



# **Introducing the Canadian ISTAR Information Centric Collaborative Workspace**

## **Paper Two:**

## **From the Processes Perspective**

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# PERSPECTIVE AND BALANCE

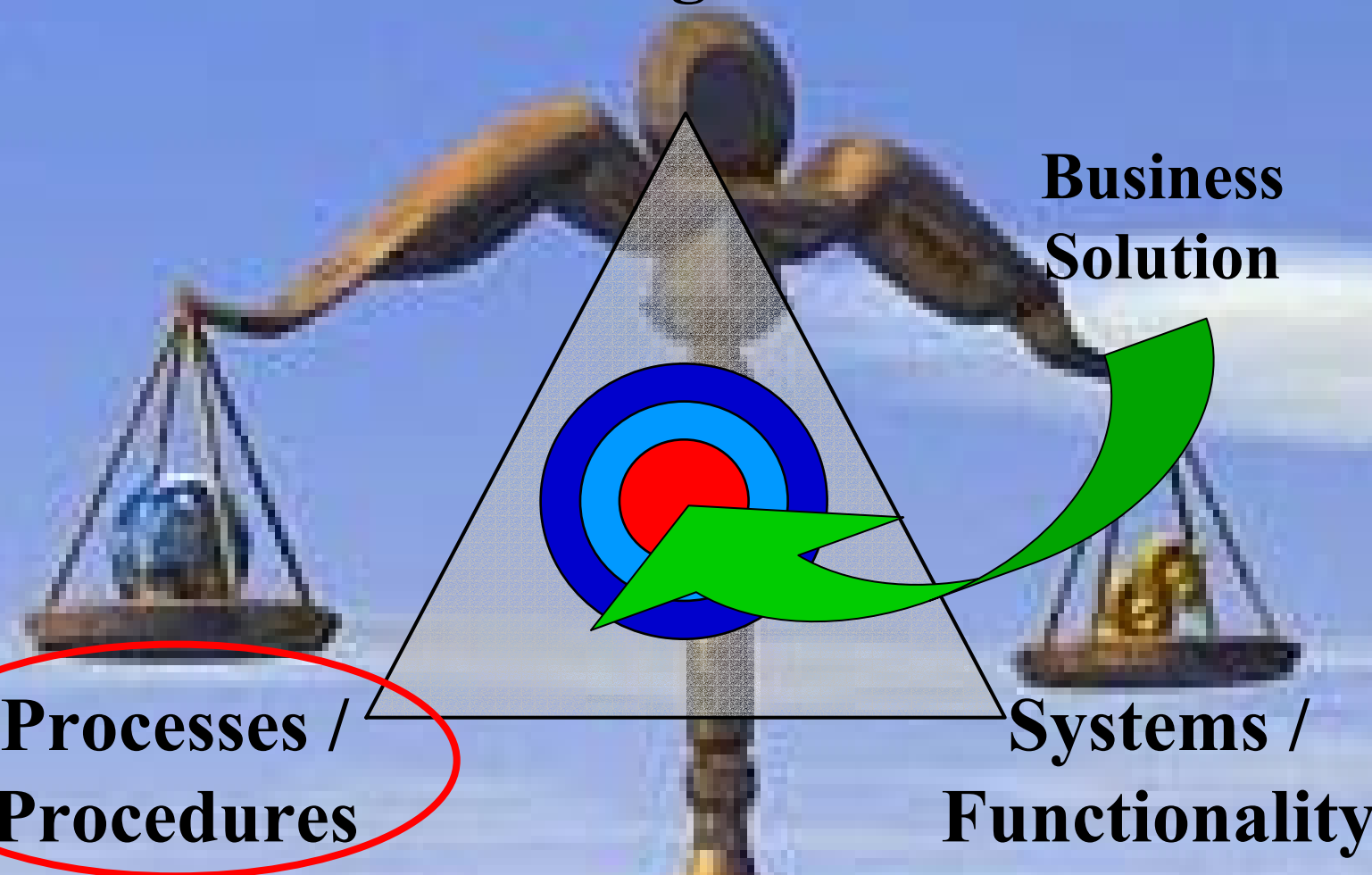
## System of Systems Harmony Triangle

**Users / Organizations**

**Business  
Solution**

**Processes /  
Procedures**

**Systems /  
Functionality**





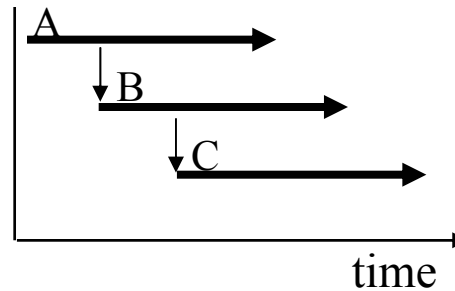
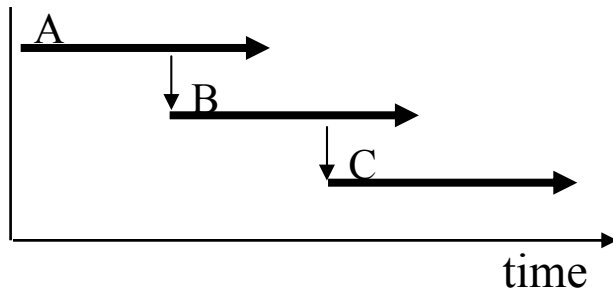
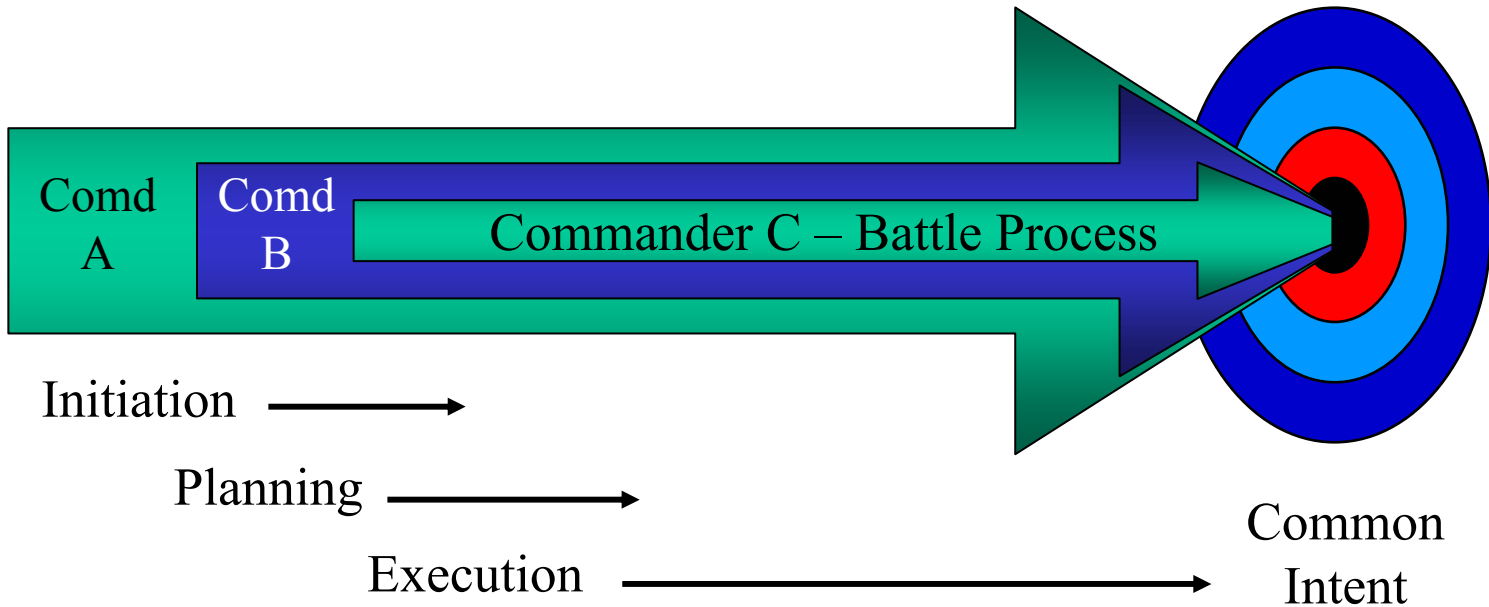
# Canadian Forces New Operational Environment

- The Three-Block War context where medium weight forces deployed over complex terrain are against asymmetric threats with an unsympathetic population.
- New Integrating Concepts: EBA (the “what”) and NEOps (the “how”).
- Continental Staff System lead to stovepipe systems not conducive to collaborative working.
- Need to revisit the commander’s battle process.





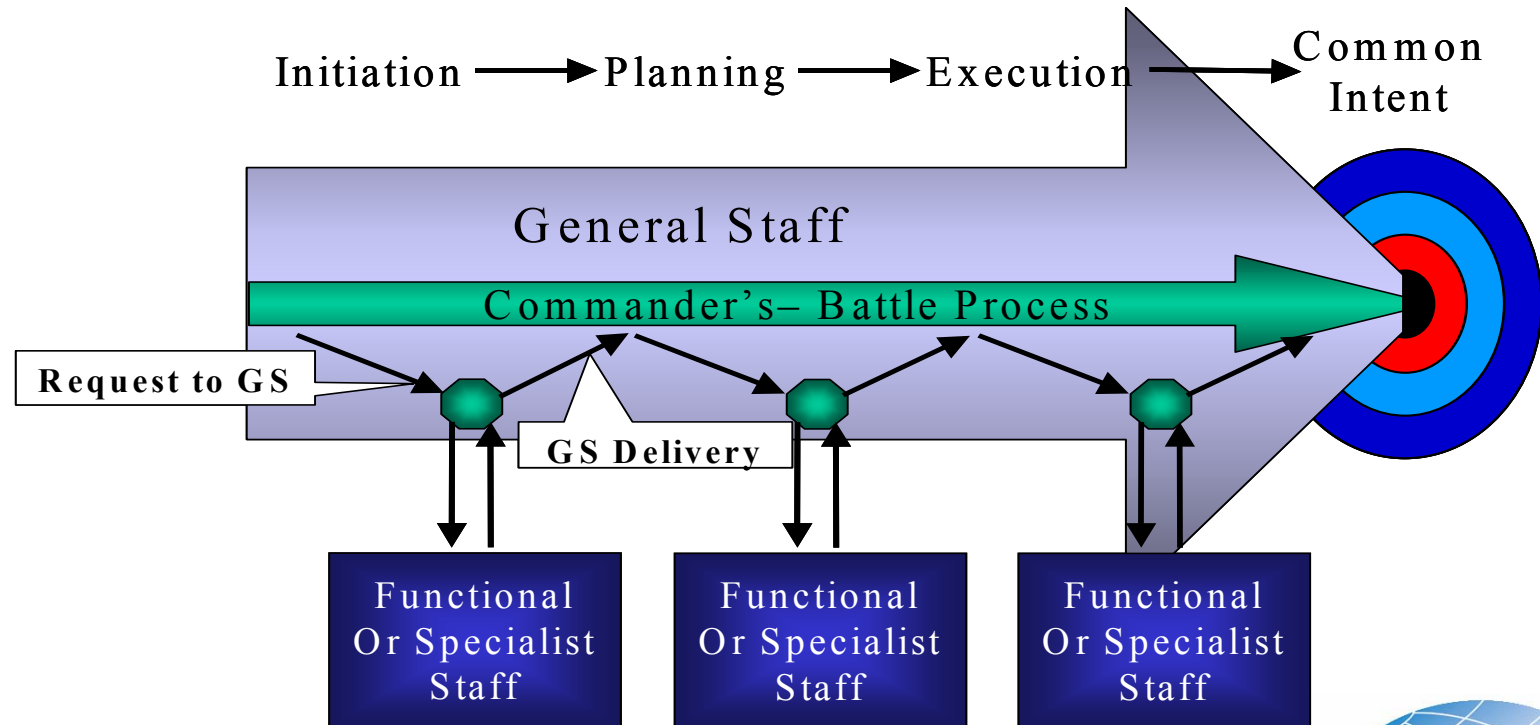
# Synchronizing and Overlapping Commanders Battle Processes





# The Collaborative Command Centric Concept

- **Collaborative Working Concept:** “The environment in which a military commander makes the best use of available knowledge, experience and intellect from command and staff teams to achieve a common purpose.” (CA CW CONOPS 2004)





# Promoting a Collaborative Culture

- Mutual trust and respect
- Power based on expertise and accountability
- Respect for diverse perspectives
- Shared leadership where all team members are expected to take the initiative
- Valuing truth telling
- Commitment to the organizational goals
- Active learning





# Preservation of Operational Tempo

- The Three-Block War operational tempo requires:
  - Clear and consistent understanding of commander's intent;
  - High quality information and shared situational awareness;
  - Competence at all levels of the force; and
  - Trust in the information, subordinates, superiors, peers and equipment.
- Self-Synchronization rests upon the Human Dimension.





## Research Questions

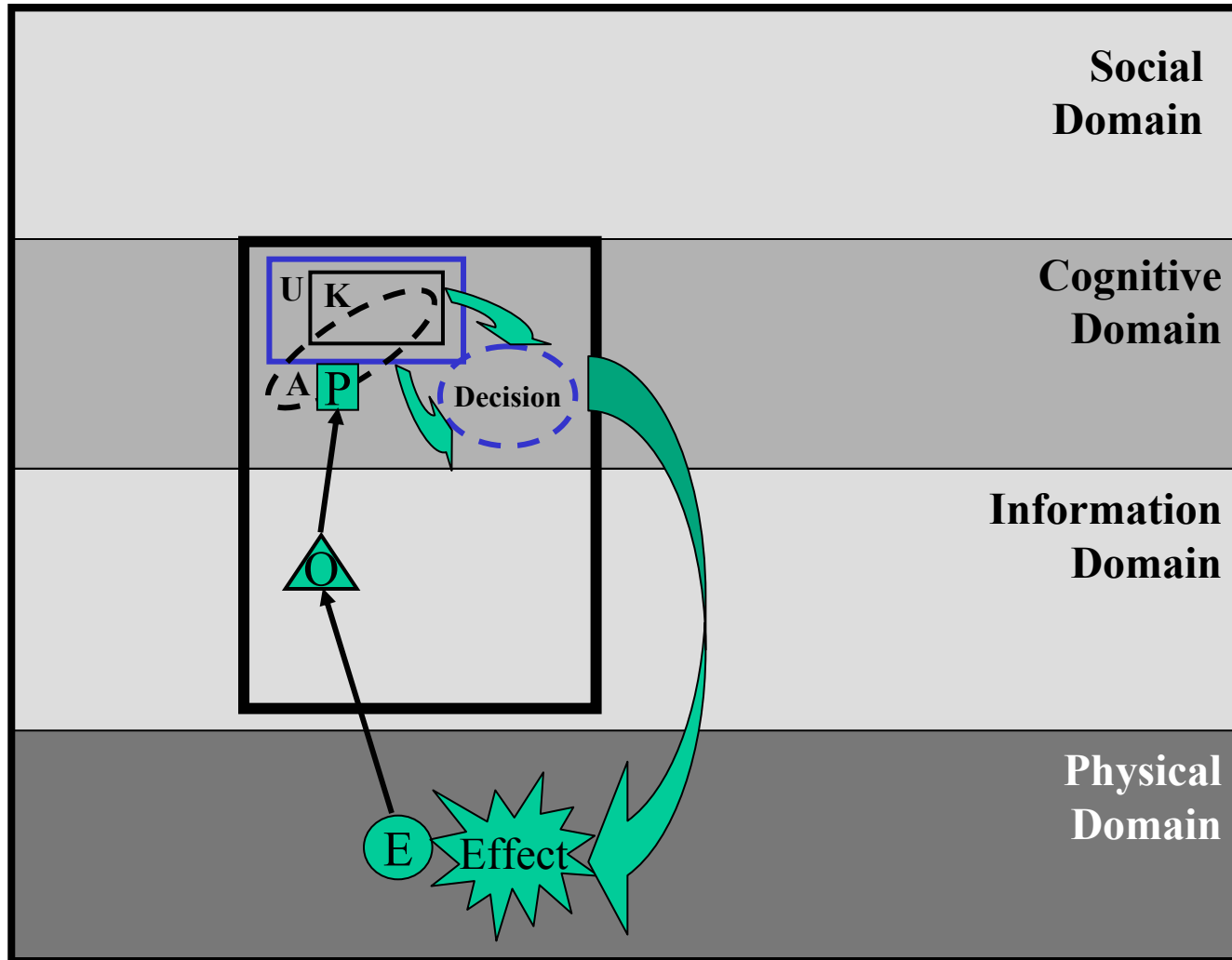
- What is collaboration and how to best encourage a collaborative culture?
- How to achieve shared sense-making?
- What are the processes that enable to go from shared awareness to shared understanding to collaborative decision-making?
  - Clearly a socio-cognitive activity because the individual's cognitive activities are directly impacted by the social nature of the exchange.
- What are the tools, methods, technologies nurturing a collaborative culture?







# Individual Action

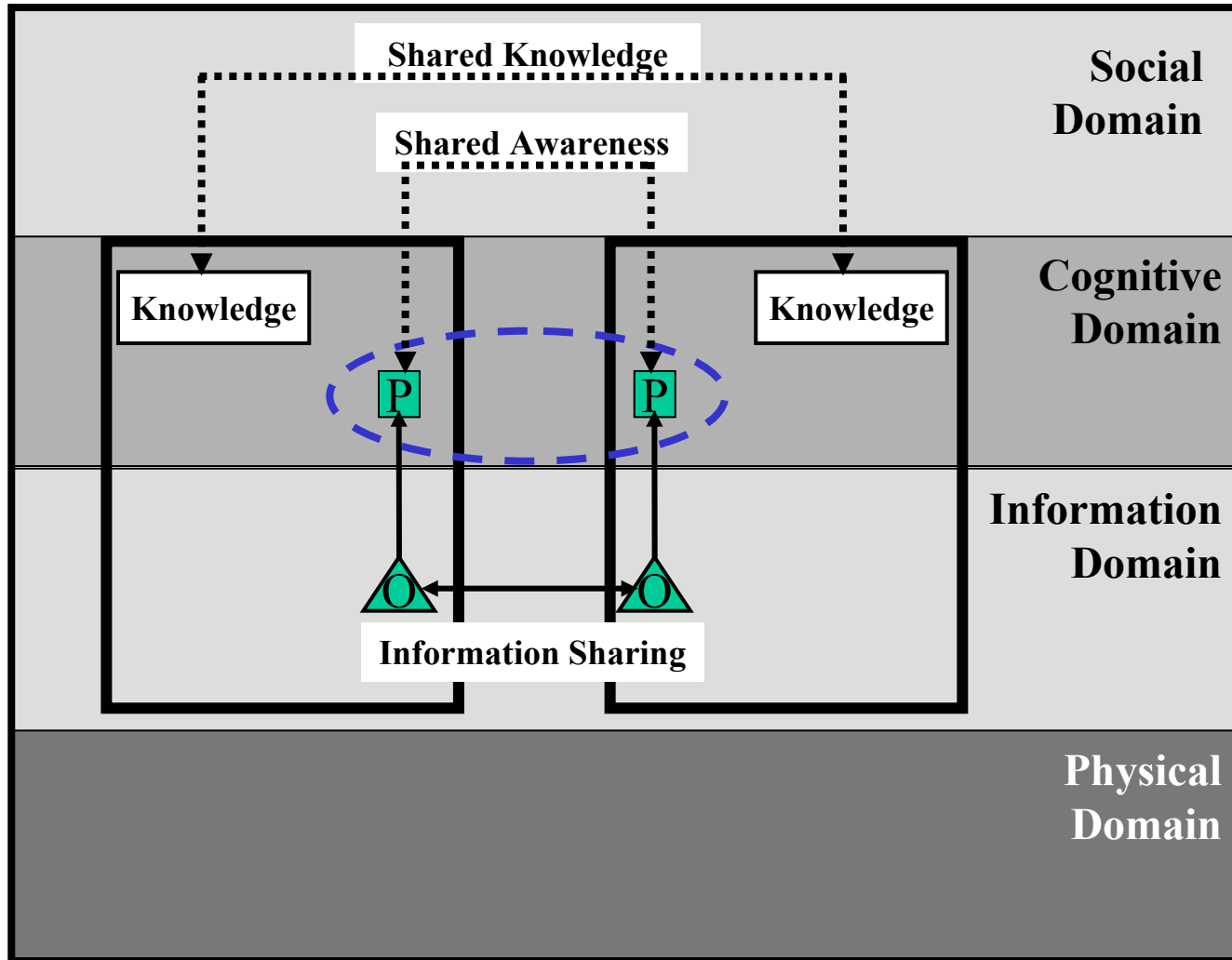


A: Awareness    O: Observation    P: Perception  
E: Event        K: Knowledge    U: Understanding





# Shared Awareness / Knowledge

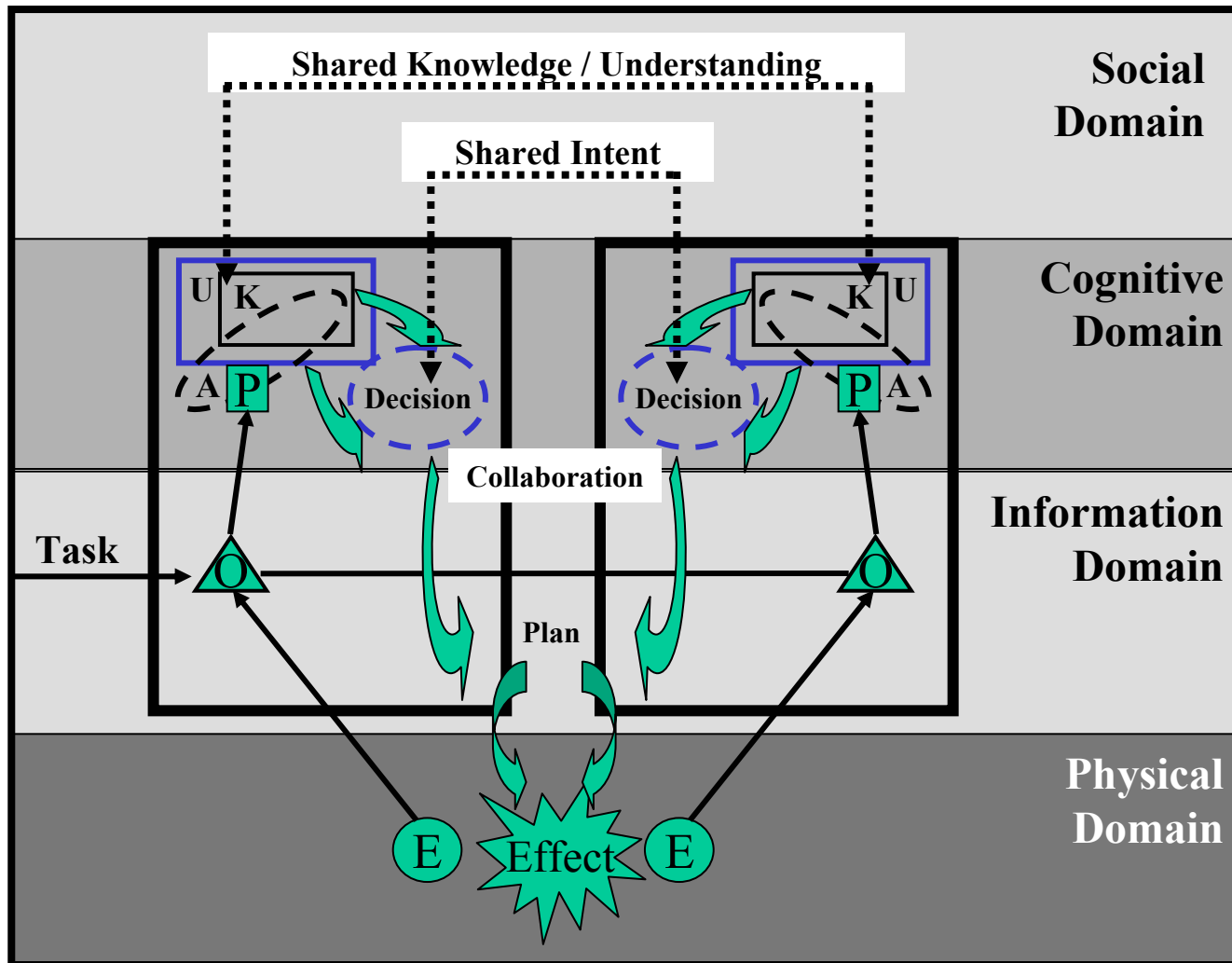


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# Collaboration Synchronization

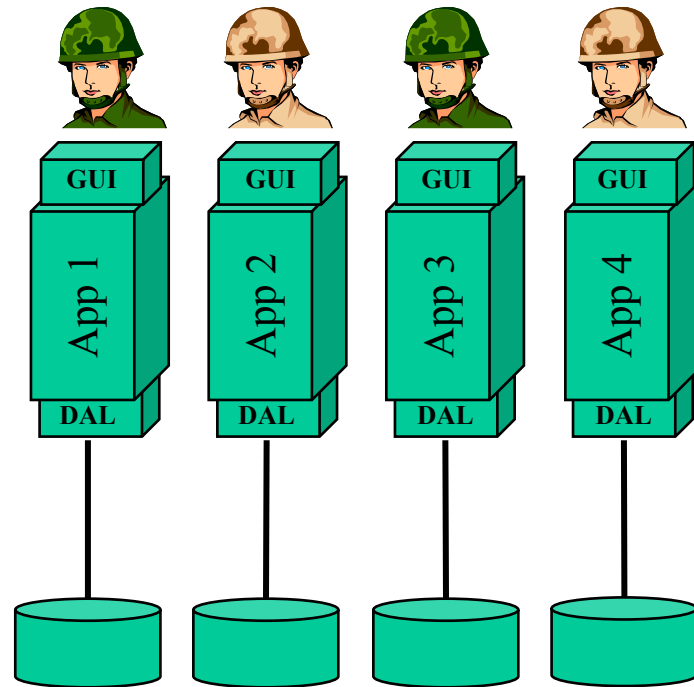


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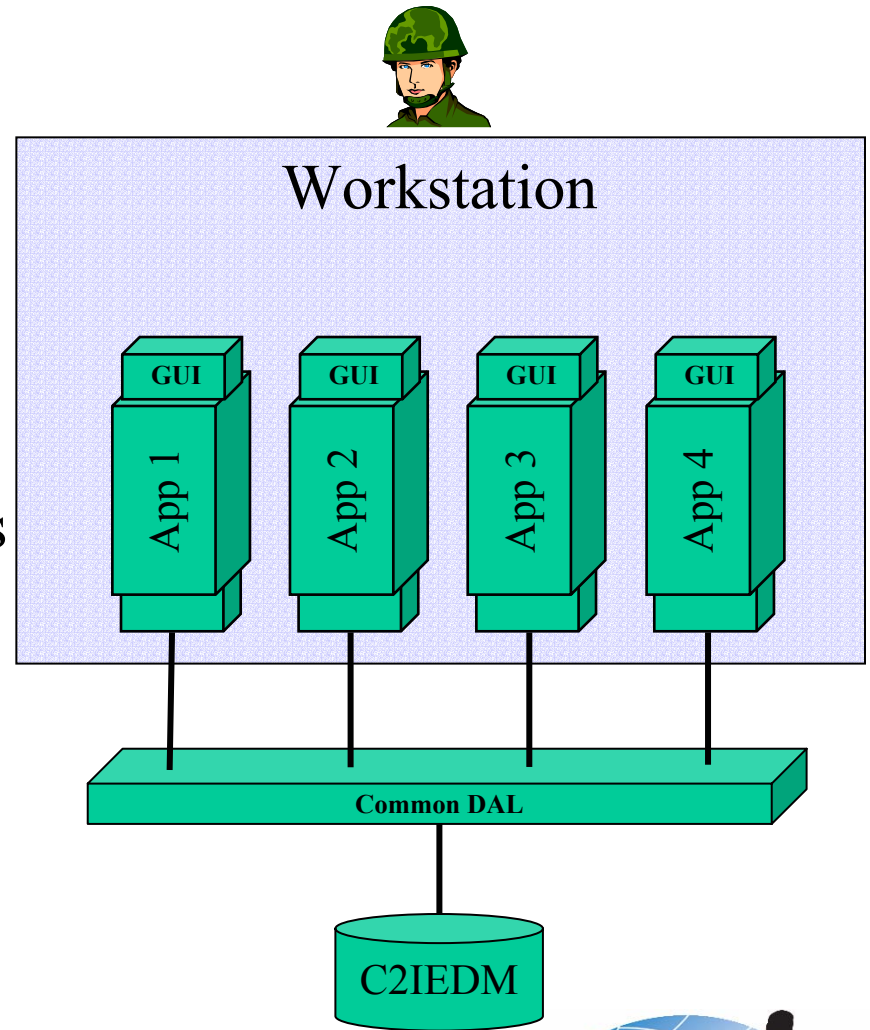
# Stovepipe Systems





# Data Centric Workspace

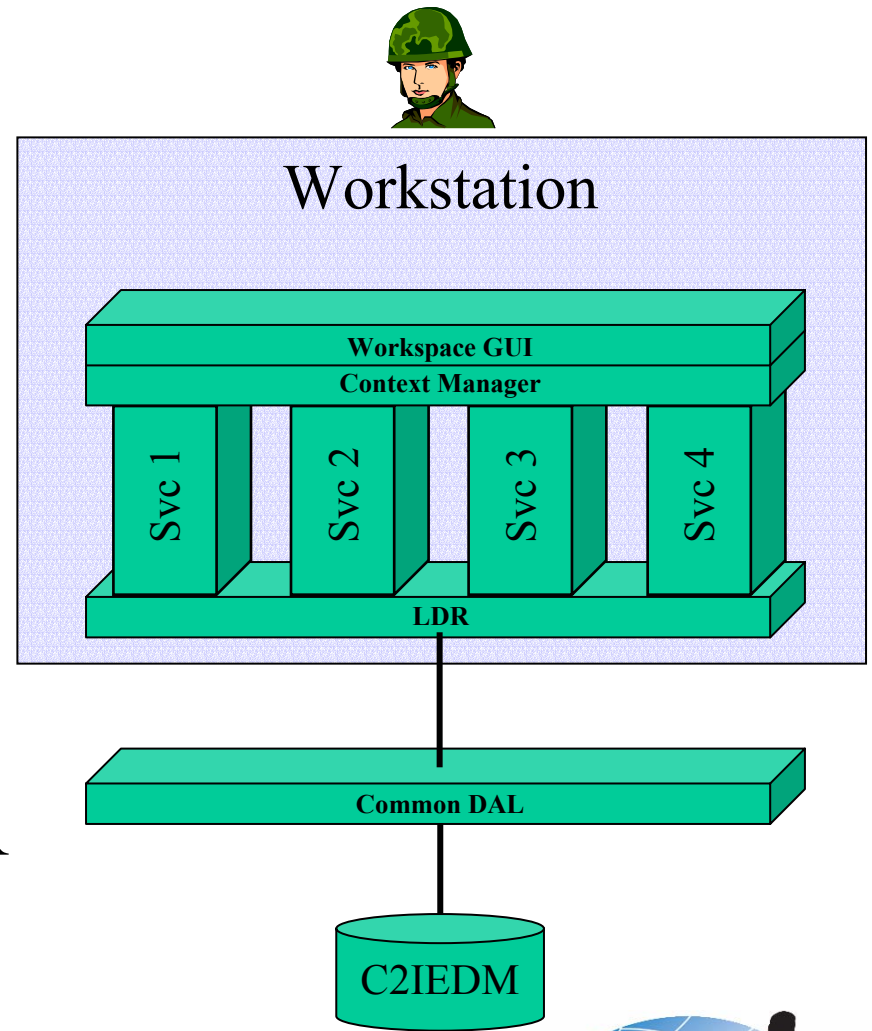
- **Data Centric Workspace:** Technological capability to have several applications accessing heterogeneous data bases using the same semantic. (CA ISTAR TD 2002)





# Information Centric Workspace

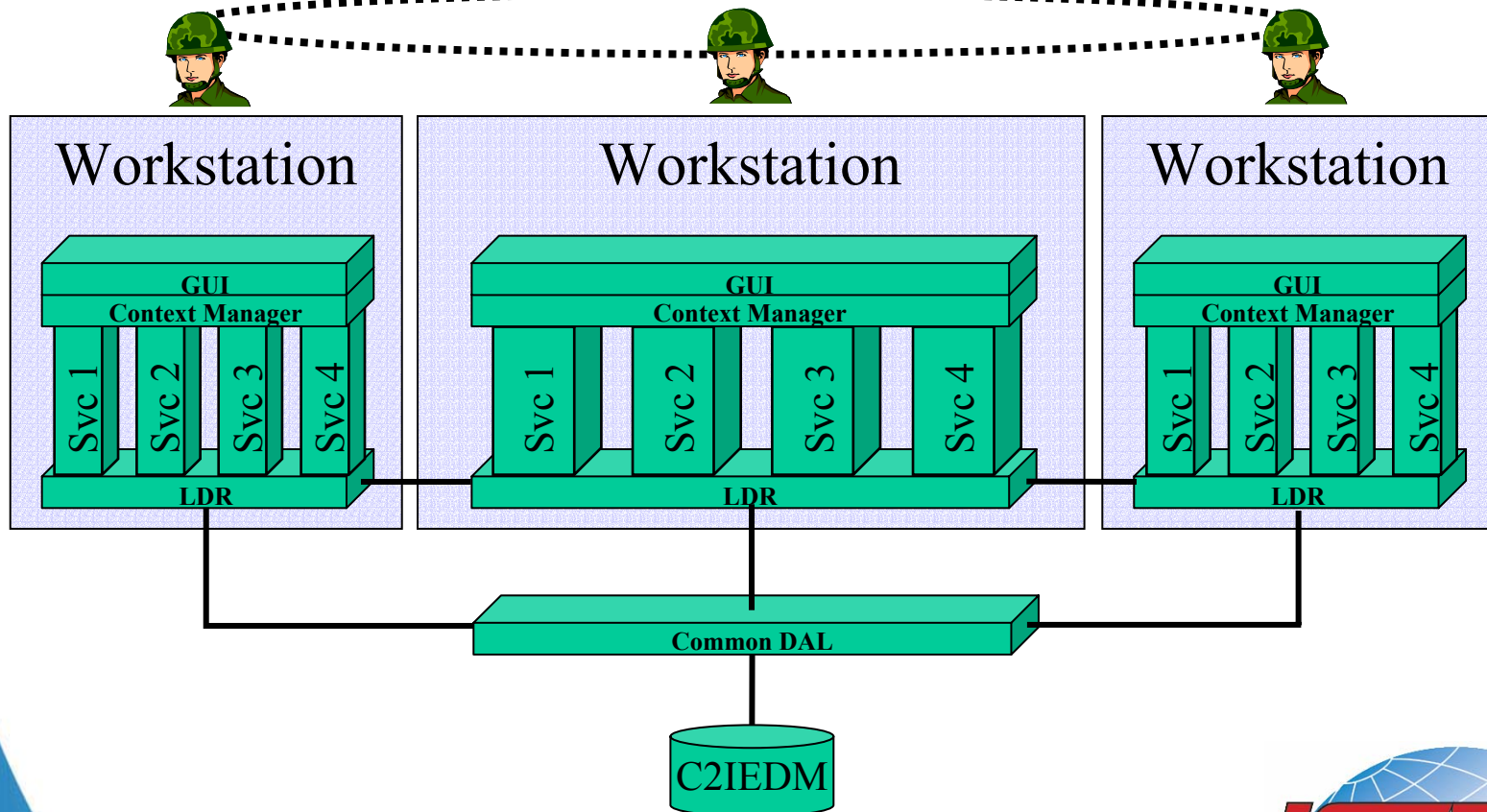
- **Information Centric Workspace (ICW):** Technological capability to have several complementary applications developed on common standards and sharing the same contextual data and information on a workstation. (CA ISTAR TD 2003)





# Information Centric Collaborative Workspace (Same Node)

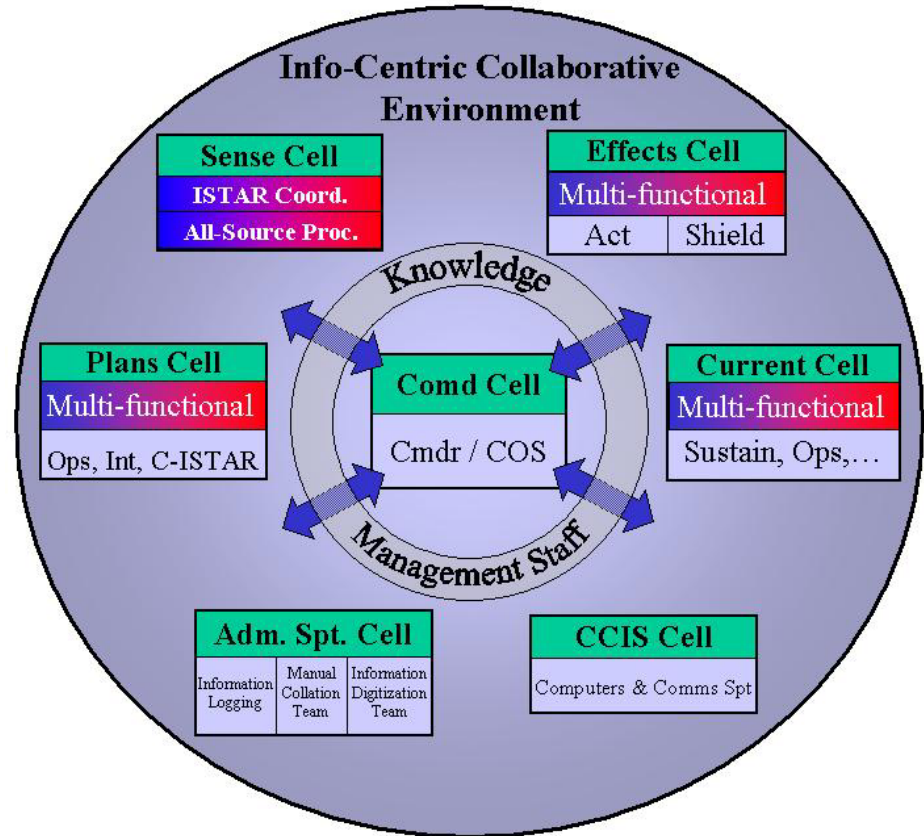
- An environment facilitating the cognitive and social processes through a System of systems services architecture (ICW). (CA ISTAR TD 2004)





# Collaborative Command-Centric Concept

- Need to network all actors enabling them to access heterogeneous information using same semantic
- Need to have common standards for sharing the same contextual data and information on a workstation
- Encourage using same tool box approach
- Need to develop and nurture collaborative work processes
- Need to establish MOE and MOP to measure collaborative working benefits







## Conclusions

- The role of the human in the network is essential, and thus human factors play a significant role in how information is accessed, displayed and shared.
- The development of intuitive interfaces is critical to shared awareness especially across different organizations and coalition partners.
- Technical interoperability will get us to the point where the information is correctly represented in distributed systems, but does not ensure that the individuals in different locations, in different organizations, at different echelons have a similar understanding even though they “see” the same thing.
- Information-Centric Collaborative Workspace is a concept that should support greater collaborative working leading to a better synchronization





# Questions?



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