

MODELLING & SIMULATION GROUP CONFERENCE on TRANSFORMING TRAINING AND EXPERIMENTATION THROUGH MODELLING AND SIMULATION

Computer Assisted Exercise Environment for Terrorist Attack Consequence Management

(Defense Against Terrorism, Military Exercising, Training and DMS)

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Outline

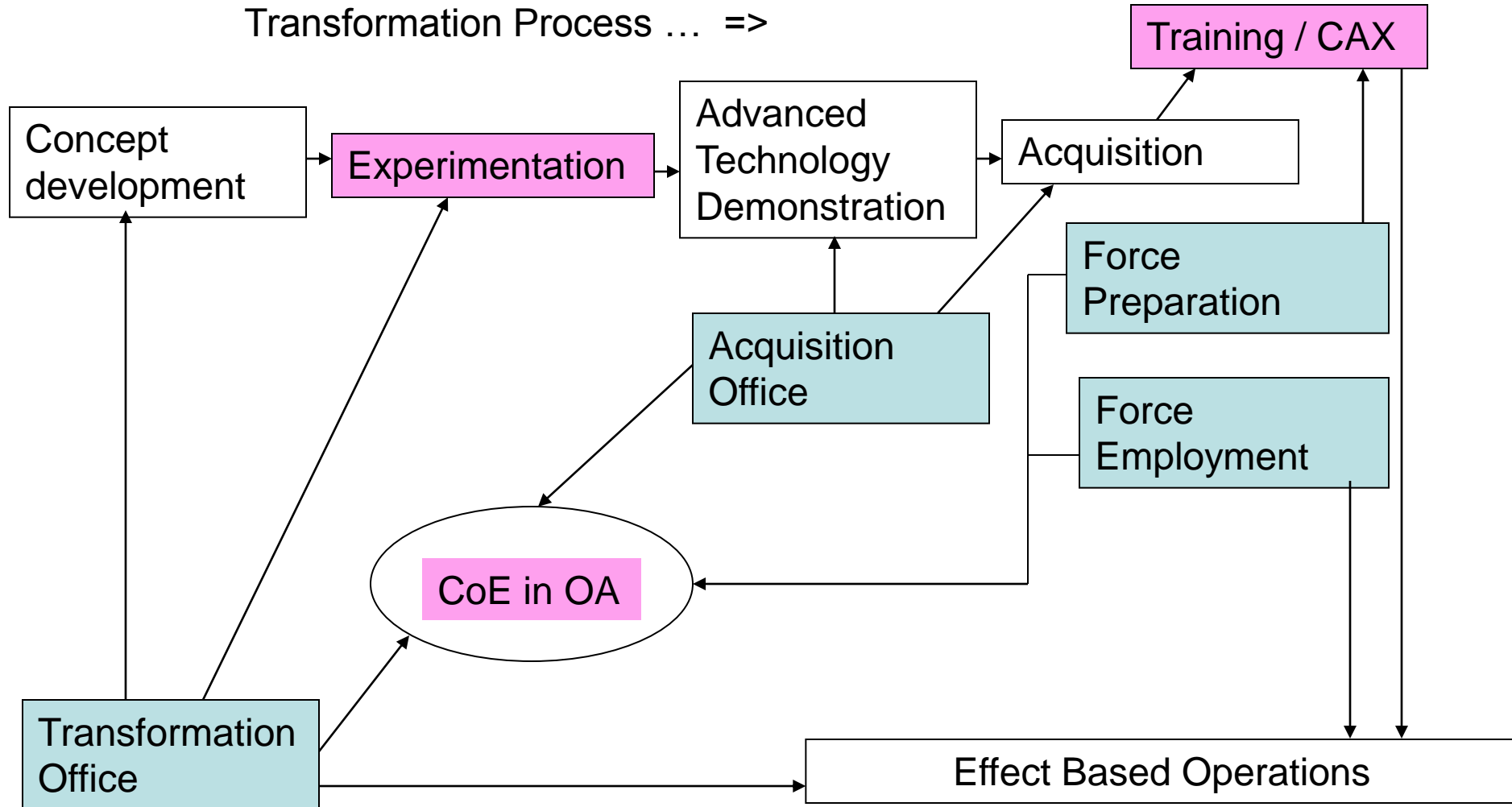
- 1. CAX based Model for Concept Development and Experimentation***
- 2. Training as a Tool for Change Management in Third Generation of Security Sector Reform***
- 3. M&S Capabilities of CAX Environment***
- 4. M&S in Planning and Lessons Learned Drafting***

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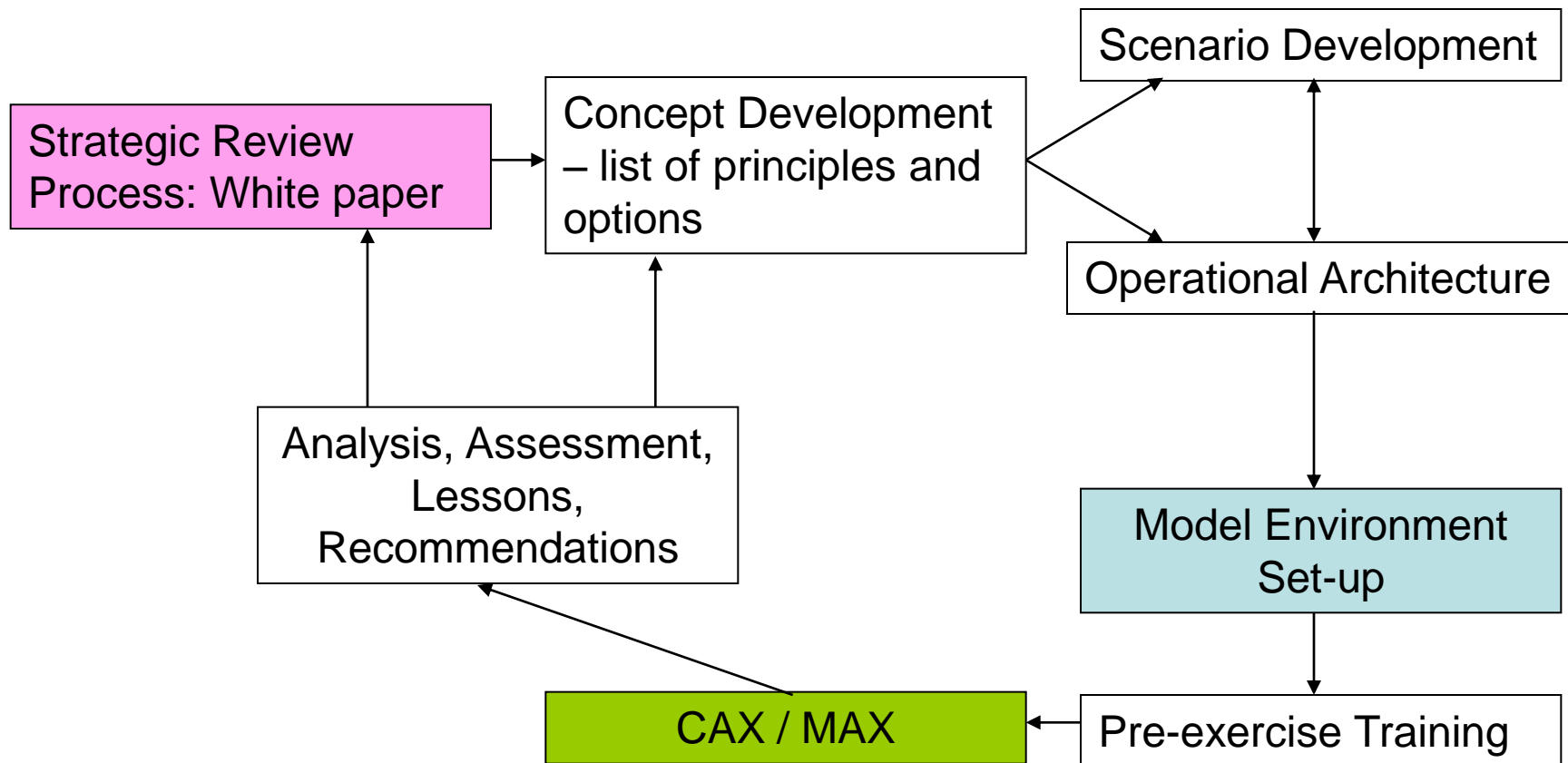
CoE in Operational Analyses (<http://www.gcmarshall.bg/sfp981149/>)

CDE/ATD and training process in support of transformation?

Transformation Process ... =>



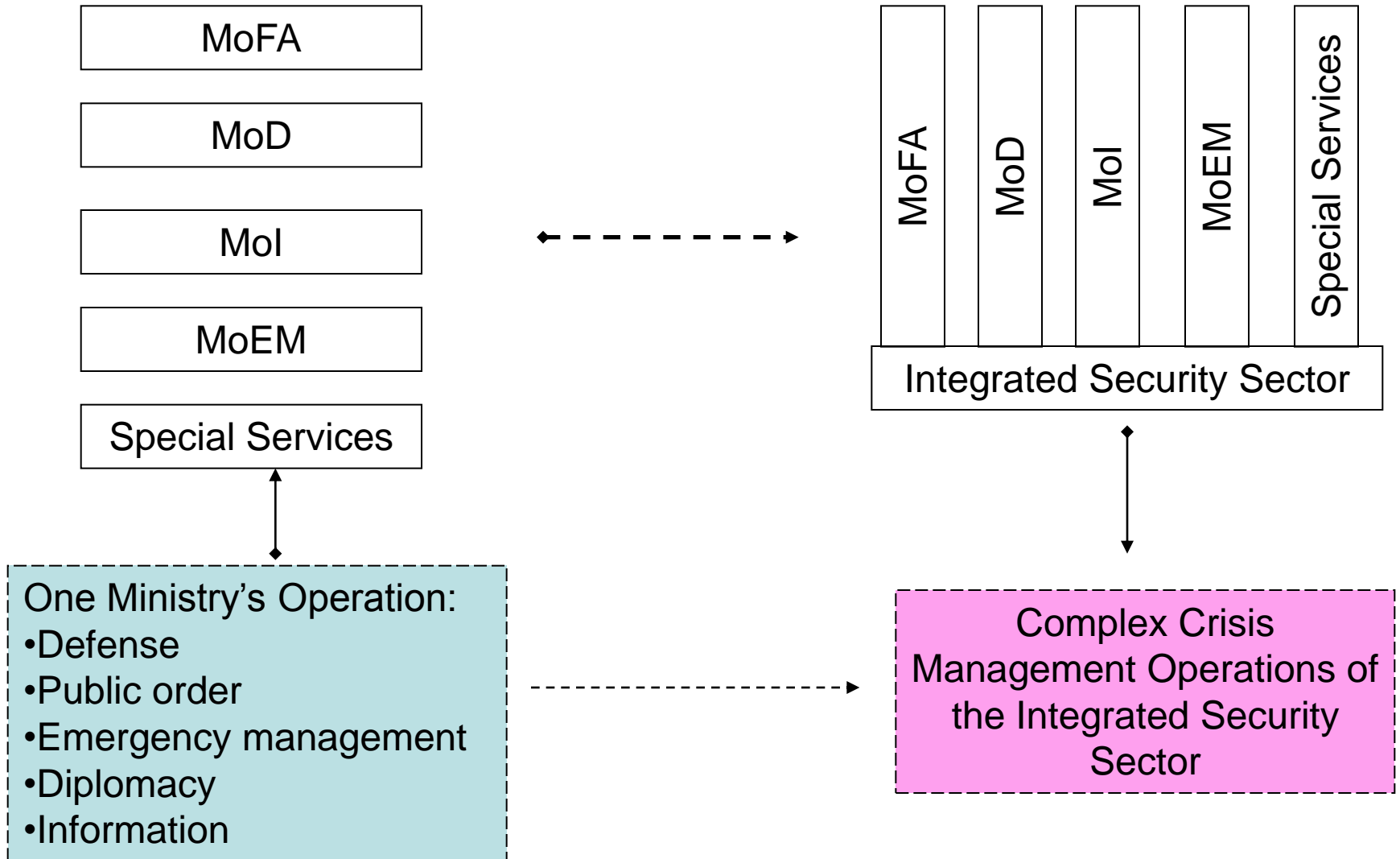
CAX based Model for Concept Development and Experimentation



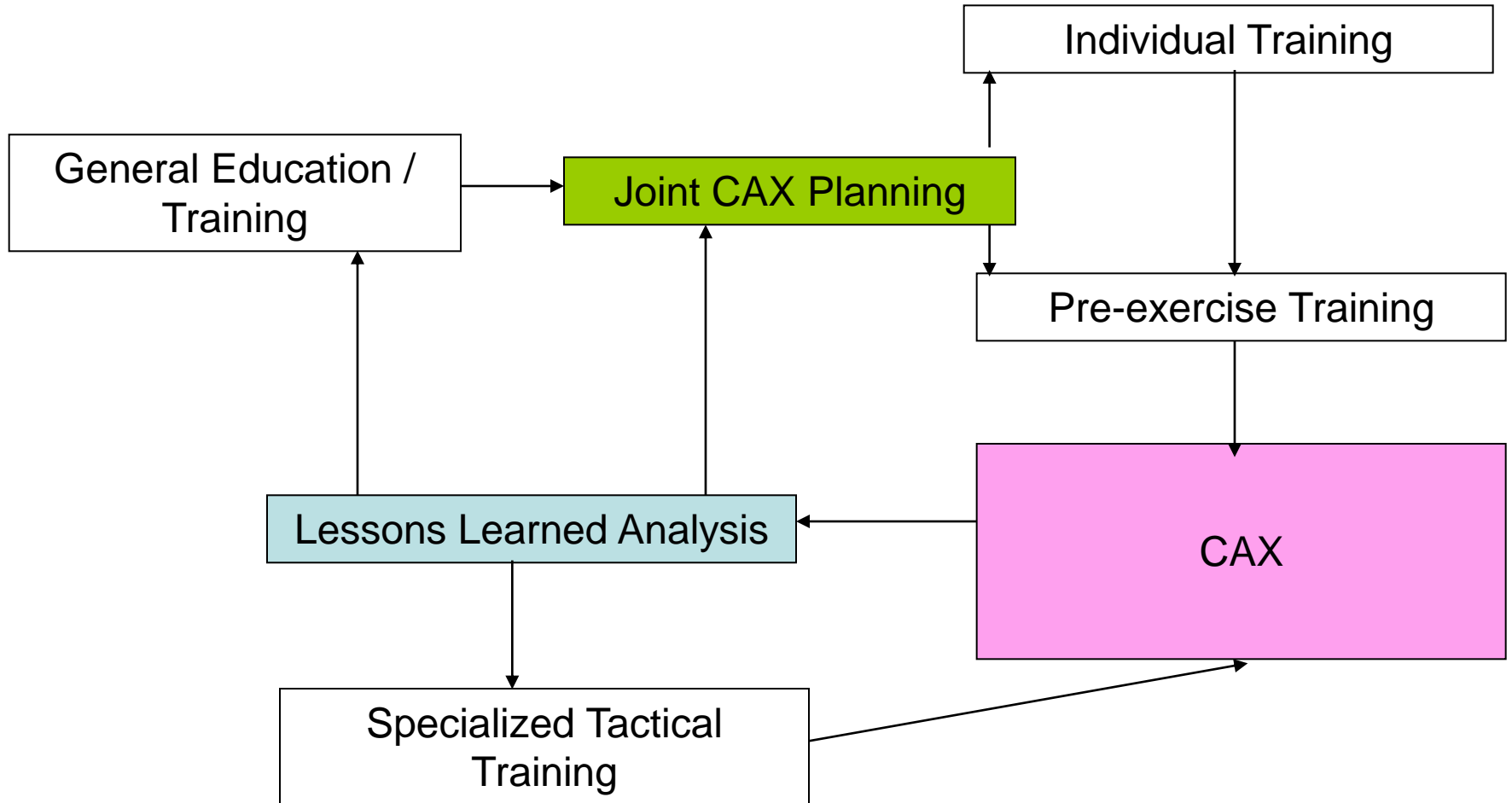
Training as a Tool for Change Management in Third Generation of Security Sector Reform

- ***Building of Integrated Security Sector as Goal of Third Generation Security Sector Reform***
 - Defense (Sovereignty, Expeditionary Operations, Territorial defense)
 - Public Order and Security
 - Emergency Management / Consequence Management
 - Diplomacy / protection abroad
 - Information operations
- ***Key Pillar of Integrated Security Sector - Defense Against Terrorism and Consequence Management (Crisis Management)***
- ***Role of Training in Change Management***

Third Generation SSR for Integrated Security Sector

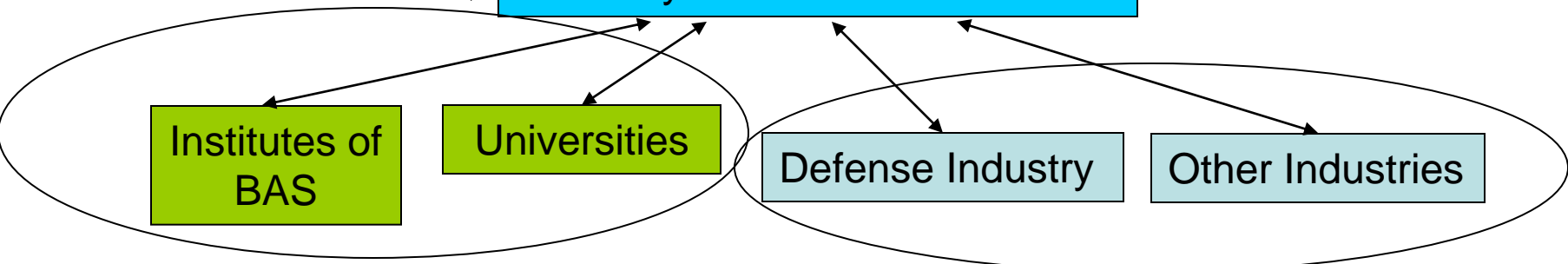
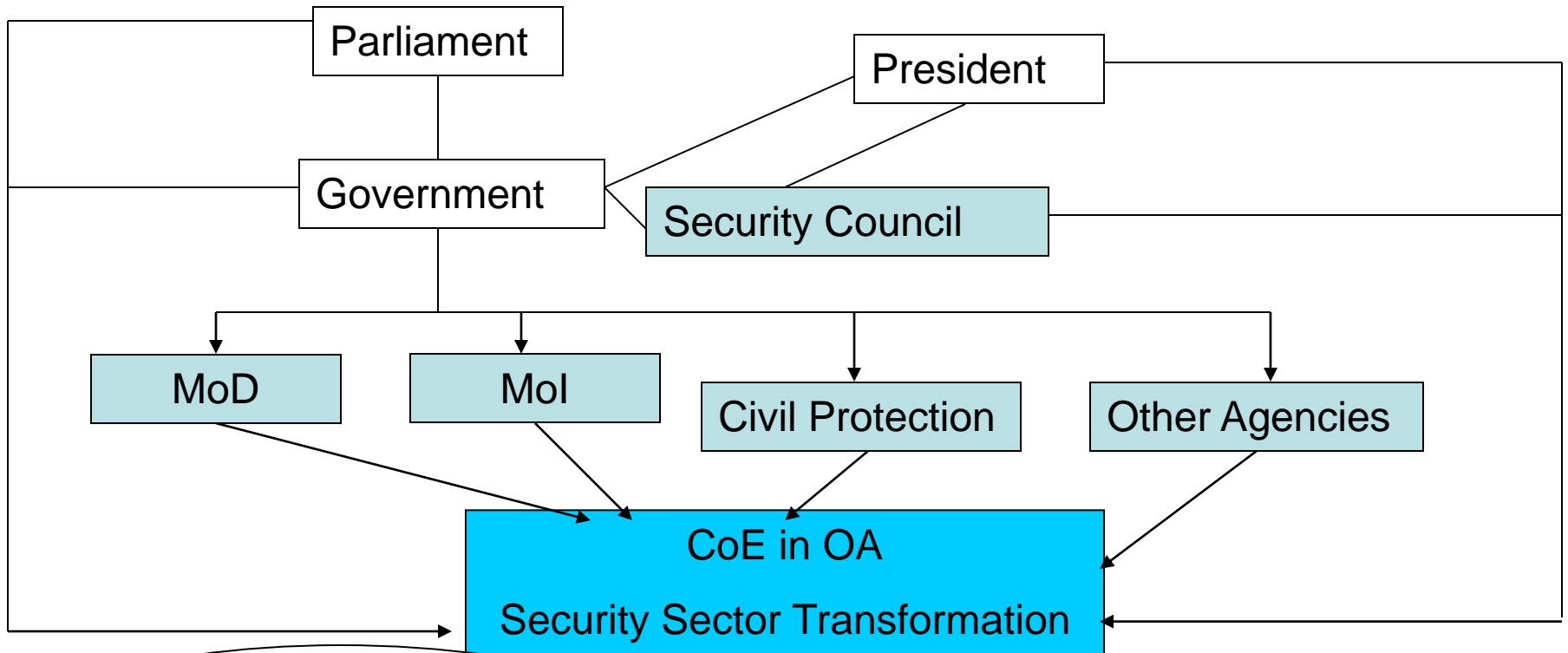


Training as a Tool for Change Management



Where is the CoE situated among Integrated Security Sector organizations?

Governance / Costumers



Back office

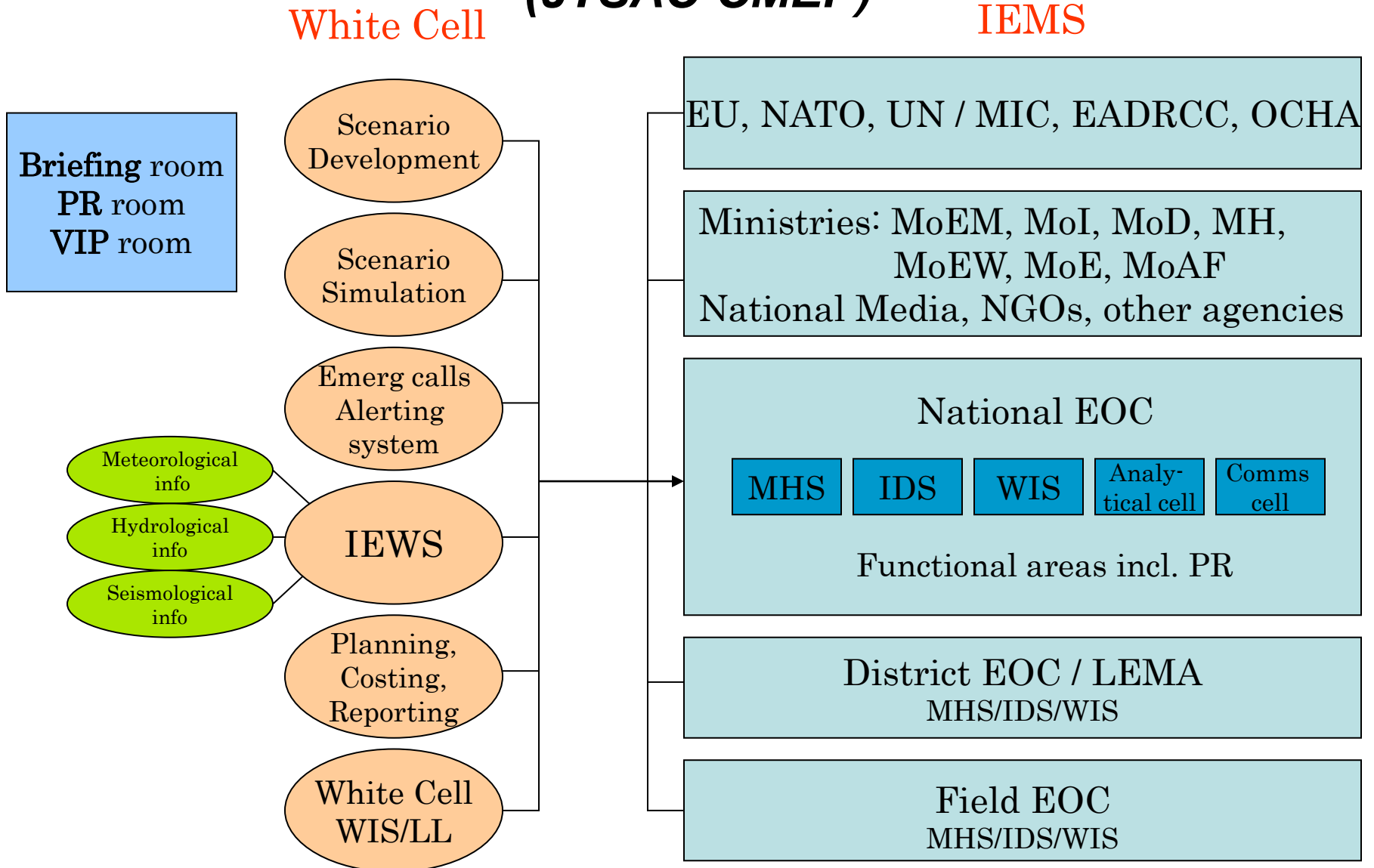
Implementation / Competition

Costumers Partners

M&S Capabilities of CAX Environment

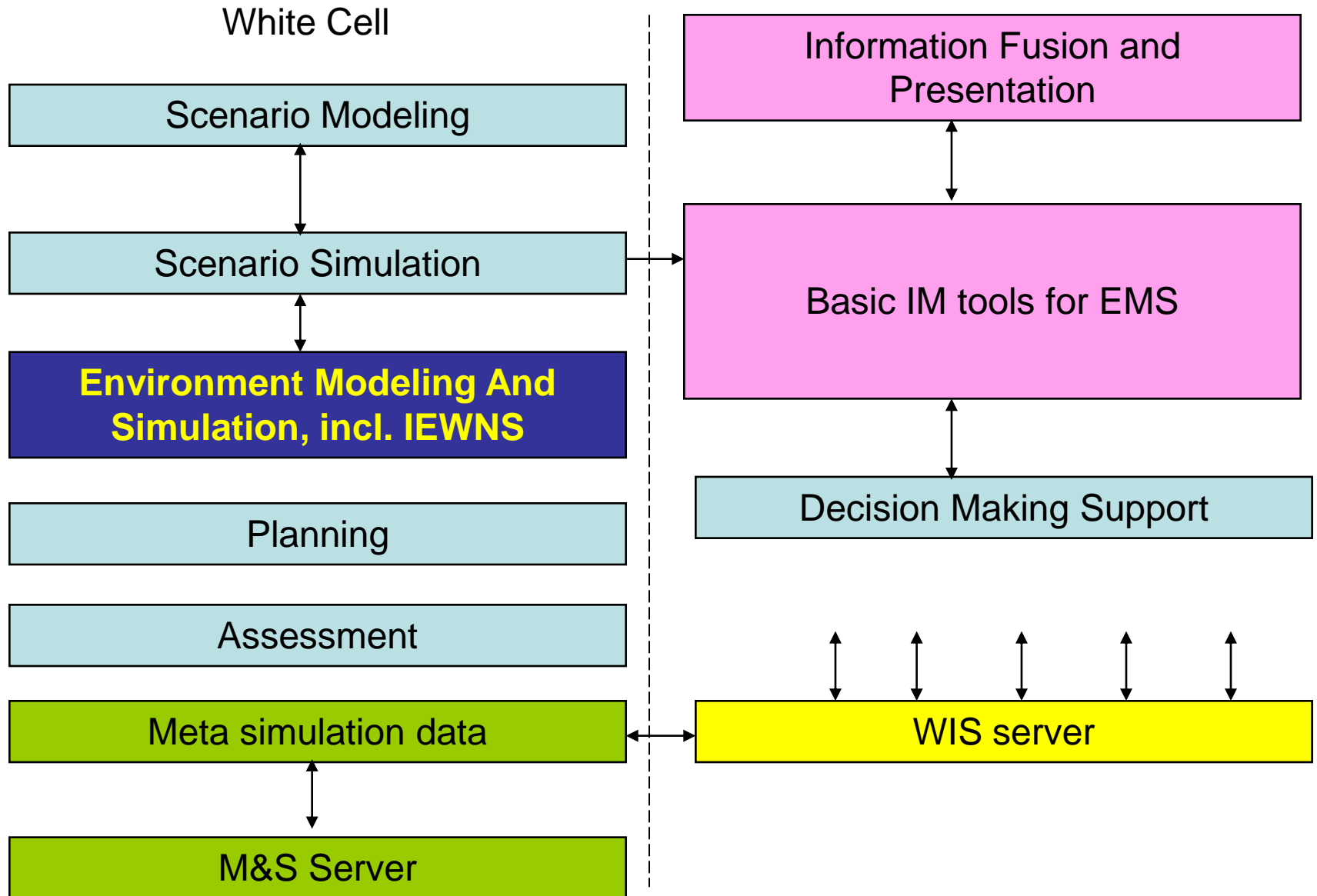
- ***M&S elements in General Architecture of JTSAC***
 - ***Planning and Analysis Cell***
 - Planning and resource management
 - Assessment of CAX
 - ***White Cell***
 - Concept to scenario transition
 - Simulation of scenario and environment
 - Simulation of IEWS/Notification System
 - ***Operations Center***
 - Analytical Cell DMS tools
 - Communications Cell planning and management tools
- ***Integration between scenario M&S and C2 system***

Architecture of Joint Training Simulation and Analysis Center in Civil-Military Emergency Planning / Response (JTSAC-CMEP)



M&S in JTSAC Service Oriented Architecture

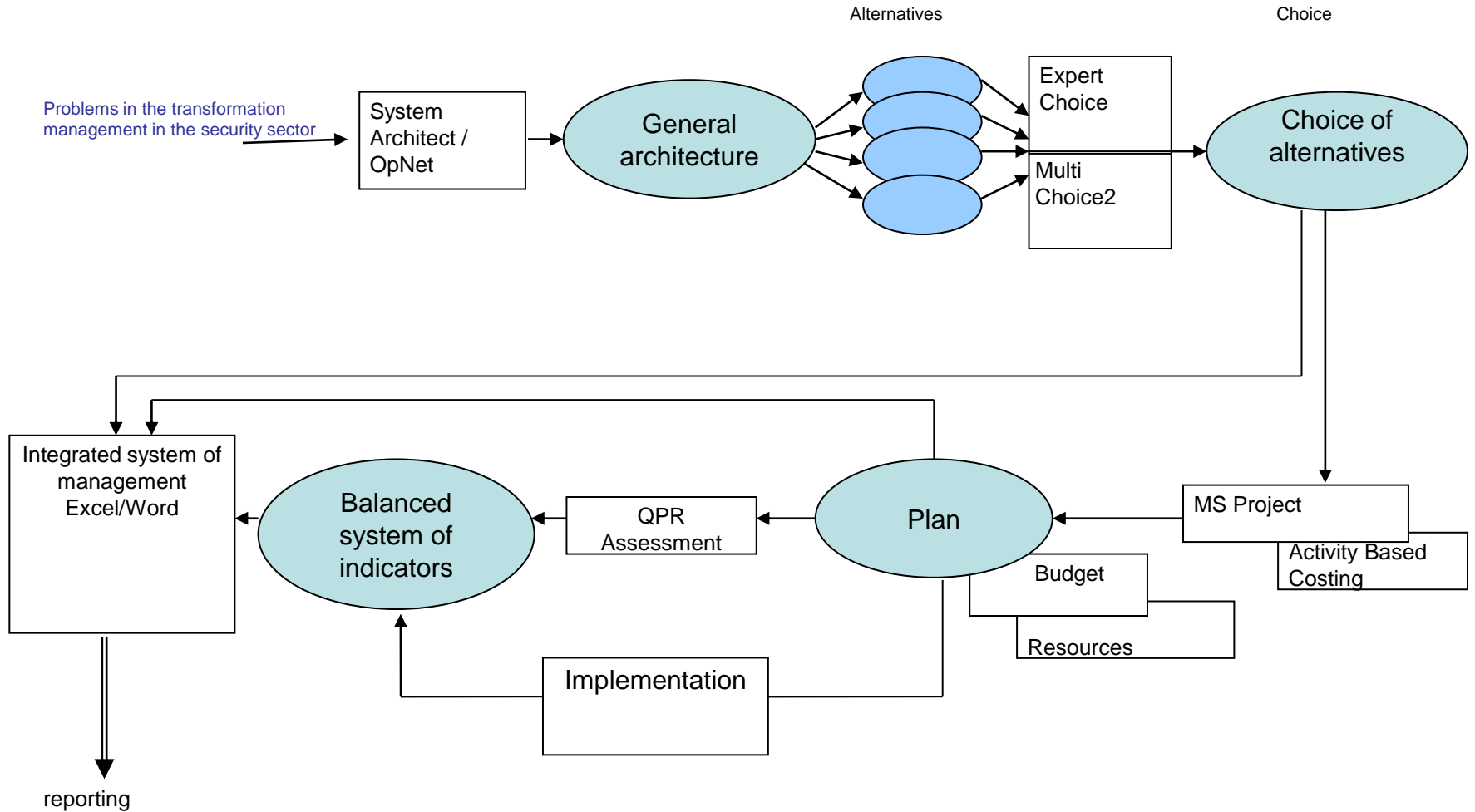
Emergency Operations Center



M&S in Planning and Lessons Learned Drafting

- ***Life Cycle of CAX***
- ***Key role of economic dimension***
- ***Resource Management***
- ***Knowledge Management***

M&S in CAX Planning



M&S in CAX Assessment

Yesterday

Financial
<i>How to Minimize Time and Money for Implementation of New Concepts?</i>
Time for planning / implementing Budget to run CAX Reusability of environment

Today

Scenario and Operational Architecture	JTSAC Architecture
<i>How to Develop Best Concept and Organizational Structure for CM System?</i>	<i>How to Provide Best Environment for Experimentation and Training?</i>
Minimize reaction time Maximize effectiveness Minimize negative consequences Increase Society Satisfaction	Information Flow Analytical Support Use of new technologies

Tomorrow

CAX team training and development
<i>How to form and train team and develop CAX products / services for better way achieving other goals?</i>
Organizational, tasking, training Bonus payment and retaining personnel

Conclusions - I

1. Growing number of new and diverse concepts – need for rapid experimentation and adaptation
2. Horizontal nature of the new concepts – need for cross culture training
3. Key element in concept implementation / change management is the personnel – people in the loop model for experimentation is needed
4. Low cost and flexibility of training environment is a prerequisite for large scale implementation
5. CAX and MAX balance in training and experimentation is needed

Conclusions - II

6. Evolutionary development (prototyping) and rapid implementation of the results of experimented concepts is required (CoE-OA => JTSAC-CMEP => EU TACOM SEE-2006 => IEMS FS example)
7. Integration of efforts of Administration / Forces, R&D / E&T academic institutions and business based on M&S environment is a must

PPP model in M&S for Transformation of Training and Experimentation

