



**RAP File 1  
E&T Branch  
Current Status Update**



**15'**

**Col. (OF-5) Ozkan ORUC, TUR (A)  
E&T Branch Head**

NATO UNCLASSIFIED







# Agenda

- ▶ Work Force of E&T Branch
- ▶ Review of PoW 2023
- ▶ IAMD Common Education Programme (CET-P)
- ▶ IAMD as a Discipline





## Work Force of E&T Branch



Work Force of E&T 2022-2023		
Branch Head (BH) - ETB01	TUR 	Col. (OF-5) Ozkan ORUC
Staff Officer/SME - ETB02	GRC 	Cdr. (OF-4) Stratos PEROUTSEAS
Staff Officer/SME - ETB03	CZE 	Maj. (OF-3) Michal SEMERAK
Staff Officer/SME - ETB04	BID 	Ø
Staff Officer/SME - ETB05	GRC 	Maj. (OF-3) Andreas ANGELIDIS
Staff Officer/SME - ETB06	BID 	Ø

*Proposal:*



<b>E&amp;T Staff NCO - ETB07</b>	<b>CZE</b> 	<b>Will be assigned as of 2024 with the approval of SC</b>
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## E&T Branch – Review of POW-2023



### COURSES (in NSO)-2023

No	POW No	Course Title	Status
1	1	NSO N3-20 NATO Missile Defence Course	Completed
2	1	NSO N3-134 Introduction to NATO Surface Based Air Defence Course	Completed
3	1	NSO M6-108 Network Security Course	In progress
4	1	NSO M7-51 Concept Development and Experimentation Course	In progress
5	1	NSO N1-38 NATO Security Course	In progress
6	1	NSO N7-163 Lessons Learned Management Course	No Allocation by NSO
7	1	NSO N5-68 NATO Operational Law Course	Cancelled
8	1	NSO P5-07 NATO Information Knowledge Management Course	Cancelled
9	1	NSO S7-135 NATO Global Programming Analysis Course	Cancelled by NSO





## E&T Branch – Review of POW-2023



### COURSES-2023

No	POW No	Facility	Course Title	Status
1	4	SWIDENT/NCGM (Sweeden)	NATO Lessons Learned Staff Officer Course	Completed
2	3	MUT, Warsaw (Poland)	Standardization within NATO Course	Completed
3	43	(Chania)	Certified Fiber Optic Technician (CFOT)	Completed
4	3	NMIOTC (Chania-Greece)	Drafting, production and maintenance of NATO Standards (NMIOTC-25000)	In Progress
5	5		Train the Trainers - Technical Instructor (NMIOTC-17000)	In Progress
6	5		NATO SOF Instructor Training (NSIT) Course	In Progress
7	2	CCSBAMD	Comprehensive - Integrated Air and Missile Defence (C-IAMD) Course	In Progress
8	3	HDF, Budapest (Hungary)	Allied Joint Doctrine Development Course	In Progress
9	4	NCIA Academy (Portugal)	NATO Lessons Learned Portal Manager Course	Canceled





# E&T Branch – Review of POW-2023



	EXERCISES					
POW No	Customer	Exercise Title		Start Date	End Date	Participation
8	HQ AIRCOM	Ramstein Legacy (RALY) 2024	IPC	11 Jul 23	13 Jul 23	E&T participated with one (1) SME
			MPC	13 Nov 23	17 Nov 23	IAMD COE is to participate in.
			FCC	18 Mar 23	22 Mar 23	IAMD COE is to participate in.
			Execution	03 Jun <b>24</b>	14 Jun <b>24</b>	IAMD COE is to participate in.
8	HQ AIRCOM	Ramstein Flag (RAFL) 2024	EIC	12 Sep 23	14 Sep 23	E&T participated with two (2) BH&SMEs.
			IPC	Jan <b>24</b>	Jan <b>24</b>	IAMD COE is to participate in.
			MPC	TBD	TBD	IAMD COE is to participate in.
			FCC	<i>TBD</i>	TBD	IAMD COE is to participate in.
			Execution	Oct <b>24</b>	Oct <b>24</b>	IAMD COE is to participate in.





## E&T Branch – Review of POW-2023



CONFERENCES & MEETINGS				
POW No	Lead	Conference & Meeting Title	Date	Participation
30	AOP COE (AOP DH)	Air Ops Annual Discipline Conference	14-15 Jun 23	E&T participated with one (1) BH&SME
30	AIRCOM (IAMD DH)	IAMD Annual Discipline Conference	20-23 Jun 23	E&T participated with three (3) BH&SMEs
33	CZE UoD	23rd Air Defence Conference 2023	26-27 Apr 23	IAMD COE participated with one SME
38	ACT	IPB Conference 2023	08-09 Nov 23	In Progress





# SBAMD Common E&T Program (SBAMD CET-P)



- Based on TOBRUQUE LEGACY 2015–2020 findings, **NATO SBAMD TTPs** identified by AIRCOM as a **critical knowledge gap** among the NATO Nations.
- Aims to **provide NATO Nations with consolidated tactical education** on execution of SBAMD Operations under JFAC command.
- **Primary Training Audience:**
  - National SBAMD Instructors / Trainers / Lectors
  - SAMOC / SBAMDOC / GOC / FU Operators / Planners
  - CRC SAMCOs / SAM Allocators / SAM Allocator Assistants
- Registered as a **Listed Course** in ETOC with the code of AOP-AP-36865.





# SBAMD Common E&T Program (SBAMD CET-P)



### 2022

**1st CET-P**  
Trained: 18  
Place: JAPCC / Kalkar

**2nd CET-P**  
Trained: 22  
Place: JAPCC / Kalkar

**3rd CET-P**  
Trained: 31  
Place: JAPCC / Kalkar

**TOTAL**  
Iterations: 3 residential  
Participants: 71  
Countries: 14

### 2023

**1st CET-P**  
Trained: 26/26  
Place: IAMD COE / Chania  
Demand: 26

**2nd CET-P**  
Will be trained: 24/39  
Place: IAMD COE / Chania  
Demand: 39

**TOTAL**  
Iterations: 2 residential  
Participants: -/44  
Countries: 12

### 2024

**1st CET-P**  
Trained: -/24  
Place: IAMD COE / Chania

**2nd CET-P**  
Trained: -/24  
Place: IAMD COE / Chania

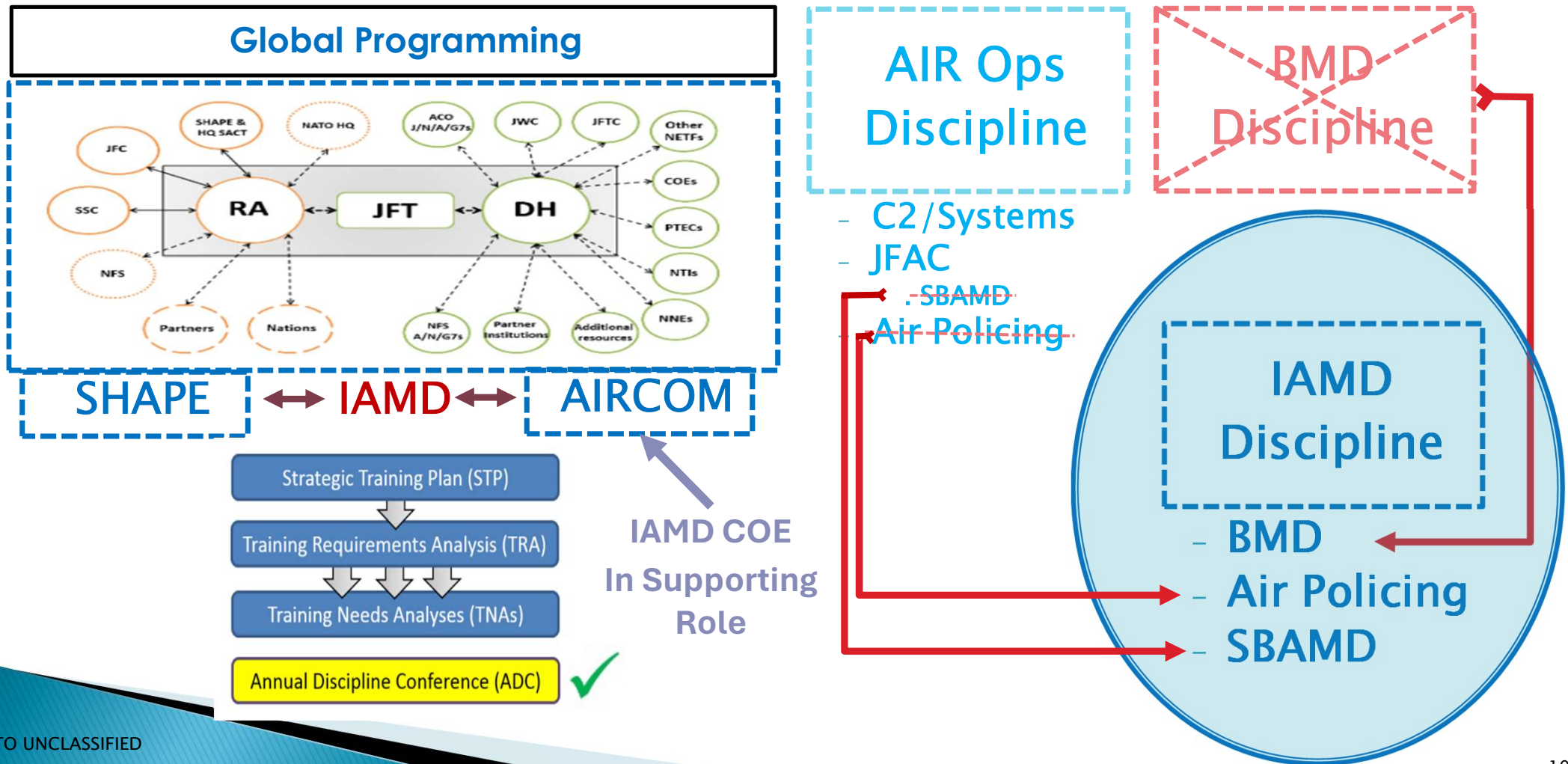
**MTT ROU**  
Trained: -/??  
Place: Bucharest / ROU

**TOTAL**  
Iterations: 2 + 1 MTT  
Participants: -/48 + ??  
Countries: ??





# IAMD as a Discipline







## E&T Branch – Review of POW-2023

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SC members are kindly requested to *note* the review of PoW 2023 in  
E&T Branch





## Questions







## RAP File 1

# CD&E Branch Review of POW 2023



10'

COL (OF-5) Emmanouil PANOU, GRC AF  
CD & E Branch Head







## CD&E Branch PoW



### TOPICS

- ▶ Work Force of CD&E Branch
- ▶ Review of 2023 PoW
- ▶ IAMDCoE Relations with other Entities





# CD&E PoW – WORK FORCE



## CD & E WORK FORCE 2022–2023

Branch Head		Col (OF-5) Emmanouil PANOU
Staff Officer		LTC (OF-4) Dimitrios KOUTSOUKOS
Staff Officer		LTC (OF-4) Kiril KIRILOV
Staff Officer		
Staff Officer		Cpt (OF-2) Emmanouil MAVROGIANNAKIS
Staff Officer		





# POW 23 CD&E Execution & Progress Summary



POW NO	Customer	Project Name	Start Date	End Date	CD& E Participation
EXERCISES					
07	DEU-NLD (Self-Generated)	Joint Project Optic Windmill 2023 (JPOW 23)	06 Mar 23	29 Mar 23	CD&E participated with one (1) SME (Execution Phase)
23	NCIA (Self-Generated)	Technical Interoperability Exercise (TIE 23)	12 Sep 23	22 Sep 23	CD&E participated with one (1) SME in the IPC, MPC, FCC and the execution phase.
07	USAFE AFAFRICA	ASTRAL KNIGHT 23	13 June 22 21 June 22 04 Oct 22	14 June 22 24 June 22 07 Oct 22	CD&E participated with one (1) SME (PNDR) CD&E participated with one (1) SME (IPC) CD&E participated with one (1) SME (MPC)
		ASTRAL KNIGHT 24	27 June 23	30 June 23	CD&E participated with one (1) SME (IPC)
08	SHAPE	STEADFAST JUPITER 2023 (STJU23)	10 Oct 23	19 Oct 23	CD&E participated with one (1) SME in the MEL/MIL





# CD&E Branch PoW



POW NO	Customer	Project Name	Start Date	End Date	Participation
<b>WORKING GROUPS – CONFERENCES</b>					
23	IAMD PC (Self-Generated)	C-UAS WG 2023	01 Jan 23	31 Dec 23	CD&E participates with one (1) –two (2) SMEs
24	CNAD/ NNAG	Joint Capability Group On Unmanned Aerial Systems (JCG UAS)	01 Jan 23	31 Dec 23	CD&E participated with one (1) SME Spring 2023 JCGUAS Meeting (20–22 March)
32	NATO ACT/CNDV	CD&E Coordination Meetings	21 Mar 23 13 Jun 23	21 Mar 23 13 Jun 23	CD&E participated with one (1) SME (virtually)
14	HQ SACT	Annual COEs Director Conference	24 Sep 23	27 Sep 23	The IAMD COE Director will participate
32	NATO ACT/CNDV	International CD&E Annual Conference	31 Oct 22	02 Nov 23	CD&E will participate with two (2 )SMEs.
15	NATO ACT	Multinational Solutions Synchronization Conference (MSSC)	04 Apr 23	06 Apr 23	CD&E participates with one (1) SME.
09	NATO ACT	Layered Resilience Concept (LRC) Situational Understanding Thematic WG	23 May 23	25 May 23	CD&E participates with one (1) SME.





# CD&E Branch PoW



POW NO	Customer	Project Name	Start Date	End Date	CD& E Participation
<b>WORKING GROUPS – CONFERENCES</b>					
23	NATO STO (Self-Generated)	SCI-SET-353 RTG 'C-UAS Mission-Level Modelling & Simulation'	24 Jan 23 31 May 23	25 Jan 23 01 June 23	CD&E participates with one (1) – two (2) SMEs.
42	NATO STO (RfS 22#338 RfS 22#339)	NATO Modelling & Simulation Group (NMSG)	15 May 23 16 Oct 23	19 May 23 20 Oct 23	CD&E participates with one (1) SME.





## Cooperation with Technical University of Crete (TUC)

- **FRAMEWORK AGREEMENT (13 JULY 2021)**
- **CONTRACT 22-04 (19 Aug 2022)**  
Writing, delivering and publishing of review paper-report on Hypersonic weapons
- **CONTRACT 22-10 (22 Dec 2022)**  
Writing, delivering and publishing of a study report under the subject:  
  
“Analysis of the related Physical Phenomena and Aerodynamic Performance of Hypersonic Vehicle(s) and possible ways of exploiting those data in order to improve Surveillance Capabilities.”





## IAMD COE Relations with other Entities



### Cooperation with Institute of Computer Science / Foundation of Research and Technology -Hellas (ICS/FORTH)

- **MEMORANDUM OF UNDERSTANDING** for bilateral research co-operation between IAMD COE and the Institute of Computer Science / Foundation of Research and Technology –Hellas (ICS/FORTH) (15 NOV 2022)
- **CONTRACT to be signed**  
“Artificial Intelligence (AI)– Empowered Drone Detection Passive Radar Using 5G Signals” (AIRE5G).





## Recommendations & Decisions

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SC members to *note* about the CD&E's Execution & Progress Summary.





Questions







# RAP File 1

## D&S Branch Review of POW 2023



10'

LTC (OF-4) Sylvain RYCKEBUSCH, FR Air and Space Force  
Doctrine & Standardization Branch Head

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## D&S Branch PoW



### TOPICS

- ▶ Work Force of D&S Branch
- ▶ Review of 2023 PoW





## D&S PoW – WORK FORCE



D&S Work Force AUG 2023- JUL 2024		
Branch Head		Lt C (OF-4) Sylvain RYCKEBUSCH
Staff Officer		Col (OF-5) Athanasios PAPAMANOLIS
Staff Officer		1 <sup>st</sup> Lt (OF-1) Antonios KOUTENTAKIS
Staff Officer		
Staff Officer		
Staff Officer		





# POW 23 D&S Execution & Progress Summary



POW NO	Customer	Project Name	Start Date	End Date	D&S Participation
Working Groups, Workshops					
22	NATO ACT CPD AJOD WG	Revision of AAP-47 (Writing Team)	Dec 2022	End 2023	D&S contributes with comments and is participating in the Writing Team with one (1) SME
		New AJP-3.X Space Operations	Feb 2023	2025	D&S worked on AJP-3.X RFI and participated with one (1) SME to the DFW
26	CNAD/NIAG	Study Group 288 "C-RAM Technology and Required Capabilities"	Apr 23	Jun 24	D&S participated with one (1) SME in the Exploratory Group the 21 Apr 2023.
28	CNAD/NIAG	Study Group 265 QRT "SBAMD survivability and effectiveness in Joint and Combined Operations when faced by a Peer State Threat"	07 Feb 23 14 Mar 23 18 Apr 23 23 May 23	09 Feb 23 16 Mar 23 20 Apr 23 25 May 23	D&S participated by VTC with two (2) SMEs to the last experts meeting.
29	CNAD/NAAG	Joint Capability Group on Surface based Air and Missile Defence (JCG SBAMD)	19 Apr 23 17 Oct 23	20 Apr 23 19 Oct 23	D&S participated with two (2) SMEs to the first iteration. CD&E will participate with one (1) SME to the second.





# POW 23 D&S Execution & Progress Summary



POW NO	Customer	Project Name	Start Date	End Date	D&S Participation
Conferences					
11	NATO ACT CPD Branch	Doctrine Development Coordination meeting	01 Mar 23 25 Oct 23	01 Mar 23 25 Oct 23	D&S participated by VTC with four (4) SMEs. D&S will attend it.
35	COE - HQ AIRCOM	CCSBAMD's Conference "The new normal - Ready for action NATO IAMD from an operator's point of view"	23 May 23	25 May 23	D&S participated with one (1) SME.





## Recommendations & Decisions

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SC members to *note* about the D&S's Execution & Progress Summary.





Questions







## RAP File 1

### Analysis & Lessons Learned Branch



10'

COL (OF-5) Nikolaos SARIDAKIS, GRC AF  
Analysis & Lessons Learned Branch Head







## TOPICS

- ▶ Work Force of A&LL Branch
- ▶ Progress of Programme of Work 2023
- ▶ Way ahead
- ▶ IAMD LL COI











## A&LL Branch Work Force



### A & LL Work Force 2022- SEP 2023

Branch Head		Col (OF-5) Nikolaos SARIDAKIS
Staff Officer		Cpt (OF-2) Christos KAPELLAS
Staff Officer		LtCol (OF-4) Vica ILEA
Staff Officer		
Staff Officer		VACANT
Staff Officer		





## Progress Of POW 2023



POW No.	DATE	TITLE	LOCATION	REMARKS
8	16-17 Feb	FCC of RAGU-GRC 23	Athens Greece	Completed
8	27-31 Mar	RAGU-GRC 23	117CW Greece	Cancelled
32	28-30 Mar	ACT LL Spring Week 2023	Sofia Bulgaria	Completed
35	12 May	1 <sup>st</sup> IAMD Coordination Meeting	Chania Crete	Completed





## Progress Of POW 2023



POW No.	DATE	TITLE	LOCATION	REMARKS
10	15 May 22 – 31 Dec 23	NATO Lessons Learned from the situation in and around Ukraine (RFS 22#075)	NLLP	In Progress
-	25 Aug 23 – 10 Oct 23	Out of Cycle Request for support (RFS 23#223) NDPP: Contribution to Longer Term Aspects as part of MCR 2024.	ONLINE	In Progress





## Way Ahead



No.	Date	Title	Location	Remarks
1	TBD	Continuing the development of the <u>Lessons Learned Community of Interest (COI)</u> on NATO Lessons Learned Portal (NLLP) related to IAMD discipline	–	Preparing Documentation for the Website
17	07–09 NOV 23	ACT LL Fall Week 2023	JALLC	This event will involve attendees in person from NCS, NATO HQ and NSO. COEs were not invited
10	15 May 22–31 Dec 23	NATO Lessons Learned from the situation in and around Ukraine (RFS 22#075)	online	





## IAMD LL COI



As tasked by the ACT, IAMD COE created the IAMD Lessons Learned Community of Interest (IAMD LL COI).

The aim of the IAMD COI is to constitute a valuable and reliable source of information and knowledge for all the NATO entities and personnel interested/involved in IAMD.

*The COI covers the entire spectrum of IAMD domain, focusing on:*

- *BMC3I*
- *Active AMD*
- *Passive AMD*
- *Surveillance*
- *Specific IAMD policy aspects (NATO BMD, Cruise Missile Defence, C-RAM C-UAS, Offensive options in support of IAMD operations, ETEE).*

Current status: IAMD LL COI is under development, the administrator of the website trying to persuade people from other NATO entities concerned with IAMD to become members, and most importantly to participate by uploading relevant products





# Recommendations & Decisions

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SC members to *note* about current status and way ahead of  
A&LL Branch

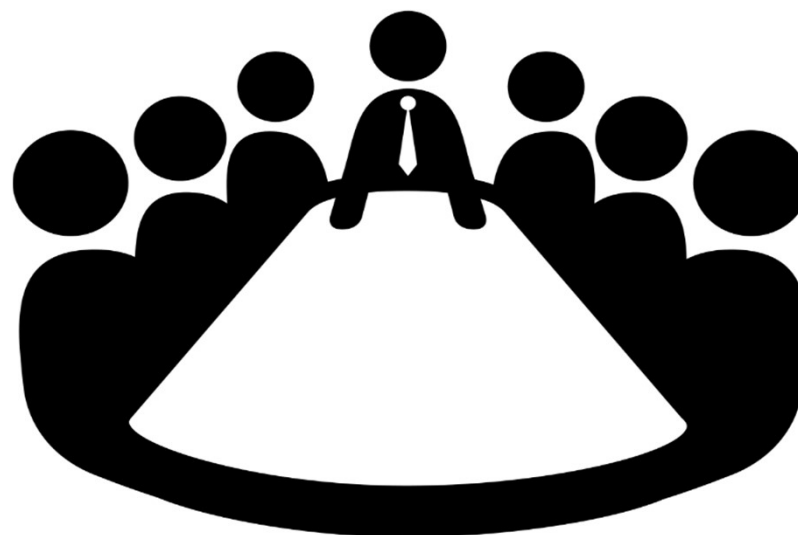




Questions







## POW 2023 rev.2 (Introduction of new items) RAP File 2-8







## New items to be included in POW 23 rev.2 (1/3)



No	Title	Request	Remarks	OPR
1	RFS 23#168 Understanding the Human Factors in Multi-Domain Operations: Implications for Training and Performance Enhancement.	ACT/JFD	Multi-domain operations (MDO) involve the integrated use of capabilities across multiple domains, such as air, land, sea, space, and cyberspace. <b>This research aims to explore the human factors associated with MDO</b> and their implications for training and enhancing human performance in complex multi-domain environments. Investigate the cognitive and psychological demands placed on individuals operating in multi-domain environments	E&T
2	RFS 23#169 Understanding the Instruments of Power effects on Military IoP in Multi-Domain Operations from training perspective.	ACT/JFD	In the realm of MDO, the interaction between Instruments of Powers becomes even more challenging, requiring a deep understanding of their effects and implications. From a training perspective, it is vital to <b>equip personnel involved in utilizing various Instruments of Power with the necessary knowledge, skills, and attributes to operate effectively in multi-domain environments</b> . Training programs must address the challenges of integrating and synchronizing Instruments of Power across multiple domains, while also considering the advancements in technology and the evolving nature of modern warfare.	E&T





## New items to be included in POW 23 rev.2 (2/3)



No	Title	Request	Remarks	OPR
3	RFS 23#171 Support to NATO Distributed Synthetic Training (DST)	NATO STO CSO MSCO (NMSG) (DST)	The NATO Distributed Synthetic Training (DST) working group is a multi-national effort of currently 22 nations (150+ members) to create a coalition-wide federation of national synthetic mission training capabilities to enable regular and frequent access to operational training opportunities at team, collective, joint and coalition levels. Essentially, DST aims to connect national training systems (simulators, ships, training devices, etc.) to enable multi-national team training.	CD&E
4	Participation to C-UAS Research Task Group (RTG)	NATO STO	The objective of the task group is to develop a common M&S framework that is capable of evaluating relevant C-UAS scenarios at mission-level. The framework shall be able to model all relevant characteristics of the UA, the environment, detection methods, C2 systems and effectors.	CD&E





## New items to be included in POW 23 rev.2 (3/3)



No	Title	Request	Remarks	OPR
5	Participation to Hypersonic Operational Threats (HOT) Research Task Group (RTG)	NATO STO	Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT)	CD&E
6	IAMD COE Modelling & Simulation Laboratory	IAMD COE	According to Medium Term Operational Plan of the IAMD COE it is scheduled to be developed a laboratory, based on modelling and simulation tools, capable of providing support for experimentation, analysis, testing and developing exercise scenarios, to support and improve education and training for IAMD.	CD&E





## RAP Files 2-3

### E&T Branch, New Items to PoW 2023



5'

Col. (OF-5) Ozkan ORUC, TUR (A)  
E&T Branch Head

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# POW-2023, New Items



1<sup>st</sup> /2023 SCM

Subject No 2



**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



## 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 565	<b>Tel.:</b>	+302821440741
		<b>NCN:</b>	302-615-4041
<b>Date:</b>	28 Jul 2023	<b>Email:</b>	info@iamd-coe.org

**TO:** See Distribution

**SUBJECT:** Request for Support (RfS) 23#168 by ACT (Understanding the Human Factors in Multi-Domain-Operations (MDO): Implications for Training and Performance Enhancement).

**Requestor** : HQ SACT

**Timeframe** : 01 Aug 23 – 31 Dec 24

**AIM** : To explore the human factors associated with MDO and their implications for training and enhancing human performance in complex multi-domain environments.





# POW-2023, New Items



1<sup>st</sup> /2023 SCM

Subject No 3



**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



## 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 566	<b>Tel.:</b>	+302821440741
		<b>NCN:</b>	302-615-4041
<b>Date:</b>	28 Jul 2023	<b>Email:</b>	<a href="mailto:info@iamd-coe.org">info@iamd-coe.org</a>

**TO:** See Distribution

**SUBJECT:** Request for Support (RfS) 23#169 by ACT (Understanding the Instruments of Power effects on Military IoP in Multi-Domain Operations from training perspective).

**Requestor** : HQ SACT

**Timeframe** : 01 Jul 23 – 01 Jan 26

**AIM** : Search for the ways to equip personnel involved in utilizing various Instruments of Power with the necessary knowledge, skills, and attributes to operate effectively in multi-domain environments via training programs considering the advancements in technology and the evolving nature of modern warfare.

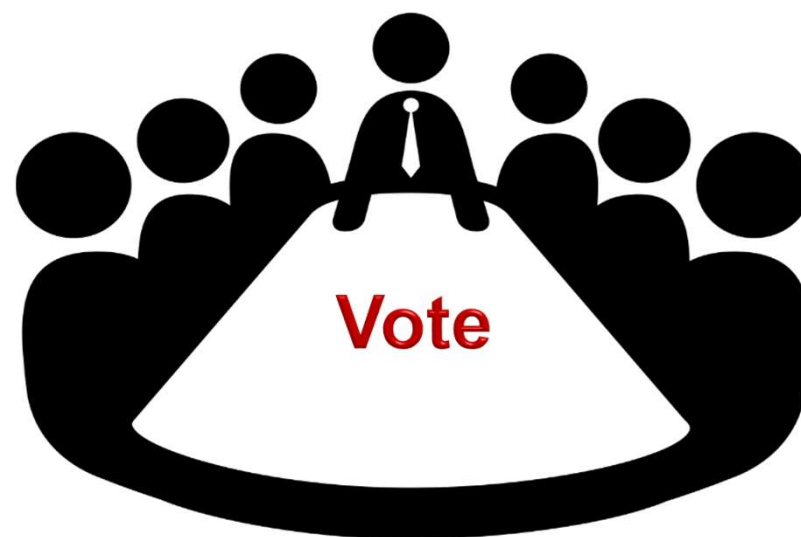




Questions











## RAP Files 4-7

# CD&E Branch Review of POW 2023 rev.2 (Introduction of New Items)



20'

COL (OF-5) Emmanouil PANOU, GRC AF  
CD & E Branch Head

NATO UNCLASSIFIED







# CD&E POW 2023 rev.2



POW NO	Customer	Project Name	Start Date	End Date	CD& E Participation
<b>WORKING GROUPS</b>					
46	NATO STO RfS 23#171 (NMSG)	The NATO Distributed Synthetic Training (DST) working group	01 Jul 23	31 Dec 24	CD&E to participate with one (1) SME
47	NATO STO (Self-Generated)	SCI-SET-353 RTG 'C-UAS Mission-Level Modelling & Simulation'	24 Jan 23 31 May 23	25 Jan 23 01 June 23 TBD	CD&E to further participate with one (1) – two (2) SMEs.
48	NATO STO	"Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT)" Research Task Group	TBD	TBD	CD&E to participate with one (1) SME
<b>ACTIVITIES / PROJECTS</b>					
49	IAMD COE (Self-Generated)	Modelling & Simulation (M&S)/ Analysis Laboratory	Oct 23	Dec 28	CD&E to participate with one (1) SME Support Branch to assist with CIS technician





# CD&E POW 2023 rev.2



## NATO Distributed Synthetic Training (DST) WG

NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM  
INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>

Subject No 4

1<sup>st</sup>/2023 Steering Committee Meeting  
POINT PAPER

Our Ref: NLI 567 Tel: +302823440781  
Date: 28 Jul 2023 NCN: 302-615-4081  
Email: [info@iamd-coe.org](mailto:info@iamd-coe.org)

TO: See Distribution  
SUBJECT: Support to NATO Distributed Synthetic Training (DST) Working Group  
REF: RFS 238171 / STO CSO MSCO (NMSG) (DST)  
No: 4  
PURPOSE: To approve the participation in the activities of the aforementioned Working Group.

BACKGROUND: Many Allied Nations re-evaluated the live-synthetic balance of their operational training in order to address issues such as security, range/airspace and asset availability, frequency, cost, and environmental factors. The growing demand for distributed mission training in a synthetic environment exceeds Allies' current training capabilities. The NATO Modelling and Simulation Group (NMSG) has matured the technologies and developed the necessary architectures and standards that enable realistic cross-domain distributed synthetic training. The results of many years of NMSG's work open new possibilities for Allies and NATO to transition these technologies into effective operational capabilities for the war fighters. Successfully fielding distributed synthetic training across domains would bring tremendous operational benefits.

The vision for Distributed Synthetic Training in NATO is to establish:  
"A NATO-wide federation of national synthetic mission training capabilities powered by coherent architectures and security procedures, common standards and training objectives, and shared data delivering regular and frequent access to high quality, secure, immersive operational training opportunities at team, collective, joint and coalition levels."

-2-

- NATO Distributed Synthetic Training (DST) working group is a multi-national effort of currently 22 nations (150+ members) to:
  - Create a coalition-wide federation of national synthetic mission training capabilities
  - Enable regular and frequent access to operational training opportunities at team, collective, joint and coalition levels
  - Connect national training systems (simulators, ships, training devices, etc.) to enable multi-national team training
- IAMD – COE's expertise and knowledge would be greatly appreciated as the aforementioned group is moving forward
- New training/exercise opportunities that will benefit IAMD – COE and IAMD community

NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM  
ANALYSIS &  
STATUS

Subject No 4

The NATO Distributed Synthetic Training (DST) working group is a multi-national effort of currently 22 nations (150+ members) to create a coalition-wide federation of national synthetic mission training capabilities to enable regular and frequent access to operational training opportunities at team, collective, joint and coalition levels. Essentially, DST aims to connect national training systems (simulators, ships, training devices, etc.) to enable multi-national team training.

The DST working group is actively working on several work strands: policy/governance, training objectives, trainings/exercises (like Dynamic Mirage 24, Gladiator Alliance 24, ...) and technical infrastructure for DST.

According to Ref. IAMD – COE's expertise and knowledge would be greatly appreciated as the aforementioned group is moving forward. Also, it is anticipated that DST may offer new training/exercise opportunities that benefit IAMD – COE and IAMD community, especially after the Centre's decision to create an M&S Laboratory.

FINANCIAL  
CONSIDERATIONS  
& FUNDING

Any financial impacts of the aforementioned activities will be covered from the existing budget of the current year (and by transferring of appropriations within the authorization granted to the Director in accordance with Financial Administrative Procedures, if required) without the need for a supplementary budget.

Any financial obligations for the next years will be foreseen in the shared budget of the respective Fiscal Years.

RECOMMENDATION  
& DECISION

SC members are requested to approve the participation of SMEs in NATO Distributed Synthetic Training (DST) Working Group.

FOR THE IAMD COE:

B. Gen (OF-6) Nikolaos KOKKONIS GRG (AF)  
IAMD COE Director

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# CD&E POW 2023 rev.2




## STO SCI – SET - 353 Research Task Group (RTG).

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1<sup>st</sup> /2023 SCM Subject No 5

 **INTEGRATED AIR & MISSILE DEFENCE**  
**CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



**1<sup>st</sup>/2023 Steering Committee Meeting**  
**POINT PAPER**

**Our Ref:** NU: 568 Tel: +302621440781  
Date: 28 Jul 2023 NCN: 302-615-4081  
TO: See Distribution Email: info@iamd-coe.org

**SUBJECT:** Systems Concepts & Integration - Sensors & Electronics Technologies 353 Research Task Group (SCI – SET – 353 RTG), C-UAS Mission-Level Modelling & Simulation.

**No:** 5

**PURPOSE:** To approve the participation in the activities of the aforementioned Task Group.

**BACKGROUND:** Although NATO and its partners have long recognized the utility of operating Unmanned Aircraft Systems (UAS), it has only been in the last decade that most NATO countries have started to build up means and forces that can counter these systems when they are used by an adversary against NATO's interests. The size of some Unmanned Aircraft (UA) makes these platforms hard to detect. The timelines involved with their operations are short, thus presenting a challenge for decision making. Existing means of engaging aerial threats are not always effective against UA and may not be sustainable in terms of available numbers and/or costs. Due to the low costs of UA and their ease of operation, it is possible to operate UA in large numbers, for example in a coordinated attack or when deployed as a swarm. This could easily lead to saturation of detection systems, an overload of the human operators and attrition of the effectors of a C-UAS system. NATO has initiated several activities that enable the enhancement of C-UAS capabilities. While significant efforts are being taken to address the challenge posed by small UA (sUA) as a threat, it is felt that the current state-of-the-art of C-UAS capabilities is still developing and needs constant attention and progress to keep up with this new and ever-advancing threat.

-1-

➤ The objective of the task group, is to:

- Develop a common Modelling and Simulation (M&S) framework that is capable of evaluating relevant C-UAS scenarios at mission-level
- Model all relevant characteristics of the Unmanned Aircraft, the environment, detection methods, C2 systems and effectors
- Modelling at an effects-based level sufficient to capture the essential aspects of the C-UAS process.


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**ANALYSIS & STATUS:** It is felt that effective M&S can enhance making requirements to systems, the numbers that are needed and selecting the right elements of a C-UAS system (i.e. Simulator Based Acquisition – SBA). It can also assist in performing scenario assessment and evaluation, including making a laydown plan during the preparation phase of a deployment. M&S can enable effective training, for example in a Live-Virtual-Constructive (LVC) setting. With ever-increasing capabilities of UAS, enormous proliferation and widespread deployment of UA in recent conflicts, it is evident that C-UAS capabilities are relevant to NATO forces. Effective M&S can identify shortfalls of existing C-UAS systems in certain scenarios and reveal where improvements are needed in order to effectively deal with the threat. It can thereby truly contribute to C-UAS development, procurement, deployment and training. The objective of the task group is to develop a common M&S framework that is capable of evaluating relevant scenarios at mission-level. The framework shall be able to model all relevant characteristics of the UA, the environment, detection methods, C2 systems and effectors. The modelling shall be performed at an effects-based level that is sufficient to capture the essential aspects of the C-UAS process. It is felt that in order to achieve this, it is not necessary to model a more detailed physics-based level in most cases. The Framework shall subsequently be used for simulating certain selected scenarios. Ideally, the framework shall be verified by modelling scenarios that are executed at NATO trials, after which the results of the simulation and the real-life event can be compared.

**FINANCIAL CONSIDERATIONS & FUNDING:** Any financial impacts of the aforementioned activities will be covered from the existing budget of the current year (and by transferring of appropriations within the authorization granted to the Director in accordance with Financial Administrative Procedures, if required) without the need for a supplementary budget. Any financial obligations for the next years will be foreseen in the shared budget of the respective Fiscal Years.

**RECOMMENDATIONS & DECISION:** SC members are requested to approve the participation of SMEs in SCI – SET – 353 Task Group, C-UAS Mission-Level Modelling & Simulation.

FOR THE IAMD COE:  
  
B. Gen (OF-6) Nikolaos KOKKONIS GRG (AF)  
IAMD COE Director

-2-





# CD&E POW 2023 rev.2



## “Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT)” RTG

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1<sup>st</sup> /2023 SCM

Subject No 6

**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>

**1<sup>st</sup>/2023 Steering Committee Meeting  
POINT PAPER**

Our Ref: NUJ 569  
Date: 28 Jul 2023

Tel: +302821440781  
NCN: 302-615-4081  
Email: info@iamd-coe.org

**TO:** See Distribution

**SUBJECT:** Research Task Group (RTG) "Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT)".

**NO:** 6

**PURPOSE:** To approve the participation in the activities of the aforementioned Research Task Group.

**BACKGROUND:** NATO Science & Technology Organization (STO) must gain the momentum to respond to Hypersonic Operational Threats (HOT) by informing NATO's and nations' leadership, by supporting an increased number of (cross-domain) technical activities as well as by striving for Collaborative Demonstrations of Technology (CDT), allowing better informed decisions by its member and partner nations strengthening hypersonic related capabilities across NATO. The capability development approach must include all aspects of Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities (DOTMLPEF) as well as the validation of the overall systems and of the individual building elements of offensive or defensive architectures for HOT.

NATO STO conducted a cross-panel workshop (AVT-359 HOT Workshop, Dec 2022) to recommend the way forward. The delegates agreed that Modelling & Simulation (M&S) is a key technology to investigate HOT and develop and assess concepts to address this challenge. The recommendation of the assembled experts was to create a common synthetic environment that offers great potential for different nations and multiple expertise domains to efficiently work together on this topic.

-1-

➤ The objective of the task group, is to:

- Develop and provide a common synthetic environment (SE) to government/military/industry leaders and technical staff as a tool
- Investigate and understand the Hypersonic Operational Threats domain, its challenges and time-critical demands, its maturity and its implications
- Allow NATO STO to investigate potential technologies and architectures
- Meet the identified requirements for hypersonic capabilities and countermeasures [e.g. new sensor types, new effectors, improved datalinks, shorter and (partly) automated decision making].

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Subject No 6

**ANALYSIS & STATUS:**

This RTG contributes to elaborating the critically important HOT. The potential impact and approaches need to be investigated and better understood across all DOTMLPEF aspects. Informed guidelines are needed for required improvements in systems and procedures to enhance operational effectiveness.

The defense community uses simulation for purposes like training, mission rehearsal, or decision support in acquisition processes. NATO and its Partners must leverage the asymmetrical advantage that our collaborative simulation expertise and capabilities provide to address HOT.

The objective of the RTG is to develop and provide a common synthetic environment (SE) to government/military/industry leaders and technical staff as a tool, enabling them to investigate and understand the HOT domain, its challenges and time-critical demands, its maturity and its implications. The SE will also allow NATO STO to investigate potential technologies and architectures to meet the identified requirements for hypersonic capabilities and countermeasures [e.g. new sensor types, new effectors, improved datalinks, shorter and (partly) automated decision making]. This common synthetic environment should be well defined, flexible and secure. It should allow for interoperability with current or future operationally used hardware and software (e.g. C2 systems). The envisioned solution should leverage existing and ongoing efforts and best practices on Distributed Synthetic Training (DST) and Concept Development & Experimentation (CDE). Existing simulation environments for Integrated Air and Missile Defence (IAMD) need to be upgraded to include HOT aspects to avoid duplication of effort and reuse resources.

**FINANCIAL CONSIDERATIONS & FUNDING:**

Any financial impacts of the aforementioned activities will be covered from the existing budget of the current year (and by transferring of appropriations within the authorization granted to the Director in accordance with Financial Administrative Procedures, if required) without the need for a supplementary budget.

Any financial obligations for the next years will be foreseen in the shared budget of the respective Fiscal Years.

**RECOMMENDATIONS & DECISION:**

SC members are requested to approve the participation of SMEs in the RTG for "Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT)".

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# CD&E POW 2023 rev.2



## “Modelling & Simulation (M&S)/ Analysis Laboratory

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1<sup>st</sup>/2023 SCM Subject No 7

**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>

**1<sup>st</sup>/2023 Steering Committee Meeting  
POINT PAPER**

Our Ref: NUJ.570 Tel.: +302821440781  
Date: 28 Jul 2023 NCN: 302-615-4081  
Email: info@iamd-coe.org

**TO:** See Distribution  
**SUBJECT:** IAMD - CoE's Modelling & Simulation (M&S)/ Analysis Laboratory  
**No:** 7

**PURPOSE:** To approve the IAMD - CoE's project to create a M&S / Analysis Laboratory

**BACKGROUND:** Modelling and simulation (M&S) is a discipline that develops and/or uses models, simulations and simulation systems. A model is a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process. Simulation is the execution of a system model over time and simulation system is a combination of interacting elements or components organised to provide a representation of a system or of a part of the real world for an intended use. M&S creates a digital representation of the operational environment, allowing failure and to learn while representing the forces, environment and operational context with the required fidelity. Moreover, M&S employs M&S specific resources like methodologies, methods, techniques and data to develop models and simulation systems. When M&S resources are properly used, it brings to any project transparency, objectivity and scientific rigour. As those belong to Concept Development (CD) Method principles, M&S is well suited to support CD&E projects. M&S, in combination with technologies such as data analytics and artificial intelligence, helps NATO and Allies to prepare and support decision-makers and staff to manage complexity, assess risks, and evaluate options in the multifaceted security environment.

The benefits of modelling and simulation are numerous, providing risk free experimentation, education and training, exploration of alternatives, dynamic visualization of political, military, economic, social, informational, and infrastructure environments. These challenges are crucial to assisted

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- Modelling & Simulation creates a digital representation of the operational environment
- Allows failure and to learn while representing the forces, environment and operational context with the required fidelity
- Employs M&S specific resources like methodologies, methods, techniques and data to develop models and simulation systems
- Brings to any project transparency, objectivity and scientific rigor

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1<sup>st</sup>/2023 SCM Subject No 7

decision-making, defense planning, operations planning, mission rehearsal, education, training, exercises, wargaming, analytical studies, and lessons learned. SACT's vision and intent for 2023, identify "Better Understanding" as a Strategic Priority. In this regard, leveraging Innovation and Agility is of paramount importance and ACT intends to accelerate and scale up NATO Experimentation and Wargaming levels of activity, with the Nations, Academia and industry, to drive forward NATO understanding, knowledge and assessment of emerging trends, opportunities and threats. Respectively, by "Maintaining Technological Edge / Strategic Advantage" as a strategic enabler of the aforementioned priority, SACT intends to leverage the understanding, experimentation, adoption and application of new and emerging technologies to accelerate transformation.

**ANALYSIS & STATUS:** In line with SACT's vision and intent for 2023 and in accordance with IAMD COE's Medium-Term Operational Plan for 2025-2029, the Centre is scheduled to develop an M&S - Analysis Laboratory. Creating an M&S - Analysis Laboratory will help IAMD - COE to improve its capabilities as an IAMD stakeholder in many ways. Using M&S tools, IAMD COE will be capable to build scenarios, trainings and simulated exercises. The Centre will be capable of analysing, examining and propose new concepts and tactics to be implemented.

**FINANCIAL CONSIDERATIONS & FUNDING:** Any financial impacts of the aforementioned project (hardware - software requirements, etc.) will be covered a) by the existing budget of the current year [(and by transferring of appropriations within the authorization granted to the Director in accordance with Financial Administrative Procedures, if required) without the need for additional funding], and b) by the budget of the following years, within the ceilings of the Medium-Term Financial Plan, in which funds will be foreseen to support the establishment, development and operational use of a complete M&S/Analysis Laboratory.

**RECOMMENDATIONS & DECISION:** Concerning the benefits that M&S offers, SACT's vision and the vision of IAMD - COE, SC members are requested to approve the creation of a M&S Laboratory in IAMD - COE.

FOR THE IAMD COE:  
  
B. Gen (OF-6) Nikolaos KOKKONIS GRG (AF)  
IAMD COE Director

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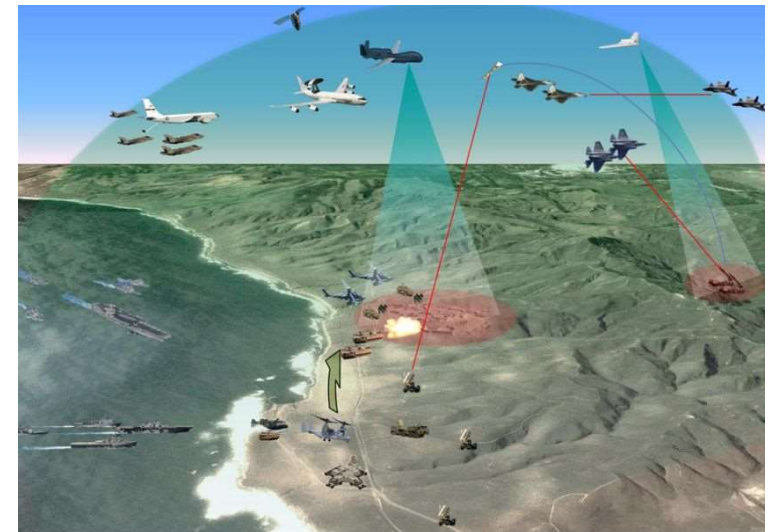
## IAMD– CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

### ➤ IAMD THREATS

- ❖ Rockets, Artillery and Mortars (RAM),
- ❖ Adversaries' aircraft,
- ❖ Precision Guided Munitions (PGM),
- ❖ Un-crewed Aerial Systems (UAS),
- ❖ Missiles (ballistic and maneuverable),
- ❖ Advanced high-speed weapons

### ➤ Emerging and disruptive technologies' Defence opportunities/Objectives

- ❖ Automation
- ❖ Artificial intelligence
- ❖ Digitisation
- ❖ Modular technologies







## IAMD– CoE’s Modelling & Simulation (M&S)/ Analysis Laboratory

### 2023 SACT’S vision and intent

#### ➤ STRATEGIC PRIORITIES

- ❖ NATO as an MDO-enabled Alliance
- ❖ Adaptation to Deterrence and Defence
- ❖ **Better Understanding**

“How can we improve the Alliance’s ability to better understand the environment and enable the Alliance to be more proactive in shaping the environment to our advantage?”

#### ➤ STRATEGIC ENABLERS

- ❖ Maintain Technological Edge/Strategic Advantage
- ❖ Enhanced and Exploited Networks
- ❖ A Modernized, Informed and Agile HQ





## IAMD– CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

### 2023 SACT'S vision and intent

#### ➤ STRATEGIC PRIORITY – Better Understanding

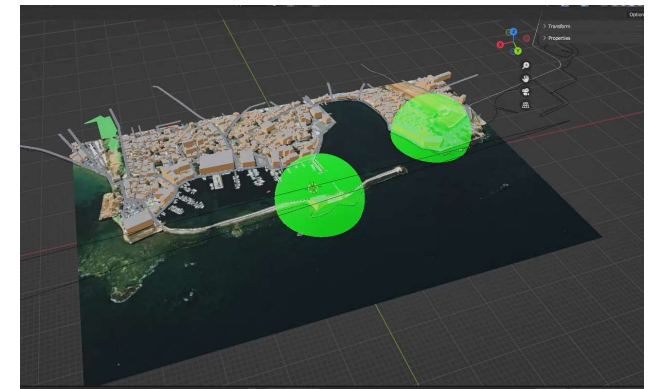
Leverage innovation and agility and scale up NATO experimentation and wargaming levels of activity, with the Nations, Academia and Industry to drive forward NATO understanding, knowledge and assessment of emerging trends, opportunities and threats.



## IAMD– CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

### Benefits of modeling and simulation

- Risk free experimentation
- Education and training
- Exploration of alternatives
- Dynamic visualization of political, military, economic, social, informational, and infrastructure environments
- Assisted decision-making, defense planning, operations planning, mission rehearsal, education, training, exercises, wargaming, analytical studies, and lessons learned.







### IAMD– CoE’s Modelling & Simulation (M&S)/ Analysis Laboratory

#### Comments sent by TÜR SC Member

- Point paper purpose is written as: “To approve the IAMD – CoE’s project to create a M&S / Analysis Laboratory.”
- Recommendations & Decision part is written as: “concerning the benefits that M&S offers, SACT’s vision and the vision of IAMD – COE, SC members are requested to approve the creation of a M&S Laboratory in IAMD – COE.”





## IAMD– CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

### Recommendations by TÜRK SC Member

- It will be better to change the SC approval part as 'Searching Feasibility of Creation of a M&S Laboratory in IAMD COE.'
- Searching what is the need.
- How much financial investment will be required and procedures of usage laboratory (may be extra technical personnel workforce will be needed to run the facility etc.)
- Instead of directly approving execution of this Project by SC members without knowing in detail, it will be better to prepare a feasibility report for SC members before and discuss what steps to do in future in the next SC meeting/s





# CD&E POW 2023 rev.2



## IAMD– CoE’s Modelling & Simulation (M&S)/ Analysis Laboratory

### Feasibility Study

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		<b>INTEGRATED AIR &amp; MISSILE DEFENCE CENTRE OF EXCELLENCE</b> Souda Air Base, 73100, Chania <a href="https://www.iamd-coe.org">https://www.iamd-coe.org</a>		
<b>Our Ref:</b>	NU.	<b>Tel.:</b>	+302821440781	
<b>Date:</b>	2023	<b>NCN:</b>	302-615-4081	
		<b>Email:</b>	info@iamd-coe.org	
<b>TO:</b>	See Distribution			
<b>SUBJECT:</b>	<b>IAMD– CoE’s Modelling &amp; Simulation (M&amp;S)/ Analysis Laboratory Feasibility Study</b>			

#### 1 Introduction

Modelling and simulation (M&S) is a discipline that develops and/or uses models, simulations and simulation systems. A model is a physical, mathematical, or otherwise logical representation of a system, entity, phenomenon, or process. Simulation is the execution of a system model over time and simulation system is a combination of interacting elements or components organised to provide a representation of a system or of a part of the real world for an intended use. M&S creates a digital representation of the operational environment, allowing failure and to learn while representing the forces, environment and operational context with the required fidelity. Moreover, M&S employs M&S specific resources like methodologies, methods, techniques and data to develop models and simulation systems. When M&S resources are properly used, it brings to any project transparency, objectivity and scientific rigour. As those belong to Concept Development (CD) Method principles, M&S is well suited to support CD&E projects. M&S, in combination with technologies such as data analytics and artificial intelligence, helps NATO and Allies to prepare and support decision-makers and staff to manage complexity, assess risks, and evaluate options in the multifaceted security environment.

The benefits of modeling and simulation are numerous, providing risk free experimentation, education and training, exploration of alternatives, dynamic visualization of political, military, economic, social, informational, and infrastructure environments. These challenges are crucial to assisted decision-making, defense planning, operations planning, mission rehearsal, education, training, exercises, wargaming, analytical studies, and lessons learned.

#### 2 Background

NATO recognized the value of M&S. The lack of an appropriate in-house simulation capability resulted in simulation work being outsourced to a Nation. NATO acknowledged the critical nature of the results and that access to a comparable capability was essential to provide more effective, efficient operational and strategic studies.

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## IAMD– CoE's Modelling & Simulation (M&S)/ Analysis Laboratory

### Feasibility Study

1. Introduction
2. Background
3. Project Advantages
4. Project Analysis
5. Considerations and Recommendations





# IAMD– CoE's M&S/ Analysis Laboratory



## Feasibility Study

### 3. Project Advantages

- Improve the already existing SBAMD CET–P course/Create new courses
- Create and organise TTX/CAX exercises related to IAMD
- Test new methods / Propose improvements on NATO's IAMD
- Create new IAMD Concepts
- Create Analysis and Lessons Learned by examining live exercises results.
- Contribute to a multilayered IAMD approach
- Upgrade IAMD COE's capabilities & footprint as an IAMD Stakeholder



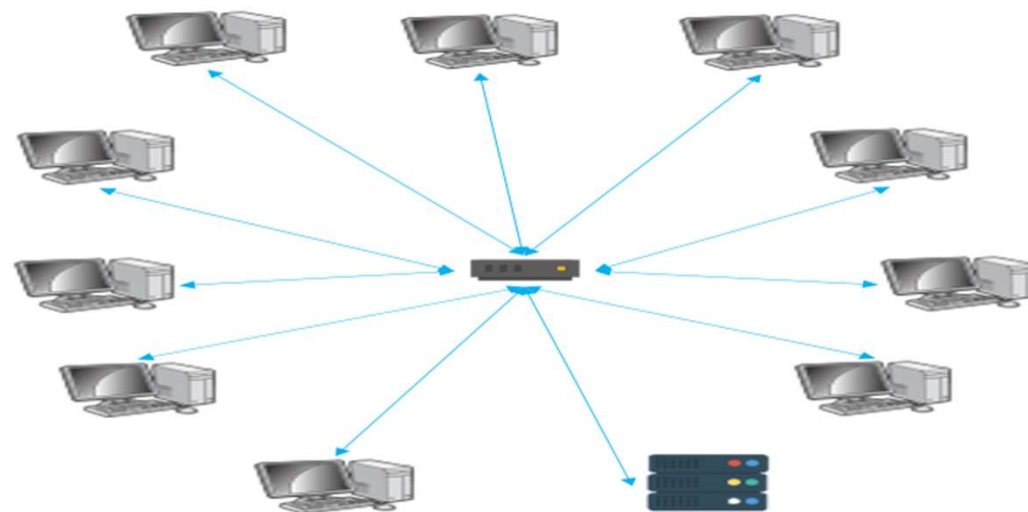
## Feasibility Study

### 4. Project Analysis

#### ➤ Potential Hardware Analysis

#### 1<sup>st</sup> PROPOSAL

Stationary (not mobile) M&S – Analysis Laboratory





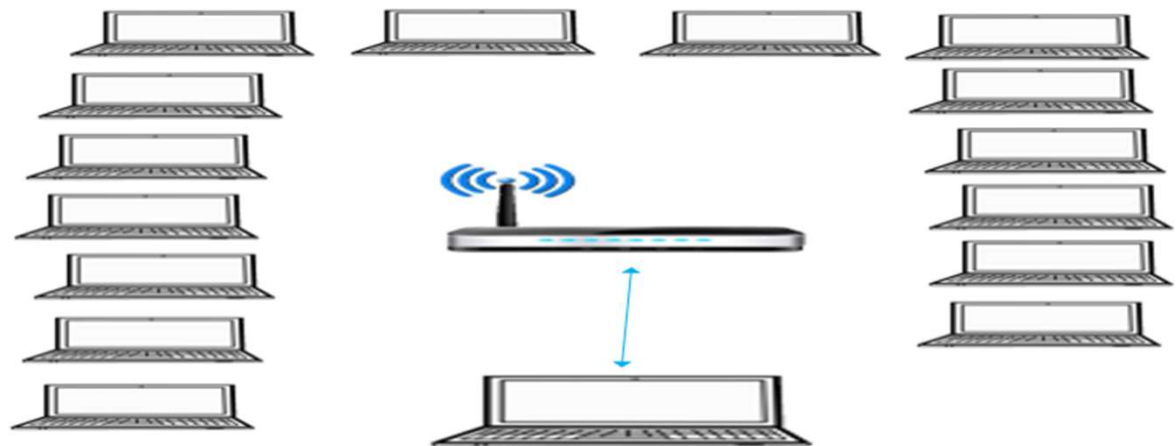
## Feasibility Study

### 4. Project Analysis

#### ➤ Potential Hardware Analysis

#### 2<sup>nd</sup> PROPOSAL

#### Mobile M&S – Analysis Laboratory







# IAMD– CoE's M&S/ Analysis Laboratory



## Feasibility Study

### 4. Project Analysis

#### ➤ Potential Software Analysis

- Integrated Command and Control Software (ICC)
- CRC System Interface (CSI)
- Interactive Simulation Package (ISP)
- Ship–Shore–Ship Buffer (SSSB)
- NATO Air Command Control Information Services (AirC2IS)
- Joint Exercise Management Module (JEMM)
- Build our own Simulator S/W or Buy one from Industry



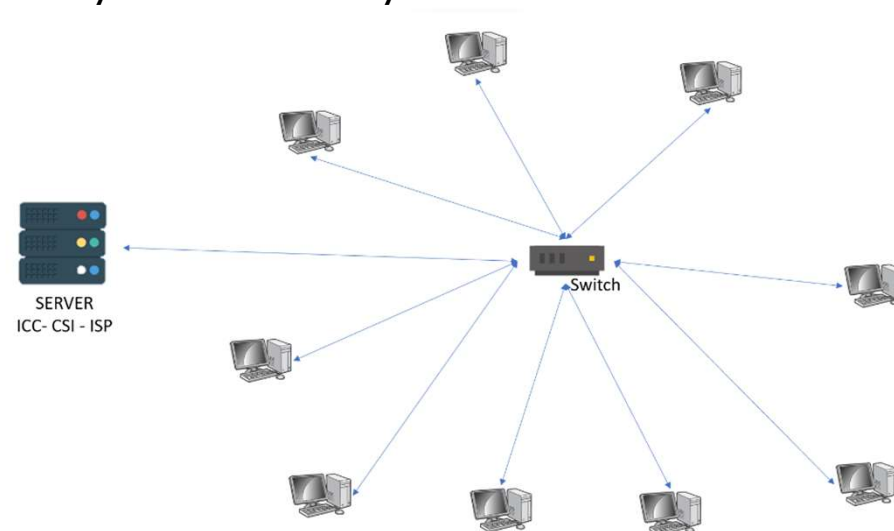
## Feasibility Study

### 5. Considerations

IAMD COE needs, S/W, H/W, Human Resources

### Recommendations

- Stationary (not mobile) M&S – Analysis Laboratory

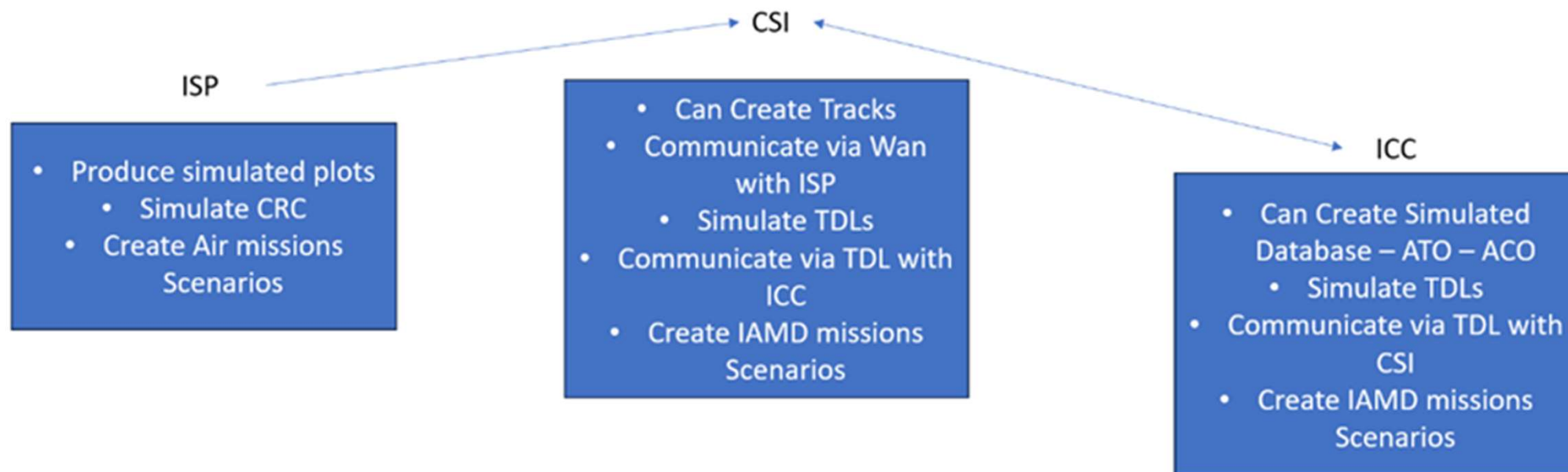




## Feasibility Study

### 5. Recommendations

- Software that NATO uses (ICC, CSI & ISP)







# IAMD– CoE's M&S/ Analysis Laboratory



## Feasibility Study

### 5. Budget Considerations

#### H/W

PCs & Peripherals  $\approx$  14.000 – 15.000 € (within 2023 budget)

Server (use of existing equipment – no burden for the Centre's budget)

#### S/W (ICC, CSI, ISP)

Operation, maintenance, upgrading and renewal of any subscriptions  
( $\approx$  1.000 – 2.500 € annually within the budget of current and future years)





## Recommendations & Decisions

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SC members to *approve* about the CD&E's new items for POW23 rev.2.

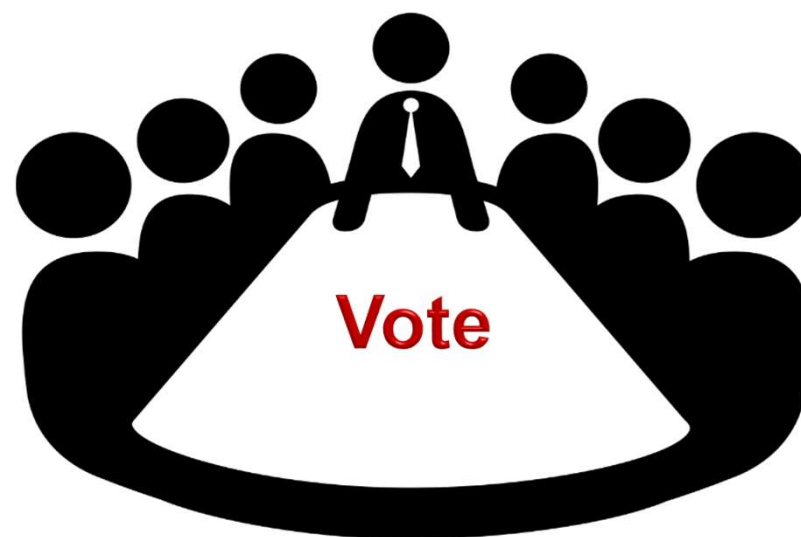




Questions











15 minutes

## COFFEE BREAK

Next AGENDA Item: PoW 2024 (Introduction of New Items)







## RAP Files 9-10

### E&T Branch, New Items to PoW 2024



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Col. (OF-5) Ozkan ORUC, TUR (A)  
E&T Branch Head

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# POW-2024, New Items



1<sup>st</sup> /2023 SCM

Subject No 9



**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



## 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 572	<b>Tel.:</b>	+302821440741
		<b>NCN:</b>	302-615-4041
<b>Date:</b>	28 Jul 2023	<b>Email:</b>	<a href="mailto:info@iamd-coe.org">info@iamd-coe.org</a>

**TO:** See Distribution

**SUBJECT:** Combined Air Operations Centre (CAOC) - IAMD Tactical Education and Training.

**Means of Delivery :** Residential  
**Location :** CAOC UEDEM/TRJON  
**Fee :** No cost (Travel cost on IAMD COE)  
**AIM :** To collaborate with CAOCs in IAMD issues to make contributions to NATO Multi-Domain Operations concept and enhance the efficiency of SBAMD CET-P by being a part of the activity.





# POW-2024, New Items



1<sup>st</sup>/2023 SCM

Subject No 10



## INTEGRATED AIR & MISSILE DEFENCE CENTRE OF EXCELLENCE

Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



## 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 573	<b>Tel.:</b>	+302821440712
		<b>NCN:</b>	302 - 6154012
<b>Date:</b>	28 Jul 2023	<b>E-mail:</b>	<a href="mailto:info@iamd-coe.org">info@iamd-coe.org</a>

**TO:** See Distribution

**SUBJECT:** **International Public Sector Accounting Standards (IPSAS) Training**

**Means of Delivery** : Distance Learning

**Fee** : ~ 300 €

**AIM** : To equip FINCON with adequate and comprehensive knowledge of accounting system of the Centre pursuant to the provisions of NATO Financial Regulations to create and maintain accounting records (journal entries), develop the entire fiscal system and prepare the annual financial statements, individual initiatives etc.





## E&T Branch – POW-2024

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SC members to *approve* the new items to PoW–2024

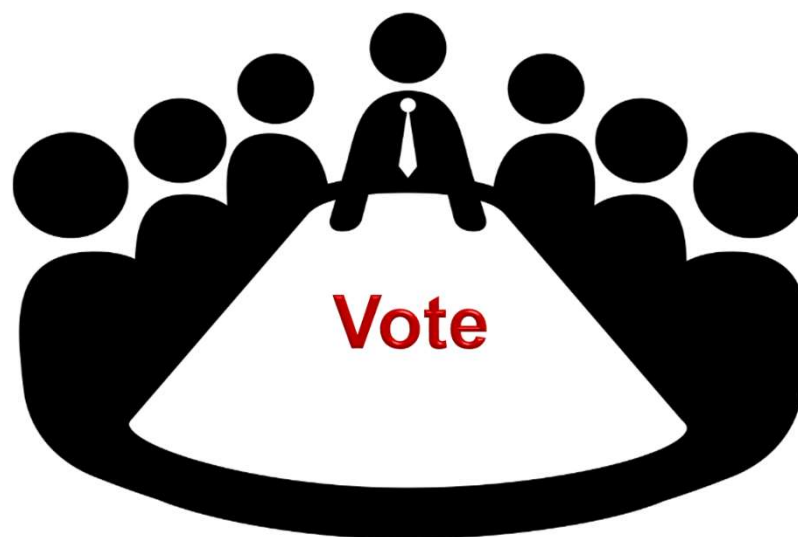




## Questions







## POW 2024 (Introduction of new items)







## RAP Files 11,13,14 D&S Branch new entries for 2024



10'

LTC (OF-4) Sylvain RYCKEBUSCH, FR Air and Space Force  
Doctrine & Standardization Branch Head







## D&S Branch new entries 2024



### 3 proposals related to BMD issues :

- ▶ Subject No 11 : NIMBLE TITAN 26 Experimentation Campaign
- ▶ Subject No 13 : BMD OUG participation
- ▶ Subject No 14 : BMD TEAM participation





# D&S Branch new entries 2024



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1<sup>st</sup> /2023 SCM

Subject No 11



**INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE**  
Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



## 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 574	<b>Tel.:</b>	+302821440771
		<b>NCN:</b>	302-615-4071
<b>Date:</b>	28 Jul 2023	<b>Email:</b>	info@iamd-coe.org

**TO:** See Distribution

**SUBJECT:** NIMBLE TITAN 26 Experimentation Campaign

**No:** 11

**PURPOSE:** To approve the participation NIMBLE TITAN 26 Experimentation Campaign.

**BACKGROUND:** NIMBLE TITAN is an Integrated Air and Missile Defence (IAMD) wargaming campaign of experimentation, set in a notional scenario 10 years in the future. It is the premier forum of U.S. Strategic Command for informing IAMD national security and military policy among U.S. allies and partners. As an "experiment", its construct is designed to stimulate participants to think outside of the constraints of current international and national norms, policies, and procedures via the Chatham House Rule. Events consist of pre-crisis and crisis planning, crisis wargames, seminars, and senior leader engagements. The current participant nations and organizations collectively shape all NT activities and products.

**ANALYSIS & STATUS:** NIMBLE TITAN 26 Experimentation Campaign is a BMD Experimentation led by USA involving NATO countries and NATO Partners at strategic and operational levels looking ahead to 2040. The objectives are Understanding the Environment, preparing to Meet the Threat and responding to the Threat.

In general, the first event is a Campaign Design Conference (CDC), a forum designed to validate current objectives and determine the structure and schedule of events. Campaigns will consist of several Execution Events and a culminating Senior Leader Capstone. The type and number

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Subject No 11

of events is not predefined. Rather, campaign structure is determined by pre-approved objectives submitted by the Steering Committee (SC) at the CDC. For each Execution Event there is a Design Workshop (DW) to determine the event scope/structure/requirements, followed by a Planning Workshop (PW) to develop all necessary materials to execute the event. The length of all execution events will be proposed at the end of a DW and approved by the SC.

### FINANCIAL CONSIDERATIONS & FUNDING:

Any financial requirements of the aforementioned training will be covered from the budget of the following years (being budgeted for FY 2024 - as draft budget prepared) without prejudice/impact to the conduct of other activities of the Centre.

### RECOMMENDATIONS & DECISION:

SC members are requested to approve the participation of SMEs in the NIMBLE TITAN 26 Experimentation Campaign from year 2024.

FOR THE IAMD COE:

  
B. Gen (OF-6) Nikolaos KOKKONIS GRC (AF)  
IAMD COE Director

Disclaimer: This is a document of the Integrated Air & Missile Defence Centre of Excellence (IAMD COE). It is produced for specific motives with regard to the IAMD COE Program of Work and does not necessarily reflect the notions of NATO or the Participating States of IAMD COE.

DISTRIBUTION (via e-mail if not otherwise stated)

### External

Action: IAMD COE SC - Members

Information: -

### Internal

Action: D&S BRANCH

Information: DIRECTOR

-2-





# D&S Branch new entries 2024



NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM

Subject No 13



## INTEGRATED AIR & MISSILE DEFENCE CENTRE OF EXCELLENCE

Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



### 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 576	Tel.:	+302821440771
		NCN:	302-615-4071
<b>Date:</b>	28 Jul 2023	Email:	info@iamd-coe.org

**TO:** See Distribution

**SUBJECT:** Ballistic Missile Defence Operational User Group (BMD OUG)

**No:** 13

**PURPOSE:** To approve the participation in the activities of the BMD OUG.

**BACKGROUND:** The BMD OUG supports the Capability Management Authorities (CMA). The BMD OUG is a user centric collaboration forum for the development, implementation, acceptance and operational evolution of the BMD capability.

**ANALYSIS & STATUS:** The BMD OUG supports the CMA by executing the Capability Management Functions (CMF) in the context of the Common Funded Capability Delivery Governance Model (CFCDGM). It operates at the management level of CFCDGM and is independent from the BMD governance structures.

The BMD OUG includes all active BMD nations and related organizations (like NCIA) that participate and contribute to the development of the BMD Program from ETEE, doctrine, concept and operational perspectives.

#### **FINANCIAL CONSIDERATIONS & FUNDING:**

Any financial requirements of the aforementioned training will be covered from the budget of the following years (being budgeted for FY 2024 - as draft budget prepared) without prejudice/impact to the conduct of other activities of the Centre.

**RECOMMENDATIONS  
& DECISION:** SC members are requested to approve the participation of SMEs in the aforementioned BMD OUG activities from year 2024.

NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM

Subject No 13

FOR THE IAMD COE:

B. Gen (OF-6) Nikolaos KOKKONIS GRC (AF)  
IAMD COE Director

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DISTRIBUTION (via e-mail if not otherwise stated)

#### **External**

Action: IAMD COE SC - Members

Information: -

#### **Internal**

Action: D&S BRANCH

Information: DIRECTOR

NATO UNCLASSIFIED





# D&S Branch new entries 2024



NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM

Subject No 14



## INTEGRATED AIR & MISSILE DEFENCE CENTRE OF EXCELLENCE

Souda Air Base, 73100, Chania  
<https://www.iamd-coe.org>



### 1<sup>st</sup>/2023 Steering Committee Meeting POINT PAPER

<b>Our Ref:</b>	NU. 577	<b>Tel.:</b>	+302821440771
		<b>NCN:</b>	302-615-4071
<b>Date:</b>	28 Jul 2023	<b>Email:</b>	<a href="mailto:info@iamd-coe.org">info@iamd-coe.org</a>

**TO:** See Distribution

**SUBJECT:** Ballistic Missile Defence Test and Exercise Annual Meeting (BMD TEAM) Activities

**No:** 14

**PURPOSE:** To approve the participation in the activities of the BMD TEAM.

**BACKGROUND:** The BMD TEAM focusing on development of the 2-year test and exercise schedule for the NATO BMD Capability delivery and to foster shared awareness of needs and availability of each stakeholder.

**ANALYSIS & STATUS:** The BMD TEAM gathered all key organizations and Nations involved in the BMD mission to share schedule information, to improve the planning and the participation in BMD events and to enable de-conflicting stakeholders' needs.

The BMD TEAM give the opportunity to exchange between stakeholders to clarify possible synergies, such as co-locating meetings or combining test objectives for common interest groups, which will enable more efficient planning and allocation of BMD resources.

The BMD TEAM is led by the NCI Agency which brings its knowledge of the delivery schedule for NATO BM Command, Control, Communications and intelligence (BMC3I).

#### FINANCIAL CONSIDERATIONS & FUNDING:

Any financial requirements of the aforementioned training will be covered from the budget of the following years (being budgeted for FY 2024 - as draft budget prepared) without prejudice/impact to the conduct of other activities of the Centre.

NATO UNCLASSIFIED  
RELEASABLE FOR INTERNET TRANSMISSION

1<sup>st</sup> /2023 SCM

Subject No 14

**RECOMMENDATIONS & DECISION:** SC members are requested to approve the participation of SMEs in the aforementioned BMD TEAM activities from year 2024.

FOR THE IAMD COE:

B. Gen (OF-6) Nikolaos KOKKONIS GRC (AF)  
IAMD COE Director

Disclaimer: This is a document of the Integrated Air & Missile Defence Centre of Excellence (IAMD COE). It is produced for specific motives with regard to the IAMD COE Program of Work and does not necessarily reflect the notions of NATO or the Participating States of IAMD COE.

DISTRIBUTION (via e-mail if not otherwise stated)

#### External

Action: IAMD COE SC - Members

Information: -

#### Internal

Action: D&S BRANCH

Information: DIRECTOR





## Recommendations & Decisions



SC members to **approve** the participation to the BMD activities listed below after the presentation of the POW 2024 from POW Manager as scheduled in the agenda

- ▶ Subject No 11 : NIMBLE TITAN 26 Experimentation Campaign
- ▶ Subject No 13 : BMD OUG participation
- ▶ Subject No 14 : BMD TEAM participation

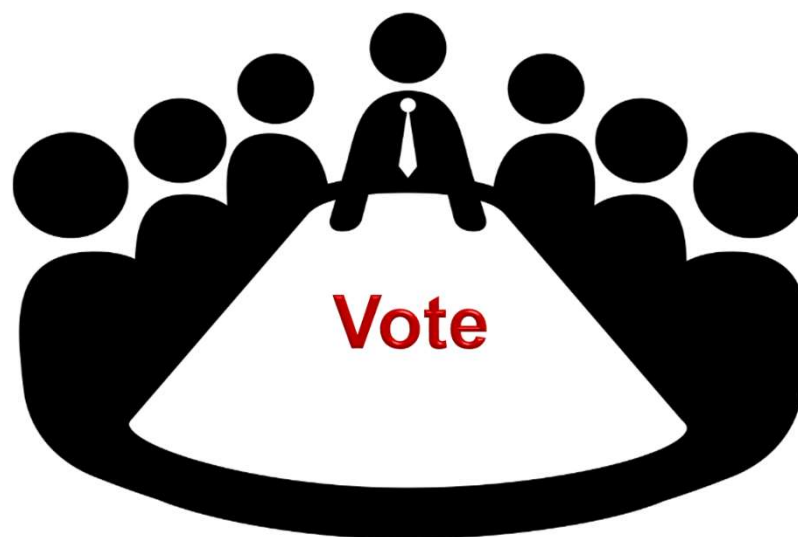




Questions







## POW 2024 (Introduction of new items)







## RAP File 15 POW 2024



15'

Cdr (OF-4) Efstratios PEROUTSEAS, GRC N  
ET Branch – POW Manager







# POW 2024



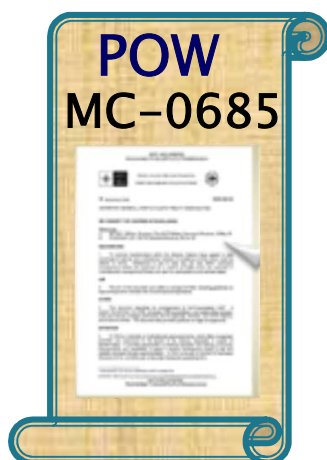
## TOPICS

- ▶ Introduction of POW 2024
- ▶ Cooperation with NATO Entities
- ▶ WGs-Workshops
- ▶ Conferences & Forums
- ▶ Trainings
- ▶ Exercises
- ▶ Requests for Support
- ▶ Statistics



# Programme of Work 2024

## Introduction



Set out the COEs activities, services and products for the course of a calendar year.

Include the long-term perspective of the COEs activities.

Be executed in coordination with COE and ACT





## Programme of Work 2024 Cooperation with NATO Entities (1/2)



	POW 2024 # item	Date	Title	Location	Remarks
1.	<b>#29</b>	TBD	Annual Conference / Coordination Meeting for each COE pillar conducted by ACT	TBD	Annual Events
2.	<b>#35</b>	TBD	Department Head (DH) Forum and Individual Training and Education Programme (ITEP) Planning Board (IPB) 2024	TBD	Annual Event
3.	<b>#31</b>	TBD	2 <sup>nd</sup> IAMD Annual Discipline Conference	TBD	Annual Event





## Programme of Work 2024 Cooperation with NATO Entities (2/2)



	POW 2024 # item	Date	Title	Location	Remarks
4.	<b>#32</b>	TBD	IAMD CoE meetings with IAMD stakeholders (JAPCC and AO COE , CCSBAMD, HQ AIRCOM and other NATO Entities)	TBD	Annual Events
5.	<b>#36</b>	TBD	NATO Warfighting Capstone Concept (NWCC) & Warfare Development Agenda (WDA)	TBD	To be continued from 2023





## Programme of Work 2024 WGs-Workshops (1/2)



	POW 2024 # item	Date	Title	Location	Remarks
1.	<b>#23</b>	TBD	NATO Counter Unmanned Aerial Systems (C-UAS) WG, activities and exercises (e.g. Technical Interoperability Exercise series)	TBD	To be continued from 2023
2.	<b>#24</b>	TBD	Joint Capability Group (JCG) Unmanned Aircraft Systems	TBD	To be continued from 2023
3.	<b>#26</b>	TBD	JCG SBAMD 2024 (Joint Capability Group in Surface Based Air and Missile Defence)	TBD	To be continued from 2023
4.	<b>#38</b>	TBD	NATO Modelling and Simulation (M&S) Group (NMSG)	TBD	To be continued from 2023





## Programme of Work 2024 WGs-Workshops (2/2)



	POW 2024 # item	Date	Title	Location	Remarks
5.	<b>#39</b>	TBD	C-UAS 353 Research Task Group (RTG)	TBD	To be continued from 2023
6.	<b>#40</b>	TBD	Common synthetic environment for validation (or operation) of offensive and defensive architectures for Hypersonic Operational Threats (HOT) Research Task Group (RTG)	TBD	To be continued from 2023
7.	<b>#25</b>	TBD	COE Legal Advisors and Financial Controllers Workshop 2024	TBD	Annual Event
8.	<b>#42</b>	01/01/2024 31/12/2028	PROJECT: IAMDCOE Modelling & Simulation Laboratory	TBD	<b>New Item</b>





## Programme of Work 2024 Conferences - Other activities (1/3)



	POW 2024 # item	Date	Title	Location	Remarks
1.	<b>#33</b>	TBD	CA2X2 2024 Forum - M & S Sprint Week	TBD	Annual Event
2.	<b>#37</b>	TBD	IAMD COE Marketing Plan	TBD	To be continued from 2023
3.	<b>#18</b>	TBD	2024 COE Marketplace	TBD	Bi-Annual Event
4.	<b>#15</b>	TBD	Annual COE's Directors Conference 2024	TBD	Annual Event
5.	<b>#28</b>	TBD	Annual NATO Operations Research and Analysis Conference	TBD	Annual Event





## Programme of Work 2024

### Other activities - Conferences (2/3)



	POW 2024 # item	Date	Title	Location	Remarks
6.	<b>#31</b>	June 24 TBC	3rd Annual IAMD COE conference	Chania, (GRC)	Annual Event
7.	<b>#30</b>	TBD	International Air Defence Conference Organized by CZE UNIVERSITY OF DEFENCE	BRNO (CZE)	Annual Event
8.	<b>#34</b>	TBD	IAMD COE Steering Committee Meeting SC 2024	IAMD COE	Annual Event





## Programme of Work 2024 Conferences - Other activities (3/3)



	POW 2024 # item	Date	Title	Location	Remarks
9.	<b>#41</b>	TBD	External Audit of Financial Statements	IAMD COE	<b>New Item</b> The SC should determine the period and the body that shall perform an external audit of IAMD COE's financial statements in accordance with IAMD COE Operational MOU (FAPs, par. 8.1)
10.	<b>#43</b>	TBD	BMD Operational User Group	TBD	<b>New Item</b>
11.	<b>#44</b>	TBD	BMD Test and Exercise Annual Meeting (BMD TEAM)	TBD	<b>New Item</b> Annual Event





## Programme of Work 2024 Trainings (1/2)



	POW 2024 # item	Date	Title	Location	Remarks
1.	#1	TBD	NSO Training Courses 2024	NSO, DEU	Annual NSO Course Bidding Process (List of Courses in Annex A of POW24 in RAP)
2.	#3	TBD	Training courses- seminars related to D & S pillar	TBD	e.g -Drafting, production and maintenance of NATO Standards (NMIOTC 25000) -Allied Joint Doctrine Development Course -Standardization within NATO Course
3	#4	TBD	Training courses- seminars related to A & LL pillar	TBD	e.g -NATO Lessons Learned Portal Manager course - NATO Lessons Learned Staff Officer course
4	#5	TBD	Training courses- seminars related to E & T pillar	TBD	e.g -NATO SOF Instructor Training Course or Train the Trainers Technical Instructor Course





## Programme of Work 2024 Trainings (2/2)



	POW 2024 # item	Date	Title	Location	Remarks
5.	#2	TBD	Training courses- seminars related to IAMD domain (Not in NSO)	TBD	e.g C-IAMD Course, Missile Defence Planning Course (on AIRC2IS). Ballistic Missile Defence (BMD) Orientation Seminar, etc.
6.	#6	TBD	International Public Sector Accounting Standards (IPSAS) e-learning training.	Kapodistrian University of Athens (E-learning)	New Item
7.	#7	22-26 Apr 24 (3 <sup>rd</sup> Iteration ) 04-09 Nov 24(TBC) (4 <sup>th</sup> Iteration) 1 <sup>ST</sup> MTT (TBC)	<b><u>Conduct</u></b> SBAMD Common Education & Training Program (CET-P)	IAMD COE & MTT (TBC)	To be continued from 2023 MTT to be provided upon request





## Programme of Work 2024 Exercises (1/1)



	POW 2024 # item	Date	Title	Location	Remarks
1.	#8	TBD	EXERCISES organized by NATO Nations - MOD	TBD	e.g. -JPOW -ASTRAL KNIGHT -NIMBLE TITAN (new item)
2.	#9	TBD	NATO EXERCISES	TBD	e.g. - RACE - STAL -RALY - STJU





## Programme of Work 2024 Requests for Support (RfS) (1/3)



	POW 2024 # item	RfS No	Title / Rfs	Requestor	Timeframe	Status
1.	<b>#10</b>	21#078	Layered Resilience Concept (NWCC deliverable)	HQ SACT	01/09/2021 31/12/2025	<b>ACCEPTED &amp; IN PROGRESS</b>
2.	<b>#17</b>	23#013	NATO Lessons Learned Conference 2024 /	HQ SACT	01/02/2024 30/06/2024	<b>FEASIBLE</b>
3.	<b>#11</b>	23#034	LL related to the situation in and around Ukraine (2024)	HQ SACT	01/01/2024 31/12/2024	<b>FEASIBLE</b>
4.	<b>#21</b>	23#035	COE Support to NATO Lessons Learned Process	HQ SACT	01/01/2024 31/12/2024	<b>FEASIBLE</b>
5.	<b>#16</b>	23#164	NATO Defence Planning Process	HQ SACT	01/01/2024 31/12/2024	<b>FEASIBLE</b>





## Draft Programme of Work 2024 Requests for Support (RfS) (2/3)



	POW 2024 # item	RfS No	Title/Rfs	Requestor	Timeframe	Status
6.	#12	21#005, 23#258	ACT CPD Branch Coordination VTCs	HQ SACT CPD	01/01/2024 31/12/25	FEASIBLE
7.	#22	21#007, 23#260	Support to NATO Doctrine	HQ SACT CPD	01/01/2024 31/12/25	FEASIBLE
8.	#13	21#008, 23#262	COE Support to Education and Training activities	HQ SACT CPD	01/01/2024 31/12/25	FEASIBLE
9.	#14	21#009, 23#261	COE Support to NATO in the Role of the Department Head	HQ SACT CPD	01/01/2024 31/12/25	FEASIBLE





# Programme of Work 2024 Requests for Support (RfS) (3/3)

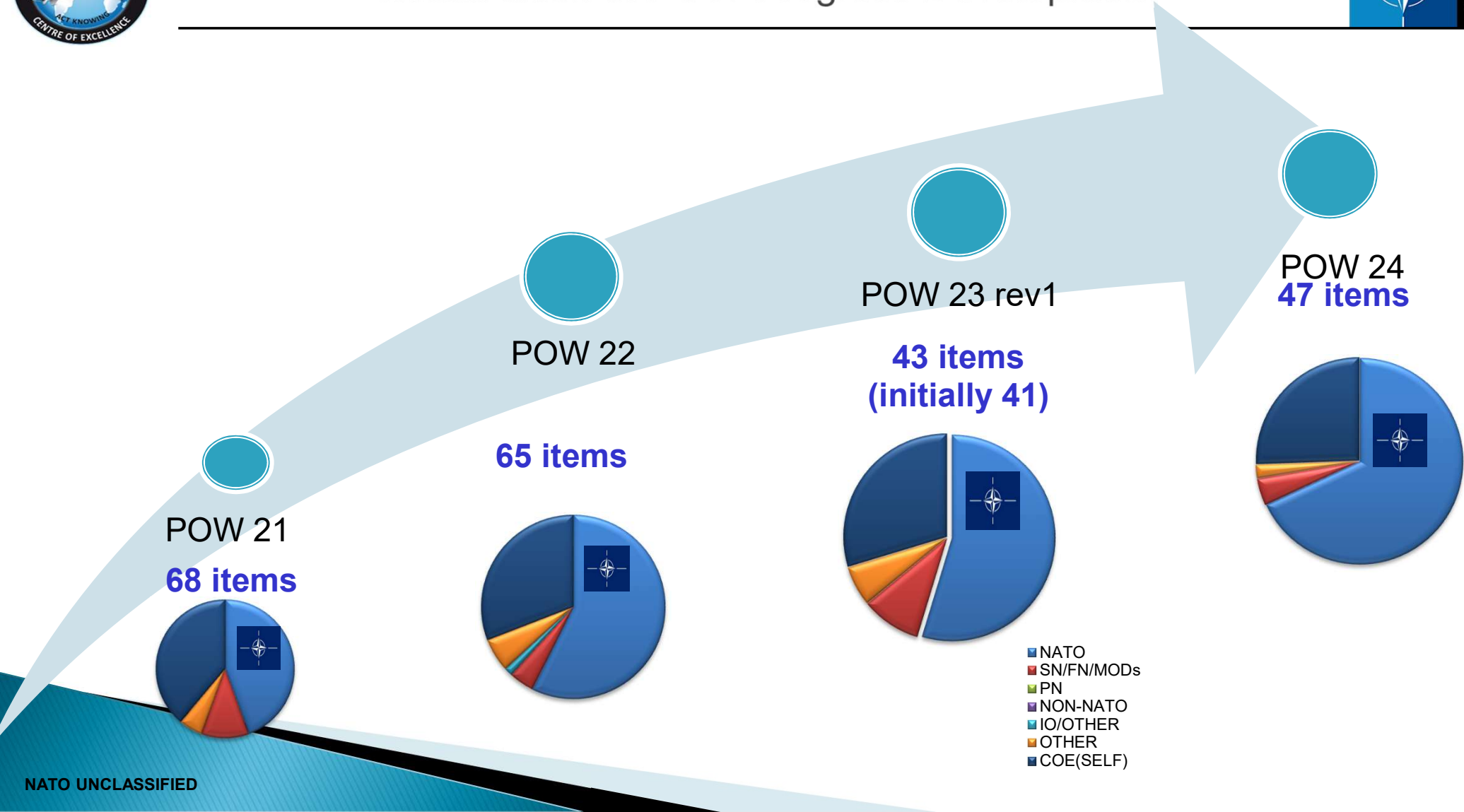


	POW 2024 # item	RfS No	Title/RfS	Requestor	Timeframe	Status
10.	<b>#46</b>	23#168	Understanding the Human Factors in Multi-Domain Operations: Implications for Training and Performance Enhancement	ACT ETPP Branch	01/08/2023 31/12/2024	<b>FEASIBLE</b> Continued from 2023 <b>Pending</b> <b>POW 23 rev.2 Approval</b>
11.	<b>#45</b>	23#169	Understanding the Instruments of Power effects on Military IoP in Multi-Domain Operations from training perspective	ACT JFD ETPP	01/07/2023 01/01/2026	<b>FEASIBLE</b> Continued from 2023 <b>Pending</b> <b>POW 23 rev.2 Approval</b>
12.	<b>#47</b>	23#171	Support to NATO Distributed Synthetic Training (DST)	STO CSO MSCO (NMSG) (DST)	01/07/2023 31/12/2024	<b>FEASIBLE</b> Continued from 2023 <b>Pending</b> <b>POW 23 rev.2 Approval</b>





# Visualization of POW Progress Development







Questions







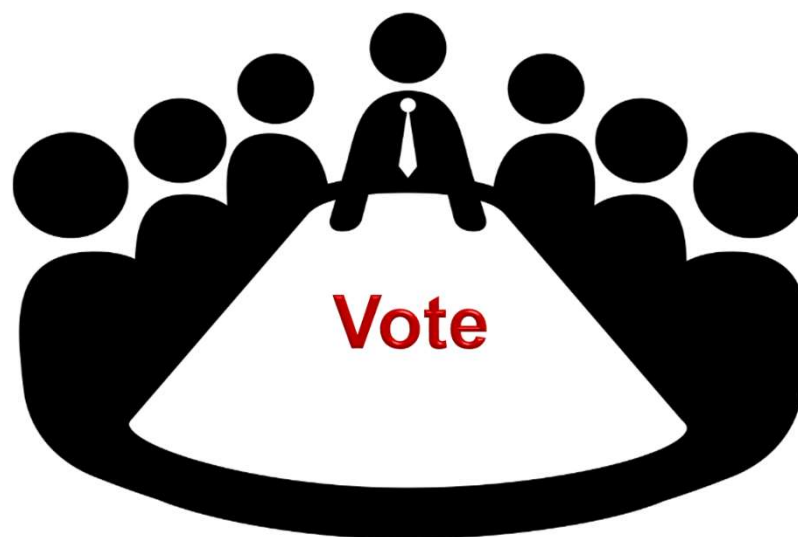
## Recommendations & Decisions

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SC members are kindly requested to **approve** POW 2024.





**POW 2024**







# LUNCH BREAK

BACK ON 14:30







## Cooperation with Technical University of Crete



20'

COL (OF-5) Emmanouil PANOU, GRC AF  
CD & E Branch Head





# Cooperation with Technical University of Crete

## ➤ FRAMEWORK AGREEMENT (13 JULY 2021)

**FRAMEWORK AGREEMENT  
FOR COOPERATION**

Between

the **Technical University of Crete (TUC),  
School of Production Engineering and Management,  
Turbomachines and Fluid Dynamics Laboratory**

and

the **Integrated Air and Missile Defence Centre of Excellence (IAMD COE),**

concerning the development of cooperation on education, training, research and experimentation amongst the two organizations

Introduction

The *Turbomachines and Fluid Dynamics Laboratory (TurboLab – TUC)* of the School of Production Engineering and Management of the Technical University of Crete (TUC) and the *Integrated Air and Missile Defence Centre of Excellence (IAMD COE)*, hereinafter referred to collectively as “the Participants”, being the authorities responsible for the implementation of the present agreement, seek to enhance relations between the two organizations by developing cooperation in the fields of education, training, research and experimentation.


Section 1  
Modes of Cooperation

With respect to the operational and security regulations as well as the availability of resources of each Participant, the following modes of cooperation are encouraged:

- Exchange of experts for participation in lectures, conferences, workshops, panel discussions and other educational and academic activities;
- Exchange of publications, teaching materials and other non-classified information, in fields of common interest;



COL (OF-5)  
Evangelos  
TZIKAS GRC  
(AF)  
Date: 2021.07.13  
13:47:52 +03'00'



Ioannis  
Nikolas



Digitally signed by  
Ioannis Nikolas  
Date: 2021.04.02 11:55:49  
+03'00'



Digitally signed by  
Michail Zervakis  
Date: 2021.04.02  
12:04:38 +03'00'

- Development of joint educational and research programs and activities, and/or assisting the further development of existing educational capabilities through exchange of expertise;
- Any other form of cooperation that may be jointly decided upon by the Participants.

Section 2  
Specific Cooperation Protocols

Prior to the initiation of any particular program or activity, the Participants will consult and agree in writing, regarding the specific terms of cooperation, including non-disclosure of information when deemed appropriate, within the framework of this agreement.


Section 3  
Final Provisions

3.1 This agreement will come into effect on the date of the last signature. It will remain in force for five (5) years and may be extended, renewed, amended or modified by mutual written consent of the Participants.

3.2 Either Participant may terminate this agreement, giving six (6) months written notice to the other Participant. Any program or activity that has already commenced will be completed to the best of both Participants' abilities.

3.3 The Participants do not intend to create any rights or obligations by virtue of this agreement. Dispute is to be settled only by consultations between the Participants.


Date: April 2, 2021  
Signature:



Digitally signed by  
Michail Zervakis  
Date: 2021.04.02  
12:04:05 +03'00'

Prof. Michail Zervakis  
Vice Rector of Research and  
Life-long Learning,  
Chair of the Research  
and Administration Committee,  
Technical University of Crete.


Date: April 2, 2021  
Signature:



Digitally signed by  
Ioannis Nikolas  
Date: 2021.04.02 11:55:29  
+03'00'

Prof. Ioannis K. Nikolas  
Director, Turbomachines  
& Fluid Dynamics Laboratory,  
School of Production Engineering  
& Management,  
Technical University of Crete.

Date: July 13, 2021  
Signature:



COL (OF-5)  
Evangelos  
TZIKAS GRC  
(AF)  
Colonel (HAF) Evangelos Tzikas  
IAMD COE Director





# IAMD COE-TUC FRAMEWORK AGREEMENT



## Section 1 (Modes of Cooperation)

“With respect to the operational and security regulations as well as the availability of resources of each Participant, **the following modes of cooperation are encouraged:**

- ❖ Exchange of experts for participation in lectures, conferences, workshops, panel discussions and other educational and academic activities;
- ❖ Exchange of publications, teaching materials and other non-classified information, in fields of common interest;
- ❖ Development of joint educational and research programs and activities, and/or assisting the further development of existing educational capabilities through exchange of expertise;
- ❖ Any other form of cooperation that may be jointly decided upon by the Participants.





# IAMD COE-TUC FRAMEWORK AGREEMENT



## Section 2 (Specific Cooperation Protocols )

“Prior to the initiation of any particular program or activity, the Participants will consult and agree in writing, regarding the specific terms of cooperation, including non-disclosure of information when deemed appropriate, within the framework of this agreement.”





# Cooperation with Technical University of Crete



## ➤ CONTRACT 22-04 (19<sup>th</sup> Aug 2022)

Writing, delivering and publishing of  
review paper-report

INTEGRATED AIR AND MISSILE DEFENCE  
CENTRE OF EXCELLENCE



**CONTRACT 22-04**  
**Writing, delivering and publishing of  
review paper-report**

between

INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE  
(IAMDCOE)

&

TECHNICAL UNIVERSITY OF CRETE  
(TUC)

(SPECIAL ACCOUNT FOR RESEARCH FUNDING OF THE TECHNICAL  
UNIVERSITY OF CRETE)





## General Specifications

Three (3) deliverable products–services:

(1) Writing and delivery of a review paper–report under the subject:

“Overview of international hypersonic weapons programmes, and potential ways to exploit physical phenomena around Hypersonic Weapons to improve surveillance capabilities (Detection and Tracking).”

(2) Writing and delivery of an extended abstract of the abovementioned study report.

(3) Publishing of the abovementioned paper–report into a scientific journal or magazine.





# Cooperation with Technical University of Crete



- Invitation For Bidding FINCON 22-11
- **PART III SPECIAL PROVISIONS & TECHNICAL SPECIFICATIONS (STATEMENT OF WORK-SOW)**

CONFIDENTIAL

**INTEGRATED AIR AND MISSILE DEFENCE  
CENTRE OF EXCELLENCE**



**CONTRACT 22-10**

**Study Report**

*"Analysis of the related Physical Phenomena and Aerodynamic Performance of Hypersonic Vehicle(s) and possible ways of exploiting those data in order to improve Surveillance Capabilities"*

between

INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE  
(IAMDCOE)

&

TECHNICAL UNIVERSITY OF CRETE  
(TUC)

(SPECIAL ACCOUNT FOR RESEARCH FUNDING OF THE TECHNICAL  
UNIVERSITY OF CRETE)

December 2022

CONFIDENTIAL  
-1-





## Cooperation with Technical University of Crete



### ➤ PART III SPECIAL PROVISIONS & TECHNICAL SPECIFICATIONS (STATEMENT OF WORK)

a. General Specifications

b. Technical Specifications – Description of Deliverables

c. Project Management





# STATEMENT OF WORK - SOW



## a. General Specifications

Three (3) deliverable products-services:

(1) Writing and delivery of a review paper-report under the subject:

“Analysis of the related Physical Phenomena and Aerodynamic Performance of Hypersonic Vehicle(s) and possible ways of exploiting those data in order to improve Surveillance Capabilities”.

(2) Writing and delivery of an extended abstract of the abovementioned study report and creation of the geometry models of the vehicles to be used for the simulation studies.

(3) Writing and delivery of an interim report of the above-mentioned study.

(4) Publishing of the abovementioned paper-report into a scientific journal or magazine.





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

-- Deliverable “1”: Study Report / Subject:

“Analysis of the related Physical Phenomena and Aerodynamic Performance of Hypersonic Vehicle(s) and possible ways of exploiting those data in order to improve Surveillance Capabilities.”

- ☐ 3 STAGES/CHAPTERS
- ☐ Delivery Date: By 22 December 2023.





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

### -- Deliverable "1": Study Report

#### □ STAGE /CHAPTER 1

- Digital geometrical model(s)
  - Scram Jet-powered Hypersonic Vehicle type  
(Atmosphere Low Layer regime (30 – 60 km) at a Mach 5+)
  - Hyper-Glide Vehicle (HGV) (wave-rider) type of hypersonic vehicles.  
(Atmosphere High Layer (60 – 100 Km) at a Mach 10)





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

-- Deliverable “1”: Study Report

### □ STAGE /CHAPTER 2

- Endo-Atmospheric physical phenomena
  - Aerodynamic performance of the model(s)
  - Phenomena in presence (flow, thermal, radiation, etc.)





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

### -- Deliverable “1”: Study Report

#### □ STAGE /CHAPTER 3

- Summary of the above
- Reference to the existing or ongoing possibilities of detecting the phenomena mentioned
- Presentation of proposals for the improvement of the Alliance’s Air & Missile Defense Surveillance Capabilities (with emphasis in Detection and Tracking).





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

-- Deliverable “2”: An extended abstract of the study report.

- Structure: Typical.
- Length of abstract: Not less than one thousand (4000) words.
- Language: English Language.
- Delivery Date: By 29 April 2023 (Delivered)





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

-- Deliverable “3”: An interim report of the study report with additional information on the performance and physical phenomena that were retrieved during the simulation of the aforementioned geometrical models.

- Structure: Typical.
- Length of abstract: Not less than ten thousand (10.000) words.
- Language: English Language.
- Delivery Date: By 30 August 2023 (Delivered)





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

-- Deliverable “4”: Publication of study report (as deliverable “1”) properly prepared in scientific format, into a scientific journal or magazine.

- The selection of the scientific journal or magazine will be under the choice of the competent/responsible professor.
- Respective approval by the IAMDCOE.
- Delivery Date: No later than 01 July 2024.





# STATEMENT OF WORK - SOW



## b. Technical Specifications – Description of Deliverables

### Written acknowledgement

“This study was funded by the Integrated Air and Missile Defence Centre of Excellence (IAMDCOE) and any intellectual property resulting from the work covered by this will be property of the IAMDCOE. This paper reflects only the IAMDCOE policies and its author(s)’ positions and it is not intended to create any legal obligations nor does it reflect NATO’s policies or positions, or engage NATO in anyway.”.





# STATEMENT OF WORK - SOW



## c. Project Management

- Intellectual Property

Any intellectual property resulting from the work covered by the Contract will be the property of the IAMDCOE.

Any invention or inventive step made, based on or derived from the IAMDCOE's disclosures, or work carried out within this project, will be disclosed and assigned to the IAMDCOE.





## Recommendations & Decisions

---



SC members to *note* about the Established Cooperation and the on-going activities between the **IAMD CoE** and the **Technical University of Crete (TUC)**, School of Production Engineering and Management, Turbomachines and Fluid Dynamics Laboratory.





Questions







# RAP File 16

## AI-Empowered Drone Detection Passive Radar Using 5G Signals



15'

COL (OF-5) Emmanouil PANOU, GRC AF  
CD & E Branch Head







# Cooperation with ICS/FORTH



## ➤ MEMORANDUM OF UNDERSTANDING (15 November 2022)

### MEMORANDUM OF UNDERSTANDING FOR BILATERAL RESEARCH COOPERATION

Between

the Institute of Computer Science (ICS),  
Foundation for Research and Technology - Hellas (FORTH)

and

the Integrated Air and Missile Defence Centre of Excellence (IAMDCOE),

concerning the development of cooperation on education, training, research and  
experimentation amongst the two organizations

#### Introduction

- a. The Institute of Computer Science (ICS) of the Foundation for Research and Technology - Hellas (FORTH), a non-profit research organization of the wider public sector with its seat at 100 N. Plastira str. Heraklion, Crete, Greece 70013, represented for the signature of this agreement according to the decision with Pr. Ref. Nr. 490/38-6/17-10-2022 of the BoD of FORTH by Prof. D. Plexousakis, Director of ICS-FORTH, and
- b. the Integrated Air and Missile Defence Centre of Excellence (IAMDCOE), a NATO-accredited multinationally sponsored centre, activated by North Atlantic Council as a NATO Military Body, located in Souda Air Base, Chania, Crete, Greece, 73100, represented for the signature of this agreement by Brigadier General Nikolaos Kokkonis, Director of the IAMDCOE,

hereinafter referred to each party as 'Party' or 'Participant' and/or collectively as 'Parties' or 'Participants',

whereas the Parties while being the authorities responsible for the implementation of the present agreement, seek to enhance equally bilateral and mutual relations between the two organizations by developing such bilateral *bona fide* cooperation in the fields of education, training, research and experimentation.

#### Section 1 Modes of Cooperation

With respect to the operational and security regulations as well as the availability of resources of each Participant, the following modes of cooperation are encouraged:

- Exchange of experts for participation in lectures, conferences, workshops, panel discussions and other educational and academic activities;
- Exchange of publications, teaching materials and other non-classified information, in fields of common interest;

- Development of joint educational and research programs and activities, and/or assisting the further development of existing educational capabilities through exchange of expertise;
- Any other form of cooperation that may be jointly decided upon by the Participants.

#### Section 2 Specific Cooperation Protocols

Prior to the initiation of any particular program or activity, the Participants will consult and agree in writing, regarding the specific terms of cooperation, including non-disclosure of information when deemed appropriate, within the framework of this MOU.

#### Section 3 Final Provisions

3.1 This MOU will come into effect on the date of the last signature. It will remain in force for two (2) years and may be extended, renewed, amended or modified by mutual written consent of the Participants.

3.2 Either Participant may terminate this MOU, giving three (3) months written notice to the other Participant. Any program or activity that has already commenced will be completed to the best of both Participants' abilities.

3.3 This MOU does not create any financial or legal obligations; it is a functional relationship between the Participants and is considered mutually beneficial, in the field of the potential modes of cooperation encouraged, as depicted in above Section 1. Regardless of this MOU, in the event that the IAMDCOE invites for bidding research entities in the context of specific projects, the ICS-FORTH can participate as a potential contractor; in case of award, any legal and financial obligations will be governed exclusively by the contract that will be concluded.

3.4 Any dispute regarding the interpretation, application or implementation of this MOU is to be settled only by consultations between the Participants.

Date: 15/11/22  
Signature:

Prof. Dimitris Plexousakis  
Director, ICS-FORTH

Date:  
Signature:

B. General (HAF) Nikolaos Kokkonis  
IAMDCOE Director





## Section 1 (Modes of Cooperation)

“With respect to the operational and security regulations as well as the availability of resources of each Participant, **the following modes of cooperation are encouraged:**

- ❖ Exchange of experts for participation in lectures, conferences, workshops, panel discussions and other educational and academic activities;
- ❖ Exchange of publications, teaching materials and other non-classified information, in fields of common interest;
- ❖ Development of joint educational and research programs and activities, and/or assisting the further development of existing educational capabilities through exchange of expertise;
- ❖ Any other form of cooperation that may be jointly decided upon by the Participants.





## Section 2 (Specific Cooperation Protocols )

“Prior to the initiation of any particular program or activity, the Participants will consult and agree in writing, regarding the specific terms of cooperation, including non-disclosure of information when deemed appropriate, within the framework of this MoU.”





## Cooperation with FORTH



- CONTRACT XX-ZZ (By end of 2023)
  - Research & Development (R & D) collaborative project:

# AI-Empowered Drone Detection Passive Radar Using 5G Signals





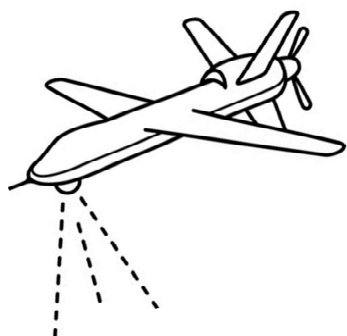
## TABLE OF CONTENTS

- MOTIVATION
- ARS vs PRS
- OBJECTIVES
- AIRE5G's NOVELTY
- AIRE5G's IMPACT
- AIRE5G's METHODOLOGY
- ADVANTAGES & MARKET POSITION





## MOTIVATION



Military  
Reconnaissance

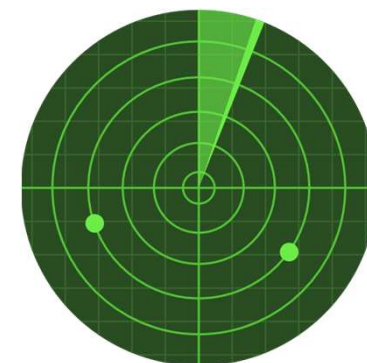
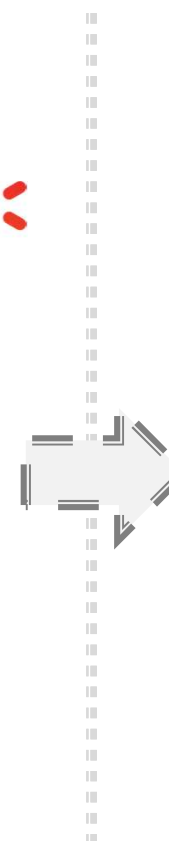


Military  
Combats



**~31B\$** by **2029**

Source: Globe Newswire





# MOTIVATION/DRONE RADAR SYSTEMS

## Importance

- **Rapidly evolving** battlefield scenarios
- Gain **intelligence** about enemy activities
- **Situational awareness & interoperability** in military operations

## Challenges

- Traditional radar systems are ill-equipped to handle modern UAVs
- Identify/classify an increasing **variety** of drones (size, shape, flight characteristics)
- Improved decision-making via **low-cost, versatile, and scalable** DRS designs

## Advancements

- Commercially deployed ubiquitous **telecomm. networks**
- High-performance **AI models** for autonomous decision-making
- **Software-defined** DRS allowing for easy upgrade and futureproofing

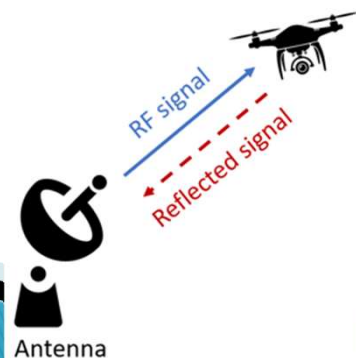


# DRONE RADAR SYSTEMS

## ACTIVE RADAR SYSTEMS (ARS) vs PASSIVE RADAR SYSTEMS (PRS)

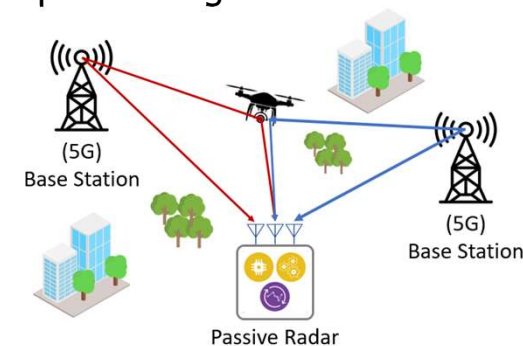
### ARS OPERATION

- Generate and transmit their **own** electromagnetic waves into the surrounding environment
- Measure time delay, frequency shift (Doppler effect) and amplitude of reflected waves



### PRS OPERATION

- Rely on **existing** sources of electromagnetic waves (e.g. commercial radio/TV broadcasts) as illuminators of opportunity
- Extract target-specific radar signatures via sophisticated signal processing and feature extraction techniques







# AIRE5G - OBJECTIVES

- **Obj. 1:** Design a low-cost PRS leveraging commercially deployed transmitters
- **Obj. 2:** Develop high-performance AI models for autonomous data cleansing, anomaly detection, and inference
- **Obj. 3:** Implement and evaluate an integrated computational intelligence platform for drone detection and classification

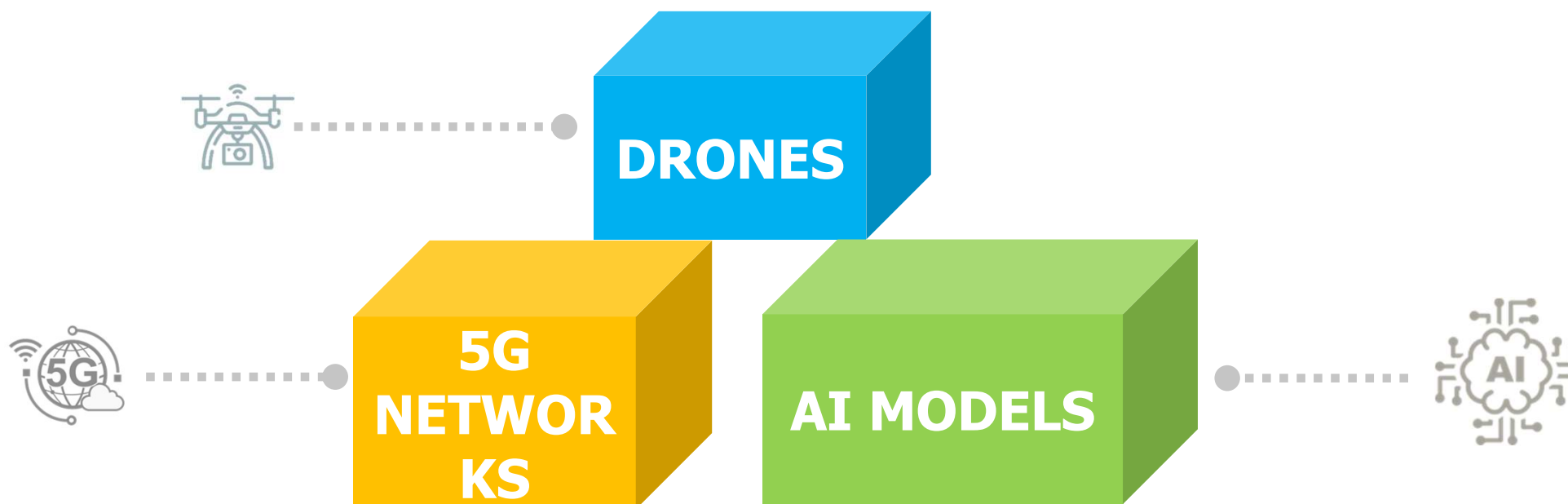




## Cooperation with FORTH



# AIRE5G NOVELTY





# AIRE5G NOVELTY



### TAILORED TO DRONES

- Their **number** is expected to rise **exponentially** in the next years
- They can be used for **malicious** (intended or unintended) reasons
- **Early detection** is of high importance
- They present **different characteristics** from usual radar targets
  - Higher mobility; lower altitude
  - More degrees of freedom (DoF)
  - Much smaller form factor (size, shape, and other physical specs)
  - Operating in urban environments (many obstacles, N-LOS)



# AIRE5G NOVELTY



## CAPITALIZE ON 5G INFRASTRUCTURE

- 5G base stations will be **ubiquitous** in a few years
- They provide **attractive features**
  - **mmWave frequencies:** better ability to detect smaller targets
  - **Wide bandwidths (100-800 MHz):** better range resolution
  - **MIMO (up to 256 antennas):** more reflected signals can be x-corr'd to improve detection and classification



# AIRE5G NOVELTY



## BUILD AN AI-EMPOWERED RADAR

- Drones can have **unpredicted behavior** due to more DoF
- Classical tracking approaches may fail (cluttered signals, low SNR)
- **AI**-based tools are better capable in resolving such issues
- Use of **Deep Learning** algorithms for **joint** target detection, classification and tracking
- Versatile **software-defined** PRS enables **on-the-fly selection and adaptation** of operational frequency band/bandwidth to maximize accuracy and probability of correct detection/classification





## Cooperation with FORTH

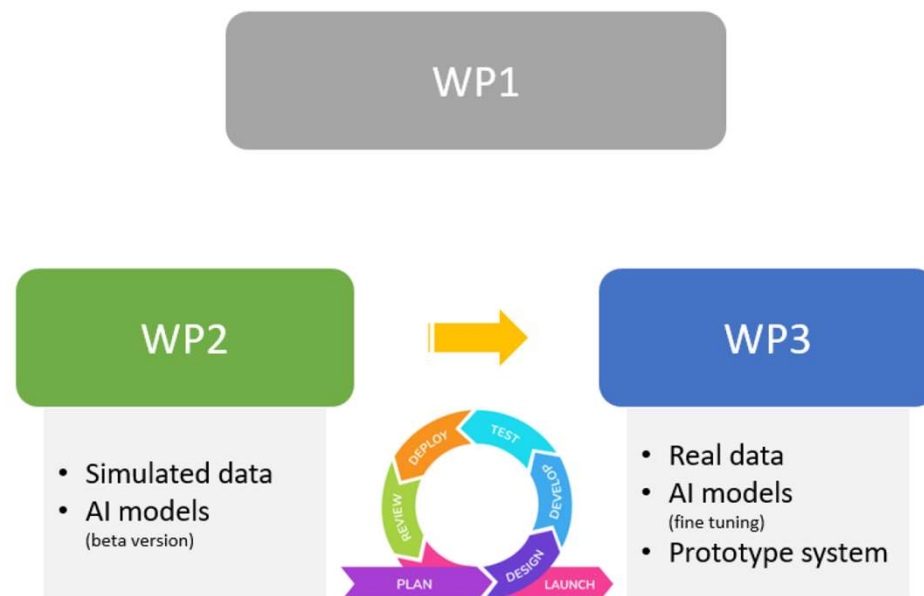


# AIRE5G IMPACT

- **Scientific & Technological:** (1) Implement the first integrated end-to-end PRS leveraging the advantages of 5G networks and AI models; (2) Bring the learning methodology in purely software-defined drone detection PRS; (3) Create new opportunities for online processing and learning in emerging sensor-rich military operational environments
- **Operational:** (1) Rapid dissemination of AIRE5G technology to other operational domains facing similar data analysis and learning challenges; (2) Incorporation into existing counter-drone systems



## AIRE5G METHODOLOGY



Deliverable No.	Deliverable Name	Related WP	Type	Due Date
D2.1	System architecture, specifications and requirements	WP2	R	M12
D2.2	Performance evaluation on simulated data and estimated performance in real environments	WP2	R	M12
D3.1	Final prototype system architecture	WP3	R	M24
D3.2	Performance evaluation on real data	WP3	R	M24
D3.3	Prototype system	WP3	DEM	M24





## Cooperation with FORTH



# ADVANTAGES & MARKET POSITION

**robin**  
radar systems

**AARONIA AG**  
WWW.AARONIA.DE

**CAMBRIDGE PIXEL**  
SENSOR PROCESSING & DISPLAY SOLUTIONS

 AVEILLANT



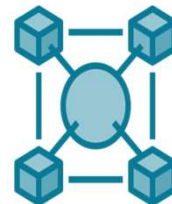
- Software-defined solution
- Easy upgrade and futureproofing



- White-box solution
- Full access to modules' architecture



- State-of-the-art AI models
- Self-training option by the end-user



- Interoperability w/ existing military systems
- Back-compatibility with 3G/4G networks
- Forward-compatibility with the future 6G<sub>144</sub>





## Recommendations & Decisions

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SC members to *note* about the Established Cooperation and the on-going activities between the **IAMD CoE** and the **ICS/FORTH**





Questions







## RAP File 17

### “AI-Empowered Drone Detection Passive Radar Using 5G Signals” Project - Intended Contract with FORTH-ICS

*(a) Shared Budget 2023 - Transfer of funds between/within Chapters*

*(b) Procurement procedure (tender requirements in case of prospective contracting with FORTH-ICS)*



12'

CPT (OF-2) Evangelos BALTADOROS, GRC A  
Financial Controller







# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



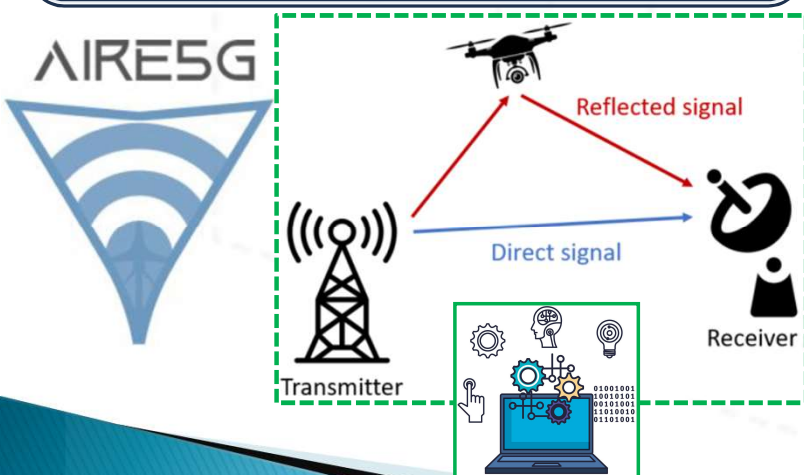
Pre-solicitation  
conferences

IAMD COE

FORTH-ICS

Feasible Research Project

AI-Empowered Drone Detection  
Passive Radar Using 5G Signals  
(AIRE5G)



## 1<sup>st</sup> Phase

(from M to M+12) (12 months)

- Technical report with full details of system's architecture, specifications & requirements
- Technical report with system's performance evaluation on simulated 5G signals and estimated performance in real environments

## 2<sup>nd</sup> Phase

(from M+13 to M+24) (12 months)

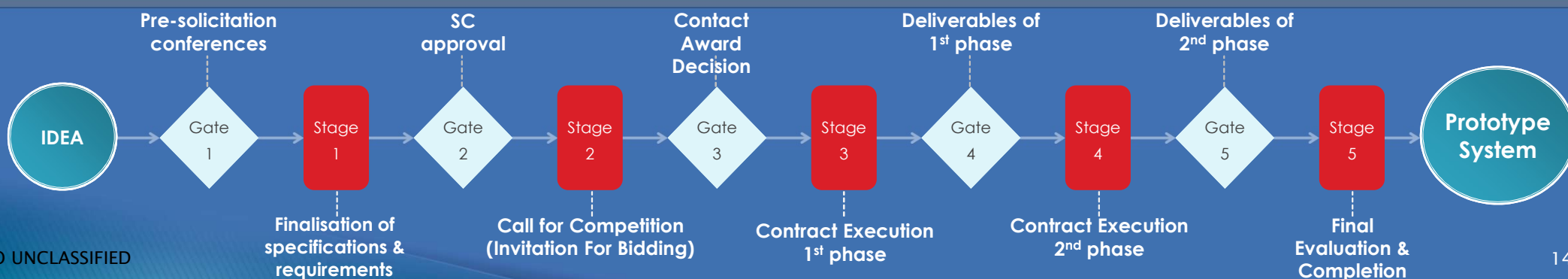
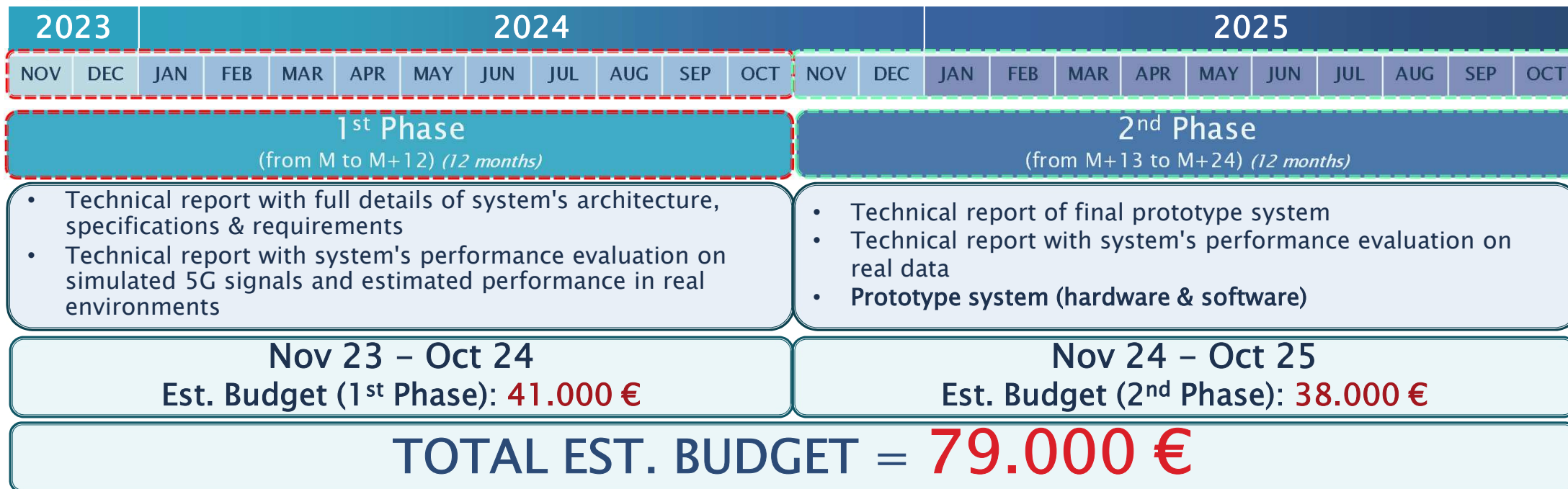
- Technical report of final prototype system
- Technical report with system's performance evaluation on real data
- Prototype system (hardware & software)





# Budget and Procurement Requirements

## Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”







# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



*Est. cost of intended project:*

**79.000 €**

*Est. duration of execution:*

**2 years (Nov 23 – Oct 25)**

*2 alternative funding options:*

- Current budget (FY 2023)
- Multi-year (FY 2023–2025)

- ✓ *Thorough monitoring of the current budget execution*
- ✓ *Needs through the end of year 2023*
- ✓ *Savings from smart actions regarding procurement and travel*

*it is feasible to finance the entire value (79.000 €) of the whole project from the approved Shared Budget 2023*

- ❖ *Within the limits of the approved funds (256.000 €) through internal transfers*
- ❖ *No need for additional contributions*
- ❖ *No issues of meeting the requirements of other activities in medium-term*

Reallocation of funds  
between/within Chapters  
of Shared Budget 2023  
is required

*FAPs*  
*§ 19.1*

SC approval  
is needed





# Budget and Procurement Requirements

## Project "AI-Empowered Drone Detection Passive Radar Using 5G Signals"



*Est. cost of intended project:*

**79.000 €**

*CISI: 710103 (Research Project Contracts)*

*Current available funds:* **18.000 €**

*Transfer within Chapter 71:* **+ 6.400 €**

*Transfer from Chapter 72:* **+31.050 €**

*Transfer from Chapter 73:* **+23.550 €**

---

*Funds after transfer:* **79.000 €**





# Budget and Procurement Requirements

## Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



Chapter	CISI	Description	Initial Budget	Transfer	Final Budget
71	710101	Consultants and Temporary Staff	0,00	0,00	0,00
	710102	Academic Expenses	5.000,00	-520,00	4.480,00
	710103	Research Project Contracts	24.000,00	+61.000,00	85.000,00
	710201	Transportation	8.160,00	-2.880,00	5.280,00
	710202	Course fee	12.460,00	-3.000,00	9.460,00
Chapter 71			49.620,00	+54.600,00	104.220,00

- 6.000 € current Contract with TUC
- 79.000 € intended project





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



## Chapter 71

49.620,00

+54.600,00

104.220,00

Chapter	CISI	Description	Initial Budget	Transfer	Final Budget
72	720101	Printing and Photocopying Rental/Lease	0,00	0,00	0,00
	720102	Printing and Photocopying Consumables	2.150,00	0,00	2.150,00
	720201	Public Affairs Supplies	11.000,00	0,00	11.000,00
	720202	Hospitality and Representation	20.000,00	0,00	20.000,00
	720301	Electricity	7.500,00	-2.000,00	5.500,00
	720302	Water and sewage	1.600,00	-200,00	1.400,00
	720303	Heating and Cooling	1.200,00	0,00	1.200,00
	720401	Rental of Minor Facilities	8.000,00	-2.300,00	5.700,00
	720402	Minor Building maintenance	500,00	-340,00	160,00
	720403	Facilities & Buildings Equipment maintenance	300,00	0,00	300,00
	720404	Facilities and Buildings Services	4.500,00	0,00	4.500,00
	720501	Computers Rental and Operational Lease	0,00	0,00	0,00





# Budget and Procurement Requirements

## Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



### Chapter 71

49.620,00

+54.600,00

104.220,00

Chapter	CISI	Description	Initial Budget	Transfer	Final Budget
72	720502	Computers Spare/Repair Parts	250,00	0,00	250,00
	720503	Computers Maintenance	250,00	0,00	250,00
	720504	Computers Services	12.300,00	0,00	12.300,00
	720601	Communication Systems Rental and Oper. Lease	0,00	0,00	0,00
	720602	Communication Systems Spare Parts & Consumables	300,00	0,00	300,00
	720603	Communication Systems Maintenance	0,00	0,00	0,00
	720604	Communication Systems Services	4.500,00	-2.000,00	2.500,00
	720701	Mission carriers Rental and Operational Lease	10.500,00	-5.700,00	4.800,00
	720702	Mission carriers Maintenance	2.000,00	-1.000,00	1.000,00
	720703	Mission carriers Fuel Costs	4.500,00	-800,00	3.700,00
	720704	Mission carriers Insurance	0,00	0,00	0,00





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



## Chapter 71

49.620,00

+54.600,00

104.220,00

Chapter	CISI	Description	Initial Budget	Transfer	Final Budget
72	720801	Transportation (activities)	36.000,00	-5.900,00	30.100,00
	720802	Participation fee (activities)	1.700,00	-250,00	1.450,00
	720901	Literature and Periodicals	1.500,00	-1.500,00	0,00
	720902	Office supplies	2.500,00	-1.700,00	800,00
	720903	Bank charges	470,00	-200,00	270,00
	720904	Postal/shipping services	160,00	-160,00	0,00
	720905	Miscellaneous Supplies	4.500,00	-3.000,00	1.500,00
	720906	Miscellaneous Services	5.000,00	-4.000,00	1.000,00
Chapter 72			143.180,00	-31.050,00	112.130,00





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



Chapter 71			49.620,00	+54.600,00	104.220,00
Chapter 72			143.180,00	-31.050,00	112.130,00
Chapter	CISI	Description	Initial Budget	Transfer	Final Budget
73	730001	Computers	8.000,00	0,00	8.000,00
	730002	Communications	35.000,00	-7.000,00	28.000,00
	730003	Furniture and Office Equipment	3.000,00	0,00	3.000,00
	730004	Vehicles	16.000,00	-16.000,00	0,00
	730005	Machinery	1.200,00	-550,00	650,00
	730006	Installed Equipment	0,00	0,00	0,00
	730007	Buildings	0,00	0,00	0,00
Chapter 73			63.200,00	-23.550,00	39.650,00





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



0,00 €

*burden for current FY 2023*

0,00 €

*burden for next FYs 2024–2025*

NO

*impacts to other  
needs/activities/requirements*

Chapter	Initial Budget	Transfer	Final Budget
Chapter 71	49.620,00	+54.600,00	104.220,00
Chapter 72	143.180,00	-31.050,00	112.130,00
Chapter 73	63.200,00	-23.550,00	112.130,00
TOTAL	256.000,00	0,00	256.000,00

## Notation

*By achieving a contract within FY 2023, SC will be informed to approve the carry-forward of the funds committed to the respective following years (based on the project phases execution):*

▪ To 2024: 41.000 €

▪ To 2025: 38.000 €





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



## IAMD COE FAPs (DIR 60-01)

*“Goods and services of which the cost is estimated to exceed the equivalent of Level C of the EFL (30.000,00 €) ...shall be procured through soliciting from at least five (5) economic operators/suppliers...” (Annex F, §4.2.1.4)*

*“Deviations from the above requirements may only be authorized ...in the interests of security, urgency, standardization of equipment, or/and exceptional circumstances.  
When the total amount exceeds ...30.000,00 € annually, such cases shall be reported to the SC for decision” (Annex F, §5)*

- Value = 79.000 € (> 30.000 €)
- Specific technical specifications
- Nature of intended project
- Security requirements  
(specifications not releasable to public)

ACHIEVING A FRUITFUL  
TENDER PROCESS

Deviation from the procurement  
procedure to be approved

Award to be feasible without a  
minimum number of bids





## Recommendations & Decisions



SC members are kindly requested to unanimously **approve** regarding the intended project “**AI-Empowered Drone Detection Passive Radar Using 5G Signals**”:

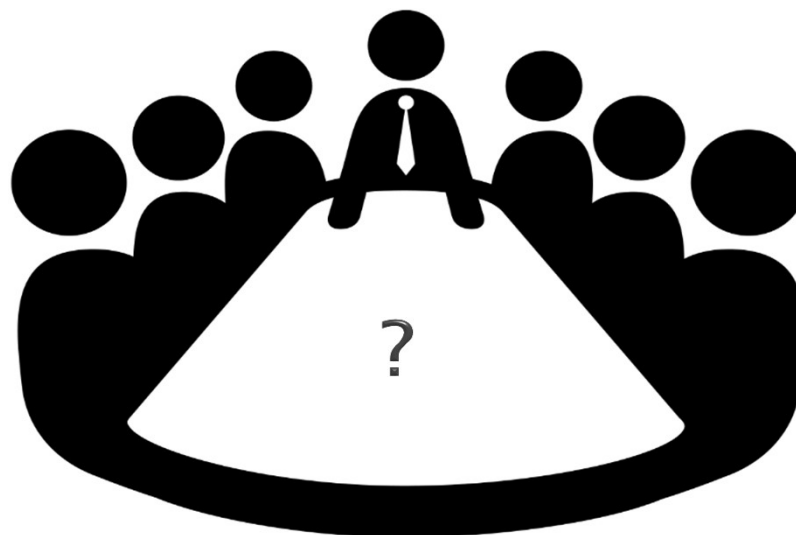
- The proposed transfers of funds between/within Chapters of Shared Budget of FY 2023.
- By way of exception, the deviation from rules regarding procurement process required for this project, allowing the award without a minimum number of bids.





# Budget and Procurement Requirements

Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



Questions

NATO UNCLASSIFIED

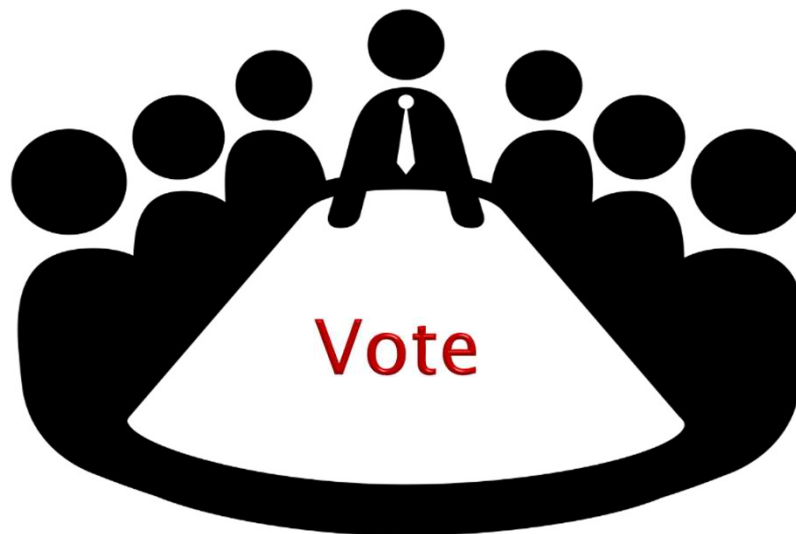






# Budget and Procurement Requirements

## Project “AI-Empowered Drone Detection Passive Radar Using 5G Signals”



### RAP File 17

## “AI-Empowered Drone Detection Passive Radar Using 5G Signals” Project - Intended Contract with FORTH-ICS

*(a) Shared Budget 2023 - Transfer of funds between/within Chapters*

*(b) Procurement procedure (tender requirements in case of prospective contracting with FORTH-ICS)*

NATO UNCLASSIFIED







## RAP File 12

### External Audit of IAMDCOE Financial Statements for FYs 2020-2023 (for Shared Budget of FYs 2021-2023)



12'

CPT (OF-2) Evangelos BALTADOROS, GRC A  
Financial Controller







# External Audit of Financial Statements (FS)



## *Regulatory Framework*

- *Operational MOU (§10.13)*
- *Financial Administrative Procedures (FAPs) (§8)*

- *“The audit functions for the **budget** are performed as directed by the SC.”*
- *“The SC determines the **period** and the **body** that shall perform an external audit of IAMDCOE’s financial statements in accordance with IAMDCOE Operational MOU.”*
- *“The audit will be conducted to achieve **assurance** that the financial statements are in accordance with the approved financial framework.”*
- *“**Audit report** shall be provided to the SC accompanied with a statement made by the Director covering possible comments on the audit report and actions taken.”*





# External Audit of Financial Statements (FS)



## Regulatory Framework

- Operational MOU (§10.13)
- Financial Administrative Procedures (FAPs) (§8)

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**FS 2020**  
(approved)

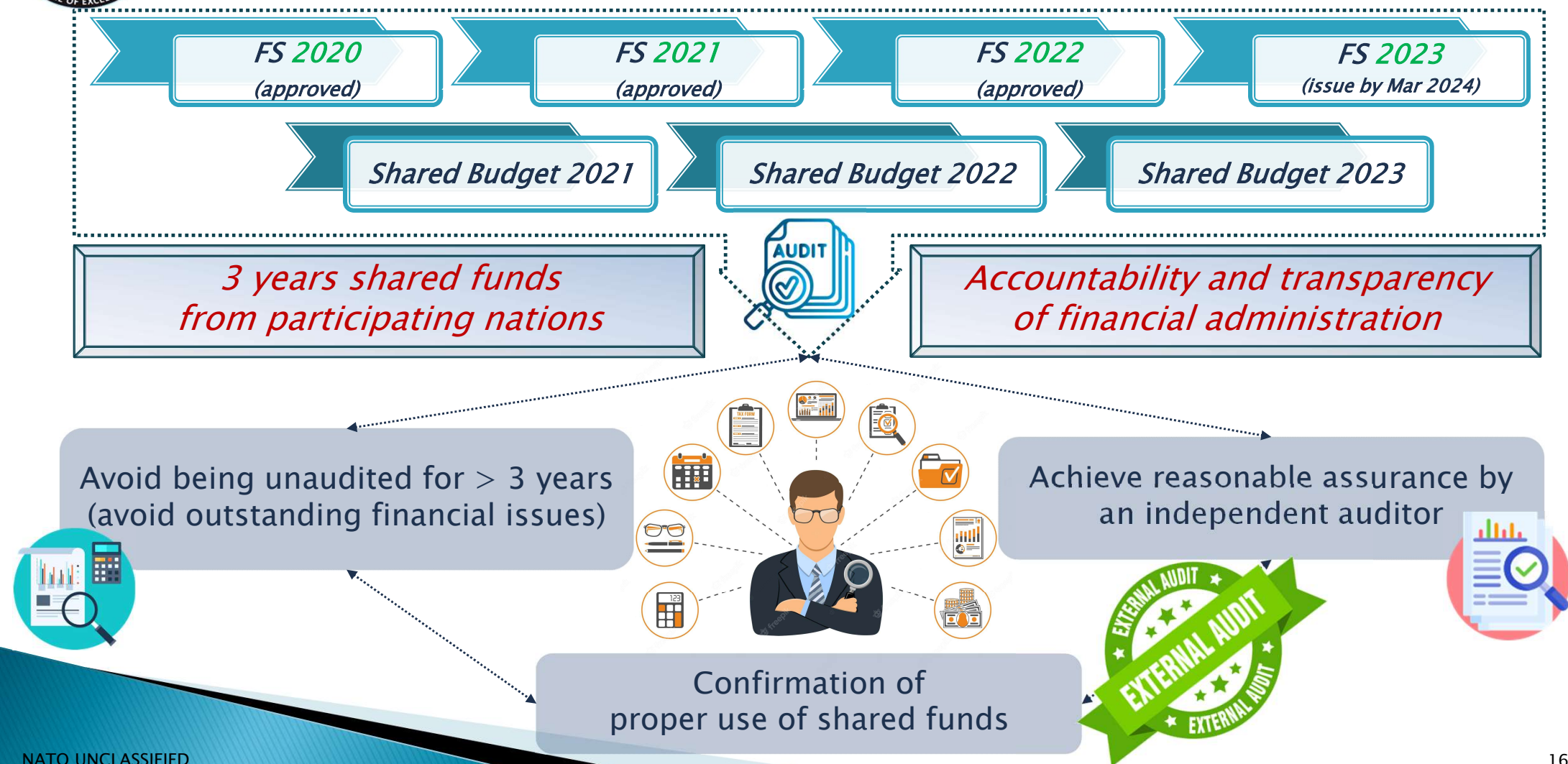
**FS 2021**  
(approved)

**FS 2022**  
(approved)

**FS 2023**  
(issue by Mar 2024)



# External Audit of Financial Statements (FS)







# External Audit of Financial Statements (FS)



<div> <div>AUDIT ENTITY</div> <div>AUDIT DETAILS</div> </div>	Audit Body for NATO	Chartered Accountants	Chartered Accountants
	International Board of Auditors for NATO (IBAN)	Grant Thornton (GT) <i>7<sup>st</sup> largest accounting firm world-wide</i>	PricewaterhouseCoopers (PwC) <i>2<sup>nd</sup> largest accounting firm world-wide</i>
Availability to carry out the audit ( <i>when</i> )	- <b>Not</b> available for 2024 - Possibility of including the IAMDCOE in their audit schedule in future years (likely in 2026)	Whenever asked	Whenever asked
Location to carry out the audit ( <i>where</i> )	With <b>physical</b> presence on Centre's premises		Only <b>remotely</b>
Capability to carry out the audit based on the Centre's financial framework ( <i>what</i> )	<b>Full</b> audit [ <b>capability</b> of auditing IAW International Public Sector Accounting Standards (IPSAS), as applied from the IAMDCOE]		<b>Not full</b> audit [ <b>no capability</b> to provide full audit IAW applicable standards (IPSAS)]





# External Audit of Financial Statements (FS)





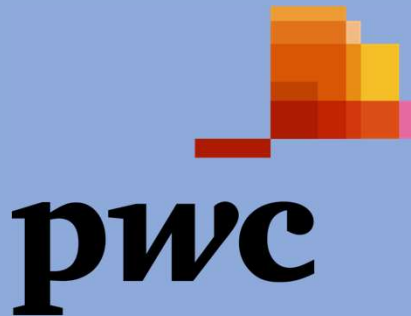
<div>AUDIT ENTITY</div> <div>AUDIT DETAILS</div>	Audit Body for NATO	Chartered Accountants	Chartered Accountants
	<b>International Board of Auditors for NATO (IBAN)</b>	<b>Grant Thornton (GT)</b> <u>7<sup>st</sup></u> largest accounting firm world-wide	<b>PricewaterhouseCoopers (PwC)</b> <u>2<sup>nd</sup></u> largest accounting firm world-wide
<i>Breakdown of procedures to be performed and outcomes (indicatively)</i> <i>(what)</i>	<ul style="list-style-type: none"> <li>- Performing procedures to obtain audit evidence about the amounts and disclosures in <u>all</u> FS</li> <li>- Obtaining <b>reasonable assurance</b> that the FS are free from material misstatement and errors</li> <li>- Evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made</li> <li>- Evaluating the <b>overall</b> presentation of the FS including procedures established, keeping of accounting books, planning and the implementation of an adequate internal controls system, etc.</li> <li>- Delivering Auditor's Report expressing an opinion on the FS to ascertain the extent to which the IAMDCOE FS present <b>fairly, in all material respects, the financial position of the Centre, and the results of its operations.</b></li> </ul>		<ul style="list-style-type: none"> <li>- Performing of <b>limited</b> "Agreed-Upon Procedures" audit</li> <li>- Tracing and agreeing only the Budget Execution Statement &amp; Cash and Cash Equivalents</li> <li>- Tracing and agreeing limited number of the supporting documentation of <b>specific</b> number of invoices/contracts (for 30 respective payments)</li> <li>- Delivering Auditor's Report based on <b>data audited only</b></li> </ul>





# External Audit of Financial Statements (FS)



<div>AUDIT ENTITY</div> <div>AUDIT DETAILS</div>	Audit Body for NATO	Chartered Accountants	Chartered Accountants
	<b>International Board of Auditors for NATO (IBAN)</b> 	<b>Grant Thornton (GT)</b> <u>7<sup>st</sup></u> largest accounting firm world-wide  Grant Thornton	<b>PricewaterhouseCoopers (PwC)</b> <u>2<sup>nd</sup></u> largest accounting firm world-wide 
<b>Audit Fees</b> for FY 2020-2023 Shared Budget of FY 2021-2023 <i>(cost)</i>	≈ <b>18.000 - 28.000 €</b> (range of 10.000 € was proposed to provisionally budgeted, if required, depending on audit findings)	≈ <b>8.000 - 9.000 €</b> (6.800 € audit fees and 1.200-2.200 € est. travel/accommodation costs of auditors, depending on the time period of the physical presence of the audit)	≈ <b>19.500 €</b> (6.500 € audit fees per year audited - not including FS of FY 2020)



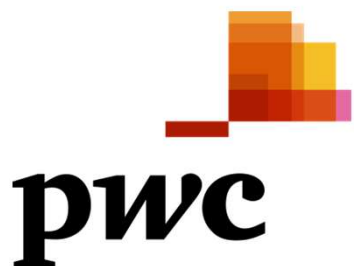


- ✗ *Non-availability of carrying out the audit in short-term*
- ✗ *Fees (18.000 – 28.000 €)*



Grant Thornton

- ✓ *Full audit based on IAMD COE financial framework (IPSAS)*
- ✓ *Most cost-efficient option (8.000 – 9.000 €)*



- ✗ *Overly limited audit to specific data*
- ✗ *Fees (19.500 €)*







# External Audit of Financial Statements (FS)



*IBAN*



Grant Thornton

*Chartered Accountants  
of international firms*



*Recommended option for external audit*

## Notation

- External auditor will be selected following the formal procurement process (*Invitation for Bidding, Contract*)
- Tender process will be conducted within Q1 2024
- Audit is scheduled on May – June 2024 (*following approval of FS 2023*)





## Recommendations & Decisions



SC members are kindly requested to unanimously **approve**:

- The external audit of IAMDCOE FS of FYs 2020 - 2023 (Shared Budget execution for FYs 2021 - 2023).
- Carrying out the audit within the year 2024.
- The selection of the external audit entity among Chartered Accountants of international firms of recognised standing, based on cost-effectiveness criteria and the procurement process according to FAPs.



# External Audit of Financial Statements (FS)



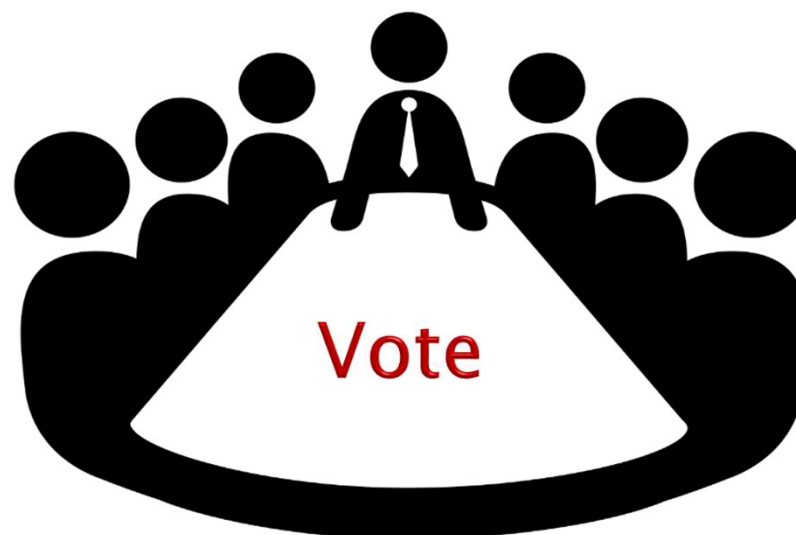
Questions







# External Audit of Financial Statements (FS)



## RAP File 12

External Audit of IAMDCOE Financial Statements for FYs 2020-2023  
(for Shared Budget of FYs 2021-2023)

NATO UNCLASSIFIED







15 minutes

## COFFEE BREAK

Next AGENDA Item: Financial Status Update







## RAP File 18

# Finance and Budget - Financial Status Update



12'

CPT (OF-2) Evangelos BALTADOROS, GRC A  
Financial Controller







## Topics



### ➤ Shared Budget 2023 Execution

- Budget (expenditures) status to date
- Expenditures estimated by the end of 2023
- Revenues foreseen

### ➤ Financial Procedures

- Internal financial administrative procedures implementation update





# Financial Status Update

## Shared Budget 2023 Execution



CHAPTER	DESCRIPTION	INITIAL BUDGET	ESTIMATED FINAL BUDGET	ACCRUAL EXPENSES	+ EXPENSES FORESEEN	ESTIMATED FINAL (max.) EXPENSES	ESTIMATED LAPSED CREDITS	ESTIMATED EXECUTION %
71	Personnel	49.620	104.220	20.600	83.000	103.600	620	99,4 %
72	Contractual Supplies and Services	143.180	112.130	80.250	30.000	110.250	1.880	98,3 %
73	Capital and Investments	63.200	39.650	24.650	15.000	39.650	0	100,0%
TOTAL EXPENDITURES		256.000	256.000	125.500	128.000	253.500	2.500	99,0 %

CHAPTER	DESCRIPTION	ESTIMATED REVENUES
74	Fees	10.830
	Bank Interest	1.210
	Miscellaneous	500
TOTAL REVENUES		12.540

Estimated final result for shared funds  
(FY 2023)

$\leq 240.960 \text{ €}$  (253.500 - 12.540)

Funds to offset Participants' contributions  
(256.000 - 240.960)

$\geq 15.040 \text{ €}$





# Financial Status Update

## Shared Budget 2023 Execution



71.153 €

NCIA IKM Toolset

INV	PSC	Total Costs (Keuros):
43,226	27,927	71,153

*“Centralised solution”*

Initial  
ROM

*Enterprise Document Management Application Service (EDMS)*

*Tasker and Project Tracker Applications Service (TT + and PITT)*

*over NSWAN*

### Application Services

TT+  
(APP030)

EDMS  
(APP031)

NIP  
(APP086)

IKM Tools Core

### Platform Services

[SharePoint (PLT003), SQL (PLT006), Active Directory (PLT005), etc.]

### Infrastructure Services

[Virtual Machines (INF004), Storage (INF007), Backup (INF016), etc.]

NCIA scheduled Sharepoint upgrade

No update received by the end of 2022

Funds carried-forward from FY 2022



Communication/requests for final PP within year 2023

No update so far  
(upgrade is still under progress)

*Progress probably in 2024*





# Financial Status Update

## Financial Administrative Procedures Implementation

*Computerised handling, controlling and supervising of IAMD COE property*

Computerized Accounting

*Full control of funds–  
budget–property*







# Financial Status Update

## Financial Administrative Procedures Implementation



Business debit card programme  
e-Commerce (e-registration)

✓ transparency ✓ e-transactions ✓ e-procurement ✓ travel office ✓ no petty-cash

Travel Officer



Tickets



Fees



Car rental

Traveller



Local  
Transportation



Fees on hand

Procurement &  
Contracting



Direct  
payments



e-shop  
payments

IAMD COE e-shop

> 250 registrations



Online registration  
& fees payment

e-Invoice

e-Payment  
confirmation



✓ Transparency  
✓ Cost reduction  
✓ Travel Arrangements  
✓ Fees  
✓ Online Purchases  
✓ Zero-cash





# Financial Status Update

## Financial Administrative Procedures Implementation

Zero-cash  
0,00 €  
transactions  
for 3 years

Only  
electronic  
transactions  
(payments & receipts)

- ✓ Transparency
- ✓ Cost reduction
- ✓ Travel office booking
- ✓ Fees through eCommerce
- ✓ Online Purchases
- ✓ Zero-cash



! the **only** NATO COE  
that has managed to have  
EXCLUSIVELY  
electronic transactions !











# Financial Status Update

## Financial Administrative Procedures Implementation



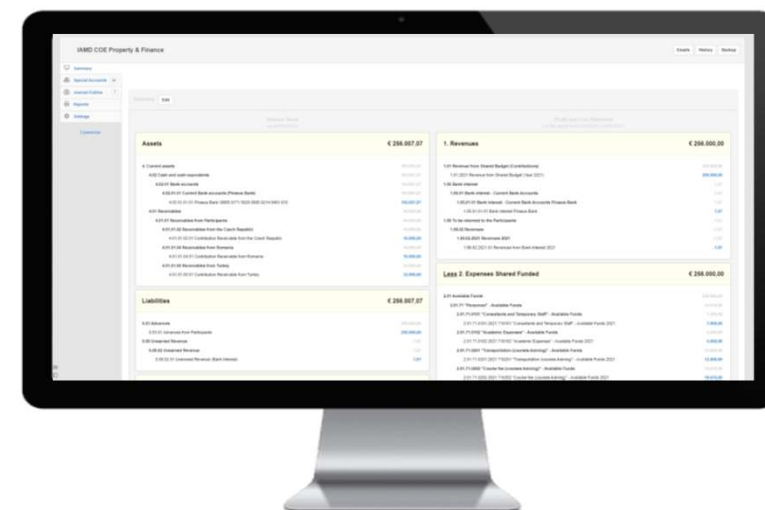
### ☐ *Budget & Finance control*

- ✓ *Purchase Orders*
- ✓ *Invoices*
- ✓ *Expenditure Vouchers*
- ✓ *Journal Entries*
- ✓ *Reports*
  - *Financial Position*
  - *Financial Performance*
  - *Cash Flow*

### ☐ *Property management*

- ✓ *Property items history*
- ✓ *Property vouchers*
- ✓ *Transfers of Property items*
- ✓ *Property items write-off*

### ☐ *Financial Statements*







# Financial Status Update

## Financial Administrative Procedures Implementation



### ☐ Budget & Finance control

#### ✓ Purchase Orders

#### ✓ Invoices

#### ✓ Expenditure Vouchers

#### ✓ Journal Entries

#### ✓ Reports

- Financial Position
- Financial Performance
- Cash Flow

### ☐ Property management

#### ✓ Property items history

#### ✓ Property vouchers

#### ✓ Transfers of Property items

#### ✓ Property items write-off

### ☐ Financial Statements

### Purchase Order



INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE

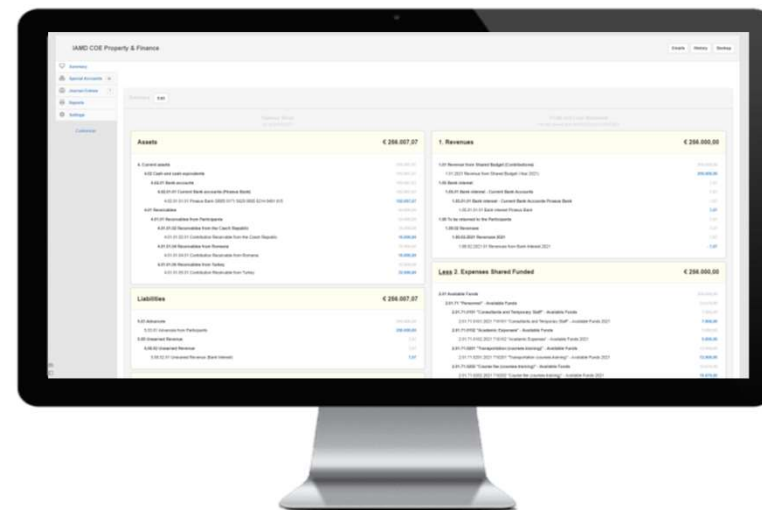
EMMANOUIL KAI STYLIANI LINARAKI OE-ROMVOS  
KRIARI 40, CHANIA, TK 73135

Issue date  
28/04/2022  
  
Reference  
PO 9/2022

IAMD COE  
Property Accountable & Disposal Officer  
  
Address: Souda Air Base, Chania, 73100  
tel.: 2821440733 (NCN: 0302-6154033)  
e-mail: [property@iamd-coe.org](mailto:property@iamd-coe.org)

Purchase of printed posters, leaflets, stationary and promotional material

Item	Description	Piece	Unit price	Total
Public Affairs miscellaneous supplies	Plexiglass stand A5	2	3,695	7,39
Public Affairs miscellaneous supplies	Plexiglass case A4	2	6,00	12,00
Public Affairs miscellaneous supplies	Plexiglass stand (small) A5	1	3,21	3,21
Public Affairs miscellaneous supplies	VELCRO tape	1	20,00	20,00
		6		
Total				€ 42,60







# Financial Status Update

## Financial Administrative Procedures Implementation



### ☐ Budget & Finance control

✓ Purchase Orders

✓ Invoices

✓ Expenditure Vouchers

✓ Journal Entries

✓ Reports

- Financial Position
- Financial Performance
- Cash Flow

### ☐ Property management

✓ Property items history

✓ Property vouchers

✓ Transfers of Property item

✓ Property items write-off

### ☐ Financial Statements

### Purchase Invoice

PRIVESHOP EPE  
KEFALLINIAS 94, ATHINA, 11251

Invoice date  
14/01/2022  
Due date  
13/02/2022  
Invoice number  
56020  
Order number  
PO 49/2021

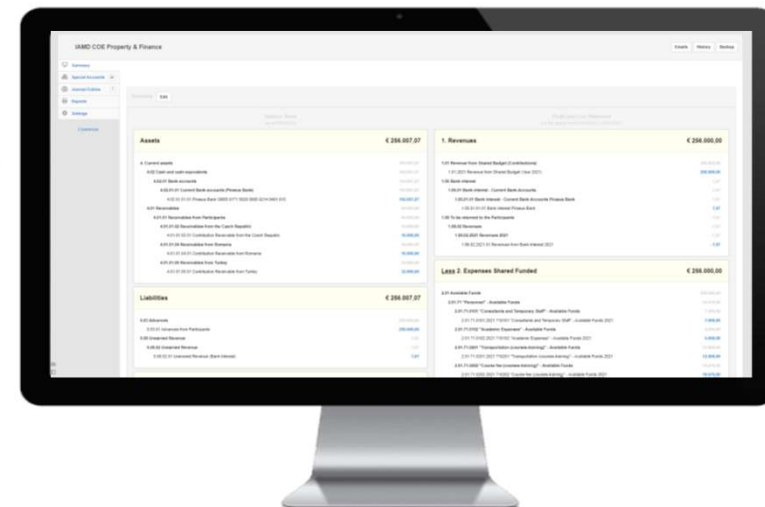


INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE

IAMD COE  
Property Accountable & Disposal Officer  
Address: Souda Air Base, Chania, 73100  
tel.: 2821440733 (NCN: 0302-6154033)  
e-mail: property@iamd-coe.org

Purchase of video equipment (PC web-cameras)

Item	Description	Piece	Unit price	Total
730002/07/00001 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00002 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00003 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00004 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00005 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00006 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00007 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00008 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00009 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00010 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00011 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00012 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00013 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00014 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00015 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00016 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00017 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00018 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00019 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
730002/07/00020 Logitech Webcam C615, HD	Logitech Webcam C615, HD - (Communications - Web cameras)	1	40,20	40,20
		20		
		Total		€ 804,00







# Financial Status Update

## Financial Administrative Procedures Implementation



### ☐ Budget & Finance control

✓ Purchase Orders

✓ Invoices

✓ **Expenditure Vouchers**

✓ Journal Entries

✓ Reports

- Financial Position
- Financial Performance
- Cash Flow

### ☐ Property management

✓ Property items history

✓ Property vouchers

✓ Transfers of Property items

✓ Property items write-off

### ☐ Financial Statements

#### Expenditure Voucher

Supplier:  
**IT SOLUTIONS - ATHANASIOS P. KOUROUKLIS**  
Ref/TAX ID:  
**046537761**  
Address:  
EMM, LOULAKAKH 11, XANIA, 73100

Invoice date  
12/04/2022  
Due date  
12/05/2022  
Invoice number  
3  
Order number  
CAD 22-02 (NU: 149)



INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE

IAMD COE  
Property Accountable & Disposal Officer  
Address: Souda Air Base, Chania, 73100  
tel.: 2821440733 (NCN: 0302-6154033)  
e-mail: property@iamd-coe.org

#### IT services - Technical Compliance Report

Item	Description	Service	Unit price	Total
CIS services	Local Network Survey - Devices Setup - Deployment	1	400,00	400,00
CIS services	SharePoint OnLine Deployment (Site & Libraries created - Users Permissions)	1	400,00	400,00
CIS services	Multi Factor Authenticator setup and deployment + SSPR (self service password reset)	1	150,00	150,00
CIS services	Microsoft 365 Groups deployment (Group collaboration - File Sharing - Shared Calendars)	1	100,00	100,00
CIS services	Removable Media management policy	1	100,00	100,00
CIS services	Technical compliance report with the respective suggested technical solutions	1	1.600,00	1.600,00
Total				€ 2.750,00

#### FINCON'S APPROVAL OF EXPENDITURE

Value of accrual liability - not invoiced:

Amount authorised to be paid:

Ref. Req. for Commitment (CIS/Ref./Amount):



FINCON

#### DISBURSING OFFICER'S VOUCHER

#### Details of Payment

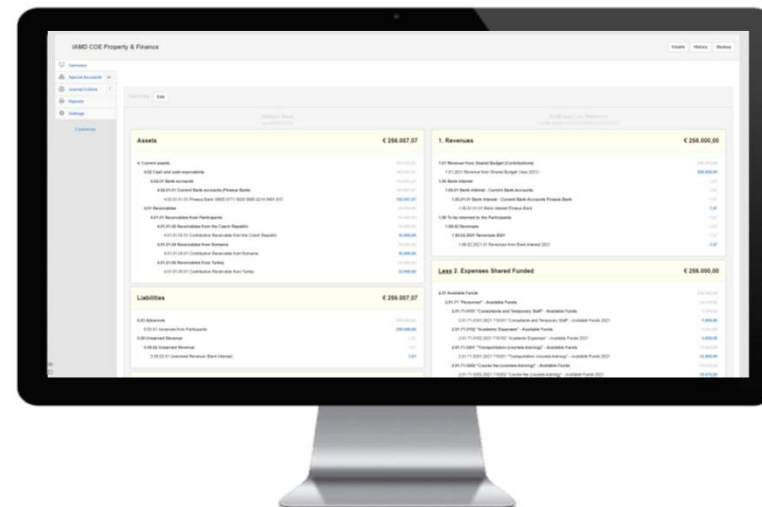
- ☐ Bank Transfer Bank Account Transfer: \_\_\_\_\_ (\*\*\*\* last 4 digits of Bank Account)
- ☐ Business Debit Card Card Holder's details: \_\_\_\_\_ (\*\*\*\* last 4 digits of Card)
- ☐ Cheque Cheque No/Date: \_\_\_\_\_
- ☐ Cash Date of payment: \_\_\_\_\_

#### AUTHORISED REQUESTOR/FUND MANAGER

Following the purchase of the items above as they are accepted by the QOAC, I hereby confirm the following:  
- I have informed about the receipt of these items.

- ☐ no more deliverables are expected for the respective request, so the release of any unspent initially committed funds is suggested.
- ☐ additional deliverables are expected for the respective request, so any unspent funds are required to remain committed.

AUTH REQUESTOR/  
FUND MANAGER







# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ **Journal Entries**
- ✓ Reports

- Financial Position
- Financial Performance
- Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off

### □ Financial Statements

#### Journal Entry



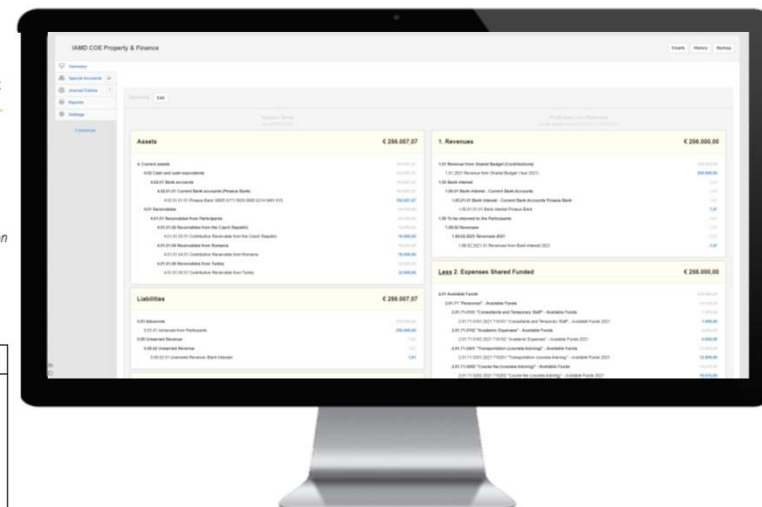
INTEGRATED AIR & MISSILE DEFENCE  
CENTRE OF EXCELLENCE

Date  
15/12/2020  
Reference  
202000001

IAMD COE  
Financial Controller  
Address: Souda Air Base, Chania, 73100  
TAX ID No: EL996722163 TAX Office: Chania  
tel.: 2621440712 (NCN: 0302-6154012)  
e-mail: fincon@iamd-coe.org

#### 1st Call for Funds (Fiscal Year 2021)

Account	Debit	Credit
4.01.01.01.01 - Contribution Receivable from Bulgaria	16,000,00	
4.01.01.02.01 - Contribution Receivable from the Czech Republic	16,000,00	
4.01.01.03.01 - Contribution Receivable from Greece	176,000,00	
4.01.01.04.01 - Contribution Receivable from Romania	16,000,00	
4.01.01.05.01 - Contribution Receivable from Turkey	32,000,00	
5.03.01 - Advances from Participants		256,000,00
Total debits	€ 256,000,00	
Total credits		€ 256,000,00



#### Expenditure Voucher

2700 Expense - APPROVED BY AUTHORITY

DATE: 15/12/2020

AMOUNT: 100,00

DESCRIPTION: 100,00

APPROVED BY: [Signature]

DATE: 15/12/2020

#### Purchase Order

2700 Expense - APPROVED BY AUTHORITY

DATE: 15/12/2020

AMOUNT: 100,00

DESCRIPTION: 100,00

APPROVED BY: [Signature]

DATE: 15/12/2020

#### Purchase Invoice

2700 Expense - APPROVED BY AUTHORITY

DATE: 15/12/2020

AMOUNT: 100,00

DESCRIPTION: 100,00

APPROVED BY: [Signature]

DATE: 15/12/2020



# Financial Status Update

## Financial Administrative Procedures Implementation

### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Reports

- Financial Position
- Financial Performance
- Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off

### □ Financial Statements

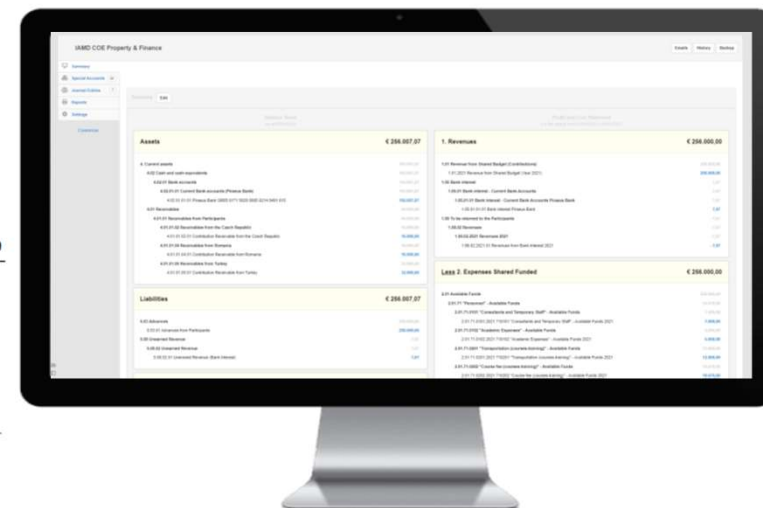
IAMD COE  
Financial Controller

#### Statement of Financial Position

As at 31/12/2020

Accrual basis

	2020	2019
<b>Assets</b>		
4. Current assets		
4.02 Cash and cash equivalents		
4.02.01 Bank accounts		
4.02.01.01 Current Bank accounts (Piraeus Bank)		
4.02.01.01.01 Piraeus Bank GR85 0171 5620 0065 6214 8491 615	192,007,07	-
4.01 Receivables		
4.01.01 Receivables from Participants		
4.01.01.02 Receivables from the Czech Republic		
4.01.01.02.01 Contribution Receivable from the Czech Republic	16,000,00	-
4.01.01.04 Receivables from Romania		
4.01.01.04.01 Contribution Receivable from Romania	16,000,00	-
4.01.01.05 Receivables from Turkey		
4.01.01.05.01 Contribution Receivable from Turkey	32,000,00	-
Total — 4.01.01 Receivables from Participants	64,000,00	0,00
Total — 4. Current assets	256,007,07	0,00
<b>Liabilities</b>		
5.03 Advances		
5.03.01 Advances from Participants	256,000,00	-
<b>Net assets</b>	7,07	0,00
<b>Equity</b>		
08.01 Net Assets/Equity	7,07	-
<b>Total equity</b>	7,07	0,00



Journal Entry

Journal Entry form showing a table with columns for Date, Description, and Amount. It includes a section for '1st List for Parties (Phase Year 2021)' with a table of receivables from participants.

Expenditure Voucher

Expenditure Voucher form with fields for Date, Amount, and Description. It includes a section for '1st List for Parties (Phase Year 2021)' with a table of receivables from participants.

Purchase Order

Purchase Order form with fields for Date, Amount, and Description. It includes a section for '1st List for Parties (Phase Year 2021)' with a table of receivables from participants.

Purchase Invoice

Purchase Invoice form with fields for Date, Amount, and Description. It includes a section for '1st List for Parties (Phase Year 2021)' with a table of receivables from participants.





# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Financial Statements
  - Financial Position
  - Financial Performance
  - Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off

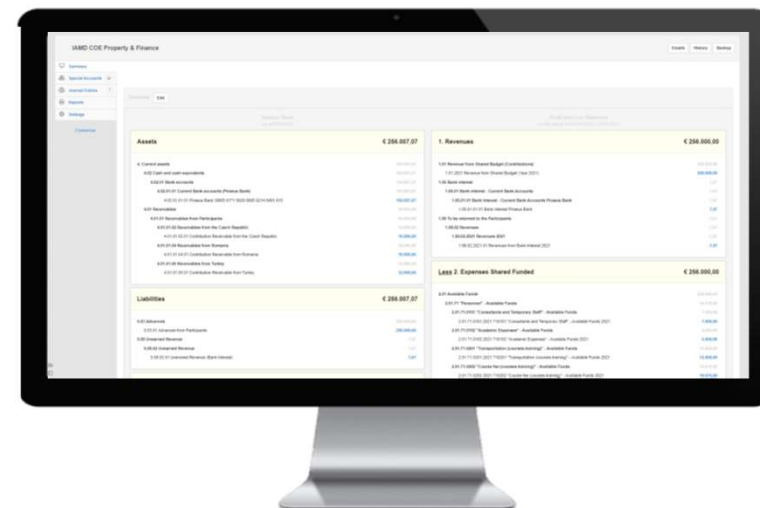
### □ Financial Statements

IAMD COE  
Property Accountable & Disposal Officer

#### Property Item History

For the period from 18/04/2021 to 03/05/2022

Inventory location Name	Date	Inventory Item	Debit
730002/03/00002 (S/N: 045895223706151001)			
Property Officer	21/03/2022	730002/03/00002 (S/N: 045895223706151001) - Central Equipment-Control unit with recorder and DAFS	881,85
			881,85
			881,85



#### Journal Entry



Ministry of Education,  
Youth and Sports

Ministry of Education,  
Youth and Sports of the Czech Republic

Date

10/10/2020

Reference

2020/0001

WMO CODE

Financial Controller

Address

Ústřední správa školství, 158 00 Praha 5  
 Ústřední správa školství, 158 00 Praha 5  
 Tel: +420 257 100 100 Fax: +420 257 100 100  
 Email: uss@uzs.mpsv.cz uss@uzs.mpsv.cz  
 uss@uzs.mpsv.cz uss@uzs.mpsv.cz

1st List for Funds (Fiscal Year 2021)

Account	Debit	Credit
4.01.01.01 - Contribution Receivable from Budget		10.000,00
4.01.01.02 - Contribution Receivable from the Czech Republic	10.000,00	
4.01.01.03 - Contribution Receivable from Russia	10.000,00	
4.01.01.04 - Contribution Receivable from Romania	10.000,00	
4.01.01.05 - Contribution Receivable from Turkey	10.000,00	
4.01.01.06 - Advances from Participants		10.000,00

Total credits 4.000,00 4.000,00

#### Statement of Financial Position

As at 31/12/2020

Accrual basis

Assets	2020	2019
4.01.01.01 - Contribution Receivable from Budget		
4.01.01.02 - Contribution Receivable from the Czech Republic	10.000,00	
4.01.01.03 - Contribution Receivable from Russia	10.000,00	
4.01.01.04 - Contribution Receivable from Romania	10.000,00	
4.01.01.05 - Contribution Receivable from Turkey	10.000,00	
4.01.01.06 - Advances from Participants		
Total - 4.01.01.01 - Contribution Receivable from Budget	40.000,00	
Liabilities		
4.01.01.01 - Advances from Participants	200.000,00	
Total	240.000,00	

#### Expenditure Voucher

Form for recording expenditure, including fields for Date, Amount, Description, and Signature.

#### Purchase Order

Form for recording purchase orders, including fields for Supplier, Date, Amount, and Description.

#### Purchase Invoice

Form for recording purchase invoices, including fields for Supplier, Date, Amount, and Description.





# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Financial Statements
  - Financial Position
  - Financial Performance
  - Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off
- Financial Statements

#### Property Voucher

Supplier  
AVAX COMPUTER APPLICATIONS I.K.E.  
Ref/TAX ID  
082041943  
Address  
NIK, SKOULA 30, CHANIA, 73135

Date  
24/01/2022  
Reference  
111  
Order number  
CAD 21-03 (NU 446) — 30/12/2021  
Invoice number  
24 — 10/01/2022  
Inventory location  
Property Officer



IAMDCoE  
Property Accountable & Disposal Officer  
Address: Souda Air Base, Chania, 73100  
tel.: 282440733 (NOC: 0202-6154032)  
e-mail: property@iamd-coe.org

#### Purchase of servers & memories

Item	Description	Price
730002/04/00001 (SERV/TAC, HKSS/L3) Dell PowerEdge R540 Server	Dell PowerEdge R540 Server - (Communications - Servers)	1
730002/04/00002 (SERV/TAC, HKSS/L3) Dell PowerEdge R540 Server	Dell PowerEdge R540 Server - (Communications - Servers)	1
730000/05/00007 Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz	Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz - (Communications - Server parts)	1
730000/05/00008 Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz	Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz - (Communications - Server parts)	1
730000/05/00009 Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz	Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz - (Communications - Server parts)	1
730002/05/00010 Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz	Dell Memory 32GB - 2RX4 DDR4 RDIMM 3200 MHz - (Communications - Server parts)	1

#### QUANTITATIVE AND QUALITATIVE ACCEPTANCE COMMITTEE

The Quantitative and Qualitative Acceptance Committee (QACQ), after meeting, carried out a quality and quantitative inspection of the items delivered to the IAMDCoE and confirms the following:

- The items delivered are in full compliance with the respective POCAC.
- These items are accepted after the satisfactory completion of all (where applicable) operational, mechanical, electrical and security systems controls as having met all the technical specifications laid down in the respective request/DOV.
- The receipt of the supplies has been completed and they can be put into operational utilisation by the Centre.

Charalampia DAKANALIS  
CDR (OF-4), GRC (N)

Georgios KALLITSOUNAKIS  
CPT (OF-2), GRC (A)

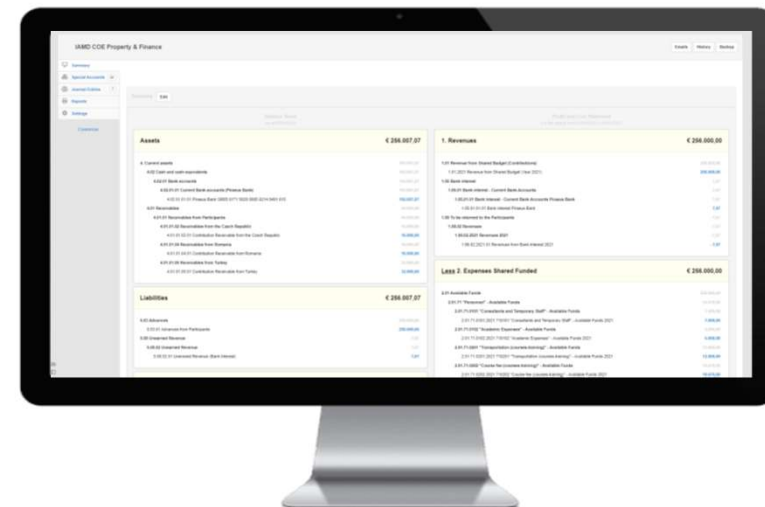
Dimitra NTOUKA  
BNS (OF-1), GRC (N)

#### PROPERTY ACCOUNTABLE & DISPOSAL OFFICER'S CERTIFICATE

I hereby certify that the items depicted in the table above have been entered in my stock record account (if applicable - only for supplies) and accounted for in accordance with the respective IAMDCoE instructions and regulations.



Anna PEROUKAKI  
ENS (OF-1), GRC (N)



#### Journal Entry

Date	Description	Debit	Credit
15/01/2022	4.02 Cash and cash equivalents	10,000.00	
	4.03 Bank accounts		10,000.00
	4.04 Current bank accounts (Private Bank)		10,000.00
	4.05 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.06 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.07 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.08 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.09 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.10 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.11 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.12 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.13 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.14 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.15 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.16 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.17 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.18 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.19 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.20 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.21 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.22 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.23 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.24 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.25 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.26 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.27 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.28 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.29 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.30 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.31 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.32 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.33 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.34 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.35 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.36 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.37 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.38 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.39 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.40 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.41 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.42 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.43 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.44 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.45 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.46 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.47 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.48 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.49 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.50 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.51 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.52 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.53 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.54 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.55 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.56 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.57 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.58 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.59 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.60 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.61 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.62 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.63 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.64 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.65 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.66 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.67 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.68 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.69 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.70 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.71 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.72 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.73 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.74 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.75 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.76 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.77 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.78 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.79 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.80 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.81 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.82 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.83 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.84 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.85 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.86 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.87 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.88 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.89 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.90 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.91 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.92 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.93 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.94 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.95 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.96 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.97 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.98 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	4.99 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00
	5.00 01/01/2021 Private Bank (BANK OF GREECE) LTD		10,000.00

#### Expenditure Voucher

## Management Accounts

Accounting for Business

Subject:

**2.010100 - STRATEGIC & ACCOUNTABLE**

Level:

**B**

Module:

**2.010100 - STRATEGIC & ACCOUNTABLE**

Version:

**2.010100 - STRATEGIC & ACCOUNTABLE**

Author:

**2.010100 - STRATEGIC & ACCOUNTABLE**

Editor:

**2.010100 - STRATEGIC & ACCOUNTABLE**

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Approved:

Page 1 of 100









- ✓ *Purchase Orders*
- ✓ *Invoices*
- ✓ *Expenditure Vouchers*
- ✓ *Journal Entries*
- ✓ *Financial Statements*

- *Financial Position*
- *Financial Performance*
- *Cash Flow*

❑ *Property management*

- ✓ *Property items history*
- ✓ *Property vouchers*
- ✓ *Transfers of Property items*
- ✓ ***Property items write-off***

## Financial Statements

Date	IAMD COE
05/07/2022	Property Accountable & Disposal Officer
Reference	Address: Souda Air Base, Chania, 73100
42	tel.: 2821440733 (NCH: 0302-6154033)
	e-mail: <a href="mailto:property@iamd-coe.org">property@iamd-coe.org</a>

Expendable items write-off

Qty	Item	Amount
1	720905/04/00001 Antiseptic anti-virus 4l	18,7
	Suspense	€ 18,7
	Total	€ 18,7

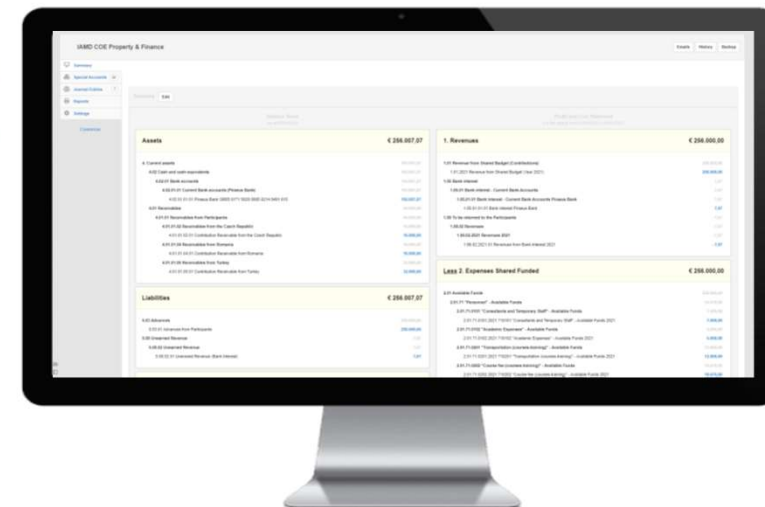
Write-off category  
Expendable items (not to be accounted for)

## PROPERTY ACCOUNTABLE &amp; DISPOSAL OFFICER'S CERTIFICATE

I hereby certify that the property items depicted in the table above have been written-off in accordance with the applicable provisions and as a result, these items are no longer accounted for



Anna PEROULAKI  
ENS (OF-1), GRC (N)



## Journal Entry



1st Fall for Florida (1999 Year 10)

Account	Debit
4.01.01.01.01 - Contribution Revenues from Bulgaria	90,000.00
4.01.01.02.01 - Contribution Revenues from the Czech Republic	90,000.00
4.01.01.03.01 - Contribution Revenues from Greece	170,000.00
4.01.01.04.01 - Contribution Revenues from Romania	90,000.00
4.01.01.05.01 - Contribution Revenues from Turkey	32,000.00
5.03.01 - Advances from Participants	

**Statement of Financial Position**  
As at 31/12/2020  
Annual basis

[illegible]

## Expenditure Voucher



U.S. government - Technical Consultation Report

[illegible]

## Purchase Order



1. The first step in the process of creating a new product is to identify a market need.	True
2. A product that is not profitable is not a product.	False
3. A product that is not profitable is not a product.	False
4. A product that is not profitable is not a product.	False
5. A product that is not profitable is not a product.	False
6. A product that is not profitable is not a product.	False
7. A product that is not profitable is not a product.	False
8. A product that is not profitable is not a product.	False
9. A product that is not profitable is not a product.	False
10. A product that is not profitable is not a product.	False

Trade Office coordination expense	Employee travel cost of \$5,000 less	1	5,000
Trade Office coordination expense		2	
			Total 5,000

**Purchase Invoice**



UNIVERSITY OF WISCONSIN  
SCHOOL OF BUSINESS

## Purchase Invoice



Experiments of other researchers [30] with concrete







# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Reports
  - Financial Position
  - Financial Performance
  - Cash Flow


### □ Property management

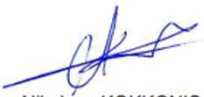
- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off

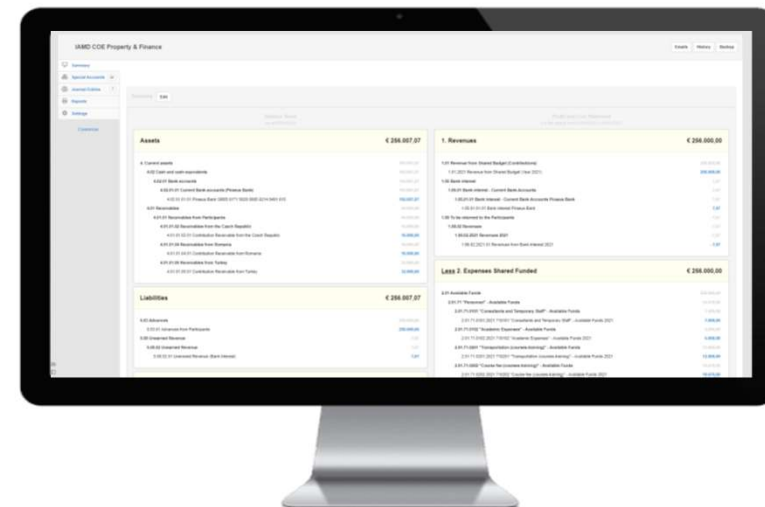
### □ Financial Statements

#### INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE Statement of Financial Position (Statement 3)

As at December 31, 2022 (in EUR)	Notes	2022	2021
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents	(B.9)	130.948,13	148.843,51
Receivables	(B.10)	145.480,24	64.000,00
Inventories	(B.11)	0,00	0,00
Advances and prepayments	(B.12)	589,34	0,00
Reimbursable expenses	(B.13)	0,00	0,00
Other current assets		0,00	0,00
<b>Total current assets</b>		<b>277.017,71</b>	<b>212.843,51</b>
<b>Non-current assets</b>			
Property, plant and equipment	(B.14)	80.251,28	27.386,65
Intangible assets	(B.15)	12.420,93	5.824,27
Receivables		0,00	0,00
Other financial assets		0,00	0,00
Other non-financial assets		0,00	0,00
<b>Total non-current assets</b>		<b>92.672,21</b>	<b>33.210,92</b>
<b>Total Assets</b>		<b>369.689,92</b>	<b>246.054,43</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Payables	(B.16)	19.116,42	113.676,58
Liabilities accrued	(B.17)	24.148,29	9.689,77
Advances	(B.18)	153.600,00	64.000,00
Short-term provisions		0,00	0,00
Unearned revenue	(B.19)	80.153,00	25.477,16
<b>Total current liabilities</b>		<b>277.017,71</b>	<b>212.843,51</b>
<b>Non-Current liabilities</b>			
Payables		0,00	0,00
Long-term provisions	(B.20)	92.672,21	33.210,92
<b>Total non-current liabilities</b>		<b>92.672,21</b>	<b>33.210,92</b>
<b>Total liabilities</b>		<b>369.689,92</b>	<b>246.054,43</b>
<b>Net assets</b>		<b>0,00</b>	<b>0,00</b>

  
Evangelos BALTADOROS  
Captain (OF-2), GRC (A)  
IAMD COE Financial Controller

  
Nikolaos KOKKONIS  
Brigadier General (OF-6), GRC (AF)  
IAMD COE Director



#### Journal Entry

Journal Entry form showing a table with columns for Date, Description, Debit, and Credit. It includes a section for '1st List for Parties (Phase Year 2021)' and a 'Total' row.

#### Statement of Financial Position

Statement of Financial Position form showing a table with columns for Assets, Liabilities, and Equity. It includes a section for 'As at 31/12/2020' and a 'Total' row.

#### Expenditure Voucher

Expenditure Voucher form showing a table with columns for Date, Description, Amount, and Category. It includes a section for '1st List for Parties (Phase Year 2021)' and a 'Total' row.

#### Purchase Order

Purchase Order form showing a table with columns for Date, Description, Amount, and Category. It includes a section for '1st List for Parties (Phase Year 2021)' and a 'Total' row.

#### Purchase Invoice

Purchase Invoice form showing a table with columns for Date, Description, Amount, and Category. It includes a section for '1st List for Parties (Phase Year 2021)' and a 'Total' row.





# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Reports
  - Financial Position
  - Financial Performance
  - Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property item
- ✓ Property items write-off

### □ Financial Statements


#### INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE

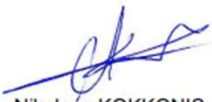
#### Statement of Financial Performance

(Statement 4)

For the year ended 31 December 2022 (in EUR)	Notes	2022	2021
<b>REVENUES (C.21)</b>			
Revenue from Shared Budget (Current Year X)		256.000,00	224.000,00
Revenue from Shared Budget (Previous Year X-1)		25.477,16	7,07
Revenue from Shared Budget (Previous Year X-2)		0,00	0,00
Total to be returned to the Participants		(19.116,42)	(113.676,58)
Fees		6.050,00	0,00
Bank interest		309,07	651,01
Other revenue		0,00	0,00
<b>Total revenue</b>		<b>268.719,81</b>	<b>110.981,50</b>
<b>EXPENSES (C.22)</b>			
Expenses Shared Funded (Current Year X)		236.847,08	110.930,74
Expenses Shared Funded (Previous Year X-1)		25.477,16	0,00
Expenses Shared Funded (Previous Year X-2)		0,00	0,00
Depreciation and amortisation expense		6.395,57	50,76
Other expenses		0,00	0,00
<b>Total expenses</b>		<b>268.719,81</b>	<b>110.981,50</b>

<b>End of the Period Result</b>		
<b>Surplus/(deficit)</b>	<b>0,00</b>	<b>0,00</b>

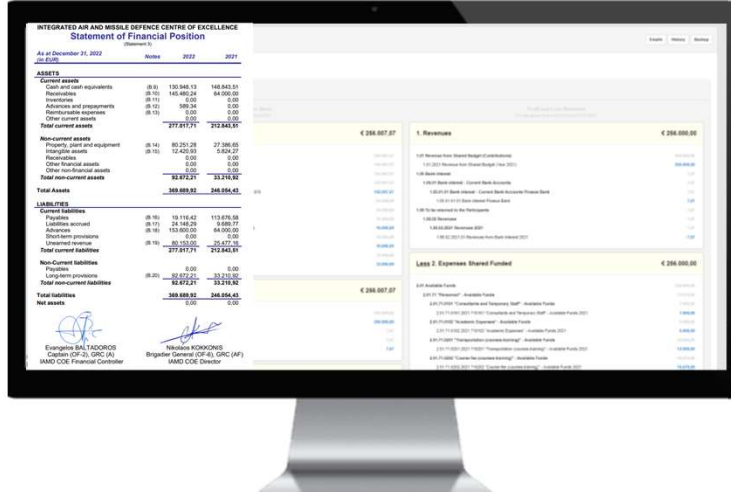
  
Evangelos BALTADOROS  
Captain (OF-2), GRC (A)  
IAMDCOE Financial Controller

  
Nikolaos KOKKONIS  
Brigadier General (OF-6), GRC (AF)  
IAMDCOE Director

Property Items Write-off

Transfer of Property Items

Property Voucher



<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	(B.10)	120.940,13
Receivables	(B.11)	145.482,24
Investments	(B.12)	0,00
Advances and prepayments	(B.13)	0,00
Financial assets	(B.14)	0,00
Other current assets	(B.15)	0,00
<b>Total current assets</b>		<b>266.422,37</b>
Non-current assets		
Property, plant and equipment	(B.16)	82.291,28
Intangible assets	(B.17)	1.524,27
Financial assets	(B.18)	0,00
Other non-current assets	(B.19)	0,00
<b>Total non-current assets</b>		<b>83.815,45</b>
<b>Total assets</b>		<b>350.237,82</b>
<b>LIABILITIES</b>		
Current liabilities		
Payables	(B.20)	113.676,58
Advances	(B.21)	24.148,94
Financial liabilities	(B.22)	0,00
Unearned income	(B.23)	0,00
<b>Total current liabilities</b>		<b>137.825,52</b>
Non-current liabilities		
Financial liabilities	(B.24)	0,00
Long-term provisions	(B.25)	0,00
<b>Total non-current liabilities</b>		<b>0,00</b>
<b>Total liabilities</b>		<b>137.825,52</b>
<b>Net assets</b>		<b>212.412,30</b>

Journal Entry

Expenditure Voucher

Purchase Order

Purchase Invoice

Statement of Financial Position

Accrual basis

As at 31/12/2020

Assets

Liabilities

Equity

Total equity

Property Item History

For the period from 18/04/2021 to 31/05/2022





# Financial Status Update

## Financial Administrative Procedures Implementation



### □ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Financial Statements
  - Financial Position
  - Financial Performance
  - Cash Flow

### □ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off


### □ Financial Statements

#### Statement of Cash Flow (Statement 6)

For the year ended 31 December 2022  
(in EUR)

	Notes	2022	2021
<b>CASH INFLOW FROM OPERATING ACTIVITIES (E.24)</b>			
<b>Receipts</b>			
Amounts received from Participants		150.443,18	32.000,00
Amounts received from Third Parties		0,00	0,00
Amounts received from Suppliers		307,47	0,00
Amounts received from Personnel		0,00	0,00
Tuition/Conference Fees		6.050,00	0,00
Sales of Goods and Services		0,00	0,00
Bank Interest		309,07	651,01
Grants		0,00	0,00
Other revenue		0,00	0,00
<b>Net cash inflows from operating activities</b>		<b>157.109,72</b>	<b>32.651,01</b>
<b>CASH OUTFLOW FROM OPERATING ACTIVITIES (E.25)</b>			
<b>Payments</b>			
Payments to Participants		0,00	0,00
Payments to NATO Entities		13.208,63	5.095,60
Payments to Suppliers		161.387,18	70.495,88
Payments to Personnel		314,80	223,09
Payments to Third Parties		0,00	0,00
Bank charges		94,49	0,00
Other payments		0,00	0,00
<b>Net cash outflows from operating activities</b>		<b>175.005,10</b>	<b>75.814,57</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>(17.895,38)</b>	<b>(43.163,56)</b>
Cash and cash equivalents at the beginning of period		148.843,51	192.007,07
Cash and cash equivalents at the end of period		130.948,13	148.843,51

  
Evangelos BALTADOROS  
Captain (OF-2), GRC (A)  
IAMDCOE Financial Controller

  
Nikolaos KOKKONIS  
Brigadier General (OF-6), GRC (AF)  
IAMDCOE Director

<b>Statement of Financial Position</b> (Statement 5)			
As at December 31, 2022	Notes	2022	2021
<b>ASSETS</b>			
<b>Current assets</b>			
Cash and cash equivalents	(E.10)	148.843,51	192.007,07
Receivables	(E.11)	145.495,24	64.000,00
Investments	(E.12)	500,00	0,00
Advances and prepayments	(E.13)	500,00	0,00
Financial assets	(E.14)	0,00	0,00
Other current assets	(E.15)	0,00	0,00
<b>Total current assets</b>		<b>395.338,75</b>	<b>256.007,07</b>
<b>Non-current assets</b>			
Property, plant and equipment	(E.16)	80.200,00	27.000,00
Intangible assets	(E.17)	12.400,00	5.824,21
Receivables	(E.18)	0,00	0,00
Other non-current assets	(E.19)	0,00	0,00
<b>Total non-current assets</b>		<b>92.600,00</b>	<b>32.824,21</b>
<b>Total Assets</b>		<b>487.938,75</b>	<b>288.831,28</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Payables	(E.20)	18.110,42	113.476,58
Advances	(E.21)	14.148,26	5.880,77
Advances	(E.22)	153.800,00	64.000,00
Unearned revenue	(E.23)	0,00	0,00
<b>Total current liabilities</b>		<b>186.058,68</b>	<b>183.357,35</b>
<b>Non-current liabilities</b>			
Payables	(E.24)	0,00	0,00
Long-term provisions	(E.25)	22.477,31	33.310,92
<b>Total non-current liabilities</b>		<b>22.477,31</b>	<b>33.310,92</b>
<b>Total liabilities</b>		<b>208.536,00</b>	<b>216.668,27</b>
<b>Net assets</b>		<b>279.402,75</b>	<b>72.163,01</b>

<b>Statement of Financial Performance</b> (Statement 6)			
For the year ended 31 December 2022	Notes	2022	2021
<b>REVENUES</b>			
Revenue from Shared Budget (Current Year X)	(E.21)	256.000,00	224.000,00
Revenue from Shared Budget (Previous Year X-1)		25.477,16	7,07
Revenue from Shared Budget (Previous Year X-2)		0,00	0,00
Total revenue from Shared Budget		<b>281.477,16</b>	<b>224.007,07</b>
Revenue from Shared Budget (Previous Year X-1)		(19.116,42)	113.476,58
Fees		6.050,00	0,00
Bank interest		309,07	651,01
Other revenue		0,00	0,00
<b>Total revenue</b>		<b>268.719,81</b>	<b>118.134,66</b>
<b>EXPENSES</b>			
Expenses Shared Funded (Current Year X)	(E.22)	226.847,08	110.500,74
Expenses Shared Funded (Previous Year X-1)		25.477,16	0,00
Expenses Shared Funded (Previous Year X-2)		0,00	0,00
Depreciation and amortisation expense		6.395,57	60,79
Other expenses		0,00	0,00
<b>Total expenses</b>		<b>258.719,81</b>	<b>110.561,53</b>
<b>End of the Period Result</b>		<b>0,00</b>	<b>0,00</b>
<b>Surplus/(deficit)</b>		<b>0,00</b>	<b>0,00</b>

<b>Journal Entry</b>			
<b>Expenditure Voucher</b>			
<b>Purchase Order</b>			
<b>Purchase Invoice</b>			
<b>Statement of Financial Position</b> As at 31/12/2020 Accrual basis			
<b>Assets</b>			
<b>Current assets</b>			
Cash and cash equivalents		148.843,51	192.007,07
Receivables		145.495,24	64.000,00
Investments		500,00	0,00
Advances and prepayments		500,00	0,00
Financial assets		0,00	0,00
Other current assets		0,00	0,00
<b>Total current assets</b>		<b>395.338,75</b>	<b>256.007,07</b>
<b>Non-current assets</b>			
Property, plant and equipment		80.200,00	27.000,00
Intangible assets		12.400,00	5.824,21
Receivables		0,00	0,00
Other non-current assets		0,00	0,00
<b>Total non-current assets</b>		<b>92.600,00</b>	<b>32.824,21</b>
<b>Total Assets</b>		<b>487.938,75</b>	<b>288.831,28</b>
<b>Liabilities</b>			
<b>Current liabilities</b>			
Payables		18.110,42	113.476,58
Advances		14.148,26	5.880,77
Advances		153.800,00	64.000,00
Unearned revenue		0,00	0,00
<b>Total current liabilities</b>		<b>186.058,68</b>	<b>183.357,35</b>
<b>Non-current liabilities</b>			
Payables		0,00	0,00
Long-term provisions		22.477,31	33.310,92
<b>Total non-current liabilities</b>		<b>22.477,31</b>	<b>33.310,92</b>
<b>Total liabilities</b>		<b>208.536,00</b>	<b>216.668,27</b>
<b>Net assets</b>		<b>279.402,75</b>	<b>72.163,01</b>





# Financial Status Update

## Financial Administrative Procedures Implementation



### ❑ Budget & Finance control

- ✓ Purchase Orders
- ✓ Invoices
- ✓ Expenditure Vouchers
- ✓ Journal Entries
- ✓ Financial Statements
  - Financial Position
  - Financial Performance
  - Cash Flow

### ❑ Property management

- ✓ Property items history
- ✓ Property vouchers
- ✓ Transfers of Property items
- ✓ Property items write-off

### ❑ Financial Statements

❖ Computerisation

❖ Automisation

❖ e-Statements

❖ e-Reports

❖ e-Books

❖ Historical data

❖ Management

❖ Supervision

The screenshot displays two financial statements side-by-side. The left statement is the 'Statement of Financial Position' as at 31 December 2022, showing assets, liabilities, and net assets. The right statement is the 'Statement of Cash Flow' for the year ended 31 December 2022, showing cash inflows from operating activities, investing activities, and financing activities. Both statements are presented in a structured table format with columns for the year ended 31 December 2022 and 2021.

The screenshot displays four financial documents: a Journal Entry, an Expenditure Voucher, a Purchase Order, and a Purchase Invoice. Each document is a structured form with various fields for recording financial transactions. The Journal Entry shows a debit and credit entry. The Expenditure Voucher shows details of an expenditure. The Purchase Order shows details of a purchase. The Purchase Invoice shows details of an invoice. All documents are presented in a structured form format.

The screenshot displays three financial documents: a Property Items Write-off, a Transfer of Property Items, and a Property Voucher. Each document is a structured form with various fields for recording property transactions. The Property Items Write-off shows details of a write-off. The Transfer of Property Items shows details of a transfer. The Property Voucher shows details of a voucher. All documents are presented in a structured form format.





# Financial Status Update

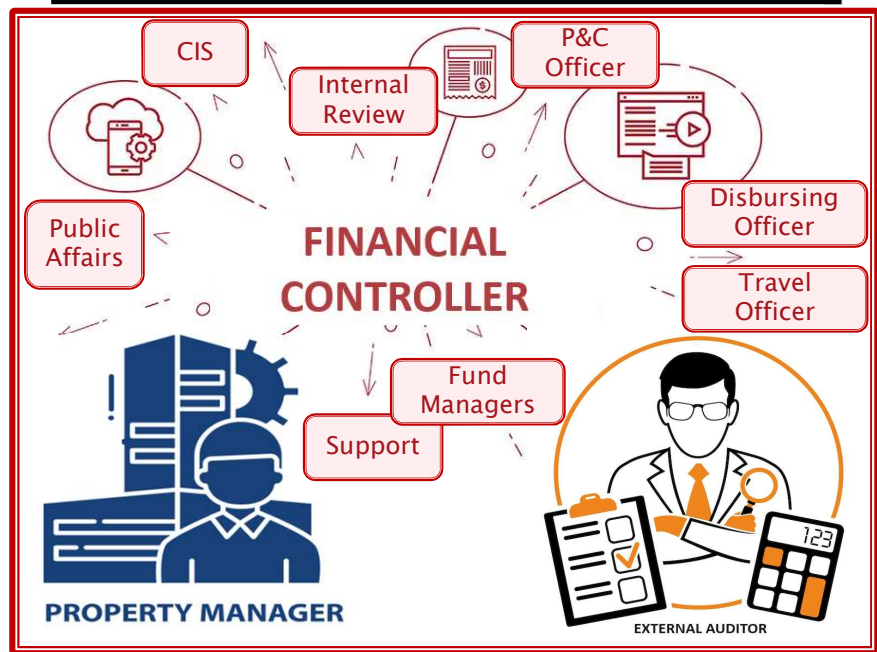
## Financial Administrative Procedures Implementation



- ❖ Computerisation
- ❖ Automisation
- ❖ e-Statements
- ❖ e-Reports
- ❖ e-Books
- ❖ Historical data
- ❖ Management
- ❖ Supervision

**> 50.000**  
accounting records

### Cloud-hosted online accounting software



INTEGRATED AIR AND MISSILE DEFENCE CENTRE OF EXCELLENCE Statement of Financial Position			
As at December 31, 2022	Notes	2022	2021
Assets			
Current assets			
Cash and cash equivalents	(B-1)	120,545.13	148,843.51
Receivables	(B-1)	145,492.24	64,000.00
Inventory	(B-1)	0.00	0.00
Advances and prepayments	(B-1)	0.00	0.00
Financial assets	(B-1)	0.00	0.00
Other current assets	(B-1)	0.00	0.00
Total current assets		266,037.37	212,843.51
Non-current assets			
Property, plant and equipment	(B-1)	60,201.28	27,586.03
Intangible assets	(B-1)	12,425.89	5,824.27
Receivables	(B-1)	0.00	0.00
Other financial assets	(B-1)	0.00	0.00
Other non-current assets	(B-1)	0.00	0.00
Total non-current assets		72,627.17	33,410.30
Total Assets		338,664.54	246,253.81
LIABILITIES			
Current liabilities			
Payables	(B-1)	18,115.42	113,676.58
Financial liabilities	(B-1)	24,148.26	6,889.71
Advances	(B-1)	153,800.00	64,000.00
Other current liabilities	(B-1)	0.00	0.00
Total current liabilities		296,063.68	184,566.29
Non-current liabilities			
Payables	(B-1)	0.00	0.00
Long-term provisions	(B-1)	0.00	0.00
Total non-current liabilities		0.00	0.00
Total liabilities		296,063.68	184,566.29
Net assets		38,600.86	61,687.52

**Journal Entry**

**Expenditure Voucher**

**Purchase Order**

**Purchase Invoice**

**Statement of Financial Position**

**Property Item History**





# Financial Status Update

## Financial Administrative Procedures Implementation



INTEGRATED AIR AND MISSILE DEFENCE  
CENTRE OF EXCELLENCE



STANDARD OPERATING PROCEDURE  
(SOP)

**60-03**

MEDIUM-TERM FINANCIAL STRATEGY  
(MTFS)  
& FINANCIAL RISK MANAGEMENT  
(FRM)

February 2023

### Medium-Term Financial Strategy & Financial Risk Management

**Medium-Term Financial Strategy  
(MTFS)**  
**Medium-term Financial Plan  
(MFTP)**

**Medium-Term Operation Plan  
(MTOP)**  
*[5 years medium-term planning]*

**Financial Risk Management  
(FRM)**  
*(tools, mechanisms & methodologies)*

Critical Resource Shortfalls  
Adequate Financial Resources  
Strategic Gap

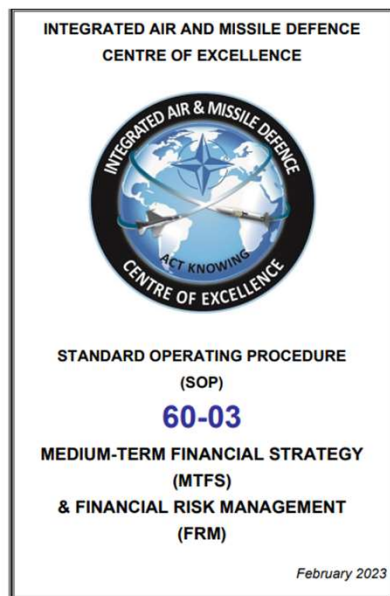
**Identification & Assessment of  
Critical Resource Shortfalls**  
Ensuring Availability of  
Adequate Financial Resources





# Financial Status Update

## Financial Administrative Procedures Implementation



### **“Identification and Assessment of Critical Resource Shortfalls”**

*[mechanism requested by HQ SACT  
(in the context of the Periodic Assessment)]*

#### STEP 1

*Identification of any potential resource shortfalls*

1

*Identification of the critical resource shortfalls*

*Find the “critical” ones*

#### STEP 2

*Carry-out Risk assessment*

2

*Determine the likelihood of occurrence, impact, and potential mitigation strategies*

3

#### STEP 3

*Scenario Planning  
Create scenarios with future resource constraints*

*Evaluate potential impacts per scenario*

#### STEP 4

*Mitigation plan & actions*

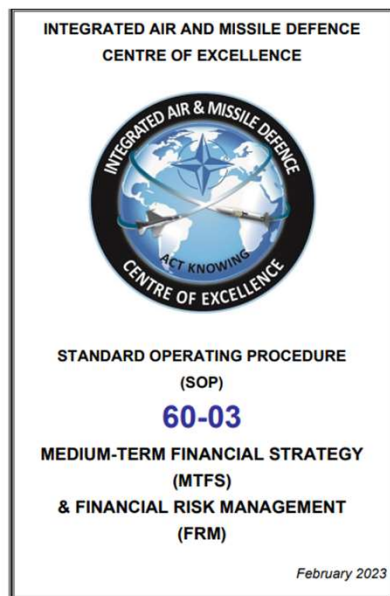
4





# Financial Status Update

## Financial Administrative Procedures Implementation



### **“Identification and Assessment of Critical Resource Shortfalls”**

[mechanism requested by HQ SACT  
(in the context of the Periodic Assessment)]

#### **Mitigation plan & actions**

*Find solutions using the existing resources  
(e.g. allocation)*

#### **STEP 6**

#### **Information sharing**

*Inform the responsible entities  
(Framework Nation, SC, etc.)*

**Inform HQ SACT  
for non-manageable  
critical resource shortfalls**

**4**

**5**

**6**

**7**

#### **STEP 5**

#### **Impact evaluation**

*Quantify the impact which  
cannot be addressed internally*

#### **STEP 7**

#### **Monitor, Review & Feedback**

*Review any actions taken and  
their results*





## Recommendations & Decisions

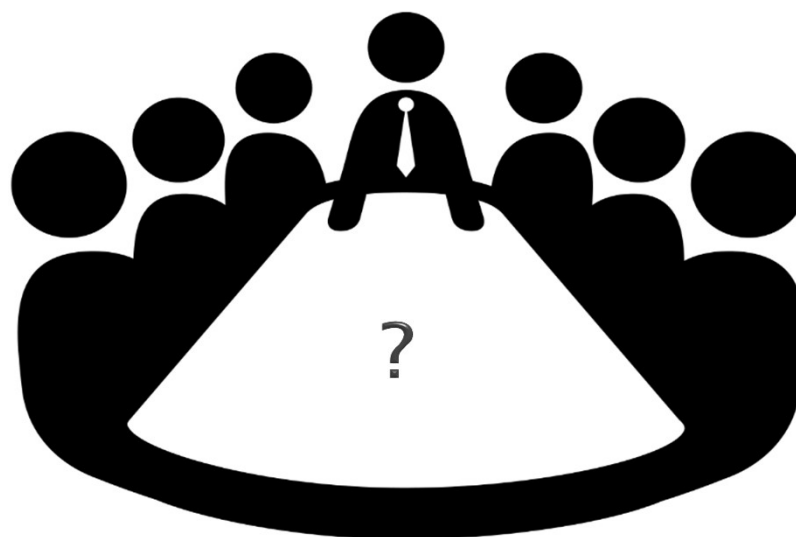
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SC members are kindly requested to *note* the financial status presented.



# Financial Status Update



Questions







**RAP File 19**  
**Shared Budget 2024**  
**Medium Term Financial Plan (MTFP 2025 - 2029)**



20'

CPT (OF-2) Evangelos BALTADOROS, GRC A  
Financial Controller







## Topics



- **Draft Budget Book 2024**
  - Introduction
  - Budget 2023 & MTFP 2024–2028 Decisions
  - Detailed Draft Budget 2024 (by Chapters – Codes)
  - Summary of Draft Budget 2023
- **Annual Funding Schedule FY 2024**
  - Schedule for Call for Funds (CFF)
- **Medium Term Financial Plan (MTFP)**
  - MTFP 2025–2029
- **Recommendations & Decisions**
  - Budget 2024 (*unanimous approval*)
  - MTFP 2025 – 2029 (*notation*)





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

## *Regulatory Framework*

- Operational MOU
- Financial Administrative Procedures (FAPs)

### ➤ SHARED BUDGET

The estimated expenditures/revenues required for the operation of the IAMDCOE

### ➤ ANNUAL BUDGET ESTIMATE

Is based mainly on the POW

Includes the shared costs for necessary supplies and services

### ➤ ANNUAL FUNDING SCHEDULE

Accompanies the budget, showing the estimated shares of the SNs

### ➤ MEDIUM TERM FINANCIAL PLAN (MTFP)

The estimated expenditures/revenues of the five (5) years following the next FY  
(for planning purposes)





# Draft Budget Book 2024



## Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

INTEGRATED AIR AND MISSILE DEFENCE  
CENTRE OF EXCELLENCE  
DRAFT BUDGET BOOK 2024



DRAFT BUDGET  
FOR FISCAL YEAR (FY)

**2024**

& ANNUAL FUNDING SCHEDULE  
& MEDIUM-TERM FINANCIAL PLAN (MTFP)  
FOR FY 2025 - 2029

July 2023

- ✓ Internal coordination
- ✓ Invitation letters – messages & requests received/expected
- ✓ Preliminary /draft POW 2024
- ✓ Experience acquired from FYs 2021–2023
- ✓ Priority to perform/complete NATO RfS
- ✓ No critical resource shortfalls will be existed
- ✓ Anticipated relocation to new facilities
- ✓ The FN Support
- ✓ Continuing staff training
- ✓ Achieving the optimal balance of funding and efficiency
- ✓ Optimizing the management of budgetary resources





# Draft Budget Book 2024



## Introduction

## Budget 2023 – MTFP 2024–2028

## Draft Budget 2024 (detailed)

## Draft Budget 2024 (summary)

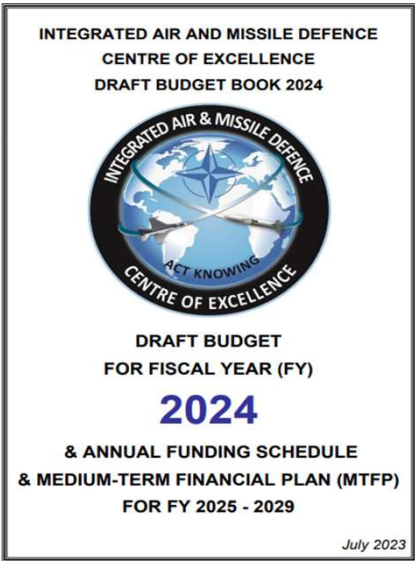
Continuing staff training both in targeted IAMD domain and the Centre's pillars

Annual organising of the IAMD COE Conference

Active involvement in the IAMD Common Education & Training Programme (CET-P)

Hosting Counter-UAS or/and the JCGUAS meetings

Additional utility - services required for new facilities



Minimum requirements of Cyber Defence for NATO Related Networks

NCIA application services - Information Knowledge Management (IKM) Toolset

Targeted procurement for capital & investment

Supporting all travel needs for POW requirements

Balanced trend on prices due to inflation rate





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

SUBJECT	SC's DECISION HELD	SC's DECISION
Budget 2023	- 1 <sup>st</sup> /2022 SC Meeting (26-27 Sep 22) <b>Approval</b>	<p>The SC <b>approved</b> the Shared Budget for FY 2023 at the amount of 256.000,00 €, analyzed per Chapter as follows:</p> <ul style="list-style-type: none"><li>- Chapter 71: 49.620,00 €</li><li>- Chapter 72: 143.180,00 €</li><li>- Chapter 73: 63.200,00 €</li></ul> <p>Total: <b>256.000,00 €</b> (expenditures)</p> <ul style="list-style-type: none"><li>- Chapter 74: 16.500,00 €</li></ul> <p>Total: <b>16.500,00 €</b> (revenues)</p>
MTFP 2024 - 2028	- 1 <sup>st</sup> /2022 SC Meeting (26-27 Sep 22) <b>Notation</b>	<p>The SC <b>noted</b> the submitted - presented MTFP 2024-2028 with the following figures for the FY 2024:</p> <ul style="list-style-type: none"><li>- Chapter 71: 65.000,00 €</li><li>- Chapter 72: 145.000,00 €</li><li>- Chapter 73: 70.000,00 €</li></ul> <p>Total: <b>280.000,00 €</b> (expenditures)</p> <ul style="list-style-type: none"><li>- Chapter 74: 22.000,00 €</li></ul> <p>Total: <b>22.000,00 €</b> (revenues)</p>





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
71 Personnel	01 Consultants	01	Consultants and Temporary Staff	0,00	0,00	0,00	0	0,00	8.500,00
		02	Academic Expenses	2.646,70 (3.000,00-353,30)	2.646,70	5.000,00	4.470	0,00	5.500,00
		03	Research Project Contracts	16.000,00 (12.000,00+4.000,00)	7.000,00	24.000,00	85.000	9.000,00	0,00
	02 Training	01	Transportation	4.328,30 (6.000,00-1.671,70)	4.294,16	8.160,00	4.320 - 5.280	0,00	7.680,00
		02	Course Fee	7.250,00 (9.225,00-1.975,00)	7.250,00	12.460,00	7.710 - 8.810	0,00	8.323,00
TOTAL				30.225,00	21.190,86	49.620,00	≤ 103.560	9.000,00	30.003,00





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
72 Contractual Supplies and Services	01 Printing and Photocopying	01	Printing and Photocopying Rental/Lease	0,00	0,00	0,00	0	0,00	0,00
		02	Printing and Photocopying Consumables	1.882,69 (1.000,00+882,69)	1.882,69	2.150,00	≤ 1.760	0,00	2.150,00
	02 Public Affairs	01	Public Affairs Supplies	9.877,40 (10.000,00-122,60)	9.877,40	11.000,00	≤ 11.000	0,00	12.000,00
		02	Hospitality and Representation	13.997,39 (10.000,00+3.997,39)	13.997,39	20.000,00	≤ 20.000	0,00	23.000,00
	03 Utilities	01	Electricity	7.000,00	5.649,02	7.500,00	4.500 - 5.500	0,00	17.200,00
		02	Water and Sewage	1.000,00	537,25	1.600,00	1.200 - 1.400	0,00	2.000,00
		03	Heating and Cooling	1.200,00	987,29	1.200,00	≤ 1.200	0,00	900,00





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
72 Contractual Supplies and Services	04 Facilities and Buildings	01	Rental of Minor Facilities	3.720,00 (4.000,00-280,00)	3.720,00	8.000,00	≤ 5.700	0,00	<b>6.500,00</b>
		02	Minor Building maintenance	0,00 (3.000,00-3.000,00)	0,00	500,00	0 - 160	0,00	<b>500,00</b>
		03	Facilities and Buildings Equipment maintenance	285,79 (500,00-214,21)	285,79	300,00	200 - 220	0,00	<b>500,00</b>
		04	Facilities and Buildings Services	3.978,57 (5.000,00-1.021,43)	3.976,27	4.500,00	4.000 - 4.300	0,00	<b>16.000,00</b>
	05 Computers	01	Computers Rental and Operational Lease	0,00	0,00	0,00	0	0,00	<b>0,00</b>
		02	Computers Spare/ Repair Parts	62,72 (500,00-437,28)	62,72	250,00	150 - 250	0,00	<b>300,00</b>
		03	Computers Maintenance	466,00 (500,00-34,00)	466,00	250,00	200 - 250	0,00	<b>300,00</b>
		04	Computers Services	10.471,01 (7.000,00+3.471,01)	10.471,01	12.300,00	≤ 12.300	0,00	<b>10.000,00</b>





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CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
72 Contractual Supplies and Services	06 Communication Systems	01	Communication Systems Rental and Operational Lease	0,00	0,00	0,00	0	0,00	<b>0,00</b>
		02	Communication Systems Spare Parts and Consumables	716,73 (500,00+216,73)	716,73	300,00	150 - 300	0,00	<b>800,00</b>
		03	Communication Systems Maintenance	180,00 (0,00+180,00)	180,00	0,00	0	0,00	<b>100,00</b>
		04	Communication Systems Services	3.156,97 (8.000,00-4.843,03)	2.179,66	4.500,00	≤ 2.500	0,00	<b>3.700,00</b>
	07 Mission Carriers	01	Mission carriers Rental and Operational Lease	2.370,00 (2.800,00-430,00)	2.370,00	10.500,00	4.500 - 4.800	0,00	<b>7.000,00</b>
		02	Mission carriers Maintenance	1.976,50 (1.500,00+476,50)	1.976,50	2.000,00	≤ 600	0,00	<b>1.700,00</b>
		03	Mission carriers Fuel Costs	4.000,00 (2.150,00+1.850,00)	2.978,69	4.500,00	3.300 - 3.700	0,00	<b>3.700,00</b>
		04	Mission carriers Insurance	0,00	0,00	0,00	0	0,00	<b>0,00</b>





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CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
72 Contractual Supplies and Services	08 Travel	01	Transportation	29.500,00	21.842,57	36.000,00	≤ 29.200	0,00	32.160,00
		02	Participation fee	2.000,00	1.064,99	1.700,00	≤ 1.350	0,00	1.600,00
	09 Other Expenditures	01	Literature and Periodicals	2.949,00 (2.500,00+449,00)	2.949,00	1.500,00	0 - 1.500	0,00	2.900,00
		02	Office supplies	2.345,30 (4.000,00-1.654,70)	2.345,30	2.500,00	≤ 1.000	0,00	2.000,00
		03	Bank charges	116,52 (125,00-8,48)	116,52	470,00	220 - 250	0,00	287,00
		04	Postal/shipping services	0,00	0,00	160,00	0 - 40	0,00	100,00
		05	Miscellaneous Supplies	3.153,46 (6.000,00-2.846,54)	3.058,06	4.500,00	≤ 1.400	0,00	5.700,00
		06	Miscellaneous Services	9.368,95 (6.000,00+3.368,95)	9.368,95	5.000,00	≤ 1.000	0,00	2.400,00
CHAPTER 72 - TOTAL				115.775,00	103.059,80	143.180,00	≤ 111.680	0,00	155.497,00





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CISI			Annotation	FY 2022		FY 2023			FY 2024
Chapter	Item	Sub-item		Appropriations approved	Actual expenditures	Appropriations approved	Forecast of expenditures	Appropriations carried forward	Appropriations requested
73 Capital and Investments	0001		Computers	6.209,91 (10.000,00-3.790,09)	6.201,90	10.000,00 (8.000,00+2.000,00)	18.000 - 21.000	0,00	27.000,00
	0002		Communications	78.261,66 (70.000,00+8.261,66)	7.108,66	33.000,00 (35.000,00-2.000,00)	14.000 - 16.000	71.153,00	49.000,00
	0003		Furniture and Office Equipment	3.560,77 (0,00+3.560,77)	3.560,77	3.000,00	≤ 3.000	0,00	15.000,00
	0004		Vehicles	21.967,66 (30.000,00-8.032,34)	21.967,66	16.000,00	0	0,00	0,00
	0005		Machinery	0,00	0,00	1.200,00	≤ 650	0,00	3.500,00
	0006		Installed Equipment	0,00	0,00	0,00	0	0,00	0,00
	0007		Buildings	0,00	0,00	0,00	0	0,00	0,00
CHAPTER 73 - TOTAL				110.000,00	38.838,99	63.200,00	≤ 40.650	71.153,00	94.500,00
TOTAL EXPENDITURES				256.000,00	163.089,65	256.000,00	≤ 255.890	80.153,00	280.000,00





# Draft Budget Book 2024



Introduction

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CISI			Annotation	FY 2022		FY 2023	FY 2024
Chapter	Item	Sub-item		Revenues forecasted	Actual revenues	Revenues forecasted / estimated	Forecast of Revenues
74 Revenues	0001		Fees	0,00	6.050,00	11.000,00 / 10.770,00	11.000,00
	0002		Studies and Publications	0,00	0,00	0,00 / 0,00	0,00
	0003		Interest Income	600,00	309,07	500,00 / 450,00	500,00
	0004		Sponsoring	0,00	0,00	5.000,00 / 0,00	5.000,00
	0005		Miscellaneous	0,00	0,00	0,00 / 0,00	0,00
CHAPTER 74 - TOTAL				600,00	6.359,07	16.500,00 / 11.220,00	16.500,00

As current Financial Status Update,  
it is anticipated to have increased  
revenues up to 12.540 €





# Draft Budget Book 2024



Introduction

Budget 2023 –  
MTFP 2024–2028

Draft Budget 2024  
(detailed)

Draft Budget 2024  
(summary)

CHAPTER	DESCRIPTION	BUDGET FY 2023	MTFP FY 2024	DRAFT BUDGET FY 2024
71	Personnel	49.620,00	65.000,00	30.003,00
72	Contractual Supplies and Services	143.180,00	145.000,00	155.497,00
73	Capital and Investments	63.200,00	70.000,00	94.500,00
<b>TOTAL EXPENDITURES</b>		<b>256.000,00</b>	<b>280.000,00</b>	<b>280.000,00</b>
74	Revenues	16.500,00	22.000,00	16.500,00
<b>TOTAL REVENUES</b>		<b>16.500,00</b>	<b>22.000,00</b>	<b>16.500,00</b>





# Annual Funding Schedule 2024



TIMETABLE	2023		2024								
	SCM	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Bulgaria	Approval of the Budget 2022		1 <sup>st</sup> CFF payment						2 <sup>nd</sup> CFF payment		
Czech Republic											
France											
Greece											
Romania											
Türkiye											
IAMD COE	Submission (by 15 Dec 22) of the 1 <sup>st</sup> Call for Fund (CFF) for FY 2023 (60% of the approved budget)		(payment within 90 days)			FS 2023	2 <sup>nd</sup> CFF submission		(payment within 90 days)		

Participant	Assigned Positions	Percentage (cost share formula)	Maximum Share/ contribution	To be returned - estimated unused appropriations & Revenues 2023	1 <sup>st</sup> CFF (50%)	2 <sup>nd</sup> CFF (up to 50%)
Bulgaria	1	5,2632% (1/19)	14.736,84		7.368,42 (280.000 x 50% x 1/19)	6.660,29
Czech Republic	2*	10,5263%* (1/19)	29.473,68 *		14.736,84 * (280.000 x 50% x 2/19)	14.028,71*
France	1	5,2632% (1/19)	14.736,84		7.368,42 (280.000 x 50% x 1/19)	7.368,42
Greece	12**	63,1579% (11/19)	176.842,12 **		88.421,06 ** (280.000 x 50% x 12/19)	80.631,70 **
Romania	1	5,2632% (1/19)	14.736,84		7.368,42 (280.000 x 50% x 1/19)	6.660,29
Türkiye	2	10,5263% (2/19)	29.473,68		14.736,84 (280.000 x 50% x 2/19)	13.320,59
<b>TOTAL</b>	<b>19</b>	<b>100,00% (19/19)</b>	<b>280.000,00</b>	<b>≥ 11.220</b>	<b>140.000,00</b>	<b>≤ 128.670,00</b>

## CFF 2024

\* New post (CZE) (ETB-07)

\*\* COS post (GRC) (DIR-03)

≤ 268.670 €





# MTFP 2025 - 2029



CHAPTER	DESCRIPTION	FY				
		2025	2026	2027	2028	2029
71	Personnel	60.000,00	65.000,00	55.000,00	50.000,00	50.000,00
72	Contractual Supplies and Services	180.000,00	180.000,00	185.000,00	190.000,00	190.000,00
73	Capital and Investments	60.000,00	55.000,00	60.000,00	60.000,00	60.000,00
<b>TOTAL EXPENDITURES</b>		<b>300.000,00</b>	<b>300.000,00</b>	<b>300.000,00</b>	<b>300.000,00</b>	<b>300.000,00</b>
74	Revenues	20.000,00	25.000,00	30.000,00	30.000,00	30.000,00
<b>TOTAL REVENUES</b>		<b>20.000,00</b>	<b>25.000,00</b>	<b>30.000,00</b>	<b>30.000,00</b>	<b>30.000,00</b>





## Recommendations & Decisions



### ➤ Budget 2024

- SC members are kindly requested to unanimously **approve** the Budget 2024.

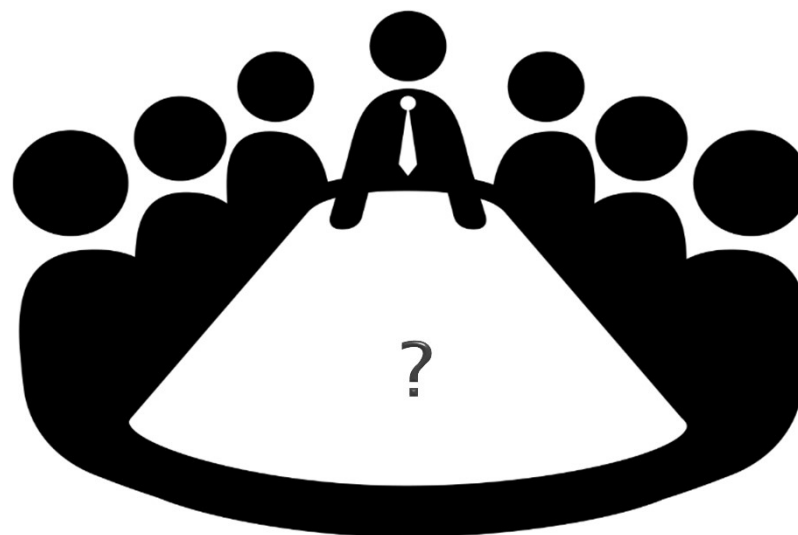
### ➤ MTFP 2025 - 2029

- SC members are kindly requested to **note** the MTFP 2025 - 2029.





# Shared Budget 2024 - MTFP 2025-2029



Questions

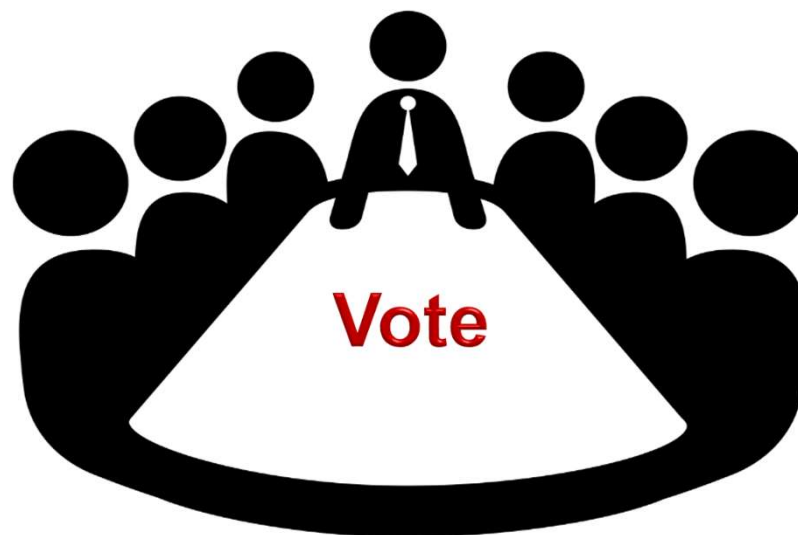
NATO UNCLASSIFIED







# Shared Budget 2024



## RAP File 19 Shared Budget 2024

NATO UNCLASSIFIED







## Clarifications and 1st Day Wrap Up



5'

B. Gen. Nikolaos GIAPRAKAS  
IAMDCOE SC Chairperson







# 1<sup>st</sup> Day Meeting 20 Sep 2023



TIME	DESCRIPTION	RESPONSIBLE
08:30-09:00	Transportation from hotels to the Conference Hall	Transportation available
09:00-09:30	Registration- Coffee	
09:30-09:40	Opening Remarks	CP
	Welcome Address	DIR
09:40-09:55	Administrative Issues	FNS BH
09:55-10:00	Adoption of Agenda and approval of Observers' Participation (Decision)	CP
10:00-10:10	Actions from IAMDCoE, SC 1/2022	SC Secretary
10:10-10:30	Break	
Programme of Work [PoW]		
10:30-11:20	<b>PoW 2023 (Current Status Update)</b> RAP file No 1 (Notation)	PoW M, BHs
11:20-12:00	<b>PoW 2023 rev.2 (Introduction of New Items)</b> RAP files No 2 – 8 (Decision)	BHs
12:00-12:15	Break	
12:00-12:30	<b>PoW 2024 (Introduction of New Items)</b> RAP file No 9-14 (Decision)	BHs
12:30-13:00	<b>PoW 2024</b> RAP file No 15 (Decision)	PoW M, BHs, FINCON
13:00-14:30	Lunch Break	





# 1<sup>st</sup> Day Meeting 20 Sep 2023



Cooperation with Technical University of Crete		
14:30-14:40	Cooperation with Technical University of Crete (Notation)	CD&E
AI-Empowered Drone Detection Passive Radar Using 5G Signals		
14:40-14:50	AI-Empowered Drone Detection Passive Radar Using 5G Signals RAP file No 16 (Notation)	CD&E
Finance and Budget		
14:50-15:20	"AI-Empowered Drone Detection Passive Radar Using 5G Signals" Project - Intended Contract with FORTH-ICS (a) Shared Budget 2023 - Transfer of funds between/ within Chapters (b) Procurement procedure (tender requirements in case of prospective contracting with FORTH-ICS) RAP file No 17 External Audit of IAMDCOE Financial Statements for FYs 2020-2023 (for Shared Budget of FYs 2021-2023) RAP file No 12	FINCON (Decision) (Decision)
15:20-15:35	Break	





# 1<sup>st</sup> Day Meeting 20 Sep 2023



Finance and Budget		
15:35-16:20	Finance and Budget - Financial Status Update RAP file No 18 (Notation)	FINCON
	Shared Budget of FY 2024 RAP file No 19 (Decision)	
	Medium Term Financial Plan (MTFP) 2025-2029 RAP file No 19 (Notation)	
16:20-16:35	Coffee Break	
16:35-17:00	Clarifications and 1st Day Wrap Up	CP, Sec
20:00	Transportation from CMP to Icebreaker/Dinner Point	
20:30-22:30	Host Dinner	
22:30	Transportation to Chania Meeting Point (CMP)	





## DINNER AT NEORIA RESTAURANT AT 20:00

