

# “Reading the Mind of the Enemy through an augmented CCIR Process”

Academia/Industry Multidisciplinary Project  
« ANTICIPE »



# “ANTICIPE”

*“Augmented Near real-Time Instrument for Critical Information Processing & Evaluation”*



INTER 2  
INTER 3  
INTER 4  
INTER 5



# The Global Context of "ANTICIPE"

**Complexity**



**Deluge of Data**



**Tempo**



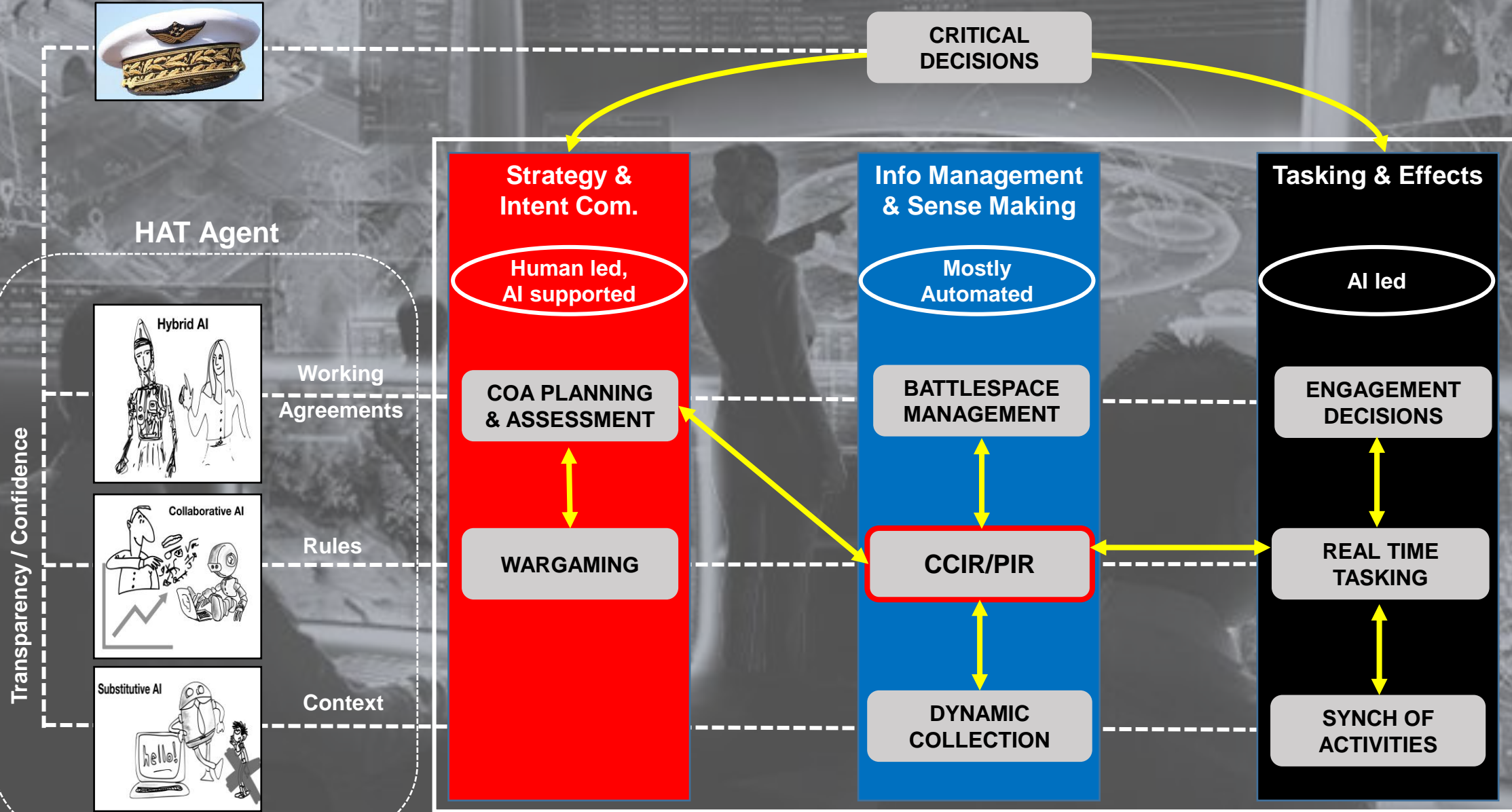
**Understanding**



**Sense Making**



# Multi-Domain Ops Center\* Organization



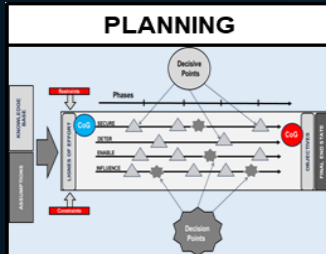
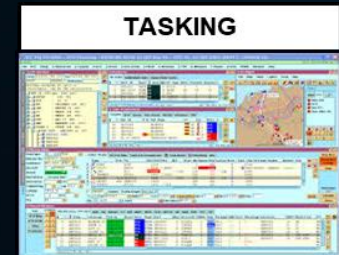
\* FROM ENDERS'MDOC - USAF DOOLITTLE SERIES 18



# Toward a Cognition Augmented Decision Cycle



ASSESSMENT			
Date	Conf.	Assessment	Trend
Objective 1: Enable security through air operations	High	On Track	Stable
Objective 2: EL airspace sovereignty	Medium	At Risk	Declining
Objective 3: IR essential air infrastructure & capacity required to pre-specified levels	Low	At Risk	Declining
Objective 4: Enable Humanitarian Assistance	High	On Track	Stable
Objective 5: Coalition mission accepted	High	On Track	Stable



COMBAT SEQUENCES  
REPLAY & ANALYSIS

OBSERVATIONS CAPTURE TOOL

Adversary Behavior & Actions Analysis

CCIR Augmented Tool

Decision Support

Autonomous Assessment

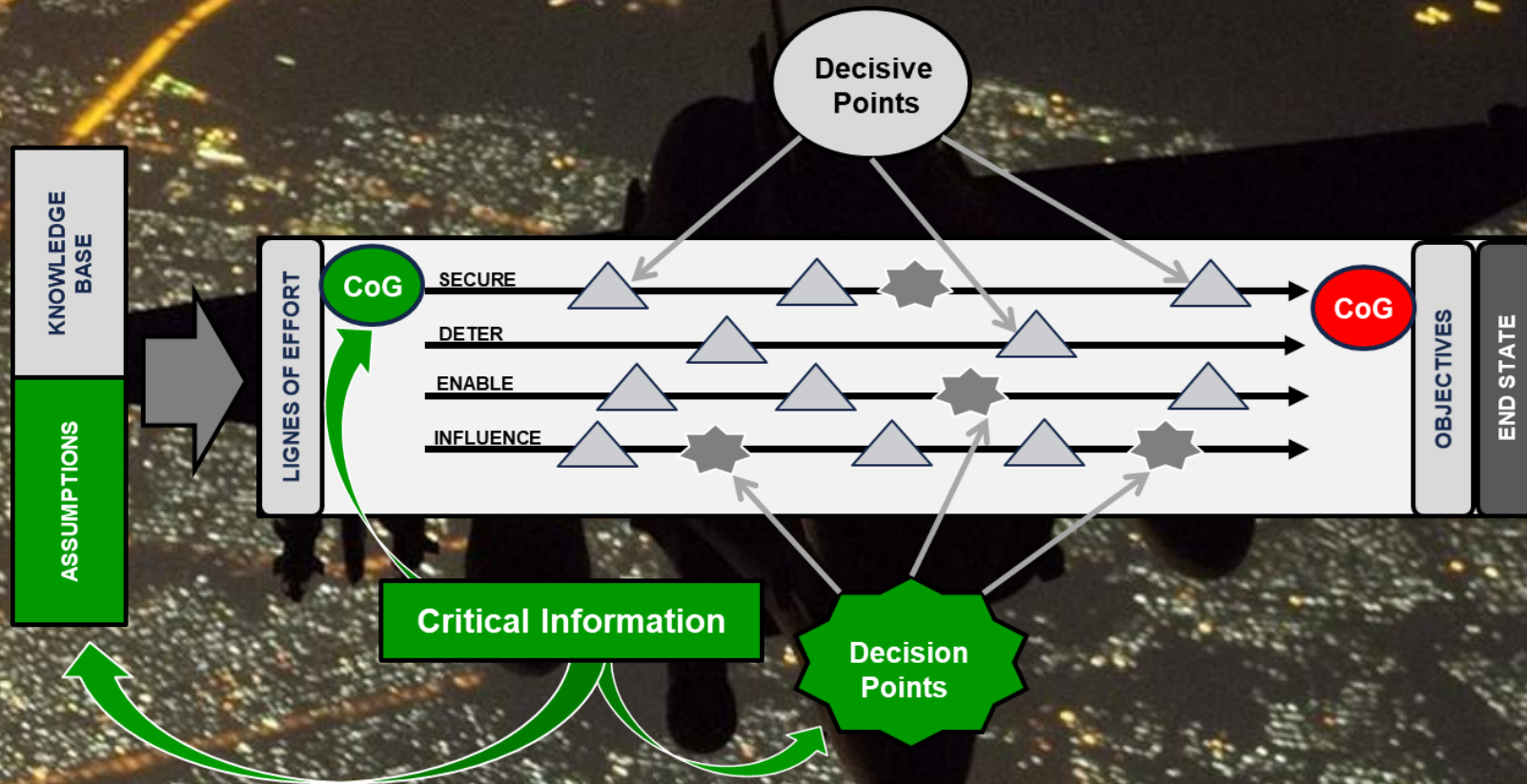
Digitalized Augmented Processes

Assisted Planning

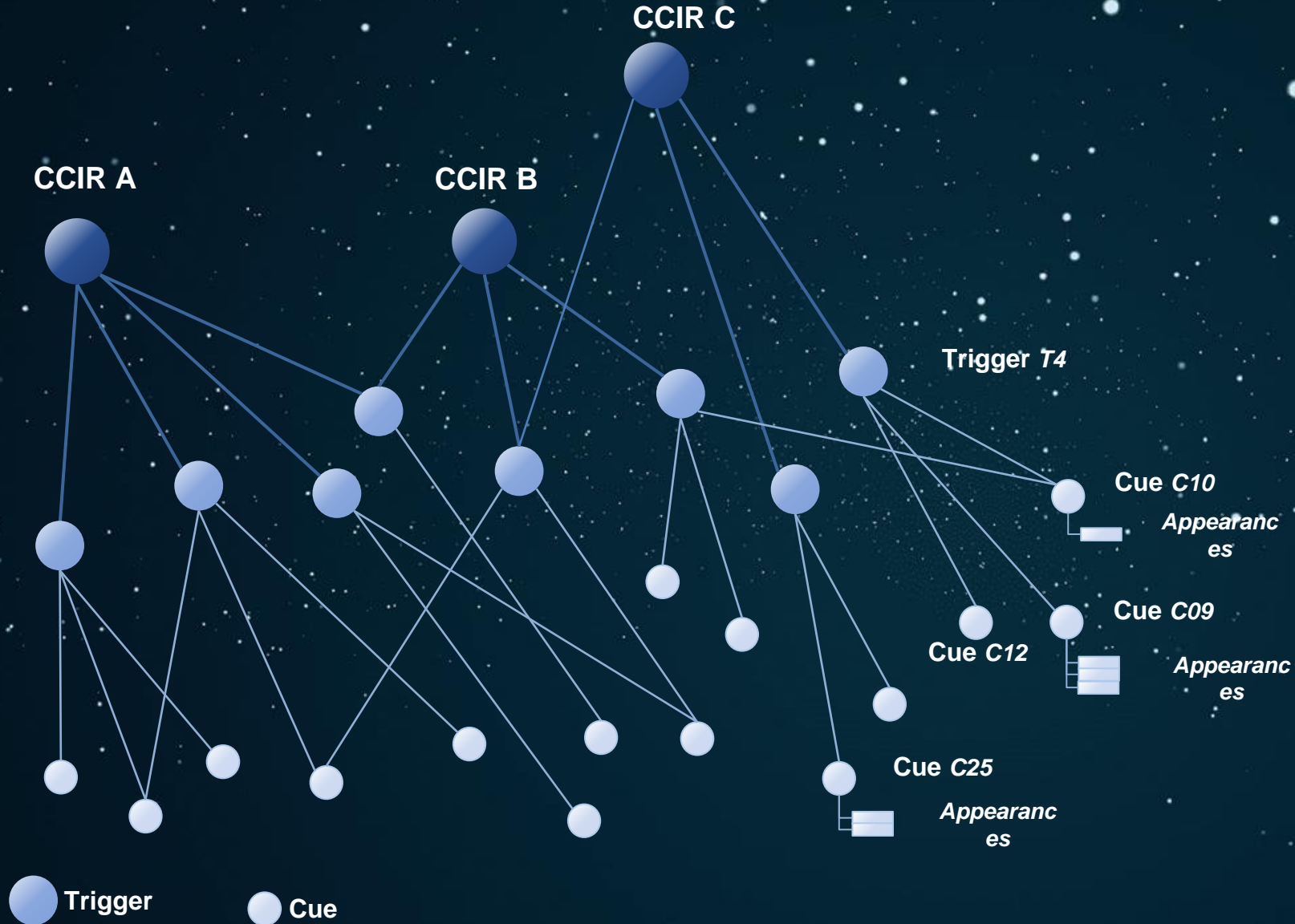
Automated CDE Tool

Wargaming Assistant

# Commander's Critical Information Requirement in the Planning Process

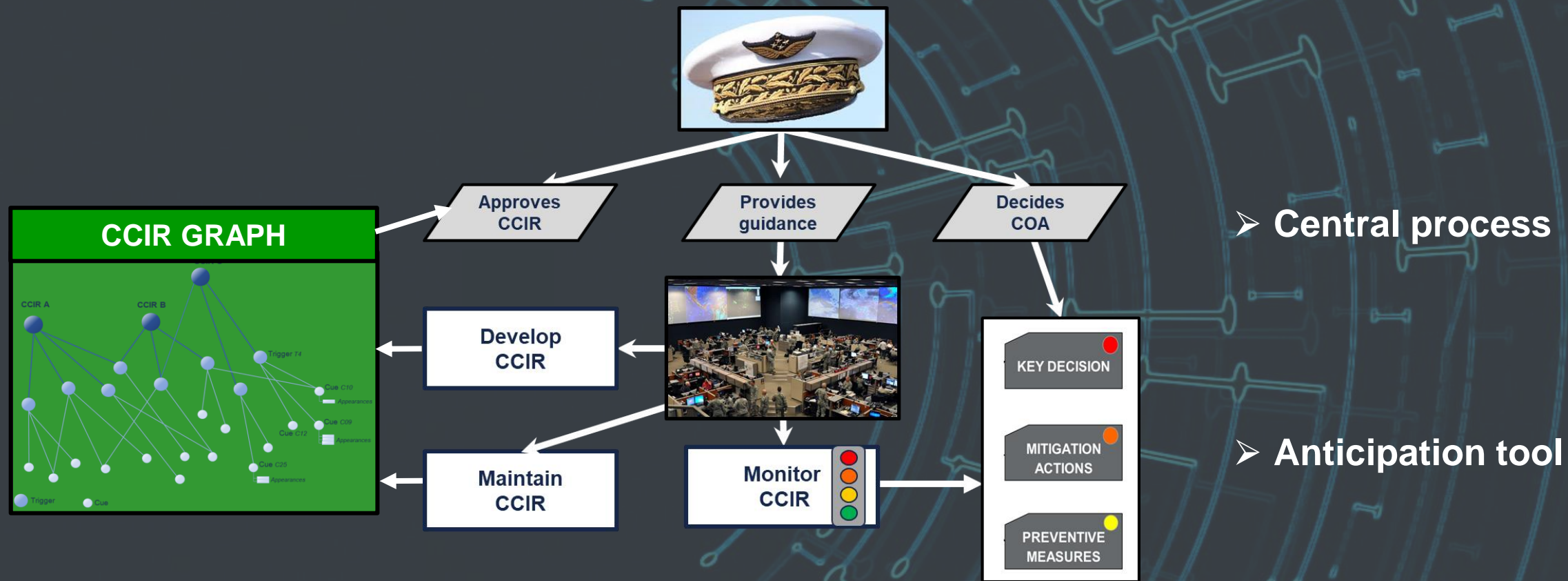


# An Innovative Data Model



# The CCIR Process

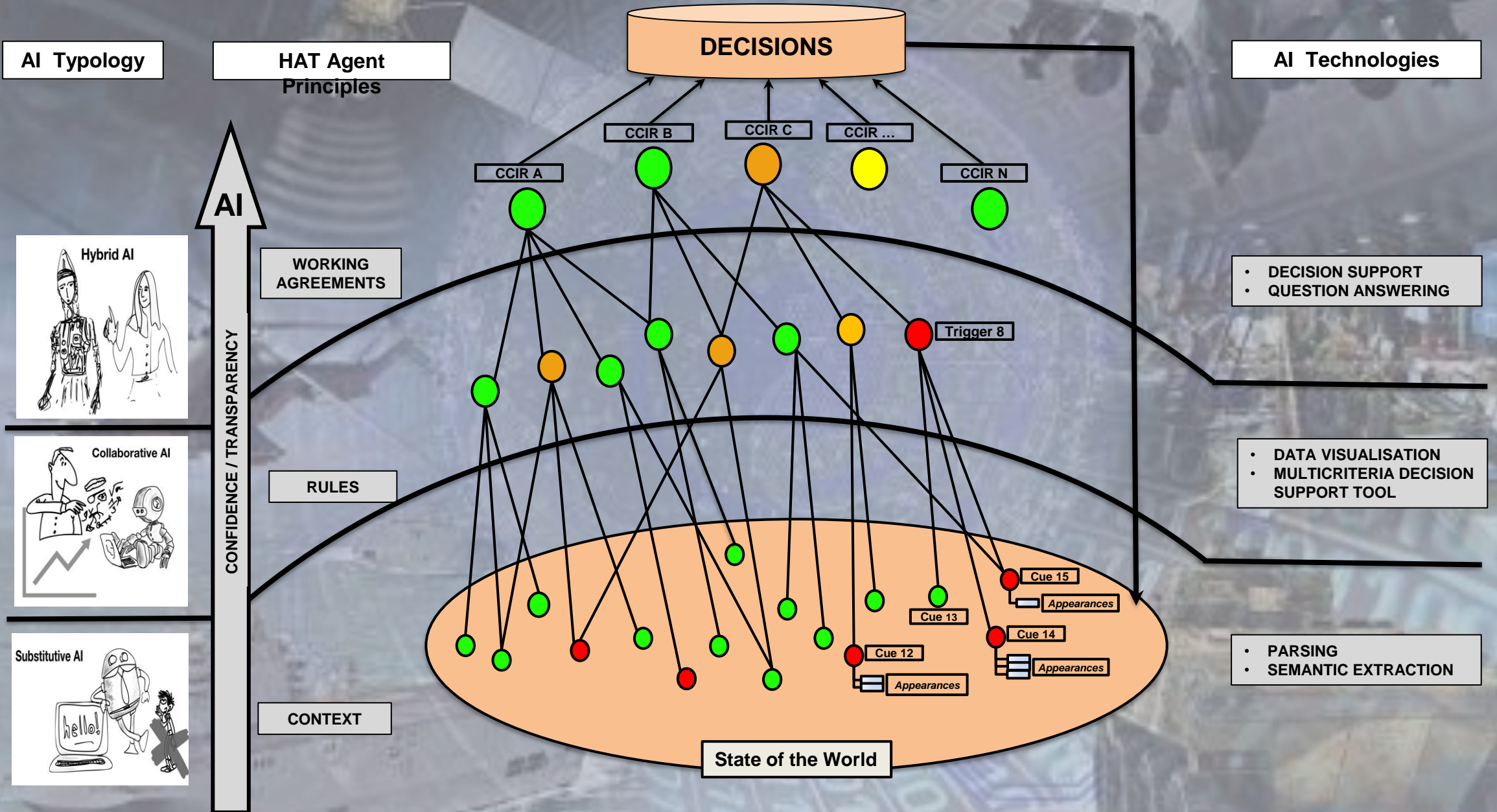
➤ Reducing Information Environment complexity



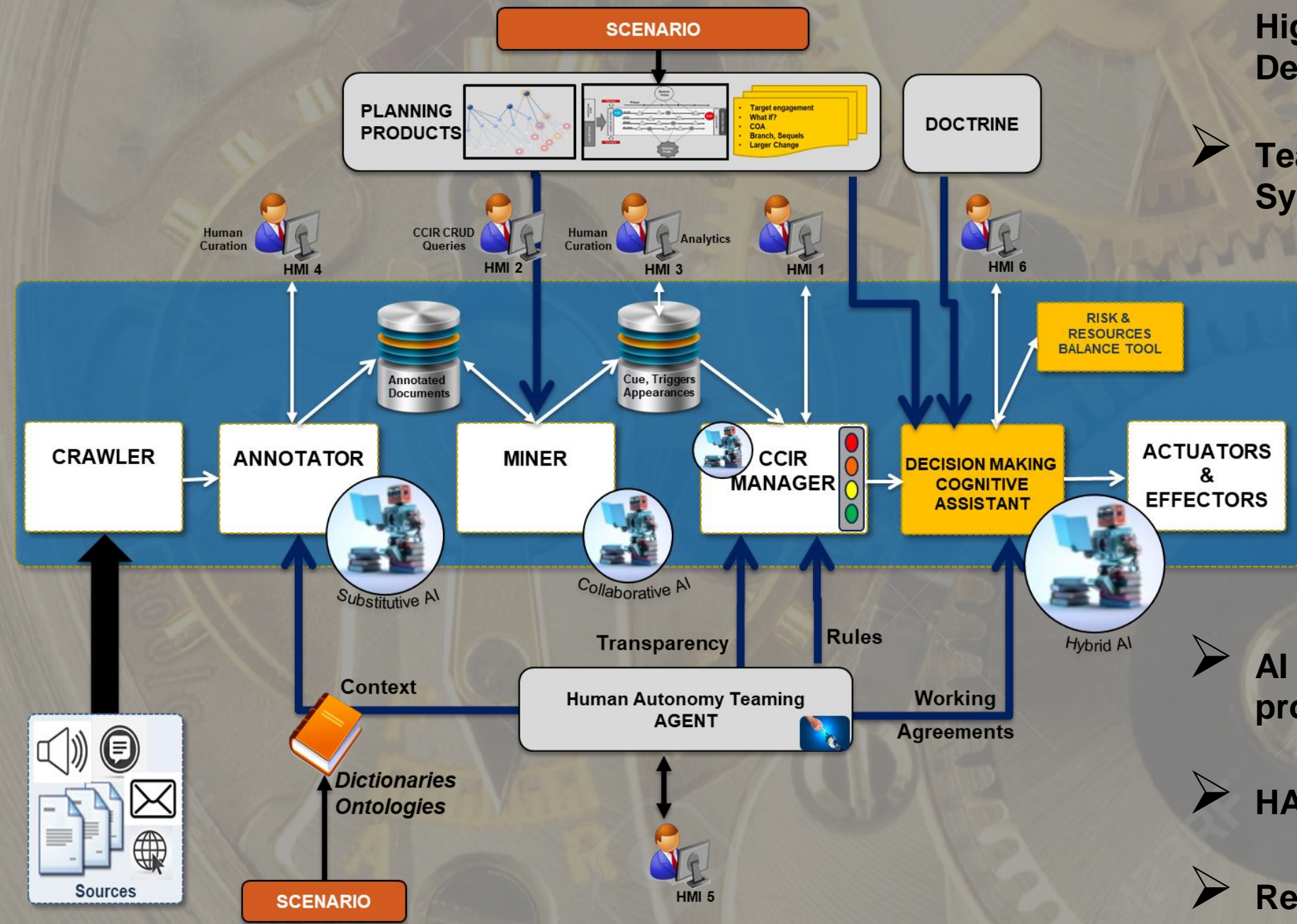
➤ Focusing on Commander's intents and concerns.



# A broad spectrum Human Autonomy Teaming (HAT) System



# “Artist” View



➤ Robust Integration Platform for High Velocity Sense-Making & Decision-Making.

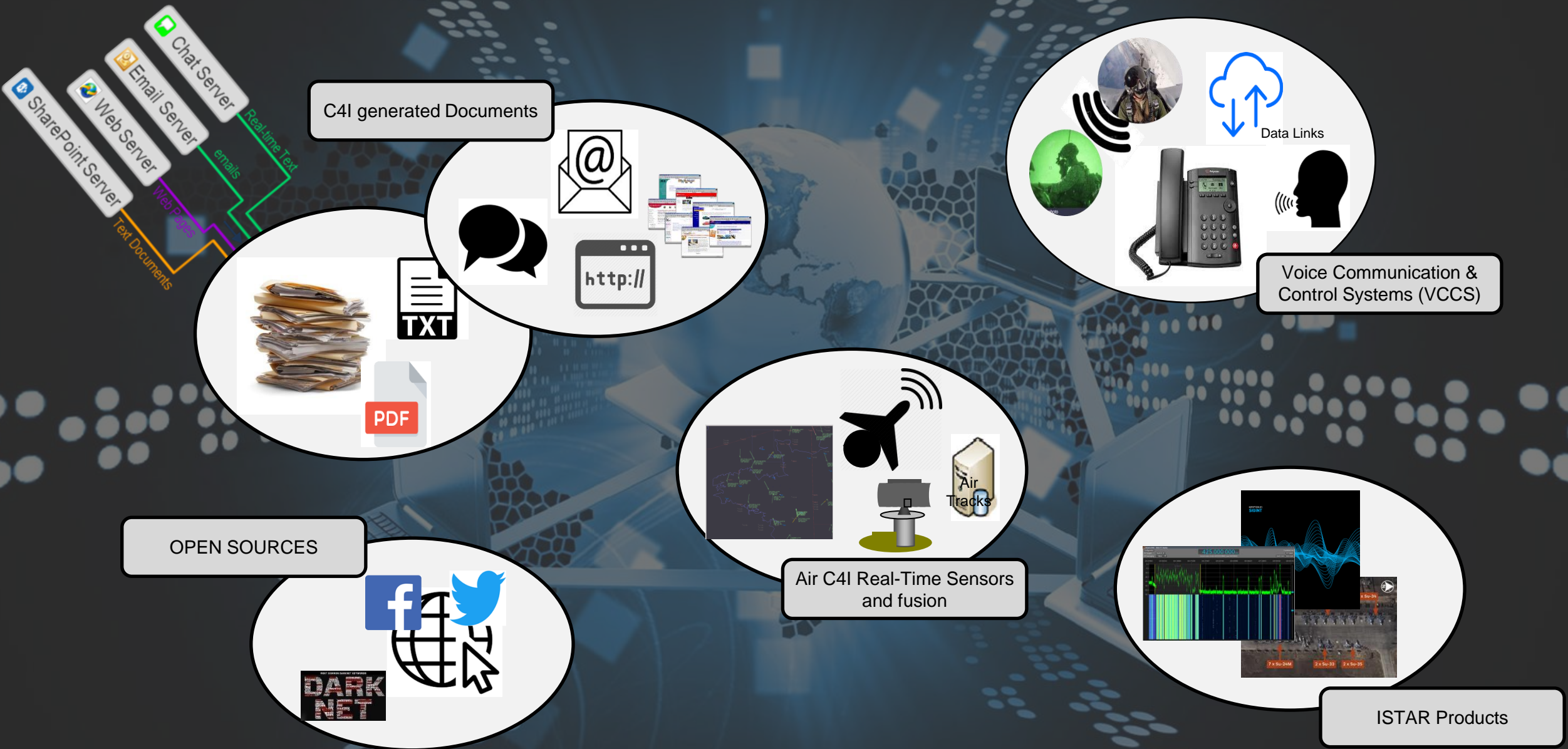
➤ Teaming between Human and Systems, esp. the Planners.

➤ AI technologies incorporated progressively.

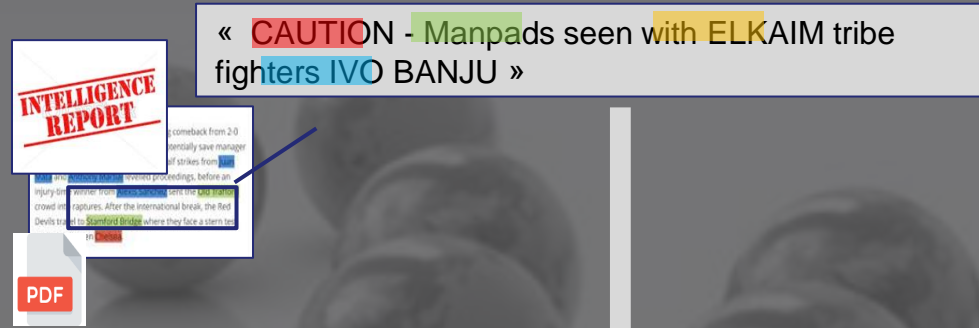
➤ HAT Principles – HAT Agent.

➤ Reactivity vs Precision as a first stage.

# Very diverse and broad sources of information



# CCIR N°1 Example



Behavior of ELKAİM militias



ELKAİM has Manpads



Cease-Fire-Agreement violations



KAMON or Proxies major offensive preparation



Grouping military entities



Border violation



KAMON activity along border



Violation of TYTAN airspace



Preventive Decisions

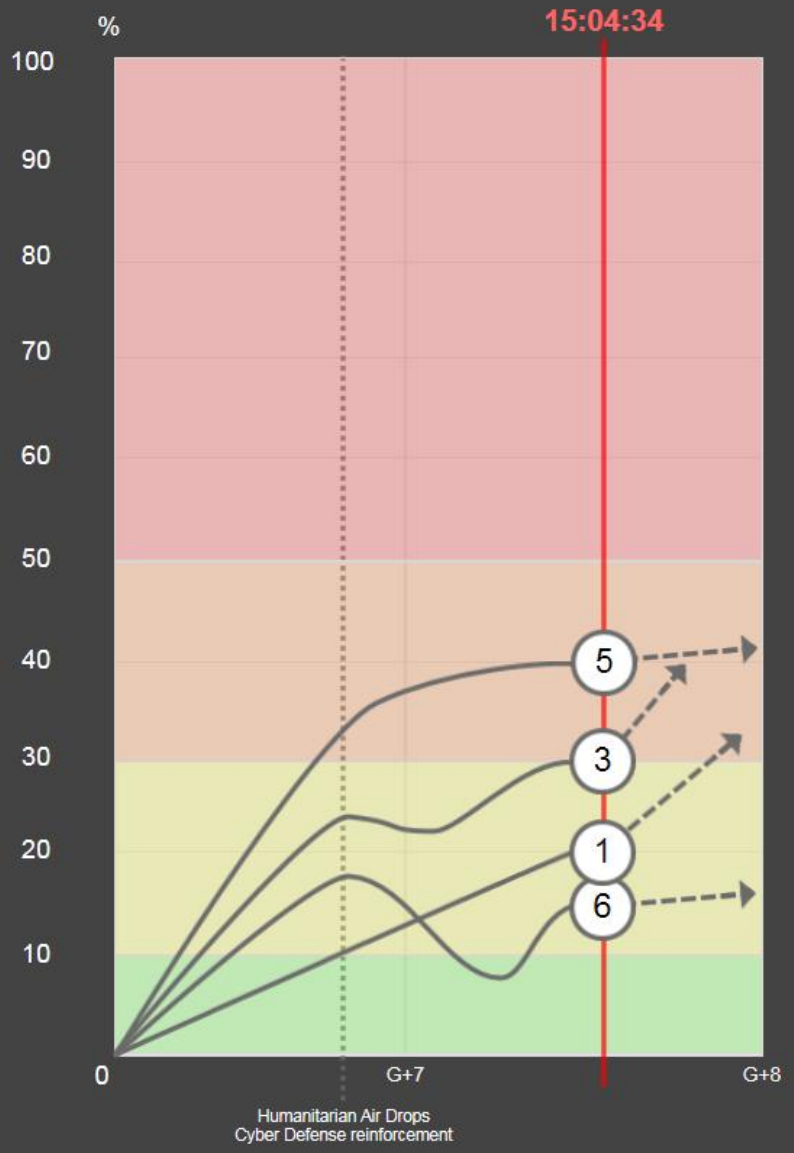
- Helo flights under restrictions
- BPT CAS CAP over Tori / Banju

## CCIR DASHBOARD

- 1 KAMON or Partner major offensive preparation 20%
- 2 Serious disruption to theatre log 0%
- 3 KAMON TBM use / intend of use 30%
- 4 Major threat to TYTAN internal stability 5%
- 5 Major Anti-Access / Aera Denial to CFAC forces 40%
- 6 Humanitarian situation in TORI pocket 15%
- 7 STELLARIA change of posture 5%



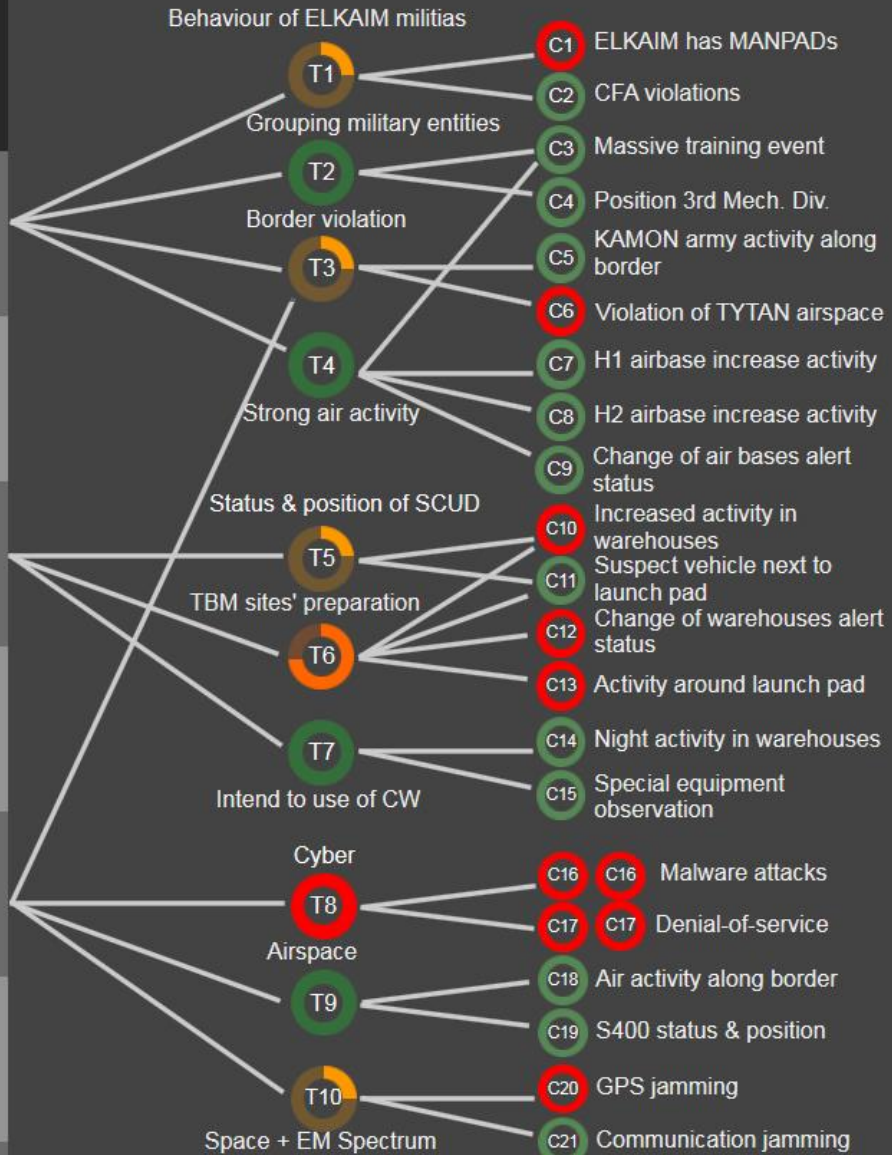
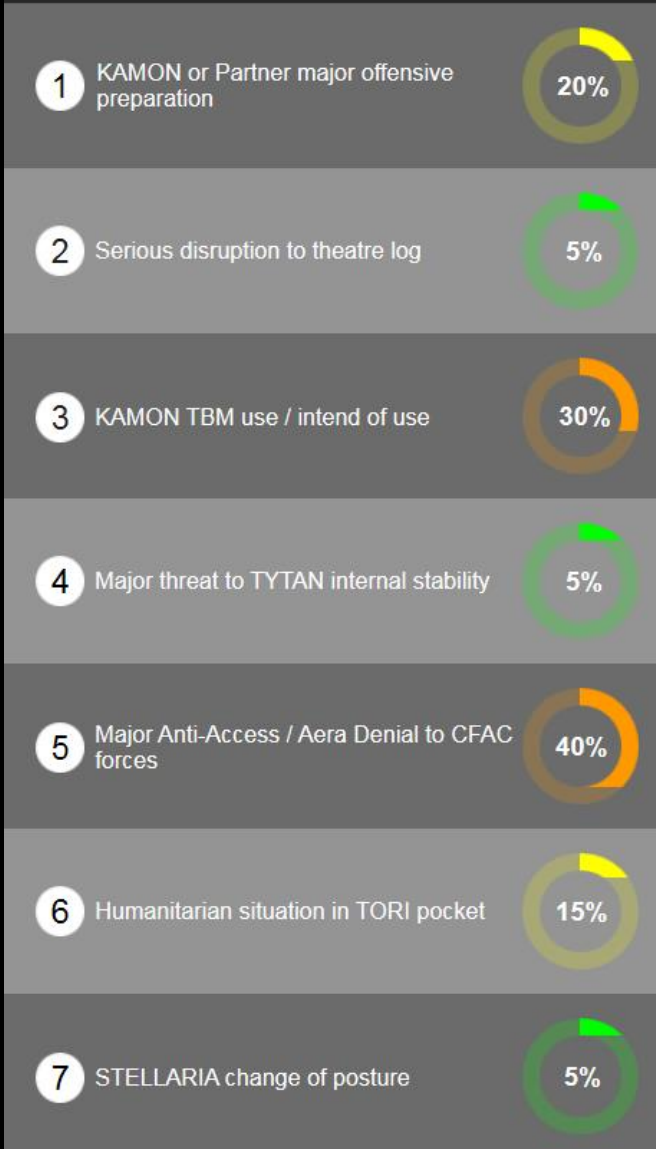
## G+7



## ONGOING ACTIONS

- 1 ISR surge  
HUMINT reinforcement in TORI pocket
- 2
- 3 Elevate force protection level  
Transfer OPCON of CBRN BN to LCC  
SHAPE advised for diplomatic pressure
- 4
- 5 Space surveillance surge  
Cyber counter measures in force
- 6 Increase humanitarian aid delivery by air drop
- 7

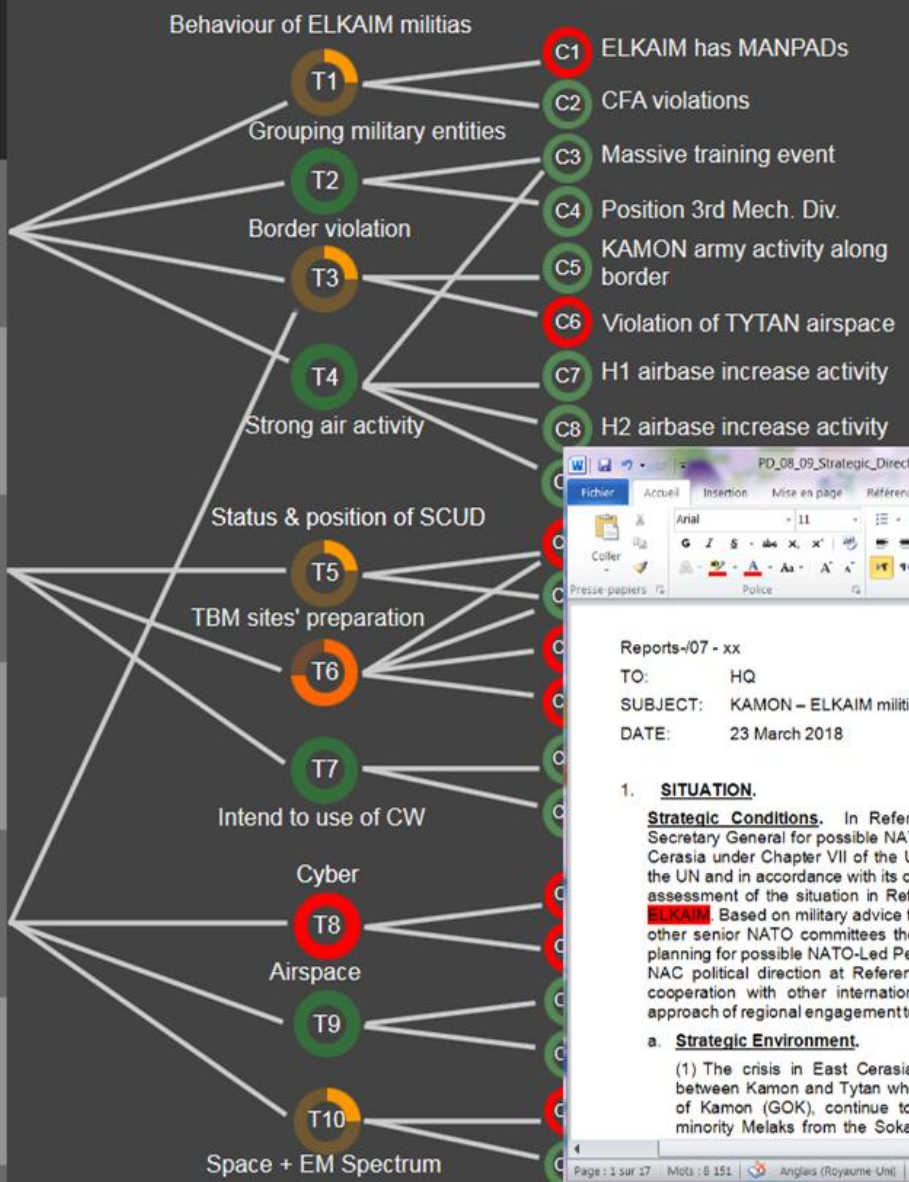
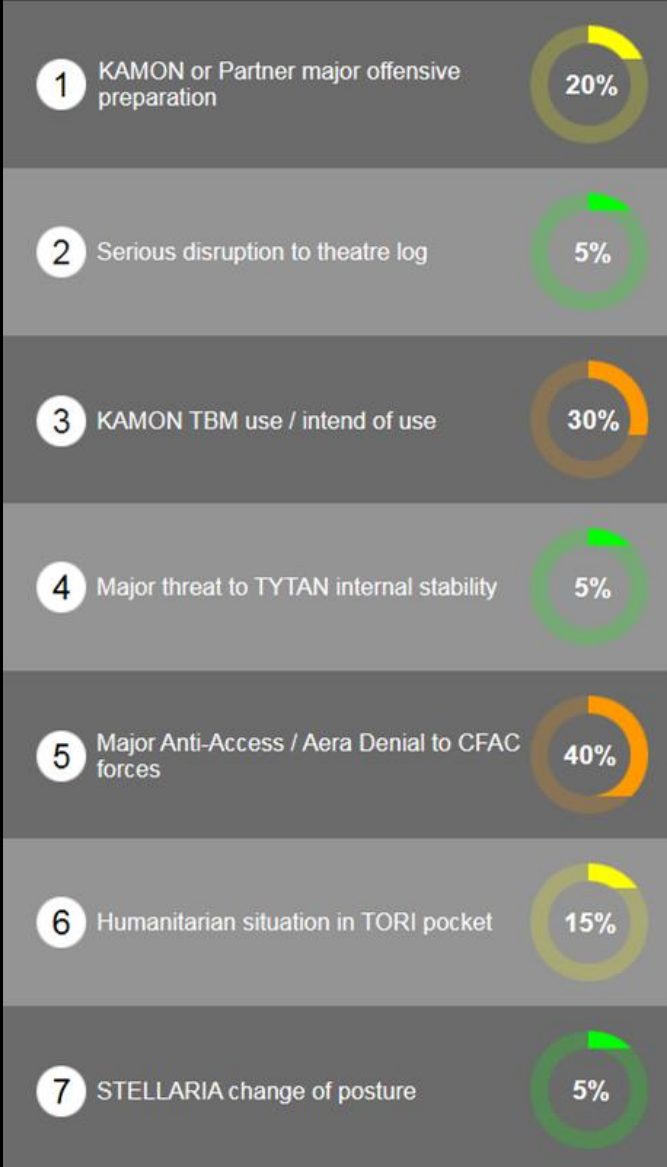
# CCIR DASHBOARD



# TRANSPARENCY

Display all  OFF

# CCIR DASHBOARD



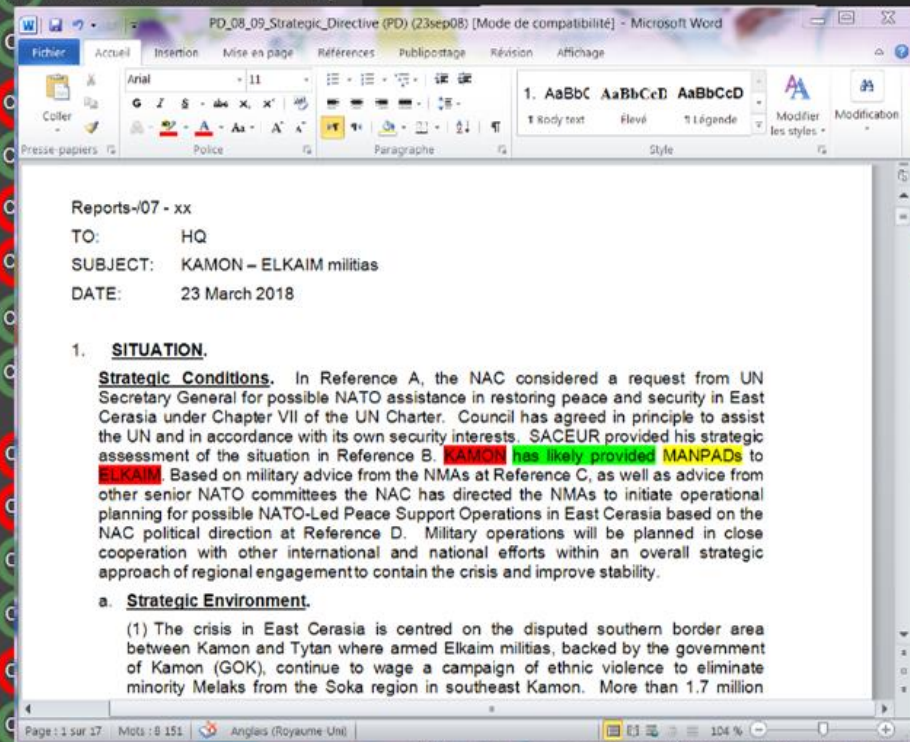
## TRANSPARENCY

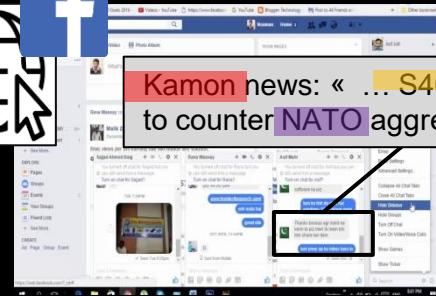


**C1** ELKAIM has MANPADs

Day 02 - 23:54:07

HUMINT "KAMON has likely provided MANPADs to ELKAIM"

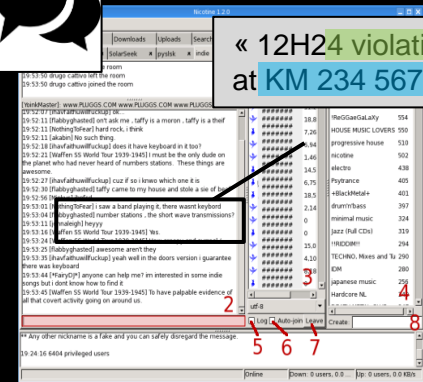




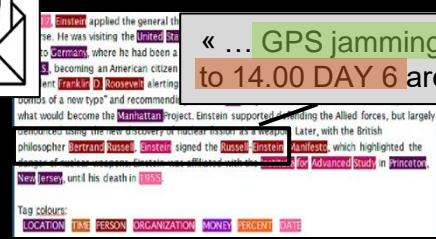
Kamon news: « ... S400 will be deployed to counter NATO aggression ... »



« 12H24 violation TYTAN Airspace at KM 234 567 by KAMON MIG29 »



« ... GPS jamming reported from 9.00 to 14.00 DAY 6 around MANRITA ... »



VIPER 43: « SHUKA 6 VIPER 43 Ready to copy 9 Line »  
SHUKA 6: « CAUTION - Manpads seen with ELKAIM tribe fighters IVO BANJU »

INTELLIGENCE REPORT

« ... Elements of 3rd Division closing Border inbound Tori Pocket »

... produced a stur  
Newcastle United - and potency » save manager  
... from the sack. Second half strikes from Juan  
... and ... levelled proceedings before an  
injury-time winner from Alex Sanchez sent the Old Trafford  
crowd into raptures. After the international break, the red  
Devils travel to Stamford Bridge where they face a stern test  
against unbeaten Chelsea



### CCIR DASHBOARD

1 KAMON or Partner major offensive preparation



2 Serious disruption to theatre log



3 KAMON TBM use / intend of use



4 Major threat to TYTAN internal stability



5 Major Anti-Access / Aera Denial to CFAC forces



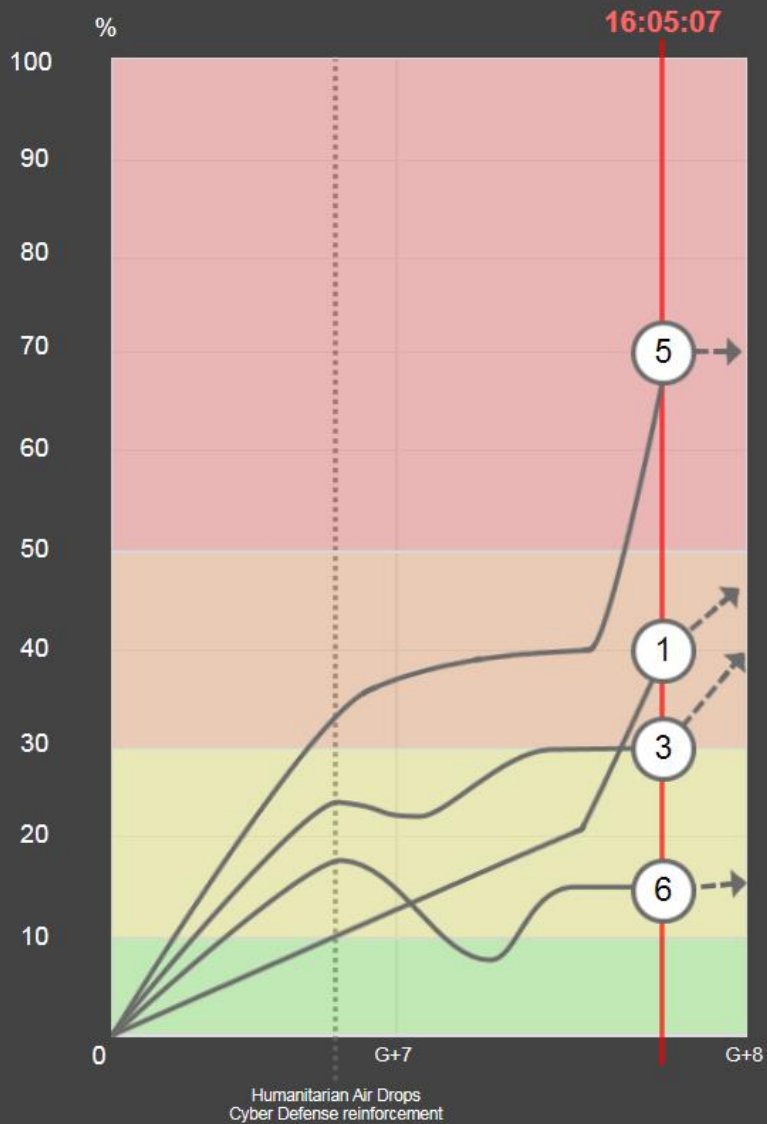
6 Humanitarian situation in TORI pocket



7 STELLARIA change of posture



### G+7



### ONGOING ACTIONS

1 ISR surge  
HUMINT reinforcement in TORI pocket

2

3 Elevate force protection level  
Transfer OPCON of CBRN BN to LCC  
SHAPE advised for diplomatic pressure

4

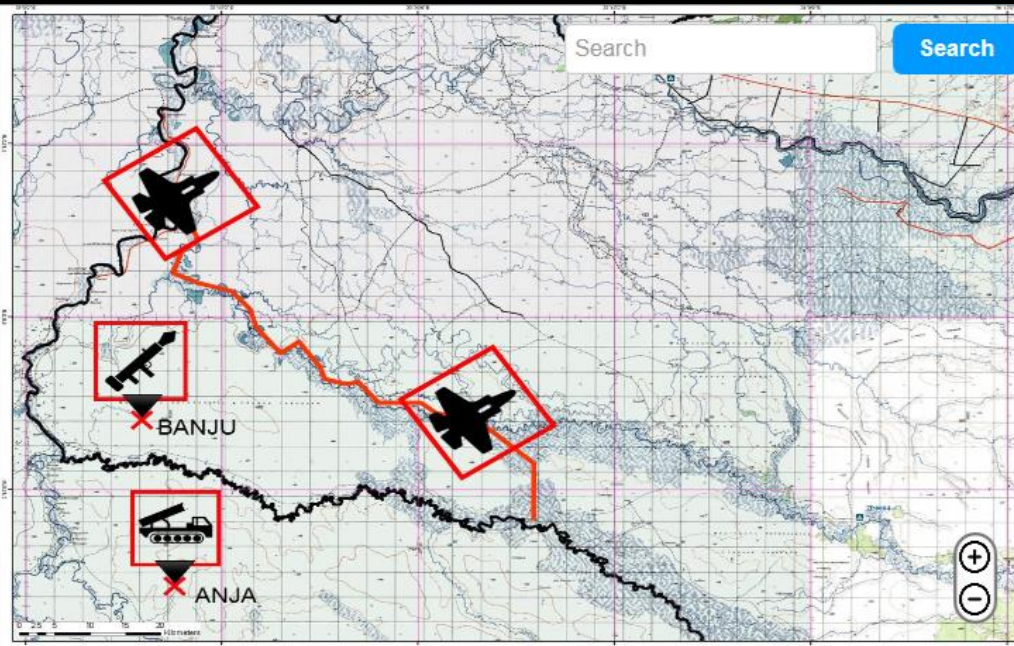
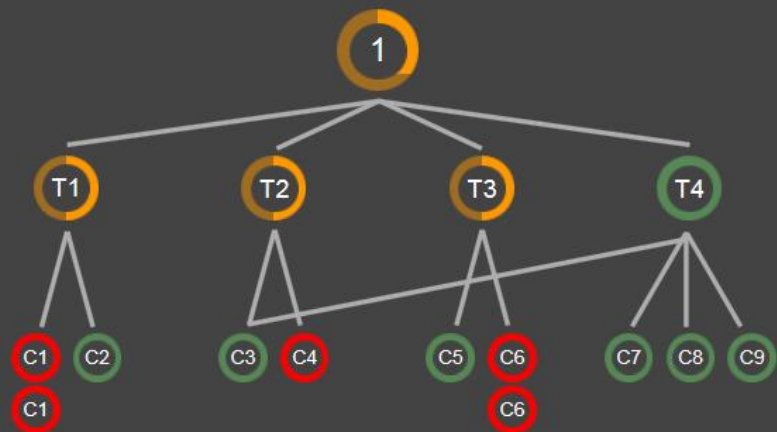
5 Space surveillance surge  
Cyber counter measures in force

6 Increase humanitarian aid delivery by air drop

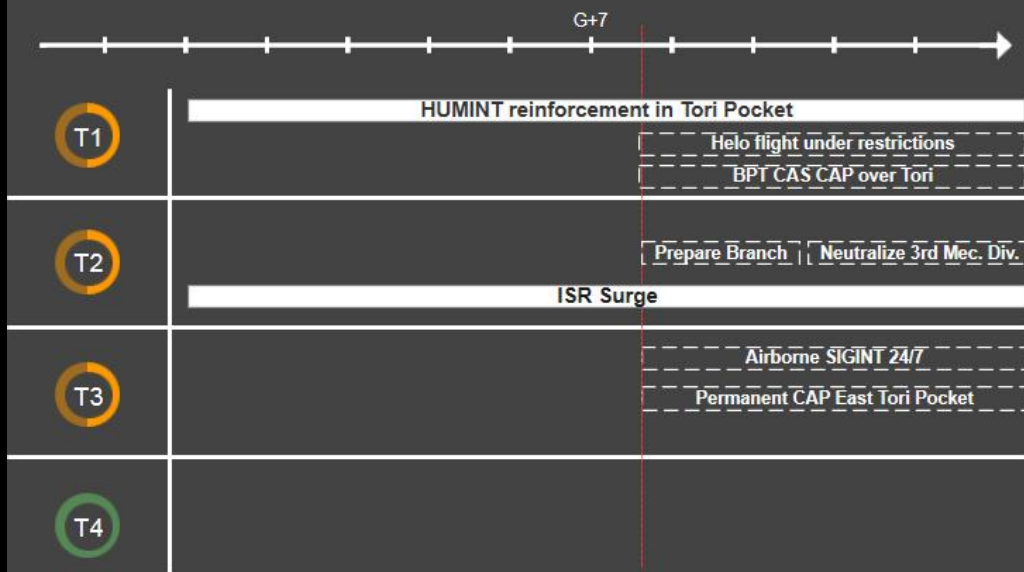
7



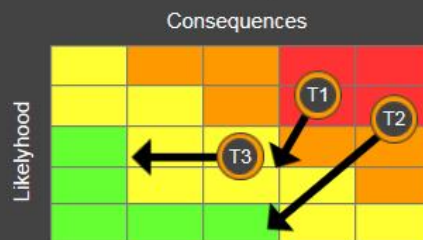
# KAMON or partner major offensive preparation



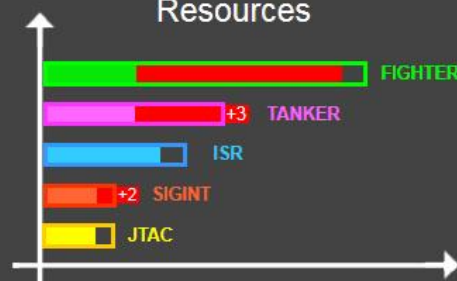
## Synchronization Matrix & Recommendations



## Risk Analysis



## Resources



## Query box

**Query T3** : Number of tanker involved for permanent CAP ?

4 tankers

**Query T1** : Available aircraft in range Banju ?

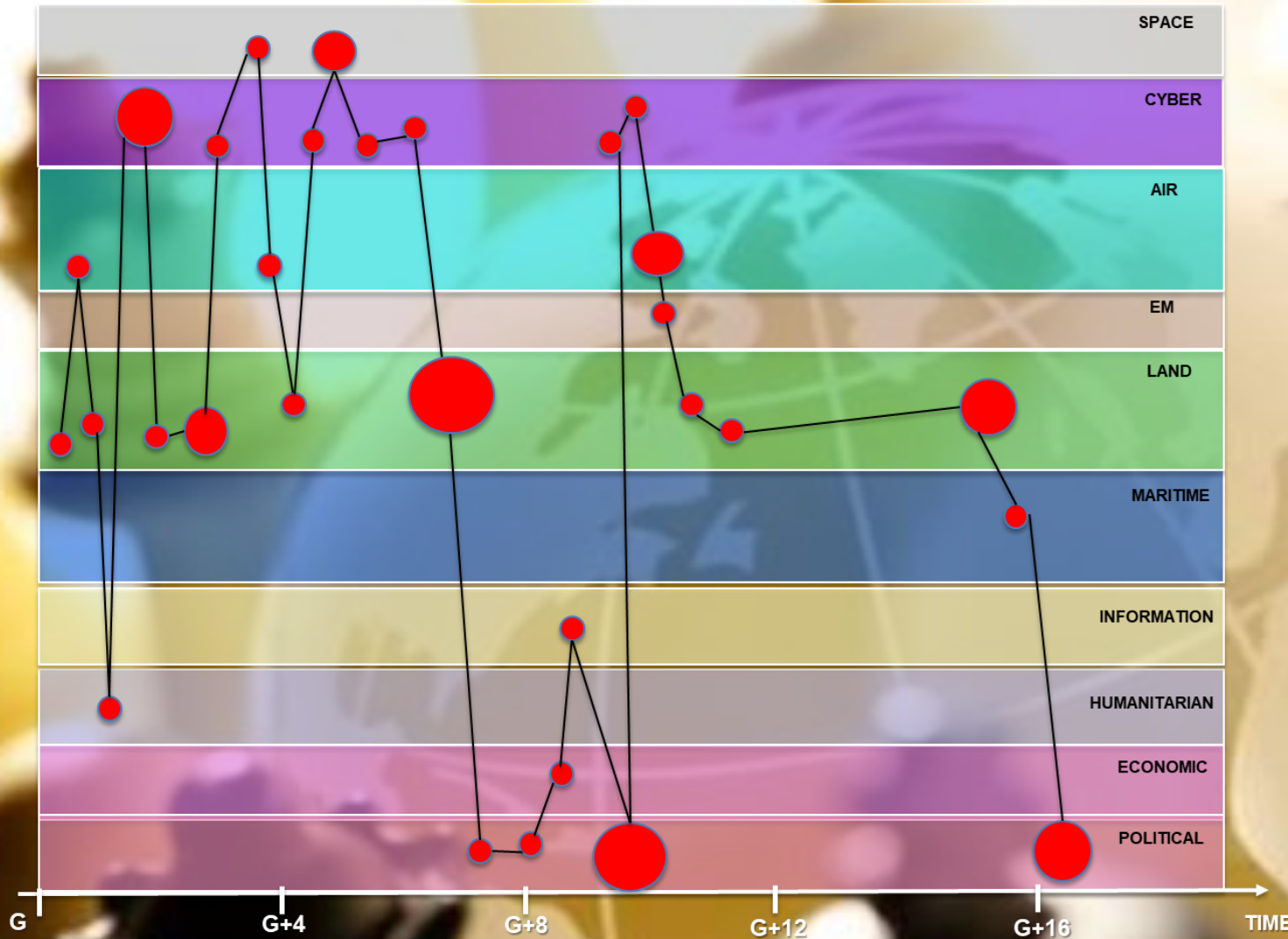
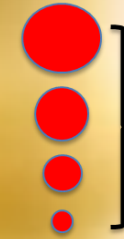
Send your message Send

# Adversaries Multi-domain Operations – RADAR VIEW



# Adversaries Multi-domain Operations – SEISMOGRAPH VIEW

Cues appearance and Weighting



	Know	Don't know
Know		
Don't know		

➤ **Addressing complexity**

➤ **Focused on mental models sharing**

➤ **Anticipation & Reactiveness**

➤ **Multi-domain Approach**

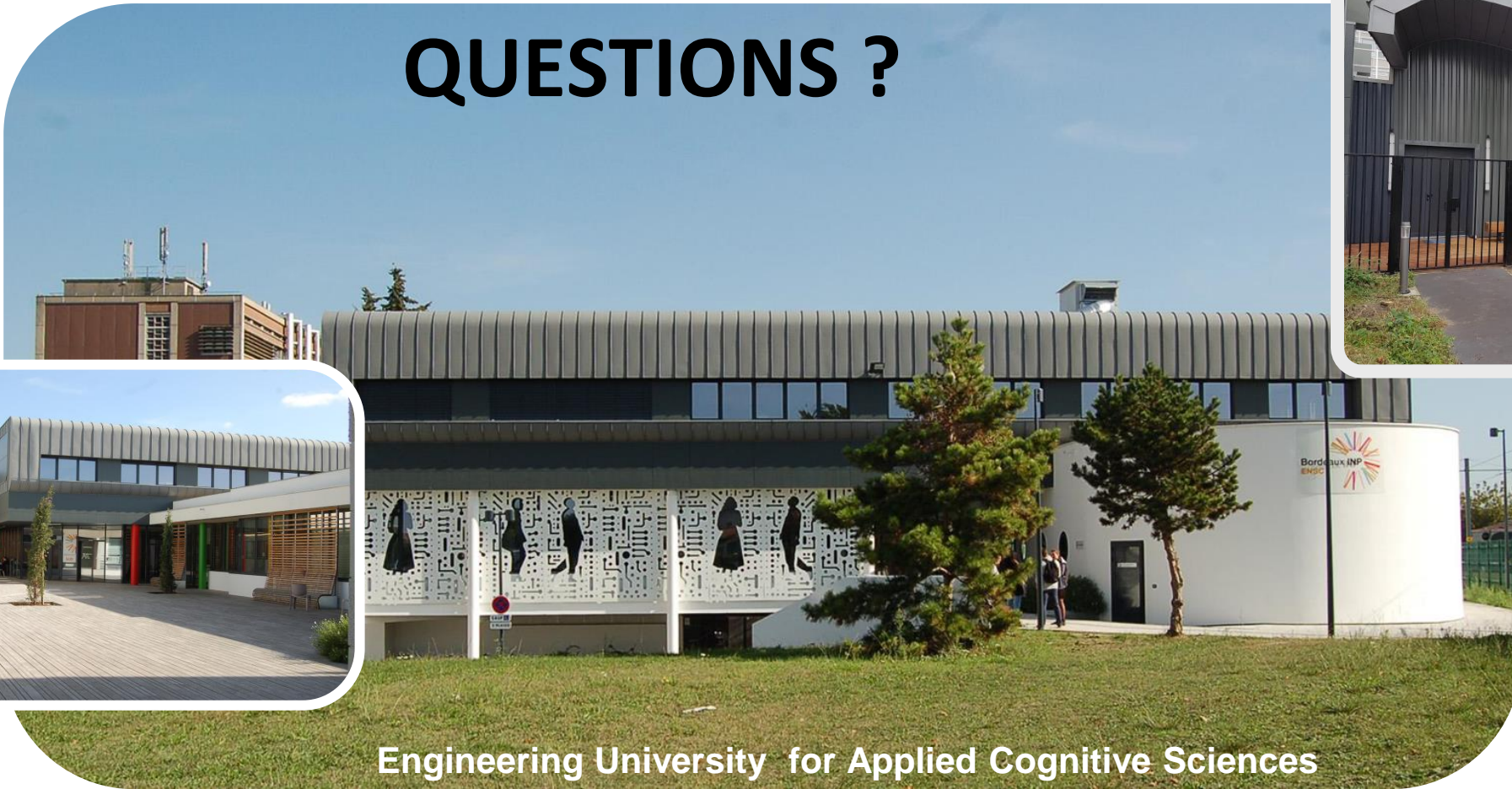
➤ **High velocity DM**

➤ **Showing Clear Commander Intent**

➤ **Avoiding Personal and Organizational Bias**

➤ **Applies to Strategic as well as Operational or Tactical level**

# QUESTIONS ?



Engineering University for Applied Cognitive Sciences

**Auteurs:** LtGen (Ret) Gilles DESCLAUX, ENSC & THALES RAYTHEON SYSTEMS [gdesclaux@ensc.fr](mailto:gdesclaux@ensc.fr)  
Phd Damien MARION, THALES RAYTHEON SYSTEMS – [damien.marion@thalesraytheon-fr.com](mailto:damien.marion@thalesraytheon-fr.com)  
**LAB Lead:** Prof. Bernard CLAVERIE, Director ENSC – [bernard.claverie@ensc.fr](mailto:bernard.claverie@ensc.fr)