71st IG MEETING

European Security and Defence College

LoD 13 Session
SCIENCE & TECHNOLOGY EDUCATION

Brussels

8th of September, 2026

1. About participants
2. Debate and approval of CM: Optoelectronic Systems for Defense and Security
3. Debate and approval of CM: Ballistics
4. Common Module IMINT/GEOINT ANALYSIS
5. DIgital Mathematics Applied in defence and Security education - DIMAS

LoD 13 SCIENCE & TECHNOLOGY EDUCATION

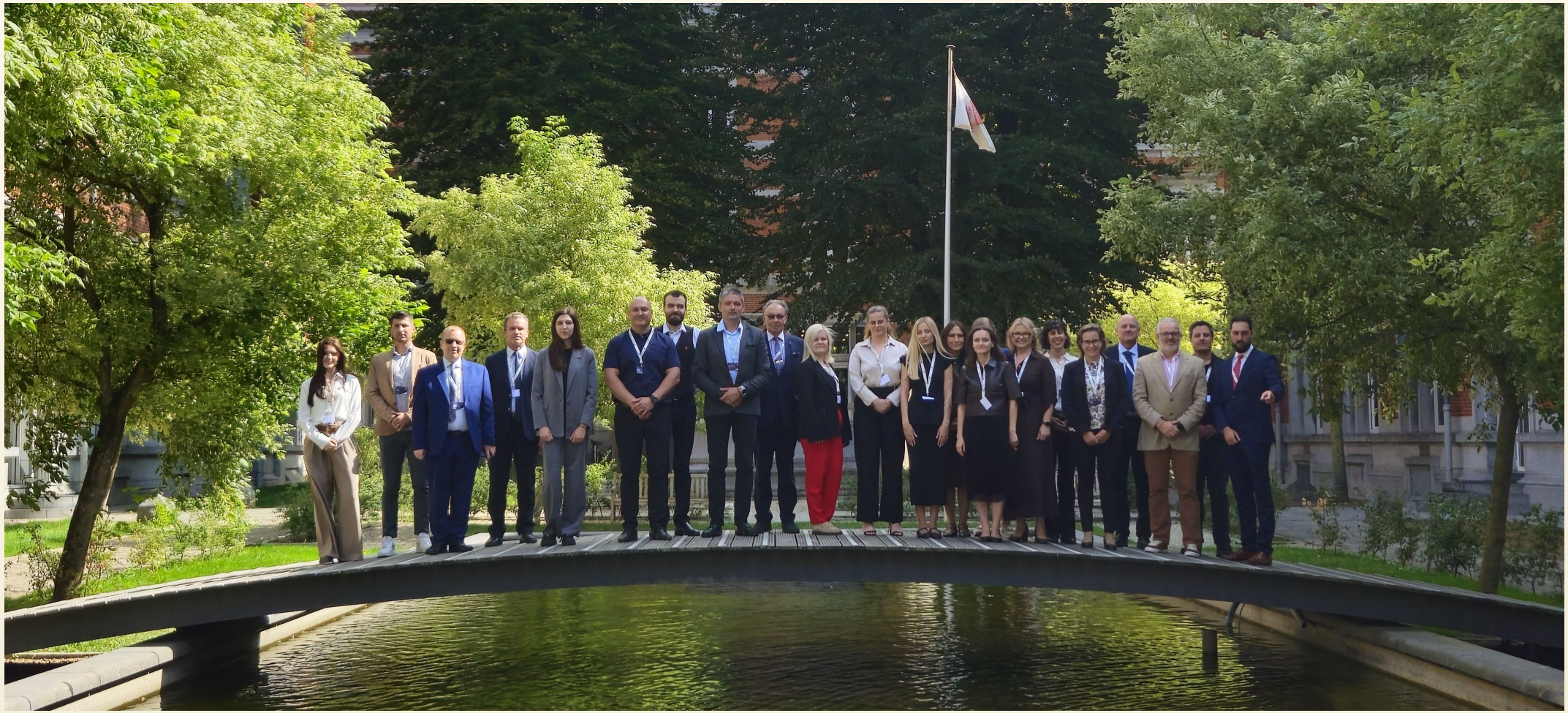
European Security and Defence College

PARTICIPANTS

22 participants

13 institutions

9 countries



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LoD 13 SCIENCE & TECHNOLOGY EDUCATION

European Security and Defence College

Optoelectronic Systems for Defence and Security

Annouced partners:

BE-RMA, GR-HAFA, ES-UPCT,

PL-WAT, RO-MTA

The content CM syllabus was approved within the LoD 13 meeting

Pilot edition – Autumn 2027

Countries	Institution		ECTS
Romania	**Military Technical Academy "Ferdinand I"**	**Optoelectronic Systems for Defense and Security**	**3.0**

Service	Minimum Qualification of Instructors
ALL	• **Officers or civilian Lecturers:** ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or min. NATO STANAG 6001 Level 3. ○ Expertise on relevant topics. ○ Relevant academic publications.
Language **English**	

Prerequisites for international participants

- English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2.
- At least 1 year of national (military) higher education.
- Basic knowledge on technical systems for security and defence
- Security clearance: Unclassified information

Goal of the Module

- Basic principles of the Optoelectronic Systems;
- Module provides foundational and intermediate knowledge of optoelectronic systems used in modern defense and security environments;
- Explore the principles of optics, photonics, and electronic integration, followed by practical applications such as imaging, detection, laser-based systems, night-vision technologies, and surveillance solutions.

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LoD 13 SCIENCE & TECHNOLOGY EDUCATION

European Security and Defence College

Ballistics

Annouced partners:

BE-RMA, PL-WAT, RO-MTA

Countries	Institution		ECTS
Romania	**Military Technical Academy "Ferdinand I"**	**Ballistics (Internal, External, and Terminal)**	**3.0**

Service	Minimum Qualification of Instructors
ALL	• **Officers or civilian Lecturers:** ○ English: Common European Framework of Reference for Languages (CEFR) Level B2 or min. NATO STANAG 6001 Level 3. ○ Expertise on relevant ballistics topics. ○ Relevant academic publications.
Language **English**	

Prerequisites for international participants	Goal of the Module
• English: Common European Framework of Reference for Languages (CEFR) Level B1 or NATO STANAG Level 2. • At least 1 year of national (military) higher education. • Basic knowledge on technical systems for security and defence • Security clearance: Unclassified information	• Basic principles of the Internal, External, and Terminal Ballistics; • Provide foundational and intermediate knowledge of projectile dynamics, motion parameters, trajectory calculations, and impact phenomena in modern military scenarios; • Explore physical and mathematical models, propellants, trajectory characteristics, aerodynamic forces, and terminal impact mechanics.

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LoD 13 SCIENCE & TECHNOLOGY EDUCATION

DIGITAL MATHEMATICS APPLIED IN DEFENCE AND SECURITY EDUCATION

Until now

01 **Developed 20 scenarios**

for the activities with students.

02 **Tested and validated**

the scenarios for implementation during the LTTAs.

03 **Organised the DIMAS Olympiad**

in Digital Mathematics Applied to Defence and Security.

04 **Implemented the Pilot Course**

on Mathematics-based Scenarios in Defence and Security Education (LTTA 4) for teachers and students.

Next steps

01 Organise **TPM 4**

02 Organise the **Multiplier Event**

QUESTIONS?

SUGGESTIONS?

RECOMMENDATIONS?