



## INNOVATION SESSION: MINE ACTION IN UKRAINE

KYIV, UKRAINE, 12-13 FEBRUARY 2025

### DAY 1 – 12 FEBRUARY 2025

Time	Activity and Topic
<b>BLOCK 1 PLENARY: SETTING THE STAGE</b>	
09:00-09:30	Welcome Address from the high-level speakers
09:30-10:00	Introduction to Land Release
10:00-10:30	Demine Ukraine Innovation Accelerator
10:30-11:00	State of the art of sensing systems
11:00-11:30	Coffee break
<b>BLOCK 2 THEMATIC WORKING SESSIONS</b>	
11:30-13:00	Thematic working sessions (simultaneous)
	Gap Analysis (4 themes)
	Multisensory Robotic systems (4 themes)
13:00-14:00	Lunch
14:00-15:30	Thematic working sessions (simultaneous) (cont.)
15:30-16:00	Coffee break
16:00-17:00	Intermediate back briefs by each thematic group (in plenary)
<b>BLOCK 3 SPEED PITCH SESSION 1</b>	
17:00-17:30	Presentation of selected R&D and technology providers (3 minutes each)

## TRAVEL to "INNOVATION SESSION - UKRAINE" 12-13 February 2025

### DAY 2 – 13 FEBRUARY 2025

Time	Activity and Topic
<b>BLOCK 2 THEMATIC WORKING SESSIONS (CONT)</b>	
09:30-11:00	Thematic working sessions (simultaneous) (cont.)
11:00-11:30	Coffee break
11:30-13:00	Thematic working sessions (simultaneous) (cont.)
13:00-14:00	Lunch
<b>BLOCK 3 SPEED PITCH SESSION 2</b>	
14:00-14:30	Presentation of selected R&D and technology providers (3 minutes each)
<b>BLOCK 2 THEMATIC WORKING SESSIONS: RESULTS</b>	
14:30-15:30	Final back briefs by each thematic group and discussion (in plenary)
15:30-16:00	Coffee break
16:00-17:00	Final back briefs by each thematic group and discussion (in plenary)
<b>BLOCK 4 CLOSING REMARKS</b>	
17:00-17:30	Closing remarks



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Title	Driving question
<b>GAP ANALYSIS</b>	
Land Release process in Ukraine	How might we improve the efficiency of Land Release process in Ukraine?
Ukraine mine action innovation system	How might we improve coordination and collaboration at national level leading to better user-feedback and needs-based approaches?
Scaling innovative methods and technologies	How might we transfer local successes to other places in Ukraine and abroad?
Test, evaluation and accreditation of innovative methods and technologies	How might we establish criteria and processes the national level to efficiently evaluate the maturity of new technologies, based on Technology Readiness Levels (TRLs)?

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MULTISENSORY ROBOTIC SYSTEMS	Driving question
AI and UAV-collected multilayer sensor data	How might we set up standard training data sets to enhance AI analysis of UAV-collected sensor data?
UAV detection of sub-surface hazards	How might we effectively fuse multiple sensor data to ensure effective classification of hazards (high probability of detection and low false positive rates)?
Broader risk management approaches	How might confidence building methods/technologies contribute to bringing agricultural land to production faster?
Mechanical demining and unmanned ground systems (UGS)	How might we maximize the impact of the wide availability of mechanical demining and UGS assets in Ukraine, increasing productivity of Land Release?



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# CONCLUSIONS

1. Nontechnical survey
2. Technical survey
3. Mechanical demining
4. Deminers

It is necessary to change standard for landmine detection and mine cleaning

**UAV with AI**

optical sensor, RGB camera, temperature camera, magnetometer

Discriminate areas according to type of contamination in three

"Clear" area

Little polluted:  
antipersonnel landmines,  
plastic mines

Heavy polluted:  
antitank landmines  
ammunition depot  
RPG-7 shot ....