

The background is a complex collage. At the top, there's a map of Europe. Below it, a large, stylized eye with a blue iris is prominent. To the left, a soldier in camouflage gear is visible. To the right, there's a bright, fiery explosion. The overall theme is military and surveillance.

RUSI C4ISTAR Conference

Creating the Sensor Grid

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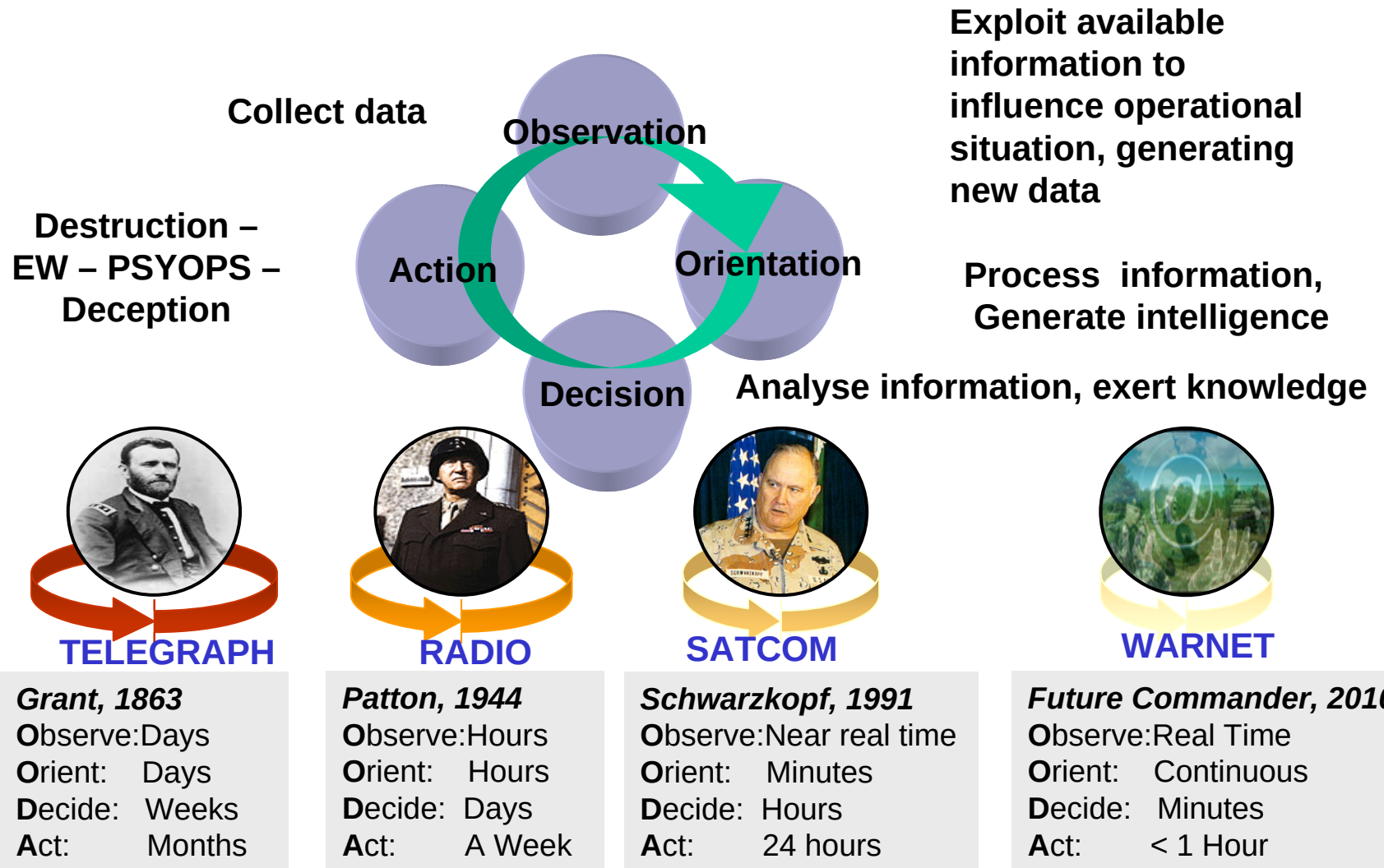
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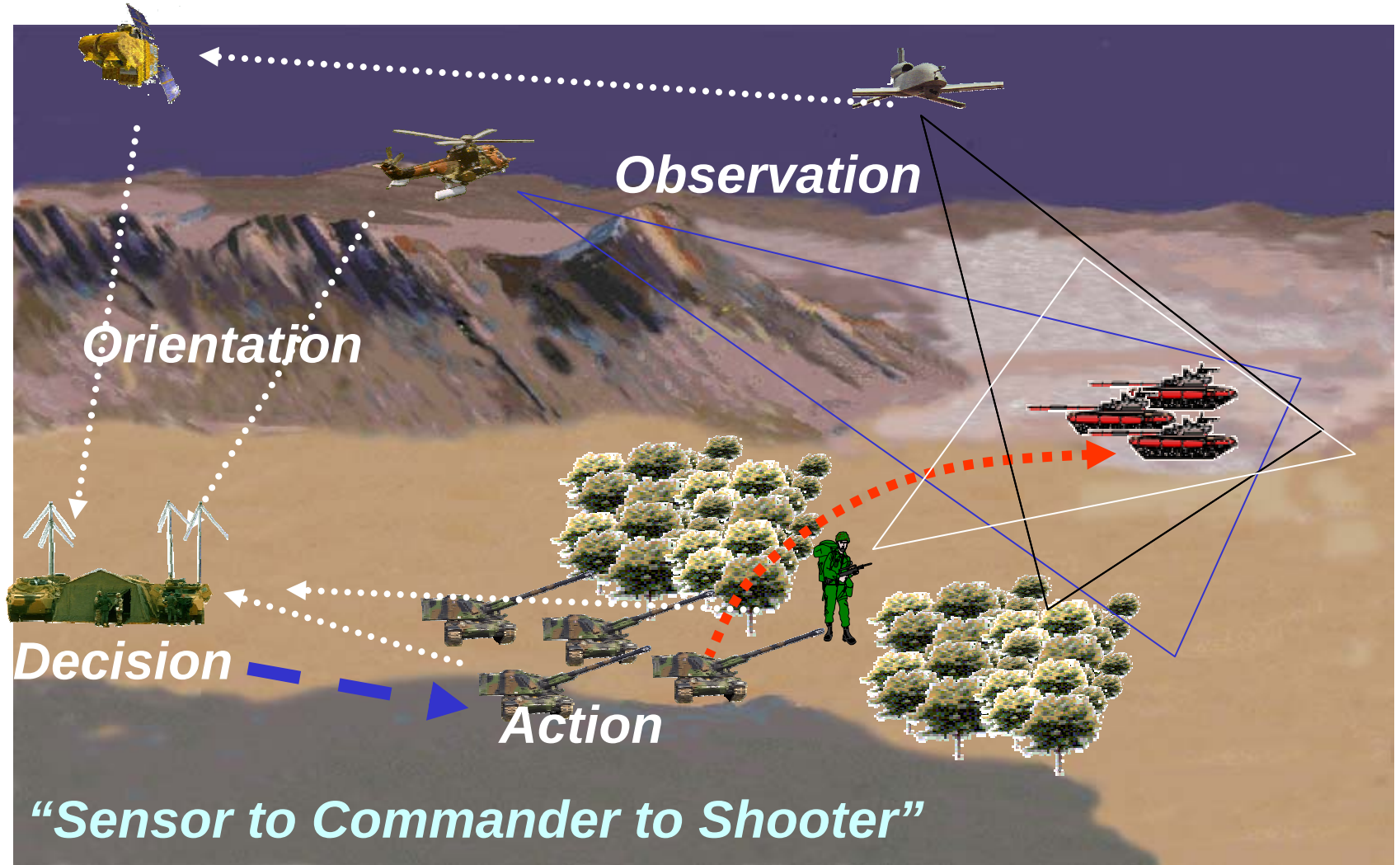
Evolving Strategic Environment



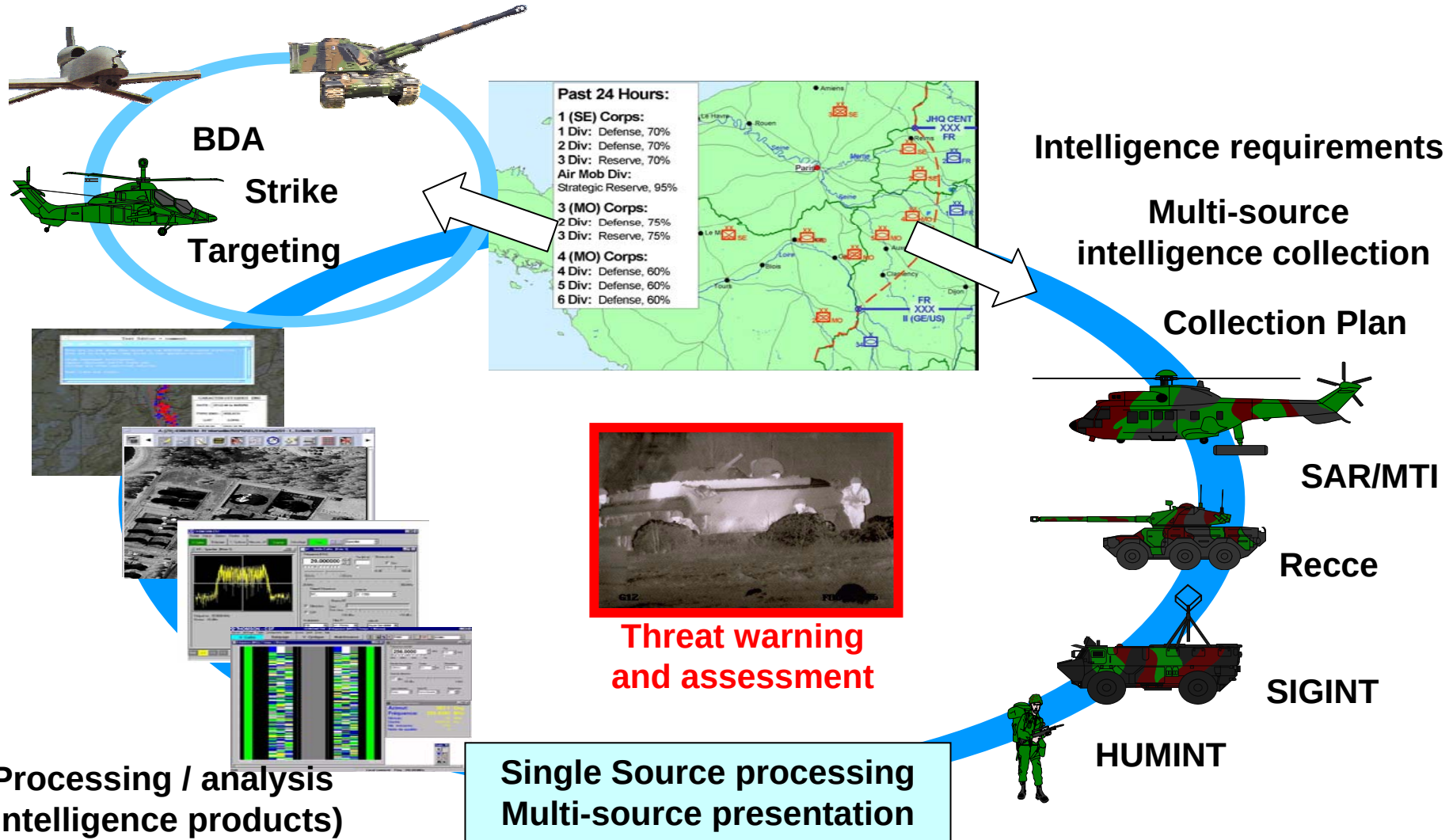
The Revolution in Information Affairs



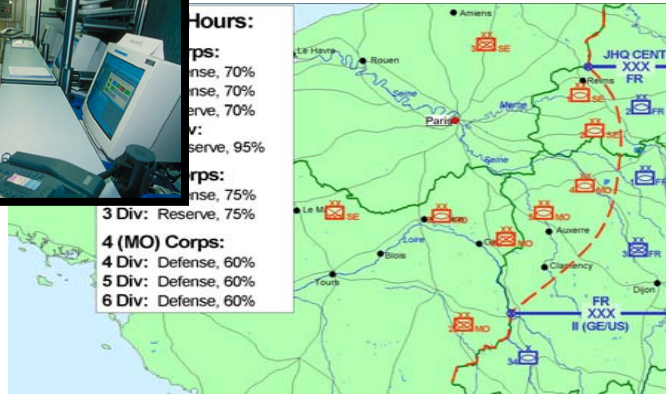
From Observation to Action



ISTAR, “fuelling” the OODA Loop



ISTAR and COP



**“The Quest for the HOLY GRAIL”,
the Common Operational Picture
(COP)**

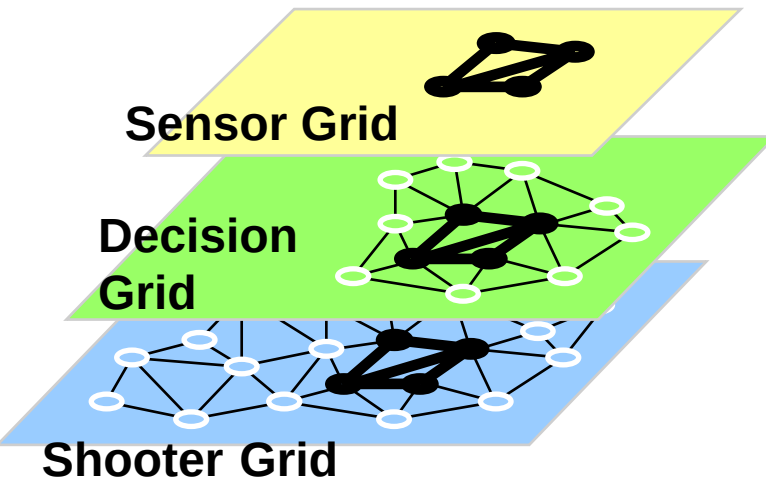
**Can we expect to reach the COP
under the current Command &
Control paradigm (C4ISTAR), built
on platform centralisation and
organisational vertical hierarchies ?**



The robust networking of:

- Smart sensors
 - Best-placed decision makers
 - Soft & Hard Kill assets
- enables Situational Awareness**

Network Enabled Forces



- > Stow-piped architecture replaced with a flexible Network Centric paradigm**
- > Networking is enabling co-ordination and co-operative operations**
- > All nodes provides and have access to information and resources via the network**
- > A sensor can be utilised as a communication node, a shooter is also a sensor**

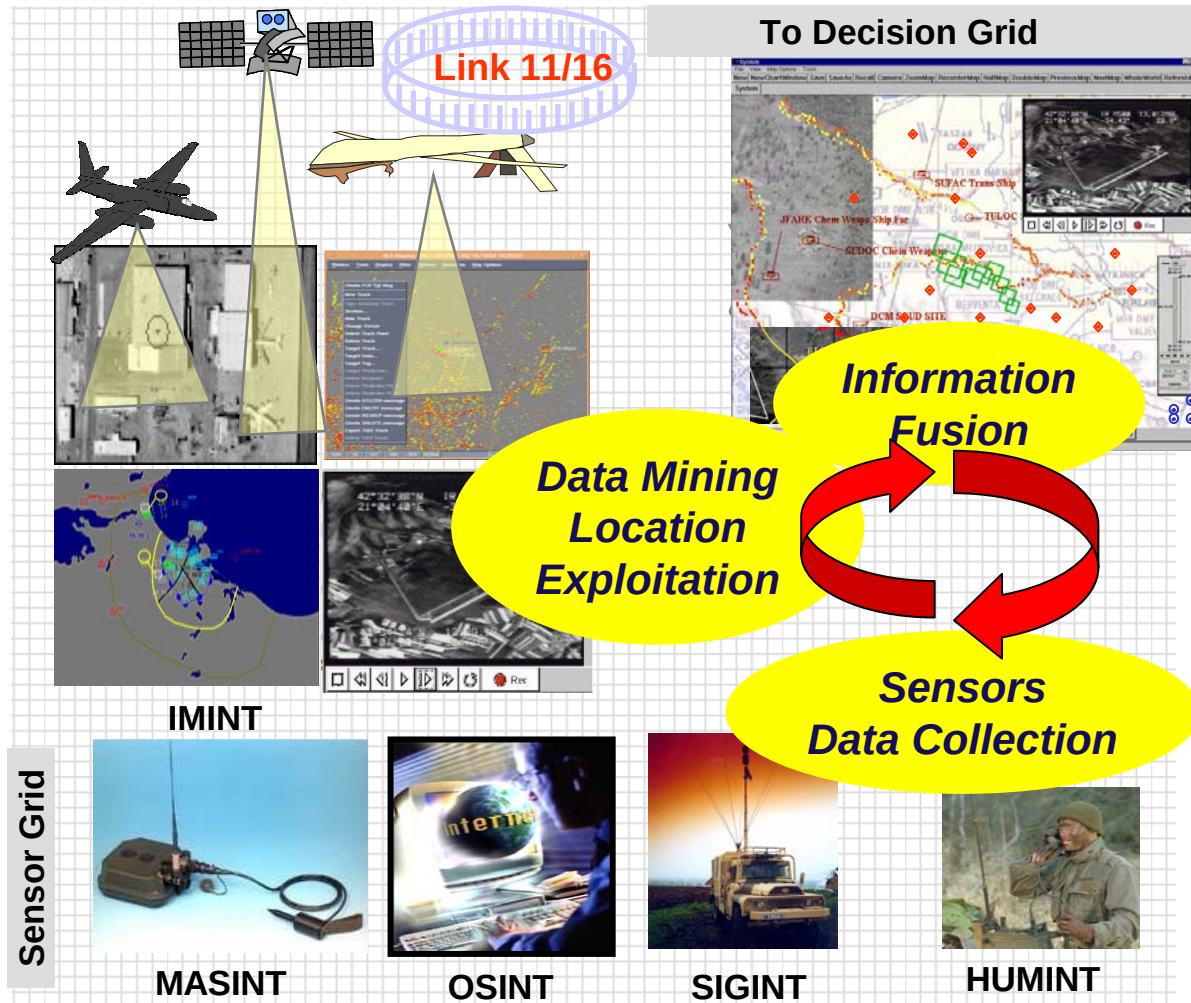
The Sensor Grid enables NCW

>Key aspects:

- Air-, Sea-, Ground-, Space- and Cyberspace- based sensors information sharing
- Intranet
- Distributed data bases
- National Security issues

>The network nodes fuse and “push” the information to the best user

>Resources can “pull” mission-critical information



Way forward

>How to achieve the first portion of Network Centric Systems, i.e. the Sensor Grid?

- **What are the conditions for implementing a NCW capability**
- **How to implement these conditions**
- **How to identify challenges**

>Step-by-step, user-oriented approach

>Three-party partnership

>Field Experimentation

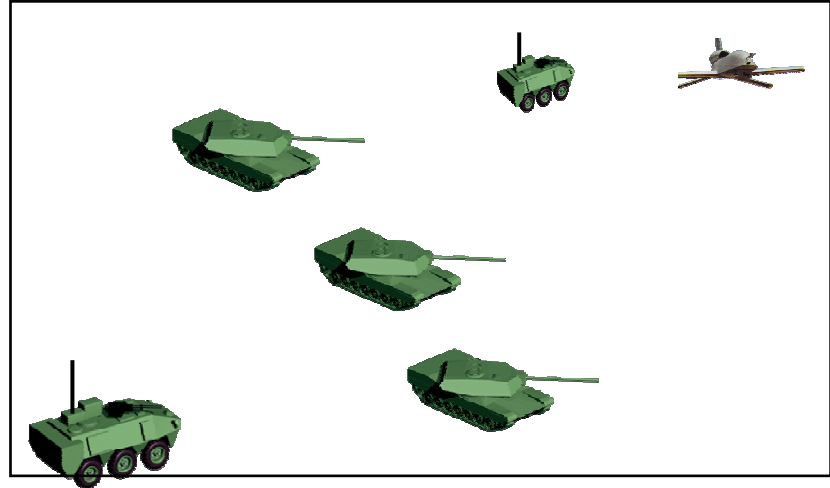
Scenarios for Experimentation

Urban Warfare Scenario



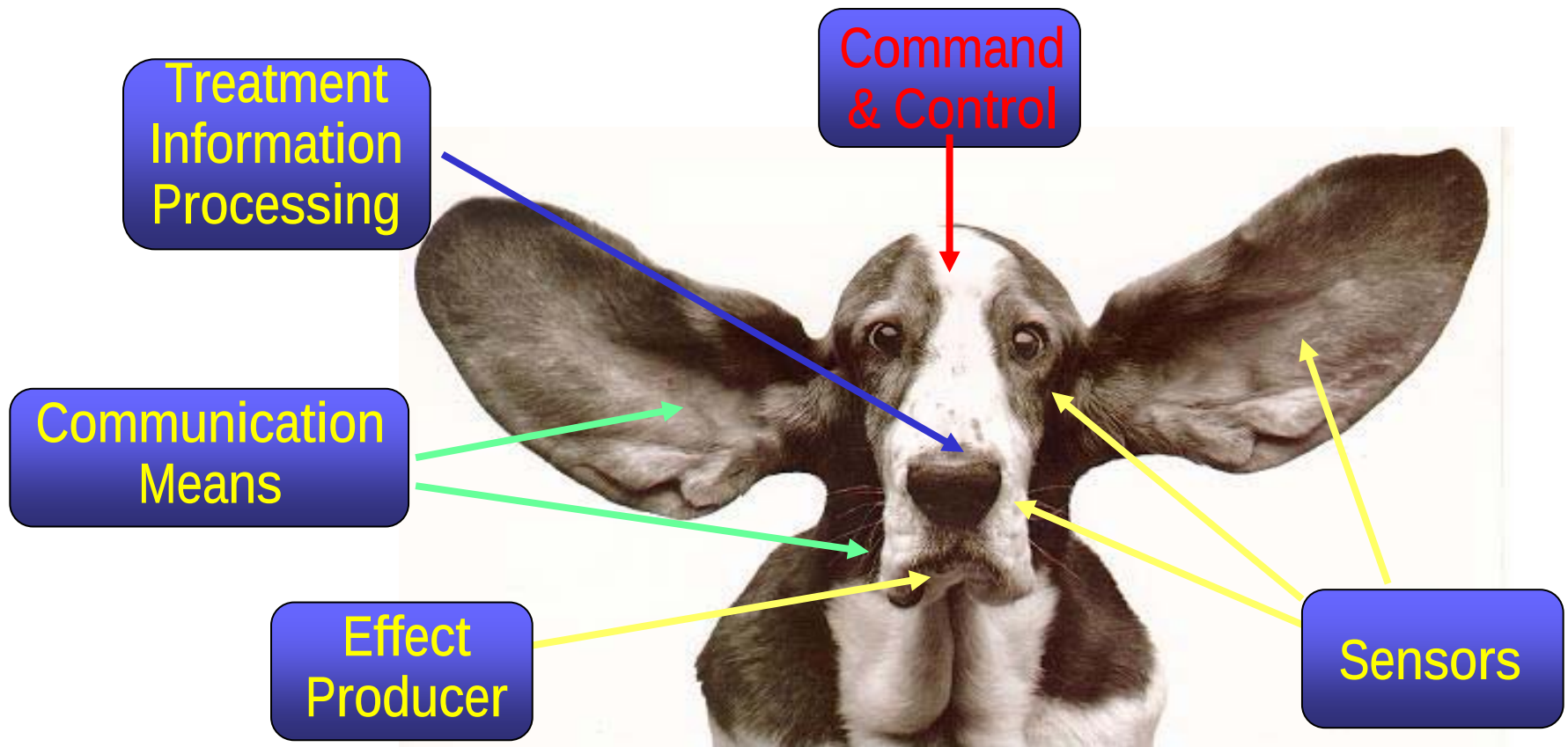
- >Future Solider***
- >Remote Ground Sensors***
- >Micro UAV's***

Meeting Engagement Scenario



- >Battlefield Management System***
- >Battlefield Identification System***
- >Remotely Operated Vehicle with sensor suit***
- >Small UAV, for over the hill capability***

C4ISTAR ?



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