

# LoD-09

## FUTURE PROJECTS

# AGENDA

- 1. Presentation of participants*
- 2. Updates on the LoD-09 Objectives*
- 3. KA2 Projects – from idea to implementation  
(template for finished/ongoing KA2 projects)*
- 4. Brainstorming and ideas for future projects*
- 5. Conclusions*

# 1. Presentation of participants



LoD-09 Future Projects – 64th IG Meeting, Shumen, 19 November 2024

# 1. Presentation of participants

Institution	Country	Participants
Royal Military Academy, Brussels	Belgium	1
“Vasil Levski” National Military University	Bulgaria	2
Rakovski National Defence College	Bulgaria	1
Nikola Vaptsarov Naval Academy, Varna	Bulgaria	2
Dr. Franjo Tuđman Croatian Defence Academy	Croatia	1
Helmut Schmidt University	Germany	2
Hellenic Army Academy, Vari	Greece	1
Hellenic Air Force Academy, Athens	Greece	2
Hellenic Military Academy of Combat Support Officers	Greece	2
Military University of Technology, Warsaw	Poland	4
Portuguese Military Academy, Lisbon	Portugal	1
Military Technical Academy “Ferdinand I”, Bucharest	Romania	4
“Carol I” National Defence University	Romania	1
Armed Forces Academy of General Milan Rastislav Štefánik	Slovakia	1
<b>Total 14 institutions</b>	<b>9</b>	<b>25</b>

## 2. Updates on the LoD-09 Objectives

### STRATEGIC OBJECTIVES:

- Increase the number of military universities involved in defence and security projects to promote the mobilities of cadets and staff and to support the future development of the institutions within the Military Erasmus initiative.

- Creation of cooperation networks of military universities, which strengthen interoperability and allow for the harmonisation of activities in selected areas.

### OPERATIONAL OBJECTIVES:

- Elaborate and organise a train-the-trainer module, as well as a common module for students in the field of “*Project management for defence and security education*”

- Creating conditions for cooperation in projects for military universities.

- Elaborate and publish at the LoD-09 informative “space” on EMILYO a list of finished and ongoing projects, ideas for future projects and a guideline for applying to future projects

- Exchange of experiences (lesson learned) and information about ongoing projects and future cooperation opportunities.

### TACTICAL OBJECTIVES:

- Identify the best practices/experiences in KA2 Projects and organise the lesson-learned sessions

Indicating POCs for LoD-9 project

- Identify new project ideas and support the institutions for building partnerships

Obtain information about project/grant plans

- Prepare and execute a pilot edition for the training activities and for the common module in “*Project management for defence and security education*”

### 3. KA2 Projects – from idea to implementation



#### Examples of ongoing or finished KA2 projects (within EMILYO)

Strategic Partnership Project "International Semester for Land Forces"

Strategic Partnership Project "International Air Force Semester"

Strategic Partnership Project "International Technical Semester"

Strategic Partnership Project "International Naval Semester"

Strategic Partnership Project "Military Gender Studies"

Strategic Partnership Project "Digital Education/Digital Mathematics"

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### 3. KA2 Projects – from idea to implementation

#### List of finished/ongoing projects

Title of the project	Period	Statute	Webpage	Information
European Common Technical Semester for Defence and Security (EuCTSds)	2020-2023	Finished	<a href="https://www.euctsds.eu/">https://www.euctsds.eu/</a>	RO_MTA_2023-EuCTSds
Digital Mathematics Applied in Defense and Security Education (DIMAS)	2023-2026	Ongoing	<a href="https://dimas-project.eu/">https://dimas-project.eu/</a>	BG_NMU_2024-DIMAS
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# 3. KA2 Projects – from idea to implementation

## Template for the finished/ongoing projects



**TITLE OF THE PROJECT**

Project's Partners		
Contact person:		
Project's website:		
Contract number:		
Budget:		
Duration:		
Objectives:		
Main results (intellectual outputs):		
Target groups:		
Elaborated common modules:	<b>Common module title</b>	<b>ECTS</b>



# 3. KA2 Projects – from idea to implementation

## Template for the finished/ongoing projects



### European Common Technical Semester for Defence and Security

<b>Project's Partners:</b>	<ul style="list-style-type: none"> <li>- RO MTA - Military Technical Academy „Ferdinand I”, Romania (coordinator)</li> <li>- PL WAT - Military University of Technology, Warsaw, Poland</li> <li>- GR HAA - Hellenic Air Force Academy, Athens, Greece</li> <li>- FR FASFA - French Air and Space Force Academy, Salon de Provence, France</li> <li>- BG NMLU - “Vasil Levski” National Military University, Bulgaria</li> <li>- ESDC - European Security and Defence College (associate partner)</li> </ul>	
<b>Contact person:</b>	Moldoveanu Cristian-Emil Email: <a href="mailto:mcristi@mta.ro">mcristi@mta.ro</a> , Phone: +40721288312	
<b>Project's website:</b>	<a href="https://www.euctsds.eu/">https://www.euctsds.eu/</a>	
<b>Contract number:</b>	2020-1-RO01-KA203-080375	
<b>Budget:</b>	194.791 Euro	
<b>Duration:</b>	Start date: 01.12.2020 – end date: 31.07.2023	
<b>Objectives:</b>	To develop and test a new modular curriculum for an international technical semester for defence and security, at bachelor level, common at European Union, and also to develop a network of teachers with competences in the field of technical systems for defence and security.	
<b>Main results (intellectual outputs):</b>	<ul style="list-style-type: none"> <li>- Design and Development of the E-CTS<sup>DS</sup> Curriculum</li> <li>- Subjects Description and Education materials for E-CTS<sup>DS</sup></li> <li>- Methodology and Guide for the Interdisciplinary Scientific Project</li> <li>- E-learning Platform</li> </ul>	
<b>Target groups:</b>	<ul style="list-style-type: none"> <li>- Institutions: opportunity to implement entire semester or some modules</li> <li>- Students/cadets: mobilities to attend the entire semester or few modules</li> <li>- Teachers/instructors: mobilities for teaching</li> </ul>	
<b>Elaborated common modules:</b>	<b>Common module title</b>	<b>ECTS</b>
	- Applied Informatics	3
	- Applied Automation for Engineering Systems	3
	- Signal Processing	3
	- Programming Languages	3
	- Computer Networks	3
	- Microcontrollers	3
	- Mechanics and Material Science	3
	- Dynamic of Flight	3
	- Propulsion Systems	3
	- Computer-Aided-Design and Numerical Analysis	3
	- Common Security and Defence Policy for Technical Systems	3
	- Integrated Weapon Systems	3

### Digital Mathematics Applied in Defense and Security Education (DIMAS)

<b>Project's Partners:</b>	<ul style="list-style-type: none"> <li>- BG NMLU - Vasil Levski National Military University, Bulgaria (coordinator),</li> <li>- RO MTA - Military Technical Academy „Ferdinand I”, Romania</li> <li>- IT UNITO - University of Torino, Italy</li> <li>- PL WAT - Military University of Technology, Warsaw, Poland,</li> <li>- GR HAA - Hellenic Army Academy, Vari, Greece</li> <li>- IT SAMS - Education and Training Command and School of Applied Military Studies (associate partner)</li> </ul>	
<b>Contact person:</b>	Linko NIKOLOV Email: <a href="mailto:linkonikolov@gmail.com">linkonikolov@gmail.com</a> , Phone: +359 885 723 466	
<b>Project's website:</b>	<a href="https://dimas-project.eu/">https://dimas-project.eu/</a>	
<b>Contract number:</b>	2023-1-BG01-KA220-HED-000156664	
<b>Budget:</b>	250000 Euro	
<b>Duration:</b>	Start date: 01.11.2023 – end date: 30.10.2026	
<b>Objectives:</b>	The project's main objectives are to increase the interest in Math science for Defence and Security education and improve the possibility of understanding Math theory with examples applied. The project's proposed activities and outputs are a review of math software capabilities and the creation of innovative math teaching programs with applied examples, pilot schools, and mobilities. The digital math education courses are linked to the digitalisation priority, and a standard test, the Olympiad in math, is connected with capacity building and interconnected higher education	
<b>Main results (intellectual outputs):</b>	<ul style="list-style-type: none"> <li>- Survey among students and teachers for difficulties in Math science</li> <li>- Handbook of learning/teaching scenarios based on mathematical models applied in defence and security education</li> <li>- Survey of available digital mathematics tools</li> <li>- Handbook of Open Educational Resources</li> <li>- Survey for students/teachers</li> <li>- Survey of available digital mathematics tools</li> <li>- WEB-based platform development</li> </ul>	
<b>Target groups:</b>	<ul style="list-style-type: none"> <li>- Institutions: all learners in Defense and Security HE field can fall into account as users of Math learning process.</li> <li>- Students/cadets: 1st and 2nd grade students can benefit the most from such innovative practical-oriented Maths teaching methodology</li> <li>- Teachers/instructors: All teachers, connected in Defense and Security HE, can improve their skills and competences for this innovative method for applied Maths teaching.</li> </ul>	
<b>Elaborated common modules:</b>	<b>Common module title</b>	<b>ECTS</b>
	Competition (Olympiad) of international student teams in Applied Math.	TBD



## 4. Brainstorming and ideas for future projects

### Proposal for future projects

Military Technical Academy “Ferdinand I”, Bucharest, Romania/Contact: Andrada-Livia CÎRNEANU ([andrada.cirneanu@gmail.com](mailto:andrada.cirneanu@gmail.com))

The areas of research of interest are:

- 1. Complex image processing, multi-level wireless sensor networks,** shape recognition in remote images, signal processing through fusion and consensus, environmental monitoring, image-based diagnosis, and multi-UAV systems for monitoring critical infrastructures.
- 2. Multilevel integrated networks for complex indoor monitoring:** Instead of a single large network of sensors, the system integrates various smaller wireless sensor networks grouped within a geographically defined indoor area, potentially interconnected via fibre optic through a control or management node, with switching or routing functions, protocol conversions, and data processing.
- 3. Internet-controlled multi-UAV system for assessing the effects of flooding.** The advantage of the multi-drone system is the increased coverage area and reduced operational time. The final result of the research will be a multi-drone system collaboratively operated remotely via the internet to carry out a mission of detecting and assessing areas affected by flooding.

## 4. Brainstorming and ideas for future projects

### Proposal for future projects

Military University of Technology, Warsaw, Poland/Contact: Grzelak Małgorzata ([malgorzata.grzelak@wat.edu.pl](mailto:malgorzata.grzelak@wat.edu.pl))

The areas of research of interest are:

#### 1. Higher Education Institutions' contribution to Sustainable Supply Chain Management

The main goal of the project is to prepare specialists who will be ready to respond to modernity and crises in transport and logistics, taking conscious actions to reduce the negative effects of the economy's impact on the environment.

#### 2. Developing methods for assessing satellite images using AI tools to analyse transport infrastructure in real-time.



# FUTURE PROJECTS



# QUESTIONS?