



NATO MODELLING & SIMULATION  
CENTRE OF EXCELLENCE

Piazza Villorosi n.1- 00143 Rome, Italy



## CA2X2 Forum 2022 Agenda

This is the pdf version (5.6) of the CA2X2 Forum 2022 Agenda .



# NATO CA2X2 Forum 2022



2022	Monday 26 SEP	Tuesday 27 SEP	Wednesday 28 SEP	Thursday 29 SEP
	Rooms	PR R2 R3 R4	PR R2 R3 R4	PR R2 R3 R4
	07.30	<b>Registration</b>		
The time from 9:00 am to 12:30 pm will be flexible. Please follow the organizer's instructions.	09.00	<b>Plenary Welcome Messages</b>		09.00 <b>SP2 CD8 ET1 SP1</b> 09.30 <b>SP1 CD5 ET3 CT4</b> 10.00 <b>SP3 CD1 ET4</b>
	10.00	Coffee break		10.30 Coffee break
Keynote Speakers: BG (R) Turi Prof. Bruzzone Dr. Cayirci Dr. Siegfried Mr. Loze Round Table Discussion Mr. Mursia (Moderator)	10.30	<b>Plenary Keynote / Roundtable</b>		11.00 <b>WF1 ODZ CC1</b> CY3 20 min 11.30 <b>WF2 AI2 CC2</b> CY2 20 min 12.00 <b>WF3 AI2 CC3</b> CY7 20 min CY6 20 min Q&A 10 min
	12.00	<b>Group picture</b>		12.30 Lunch
	12.30	Lunch		12.30 Lunch
	14.00	<b>ST3 OD1 LL1 CT3</b>	14.00 <b>WF4 AI3 CC4</b>	14.00 <b>WG3 CDY ED8 SN3</b>
	14.30	<b>ST4 OD9 LL2 CT2</b>	14.30 <b>WF5 AI3 CC5</b> CT4	14.30 <b>WG6</b>
	15.00	<b>ST5 OD3 LL3 CT5</b>	15.00 <b>CDZ AI4 CC6</b>	15.00 <b>Final Plenary</b>
	15.30	Industry coffee break		
	16.30	<b>ST2 OD5 LL4 CT8</b>	16.00 <b>Cultural Event (optional)</b>	
18.00	<b>Registration</b>	17.00 <b>ST1 OD4 LL5 CT9</b>		
19.30	<b>Icebreaker (informal)</b>			
21.00				

**LEGEND:**

CT1, CT4 (SEP 29) - participants' laptops are required

PR- Plenary room R- Room CAX = ST / WF CT1 - 15 min Presentation, 45 min Workshop

ST1, ST6, WG6, SN1 - Roundtable discussions CT4 - 90 min Presentation, 90 min Workshop

*NATO Modelling & Simulation Centre of Excellence*

*CA2X2 Forum 2022 – Organizing Committee*

*Piazza Villorosi,1 00143 – ROME (Italy)*

*e-mail [natoca2x2forum@mscoe.org](mailto:natoca2x2forum@mscoe.org)*



## Table of topics

TRACKS	SYMBOLS
Artificial Intelligence	AI
Commercial Technologies	CT
Cyber M&S	CY
Distributed synthetic training environment - CAX	ST
Emerging & Disruptive Technologies	ED
Lessons&Learned in M&S	LL
M&S for Capability Development	CD
M&S for Capability Development CBRN	CC
M&S for Operational & Decision Support	OD
M&S for Education, Training, Exercises & Mission Rehearsal	ET
Re-Train Warfighting functions - CAX	WF
Simulation Networking	SN
Space M&S	SP
Wargaming	WG



## Detailed Agenda

Tuesday 27 September

TUESDAY, 27 SEP (DAY 1)								
Start	Finish	Duration	Plenary Room	Room2	Room3	Room4		
			Moderator				Speaker	
			Topic	Event				
7:30	9:00	1:30	Registration office				All	
			Registration					
			LTC Koerner				Opening of the NATO CA2X2 Forum 2022	
Representatives								
Welcome messages								
10:00	10:30	0:30	Coffee break					
10:30	12:00	1:30	Mr. Mursia	KN: BG(R) Turi, Prof. Bruzzone, Dr. Cayirci, Dr. Siegfried, Mr. Loze				
			Keynote speakers	Roundtable Discussion: Turi, Bruzzone, Cayirci, Siegfried, Loze				
			Keynote/ Roundtable	Roundtable Moderator: Mr. Mursia				
12:00	12:30	0:30	LTC Russo					
			photographer,all					
			Group picture					
12:30	14:00	1:30	LUNCH					
14:00	14:30	0:30	Mr. Lasch	COL Mazal	LTC Trimani	LTC Carollo		
			Piscotty	Brucher	Roland	Parkinson		
			CAX_ST3 - Scalable Simulation-Based Training with JCATS and JLOD	OD1 - VALORENS, predictive analysis : capturing the enemy's mind	LL1 - Imperfect Storm - Lessons Learned From A Difficult Exercise	CT3 - Management of Modelling and Simulations Systems for Training and Exercise Management		
14:30	15:00	0:30	Mr. Lasch	COL Mazal	LTC Trimani	LTC Carollo		
			Bowman	Buck	Meyer zu Drewer	Jones		
			CAX_ST4 - Unmanned Aircraft System, Command and Staff Training via Modeling and Simulation in Support of Military Exercises	OD9 - Using Simulation to Better Inform Decision Making for Warfare Development, Planning, Operations and Assessment. A New Approach to Sharing Models and Simulations Across the Alliance	LL2 - Moving CAST into a secure cloud environment: Lessons learnt	CT2 - The Case for Defence Use of Commercial Gaming Solutions		
15:00	15:30	0:30	Mr. Lasch	COL Mazal	LTC Trimani	LTC Carollo		
			Pizzo	Schetelich	Izzo	Morrison		
			CAX_ST5 - Training Simulation for JOINT FIRES EXERCISE at Brigade Level	OD3 - Automated terrain assessment to accelerate the military decision-making process	LL3 - M&S in CWIX 2022 - Lessons Learned	CT5 - Game-Like Terrain, On-Demand: Solving Terrain Challenges Through Enterprise Terrain Management		
15:30	16:30	1:00	Industry Coffee Break					

Start	Finish	Duration	PR	Room2	Room3	Room4
			Moderator			
			Speaker			
			Topic			

16:30	17:00	0:30	Mr. Lasch	COL Mazal	LTC Trimani	LTC Carollo
			Seavey	Kim	Brinar	Koch
			CAX_ST2 - Simulating the Whole Picture with Distributed Mixed LVC	OD5 - Force Comparison to Support Decision	LL4 - Lessons from NATO MW Concept Experiment	CT8 - A view on next gen cloud based massive simulation
17:00	17:30	0:30	Mr. Lasch	COL Mazal	LTC Trimani	LTC Carollo
			Löfstrand	Mazal	Zogu	Echols
			CAX_ST1 - The use of NATO M&S Standards and Services in the VIKING 22 Exercise	OD4 - M&S in Operational Decision Support	LL-5 SFA Operator Profile Analysis Report	CT9 - U.S. Army LOR to LOA process
17:30	18:00	0:30				

### Wednesday 28 September

9:00	9:30	0:30	Mr. Lasch	LTC Zamponi	LTC Biondi	LTC Tillo	
			McCormick	Kancs	Gasbarrone	Hugos	
			CAX_ST6 - Opportunities and Challenges of Technical Interoperability	OD6 - Enhancing Resilience: Model-based Simulations	CY5 - Digital Transformation and Cybersecurity Challenges : a dual use approach	9:00 9:25 25min	CT1 - Enhancing Wargames and Training Simulations with Accurate Logistics  ##### Please bring your laptops to participate in a hands-on demo of the supply chain M&S application #####
9:30	10:00	0:30		LTC Zamponi	OD7 - Modelling and Simulation Support to Geostrategic Analysis and Defence Planning	CY1 - "QUANTUM" Evolution in the Future of Telecommunications & Cybersecurity: A Dual Use Approach	
						CY5,CY1 - Q&A	9:50 10:00 10min
10:00	10:30	0:30	Mr. Lasch	LTC Zamponi	LTC Biondi	LTC Tillo	
			Grom + Banks + Camacho	Robertson	Bates	Breed	
			CAX_ST7 - US Joint Training exercises using M&S	OD8 - Strategic Wargaming for Senior Decision Makers	CY4 - "Cyber and electronic warfare: Review of U.S. Army capabilities"		CT6 - Lockheed Martin - Prepar3D, Extended Reality, & Training at the Point of Need
10:30	11:00	0:30	Coffee break				

Start	Finish	Duration	PR	Room2	Room3	Room4				
			Moderator							
			Speaker							
			Topic							
11:00	11:30	0:30	Mr. Lasch	LTC Zamponi	LTC TRIMANI	LTC Palombi				
			Ballard	Madden	Ventura	Biondi				
			CAX_WF1 - Training for Modern War – Incorporating Trends From Recent Conflicts into Training	ODZ - Strategic Political Military - Assisted Decision Making (PM-ADM)	CC1 - A GAP Analysis of CBRN M&S: Towards Next Gen M&S	CY3 - Tactical Cyber Operations in Land Operations	11:00			
							11:20			
						20min				
						LTC Biondi				
						Vitello				
						CY2 - CERERE - Modeling & Simulation for an unlimited technological progress	11:20			
							11:40			
						20min				
11:30	12:00	0:30	Mr. Lasch	LTC Zamponi	LTC Ventura					
			de Reus	Yilmaz	Iannotti					
			CAX_WF2 - Intelligent operational decision support for the military engineer	AI2 - Artificial Intelligence in AirC2 Planning & ETEE	CC2 - Numerical Simulations to Predict the Diffusion of Chemical-biological-radiological Agents in Case of Intentional or Unintentional Releases: The Use of Free License Codes	CY7 - Modelling Cyber Guerrilla Attacks Improving Decision Support Capabilities with Threat Intelligence and Situational Awareness Automation	11:40			
							12:00			
						20min				
						LTC Biondi				
						Catalano				
						CY6 - Cyber and Physical Security Convergence in Industry and Military environments	12:00			
							12:20			
						20min				
12:00	12:30	0:30	Mr. Lasch	LTC Ventura		LTC Biondi				
			Reinhardt	Gaudio		Sambati				
			CAX_WF3 - Should we be fully committed to Multi-Domain Integration?	CC3 - UAV measurements to detect CR agents in case of intentional or unintentional releases and to predict their diffusion	CY6 - Cyber and Physical Security Convergence in Industry and Military environments	12:00				
						12:20				
						20min				
						CY3, CY2, CY7, CY6 Q&A	12:20			
							12:30			
						10min				
12:30	14:00	1:30	LUNCH							

Start	Finish	Duration	PR	Room2	Room3	Room4		
			Moderator					
			Speaker					
			Topic					
14:00	14:30	0:30	Mr. Lasch	LTC Zamponi	LTC Ventura	LTC Tillo		
			Klembo	Beaudouin	Di Giovanni	Brouwer		
14:00	14:30	0:30	CAX_WF4 - The use of simulation and C2 in the Danish Army		AI3 - How Model-Based Engineering is Enabling Digital Engineering (45 min)	CC4 - VERTIGO Project - A Public-Private Initiative for the Implementation of Virtual Enhanced Reality for the Interoperable Training of CBRN Military and Civilian Operators		
14:30	15:00	0:30	Mr. Lasch	LTC Zamponi	LTC Ventura	CT4 Workshop - 1st Part - Introduction to the DDS databus for multi-domain simulations		
			Zoetigheid		Verginelli			
14:30	15:00	0:30	CAX_WF5 - CAX with Steel Beasts Pro		CC5 - Refinement of risk assessment models: toward a more sustainable management of contaminated sites			
15:00	15:30	0:30	LTC KOERNER	LTC Zamponi	LTC Ventura			
			Madden	Coltea	Ellinghaus			
15:00	15:30	0:30	CDZ - Next Generation of M&S		AI4 - Innovative Computer Vision techniques for person reidentification	CC6 - CBRN decision making		
15:30	16:00	0:30	Cultural event - time for self preparation					
16:00	16:30	0:30	Travel to Terme di Caracalla (bus)					
16:30	18:30	2:00	Cultural event guided tour					
18:30	19:00	0:30	Travel to Hotel Barcelo (bus)					

Thursday 29 September

Start	Finish	Duration	Plenary Room	Room2	Room3	Room4		
			Moderator					
			Speaker					
			Topic					
9:00	9:30	0:30	LTC Palombi	LTC D'IPPOLITO (T)	CDR TROPEA	LTC Tillo		
			De Sanctis	Gallant	Tonelli	Brouwer		
9:00	9:30	0:30	SP2 - ELINT Simulator for detection and localization of a RF signal sources using a swarm of Cubesats	CD8 - Battlespace Visualization & Interaction as a Service	ET1 - Extended Reality, Cloud Connectivity and Simulation for Digital Trasformation of (Remote) Training			
9:30	10:00	0:30	LTC Palombi	LTC D'IPPOLITO	CDR TROPEA	CT4 Workshop - 2nd Part - Introduction to the DDS databus for multi-domain simulations.  ##### an x64 laptop is required #####		
			Gemma	Brucato	Dumitru Claudiu			
9:30	10:00	0:30	SP1 - Global stability and security pass through space SDA, SSA and SST to safeguard people and resources	CD5 - Wargaming-Simulation Synthetic Environment SWORDOM (RAS use case)	ET3 - Design, Implementation and Preliminary Testing of a Virtual Reality System Used to Train Military Personnel on a Simulated Battlefield			
10:00	10:30	0:30	LTC Palombi	LTC D'IPPOLITO (T)	CDR TROPEA			
			Lazarov	Maglione	Squires			
10:00	10:30	0:30	SP3 - Space Weather Models Embedment in Military Simulations	CD1 - Technology, gameplay and human streams; a framework to support the development of simulation-based wargames	ET4 - Explaining Simulation to NATO: The Exercise Use Case			
10:30	11:00	0:30	Coffee break					

Start	Finish	Duration	PR	Room2	Room3	Room4
			Moderator			
			Speaker			
			Topic			
10:30	11:00	0:30	Coffee break			
11:00	11:30	0:30	LTC Frangella	LTC D'IPPOLITO	LTC VENTURA	CPT Brucato
			Stinchfield	Sarma	De Mattia	Schlesselman
			WG5 - Wargaming as a Pedagogical Approach for Military Education and Professional Development	CD3 - Development, Programmatic Transition, and Sustainment of VR Medical Simulation Training for TCCC Responders: The Virtual Advancement of Learning for Operational Readiness (VALOR) Program	ED1 - ELMO (Electromagnetic Layer for Multi-domain Operations)	SN2-Modeling, Simulation & Training (MS&T) and Operational Technology (OT) Interoperability
11:30	12:00	0:30	LTC Frangella	LTC D'IPPOLITO	CPT De Mattia	CPT Brucato
			Gaertner	Smith	Timm	Pullen
			WG4 - Distributed Wargaming for a COVID 19 World – A best practises guidebook for NATO (SAS-170)	CDX - Application of Transformer Models on Unstructured Military Assessments	ED2 - Combat Model Experimentation on US DoD HPCs	SN1 - M&S Standards in NATO Federated Mission Networking
12:00	12:30	0:30	LTC Frangella	LTC D'IPPOLITO	CPT De Mattia	
			Hodicky	Aaltonen	Scialanca	
			WG1 - Simulation support to wargame for multi-domain operations in urban environment concept validation	CD9 - VR/AR/XR and Metaverse Technologies for Defense and Aerospace	ED7 - The role of M&S to support introduction into service, V&V and training of modern EW systems	
12:30	14:00	1:30	LUNCH (service time 12:30-13:30)			
14:00	14:30	0:30	LTC Frangella	LTC D'IPPOLITO	CPT De Mattia	CPT Brucato
			Balaskas	Rigney	Dainelli	Bini
			WG3 - Computer Assisted Wargaming	CDY - Rapid Development of Terrain Databases for Use in Synthetic Scene Generation	ED8 - Digital Twin methodology in EMSO	SN3 - MsaaS supporting interoperability and experimentation activities
14:30	15:00	0:30	Mr. Balaskas, LTC Gaertner			
			Balaskas + others			
15:00	15:30	0:30	WG6 - Computer Assisted Wargaming discussion			
15:30	16:00	0:30	Final Plenary			