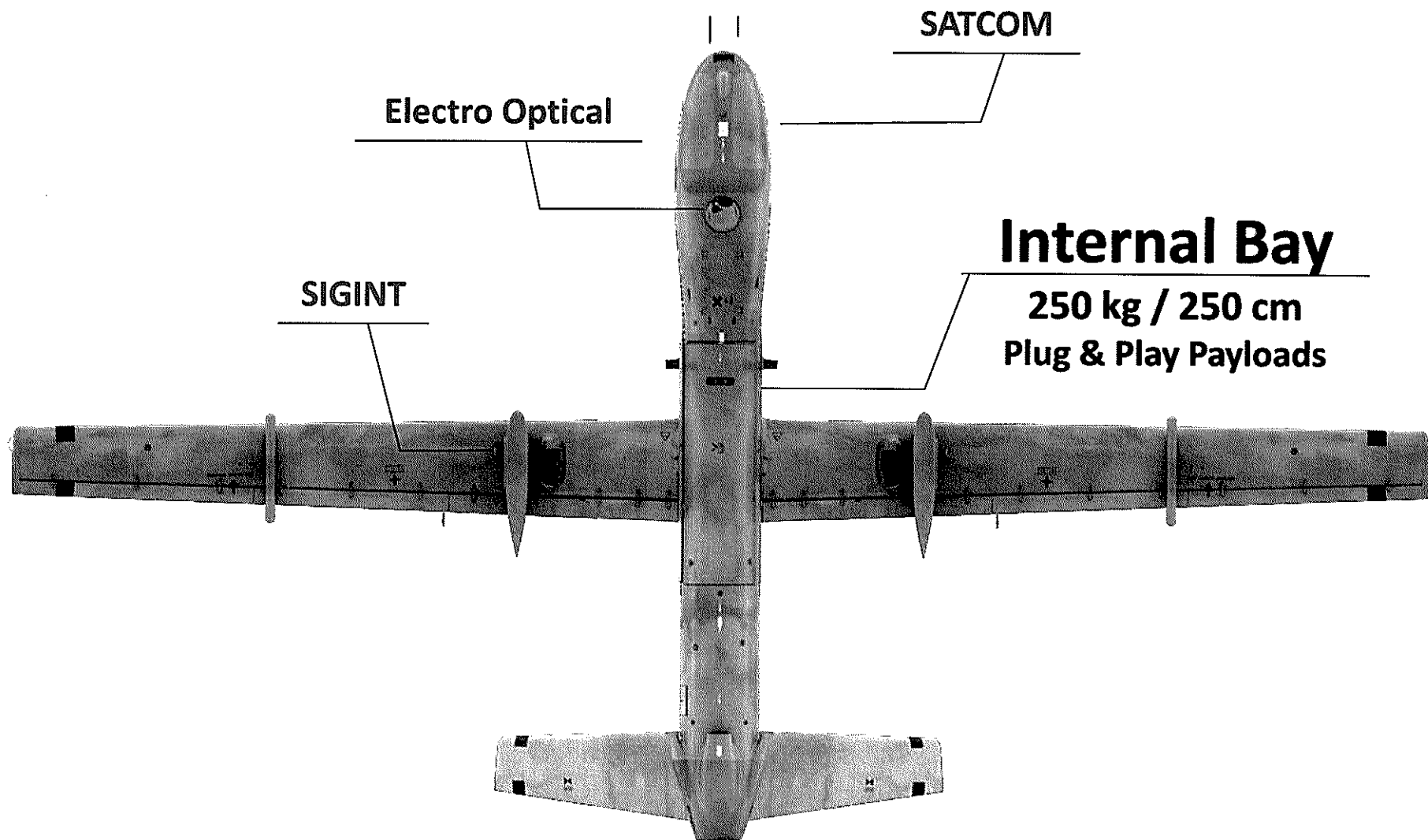
IAF Second contract - 2012

Brazil - 2014

Additional undisclosed customer - 2012/2014

Hermes 900 - Multi Payload

Elbit Systems
ISTAR

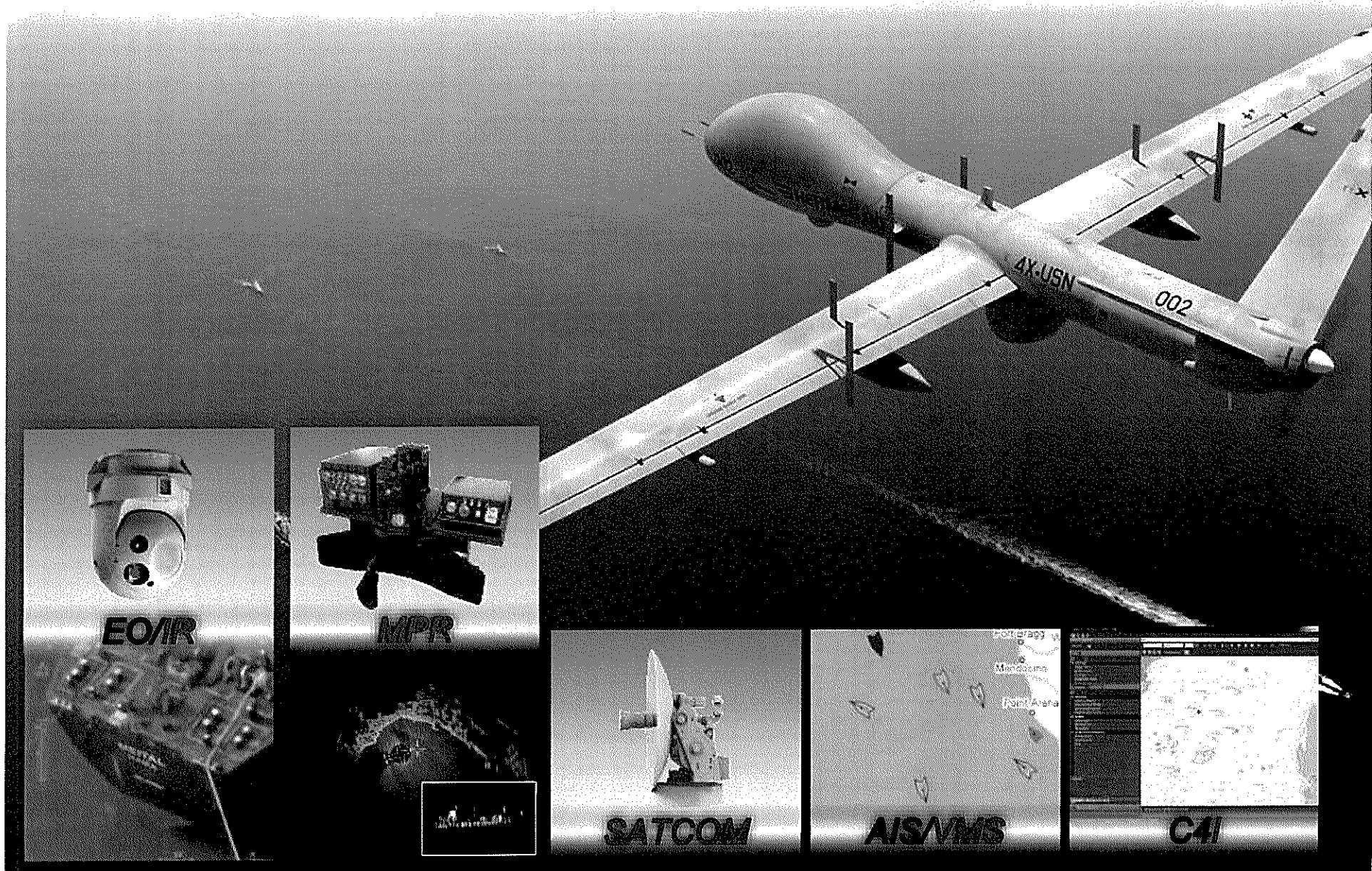


Long range EO **SAR GMTI**

Maritime & More
Patrol Radar

Hermes 900 Maritime

Elbit Systems
ISTAR



Elbit UAS

Thank you for your attention

Weekly report [2018-W46]

CEiiA

2018/EMSA/OP/01/2018

1.0

Date: [14/11/2018]

Document History

Version	Date	Changes	Prepared	Approved
1.0	14/11/2018	Creation	[REDACTED]	[REDACTED]

Distribution

Organisation	Name
EMSA	[REDACTED]
	[REDACTED]
	[REDACTED]
CEiiA	[REDACTED]
	[REDACTED]
	[REDACTED]
	[REDACTED]

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1. Summary of the past week	2
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1.2 Flight operations	3
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2.3 Flight operations	3
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3. Actions	4
4. Up to date planning	4
5. List of deliverables	4
6. Risk analysis	5
7. Up to date configuration of the RPAS	8



[REDACTED]

1. Summary of the past week

AIRCRAFT

- ICT Aircraft available.

SENSORS

- [REDACTED]
- [REDACTED]
 - Still waiting for End User Form from [REDACTED]
- [REDACTED]
 - Installation on-going as planned in ICT

COMMUNICATION

- [REDACTED]
 - Elbit will provide [REDACTED] Spec and Information

GROUND STATION

- NTR

DOCUMENTATION

- RPAS Passport – ongoing
- RPAS Portfolio delivered
- Project Management Plan - in approval process (a draft version will be sent)
- Business Unit Organization – in approval process
- Business Unit Recruitment - in approval process
- Communication Plan - in approval process
- Risk Management Plan - in approval process
- Training Plan – on-going
- Quality Management Plan – on-going
- Airworthiness Management Plan – on-going
- Configuration Management Plan – on-going

1.1 Present RPAS configuration

NTR

[REDACTED]

[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

1.2 Flight operations

NTR

2. Plan for the next weeks

2.1 Set-up

NTR

2.2 Documentation

The following documentation will be available by the 20th of November

- RPAS Passport – to be delivered
- Project Management Plan - to be delivered
- Business Unit Organization – will be available
- Business Unit Recruitment – will be available
- Communication Plan – will be available
- Risk Management Plan - to be delivered
- Training Plan – will be available
- Quality Management Plan – to be delivered
- Airworthiness Management Plan – to be delivered
- Configuration Management Plan – to be delivered
- Capability Test Plan - to be delivered
- Operational Plan - to be delivered
- Emergency / Contingency Plan - to be delivered

2.3 Flight operations

NTR

2.4 Date of next meeting

15th of November 2018.

3. Actions

The actions items are extracted from Teamforce.

Pr.	Artifact ID	Title	Assigned To	Status	Due date
	AI1	CEIIA to send draft versions of documents to be reviewed and discussed by EMSA personnel and CEIIA in following meetings	[REDACTED]	Open	12/11/2018
	AI2	CEIIA to send training syllabus for operators	[REDACTED]	Open	12/11/2018
	AI3	Elbit to provide export licence documentation to EMSA to be assessed.	[REDACTED]	Open	12/11/2018
	AI4	Elbit to inform EMSA if [REDACTED] has changed from the ICT.	[REDACTED]	Open	12/11/2018
	AI5	EMSA shall provide technical information [REDACTED] to CEIIA and Elbit	[REDACTED]	Open	16/11/2018
	AI6	EMSA shall provide feedback for the PORTFOLIO document	[REDACTED]	Closed	16/11/2018
	AI7	CEIIA to provide generic email to create access to TEAMFORGE tool.	[REDACTED]	Closed	16/11/2018

4. Up to date planning

The updated **planning** is presented in the attached Gantt chart.

The plan will be updated with some information that need to be confirmed.

5. List of deliverables

Changes are identified in green, and remaining to be changed or uploaded in TF are highlighted.

[illegible]

11-11-11

6. Risk analysis

The risks have been reviewed on both projects: no changes this week

Operação/Processo (NBS) Requisito/ Process function (NBS) Requirements	Data de abertura/ Open Date	Work Package	Area	Respons.	Risk ID	Risk Description	Risk Status	Priority	Severity	Due	Risk Remarks	Risk Mitigation Plan	Mitig Plan Responsible
Recursos Humanos	10/05/18	Team training	Management	NS	1	If training of personnel by Elbit is delayed then the deployment of CEIA personnel is also delayed and the On Job Training may not be finish as planned	Open	2	2	4		1. Establish the Training Plan with Elbit 2. Follow up with Elbit POC for Training and identify contingency measures if some compromising delay happens	1. NRS 2. FM
Recursos Humanos	10/05/18	Team training	Management	NS	2	[REDACTED]	Open	2	2	4		1. Follow up training progress and identify trainees with difficulties to achieve intermediate training goals 2. Negotiate with Elbit to replace the CEIA team member in the next deployment	1. GP 2. NRS
Contract	10/05/18	Elbit subcontract	Management	NS	3	If Elbit fails to comply with H900 availability then CEIA will not be able to fulfill missions to EMSA within requested dates	Open	2	4	8		1. Plan all relevant dates with sufficient GAP to enable some unforeseen delay from Elbit or issue with transport/ customs 2. Maintain Elbit aware of due dates and milestone to fulfill mission requirements	1. NRS 2. NRS
Contract	10/05/18	Elbit subcontract	Management	NS	4	If Hermes900 does not comply with all requirements of the FWC then the Flight Hour Rate may be reduced accordingly	Open	2	4	8		1. Follow with Elbit the installation of equipment, namely the Radar and Epirb 2. Maintain Elbit aware of due dates, requirements and milestones to fulfill contract requirements	1. NRS 2. NRS
Permit to Fly	10/05/18	Permit to Fly	Airworthiness	FM	5	If CEIA with Elbit fails to achieve Permit to Fly in planned dates then the deployment will be delayed and customer may be disappointed and cancel future missions	Open	2	2	4		1. As soon as possible start discussions with Customer and National CAA to identify documentation to be provided 2. Identify POC for documentation issues within Elbit 3. Inform Elbit of any document change request as soon as possible	1. FM 2. LR 3. BUMD
Mission	10/05/18	MOD. 4	Flight Operations	NS	6	If CEIA/Elbit is not able to comply with mission dates requested by end user, due to RPAS malfunction, then mission will be canceled and customer may be disappointed	Open	2	2	4		1. Perform Maintenance IAW the correspondent program 2. Schedule every intervention that could ground the RPAS for a non impact period	1. Site Manager 2. Site Manager and ELBIT Authorities
Mission	10/05/18	MOD. 4	Flight Operations	NS	7	If during flight any malfunction arises, it may lead to mission stop and early return to deployment site. This will cause disappointment to customer and end customer	Open	2	2	4		1. Perform Maintenance IAW the correspondent program 2. Schedule every intervention that could ground the RPAS for a non impact period	1. Site Manager 2. Site Manager and ELBIT Authorities
Mission	10/05/18	MOD. 4	Flight Operations		8	If during flight any malfunction arises and aircraft is lost (crashed landed), then emergency procedures shall be performed.	Open	1	4	4		1. Emergency procedures plan shall be developed 2. Emergency plan shall be communicated to team	
On site	10/05/18	Mod. 3	Site Operations		9	If any of necessary conditions (internet, fuel, electricity,...) to enable aircraft maintenance and operation in safe conditions is not in place, then mission may be delayed and customer shall be warned of delay, and may cause disappointment to customer	Open	1	3	3		1. To contract the necessary conditions with some antedpation 2. To have some conditions backup to prevent any	1. GP and Site Manager 2. GP and Site Manager
Recursos Humanos	10/05/18	Team training	Management		10	If the [REDACTED] is also delayed that may cause constraints in mission operation	Open	3	2	6		1. If necessary, negotiate with Elbit to extend the team for the next deployment	1. LR
Recursos Humanos	10/05/18	MOD. 4	Management		11	If any member of the team have any issue (disease, etc) and have no conditions to still work for a while	Open	2	3	6		1. Negotiate with Elbit to replace the CEIA team member for the next deployment, if the absence will be short 2. If the absence will be for a long period, CEIA needs to recruit someone else to guarantee the mission	1. LR and BUMD 2. GP and CEIA
Mission	13/11/18	MOD. 5			12	If the availability of Module 5 is delayed then the mission is also delayed	Open	1	3	3			

1

1

CLASSIFICAÇÃO DE PROBABILIDADE/ PROBABILITY CLASSIFICATION		
	PT	EN
1	Baixo (< 20%): Pouco provável de ocorrer	Low (< 20%) - Unlikely to occur
2	Médio-Baixo (20 - 50%): Baixa probabilidade de ocorrer	Medium Low (20 - 50%) - Low probability of occurring
3	Médio-Alto (50 - 80%): Grande probabilidade de ocorrer	Medium High (50 - 80%) - Large probability of occurring
4	Alto (> 80%): Muito provável de ocorrer	High (> 80%) - Very likely to occur

CLASSIFICAÇÃO DE SEVERIDADE/ SEVERITY CLASSIFICATION		
	PT	EN
1	<p>PLANEAMENTO - Sem impacto ou impacto insignificante (tarefas adicionais requeridas mas mantendo o plano original)</p> <p>CUSTO - Sem impacto ou aumento de custo insignificante</p> <p>TÉCNICO - Sem impacto ou impacto insignificante: sem alteração do âmbito e mantendo as soluções definidas</p>	<p>PLAN - No impact or no significant impact (additional tasks required, keeping original schedule)</p> <p>COST - No impact or cost increased no significant</p> <p>TECHNICAL - No impact or very low impact: no scope change and keeping same solutions</p>
2	<p>PLANEAMENTO - Impacte na entrega de milestones, mas sem impacto crítico no plano inicial</p> <p>CUSTO - Impacte significativo no custo de projecto (5-10%)</p> <p>TÉCNICO - Impacte significativo: Efeitos menores sobre o projecto, âmbito, requisitos de conformidade ou funcionalidades; Há uma alternativa</p>	<p>PLAN - Important milestones delayed, but no impact on critical path</p> <p>COST - Significant impact in project cost (5-10%)</p> <p>TECHNICAL - Significant impact: Minor project effects, requirements or functionalities compliance; There is an alternative</p>
3	<p>PLANEAMENTO - Impacte severo nos prazos; necessário re-planeamento do projecto com aprovação do cliente</p> <p>CUSTO - Impacte severo no custo de projecto (10-20%)</p> <p>TÉCNICO - Impacte severo: Efeitos significativos sobre o projecto, âmbito, requisitos de conformidade ou funcionalidades; Possível impacto no resultado final</p>	<p>PLAN - Impact on critical path; Recovery plan agreed with customer</p> <p>COST - Critical impact in project cost (10-20%)</p> <p>TECHNICAL - Critical impact: May significantly affect the project, requirements or functionalities compliance; Possible impact in the final result</p>

4	<p>PLANEAMENTO - Não cumprimento de importantes milestone de projecto (Releases de engenharia, CDR, validação de protótipo, 1ºvôo, TC, EIS); Nenhum plano de recuperação do planeamento disponível</p> <p>CUSTO - Aumento de custo do projecto (superior a 20%)</p> <p>TÉCNICO – Impacte grave no resultado final do projecto: não garantia do âmbito, requisitos de conformidade ou funcionalidades; afecta a qualificação/ certificação/ homologação do projecto</p>	<p>PLAN – Non compliance with major Program Milestone (engineering releases, CDR, validation prototype, 1st Flight, TC, EIS); No recovery plan available</p> <p>COST – Increase in project cost (10-20%)</p> <p>TECHNICAL – Serious impact in the project final result: Severely affects the project, requirements or functionalities compliance; No project qualification/ certification/ homologation</p>
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Risk Index				
Probability x Severity				
4	4	8	12	16
3	3	6	9	12
2	2	4	6	8
1	1	2	3	4
	1	2	3	4

7. Up to date configuration of the RPAS

Still waiting for [REDACTED] send the End User Form for the [REDACTED] C

