Mission: COMANND (Comprehensive Operational Memory And Neural Network Deliberation)

Mission Command — Urbanization — Digitization — Artificial Intelligence

Future military command will be challenged by urbanization, digitization and artificial intelligence, mission command will remain key to success well into the future.

To master the challenges which are associated with this quadruplicity, an AI agent assisting decision-makers and supporting their staffs is required capable of

- rapidly integrating and visualizing the urban operational environment
- providing in-depth knowledge and analysis for decision-support and -making
- combining key information on infrastructure, tacit knowledge and socio-cultural aspects
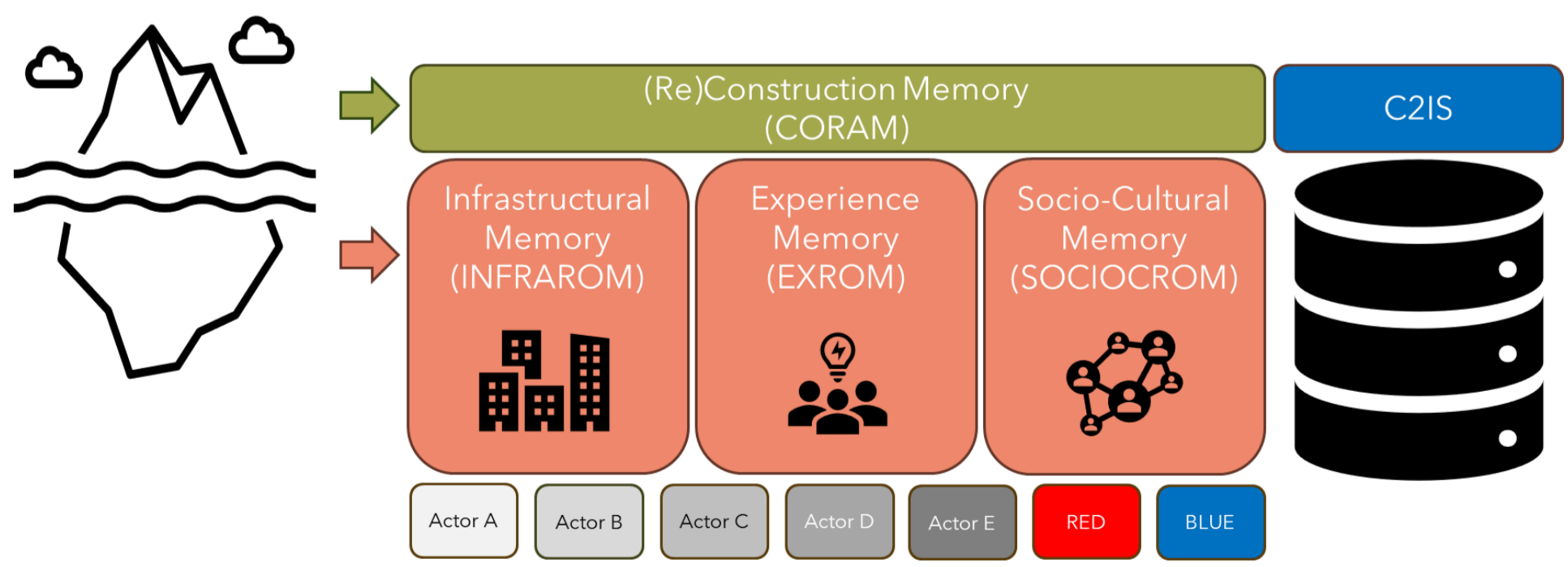
Mission COMANND conceptualizes the combination of collective identity with an AI agent to ensure a comprehensive understanding of the operational environment and enabling centralized (cloud-based) collaboration of decentralized elements.

Overall Human Responsibility

AI <= Continuum of MISSION COMANND Modes => HUMAN

TOC Mode Tactical Operations Center UNAMBIGUOUS CHOICES AI guidance	DSR Mode Data Search and Recommendation DECISION PREPARATION AI support	TAC Mode Tactical Command Post DECISION MAKING AI assistance
purely logical deduction critical situation guidance	complicated induction supporting recommendations	complex abduction questioning assistance
countering immediate threats (e.g. incoming missiles including collateral damage estimates)	staff support by COM-based recommendation and analysis	AI assisted peer-to-peer interaction decision making HUMAN RESPONSIBILITY
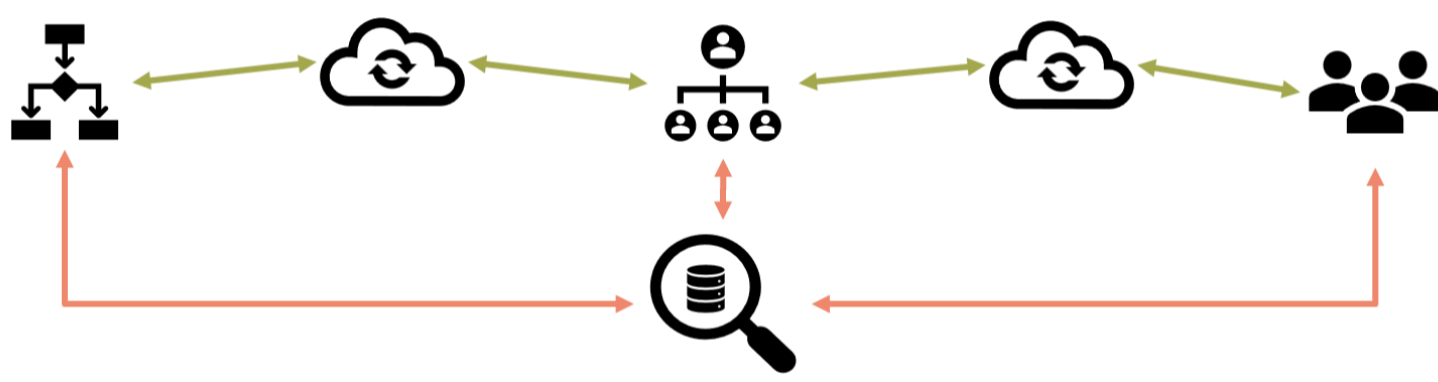
Mission COMANND needs a comprehensive knowledge base integrated into an immersive command and control information system. Based on the Aleida Assmann's concept of complementary modes of remembrance, the Comprehensive Operational Memory (COM) consists of the inhabited reconstruction memory (CORAM) and the underlying memory of memories comprising of INFRAROM, EXROM and SOCIOROM. The COM knowledge base in conjunction with the Neural Network Deliberation AI agent will significantly improve the understanding of the urban operational environment, its interdependencies and cascading effects.

(Re)Construction Memory (CORAM) — C2IS

Infrastructural Memory (INFRAROM) — Experience Memory (EXROM) — Socio-Cultural Memory (SOCIOCROM)

Actor A | Actor B | Actor C | Actor D | Actor E | RED | BLUE

COL Dr. Peter HOFER / IRON NIKE Research and Development Group

Theresian Military Academy / Institute of Advanced Officer Training

Wiener Neustadt / Austria