



*Transforming the NATO Alliance:*  
**NATO Network Enabled Capability  
Initiatives**

**Mr. J. Troy Turner**

**Section Head, Interoperability  
Standardization & Architectures**

**HQ SACT, C4I Division**

# *Aim of Presentation*

- Describe NATO's beginnings in the area of Net-Centric thinking
- Outline recent initiatives
- Address bottom-up data/info collaboration
- Address top-down Guidance for NATO
- Inform of future plans - including engagement with Industry

# The Threat of Global Terror



...ered four strategies to stop passing marriage licenses to same-sex couples after lawsuits by the state and conservative groups. It ordered hearings within three months to decide the legality of the unions. But the high court did not void the more than 4,161 marriage licenses that San Francisco has issued to same-sex couples since Feb. 12, as the California attorney general had requested. Rather, in its unanimous ruling, the seven-member panel said it would let those on both sides of the issue argue their case as early as May. The Supreme Court decision stops, at least for now, the wave of same-sex marriages here that inspired local leaders in other states, including New Mexico and New Jersey, to officiate at gay weddings. Gay couples from around the nation have flocked to San Francisco to be married in the

## The Washington Post

FRIDAY, MARCH 12, 2004

HOME EDITION

Today's Contents on Page A2

NEWSSTART 35¢

HOME DELIVERY 37¢

Printed on recycled paper with 50% recycled content, including 10% post consumer waste.

## Madrid Train Blasts Kill at Least 190



10 Bombs Detonate Almost at Once; Nearly 1,500 Hurt

By KEITH B. RICHARDS  
Washington Post Foreign Service

MADRID, March 11—Ten nearly simultaneous explosions tore through four packed commuter trains in Madrid during rush hour Thursday morning, killing at least 190 people and wounding nearly 1,500 in the worst terrorist attack in modern Spanish history, three days before national elections.

The explosives were placed in backpacks and left aboard trains and on tracks at three stations. Witnesses describing the scenes of chaos and carnage said they heard multiple explosions at the city's busy Atocha station, which sent passengers scrambling in a panic. A makeshift emergency hospital was set up alongside the tracks at the station, just south of the Prado Museum. Buses were hurriedly converted into ambulances. The walking wounded were asked to make it to hospitals on their own, and leave vehicles available for the more severely injured.

Prime Minister Jose Maria Aznar called the attacks "a massive ter-

Victims of the bombings, which took place during the morning rush hour, sit scattered among rescue workers outside Madrid's Atocha station.

## A Catastrophe 'Like the Twin Towers'

# *Iraq Conflict Initial Observations*

## **Top 20 Observations**

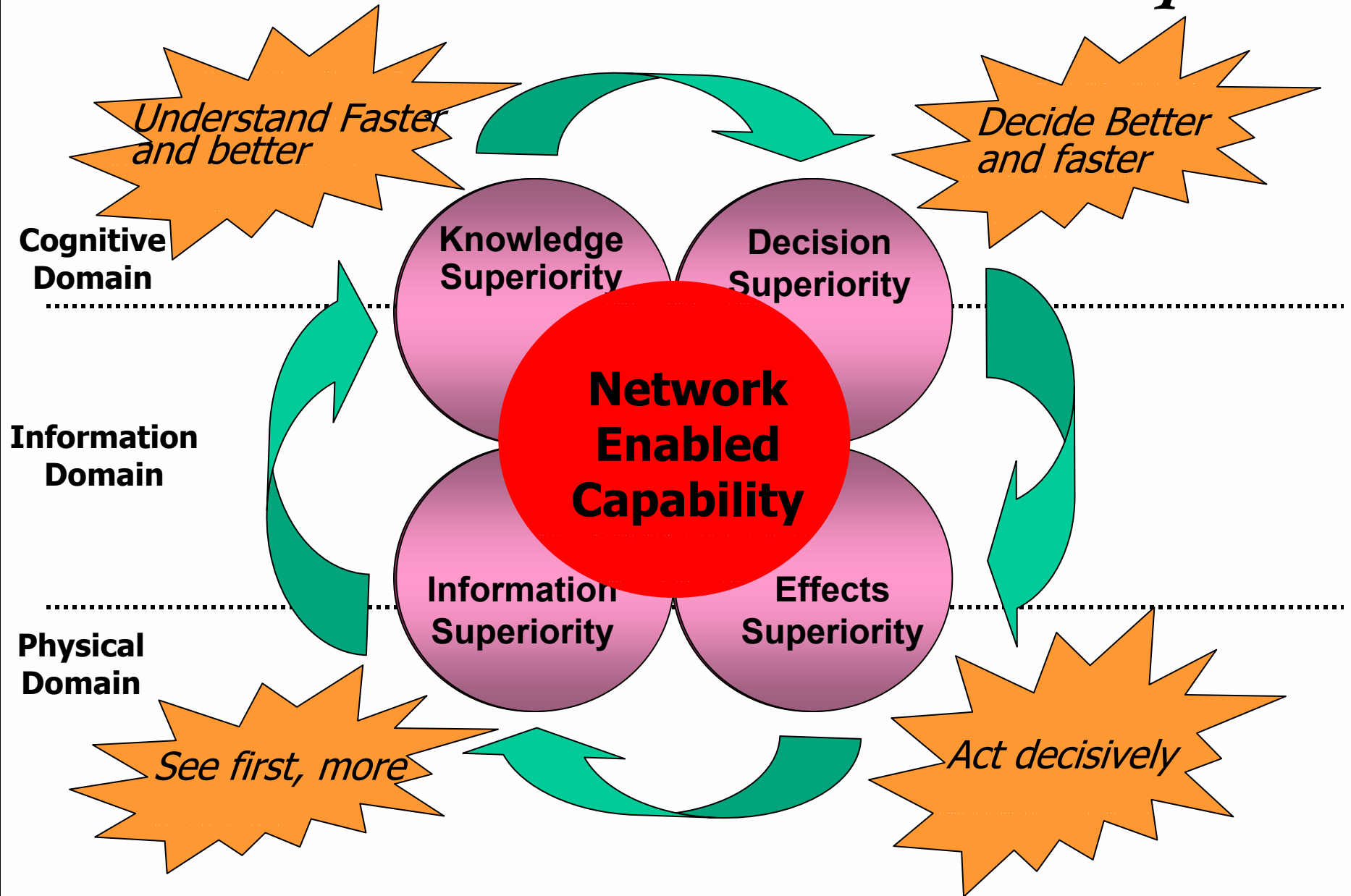
- NATO decision making process is not responsive enough
- Rapid deployment and effects achievement are keys in capabilities
- Knowledge enabled warfare
- Network Centric Warfare
- Deployable HQ C2 and CIS

**“The NRF must be rapidly deployable, Network-Centric, able to quickly achieve effects, with capable command and control, intelligence, surveillance and reconnaissance systems that operate collaboratively while providing a common operation picture.”**

**General H. Kujat**

**Iraq Conflict Initial Observations  
Seminar July 2003**

# *NNEC and the Decision Loop*



# *Key Milestones*

- NNEC IPT Formation - Nov 03
- First NATO Network Enabled Capability Conference - Mar 04
- Engaged NATO Military Committee  
- Apr 04 and Jan 05

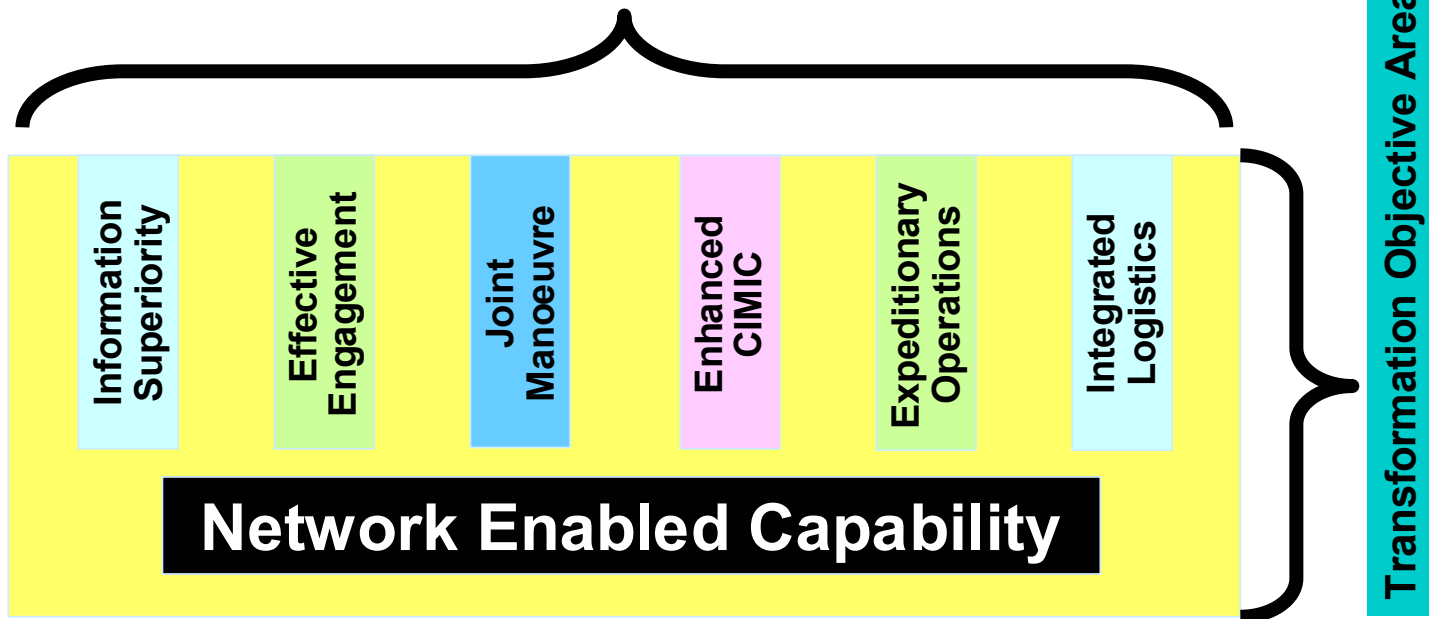
# *NNEC Foundation Document*

- To establish a common understanding of the scope, benefits and implications of NEC for NATO.
- To provide an interim view of the “vision and concept” for NNEC.
- To identify a roadmap for delivery of NNEC

# *ACT's Strategic Vision*

## Transformational Goals and Objectives

- **Effects-based operations** require:
  - ➤ Decision Superiority,
  - ➤ Coherent Effects
  - ➤ Joint Deployment and Sustainment

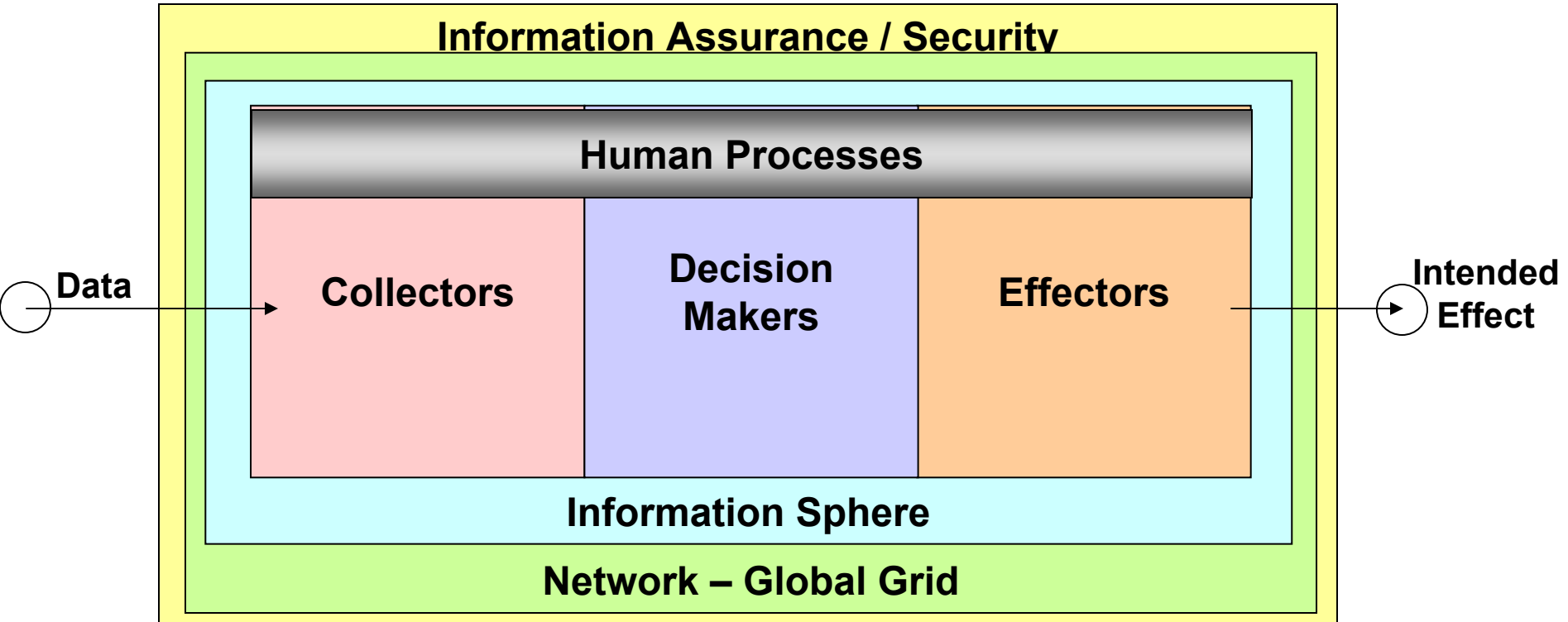




# *NATO Network Enabled Capability (NNEC) - Defined*

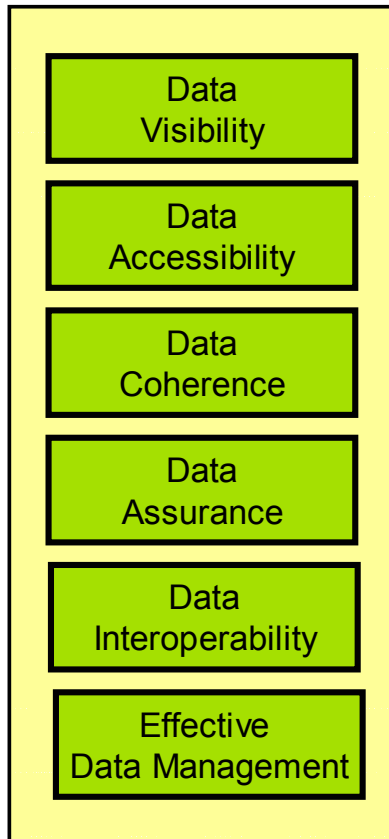
- NNEC encompasses the elements involved in linking collectors, effectors and decision makers together, to enable the development of a NATO, Network-Centric, Effects-Based, Operational Capability.
- This will involve the Joint Deployment and Sustainment of forces that are able to translate superior information into increased combat power and mission effectiveness through Decision Superiority, leading to rapid, flexible, precise, coherent operational effects.

# *Conceptual Framework*



# *NNEC Data Strategy Goals*

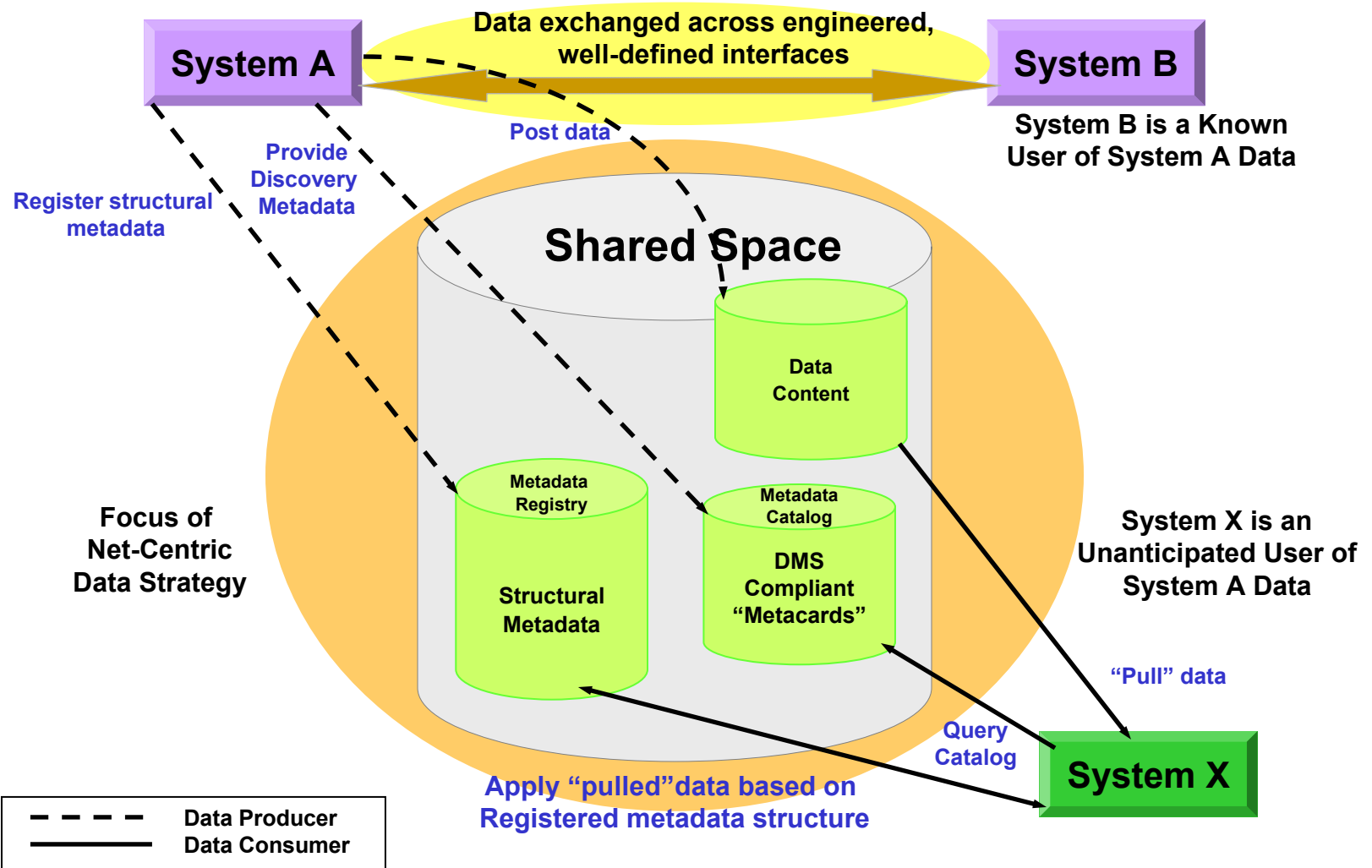
## Key Goals



## Key Actions:

- ✓ **Make Data Assets Available to the Enterprise:**
  - Use metadata to describe and advertise data assets (e.g., documents, web pages, images, etc)
  - Create data asset catalogs and organize by community-defined structure (ontology)
  - Make Data Assets available to “shared space” where Enterprise users can access it
- ✓ **Make System Data and Process Available to the Enterprise:**
  - Define and register the format and semantics of system data and processes
  - Provide reusable/easy-to-call access services to make system data and processes available to the Enterprise

# *NNEC Data Environment*



# *Information Domain*

*“Bottom up Collaboration – an example”*

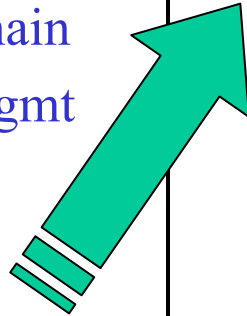
## IS-NNEC IPT

- Product Responsibility
  - Information Domain
  - Information Resource Management
  - Data Strategy
    - Metadata Specification
    - COI Metadata Development
  - Info/Knowledge Management (IKM)

# IS-NNEC

- Product Responsibility

- Information Domain
- Info Resource Mgmt
- Data Strategy
- IKM
- **Infosphere projects**



# NC3A SPOW-05

- Infosphere (FWA-3)

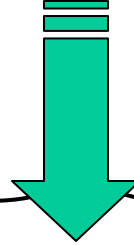
- C4ISR Sources/Services IO
- IKM for JOCS (Ops)
- Value-Added Services (XML)
- TDL-XML Tactical Data Exchange

# IS-NNEC

- Product Responsibility
  - IM/KM Strategy
  - Data Strategy
  - Infosphere projects

# NC3A SPOW-05

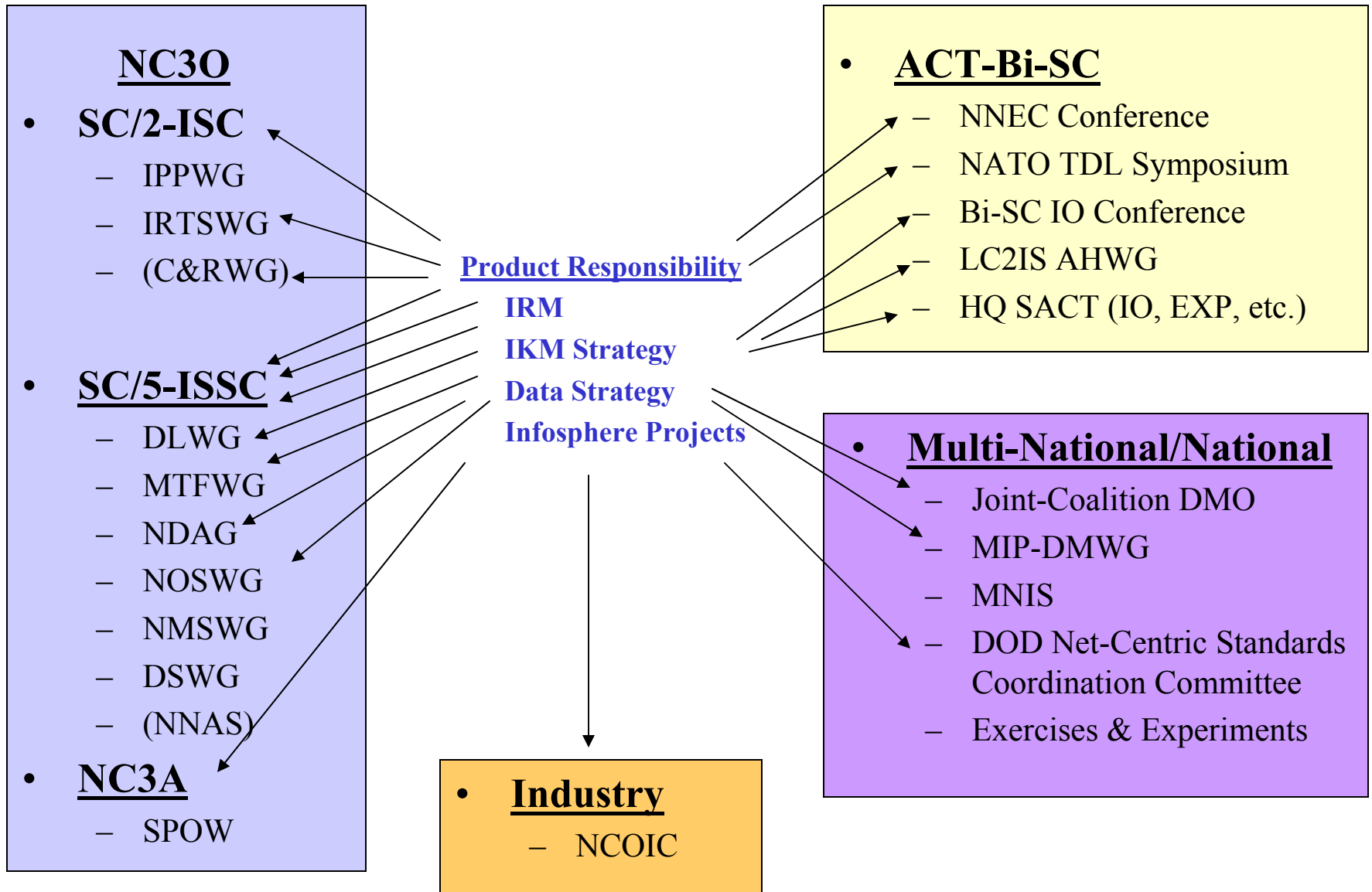
- Infosphere (FWA-3)
  - C4ISR Sources/Services Interop.
  - IKM for JOCS (Ops)
  - Value-Added Services (XML)
  - TDL-XML Tactical Data Exchange



# EPOW-06

- Deployable Capability for TDL Interface & Network Mgmt
- Operational TDL Analysis Toolset
- Info Systems Interoperability Trials
- Real-Time Data Exchange

# ***NNEC IPT Coordination (1 aspect)***





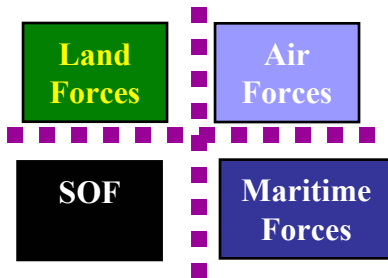
# *Attributes of a Transforming NATO Force*

**Deconflict  
Services & Cultures**



**Deconflicting**

**Stitch National  
Seams**



**Coordinating**

**Integration of  
NRF Capabilities**



**Integrating**

**Effects-Based,  
Collaborative,  
Network Centric and  
Interdependent**



**Coherence**

# *The NNEC Strategic Framework*

- NNEC Vision and Concept for NNEC
- The Business Case for NNEC
- Operational and System Architectures
- Capability Packages and Force Proposals Review
- Roadmap for NNEC realization
- A detailed plan for the next phase of NNEC

## *2<sup>nd</sup> NNEC Conference*

- 5 - 7 Apr 05 + pre-conference day on 4 Apr
- Sheraton Norfolk Waterside
- 350+ expected attendees
  - User and technology expertise
    - OF-4/6 level
    - People / Information / Network “knowledgeable representatives”
  - NATO Nations (“at 26”) invited plus PfP Nations
  - All NATO entities with an interest in IS & NNEC
  - Industry
  - Other invited nations

# *Conference Aims*

- To lay the foundations for NNEC Implementation
  - ↳ To improve the understanding of requirements
  - ↳ To discuss the overall framework for NNEC delivery
  - ↳ To develop the community of interest
  - ↳ To improve the understanding of the role of Industry
  - ↳ To support the NNEC Feasibility Study and IPT
- To educate
- To develop momentum on NNEC development

# *Network Centric Operations Industrial Consortium (NCOIC)*

- IS-NNEC IPT engagement with NCOIC
- Industry Day - Berlin
- ACOS C4I (IPT Director) member of NCOIC Advisory Council
- NCOIC Formal Launch 28 Sep 04

## Moving Forward

- 1st Advisory Council Meeting 10 Nov 04 – Washington DC
- Areas of engagement being developed
- Touch points – Advisory, Business and Technical Councils

# *NCOIC Vision*

***Industry working together with our customers to provide a network centric environment where all classes of information systems interoperate by integrating existing and emerging open standards into a common evolving global framework that employs a common set of principles and processes.***

- Primary tenets of the Consortium's vision:
  - Work to identify and develop a Network Centric environment
  - Enable assured technical interoperability
  - Embrace, enhance, and encourage open standards
  - Establish and educate on common principles and processes

# *Members of NCOIC*

**BAE Systems**

**Boeing**

**CACI**

**CBT**

**Cisco**

**EADS**

**EMC<sup>2</sup>**

**Ericsson**

**Factiva**

**Finmeccanica**

**General Dynamics**

**Hewlett-Packard**

**Honeywell**

**IBM**

**Israel Aircraft Industries, Ltd.**

**PTC**

**Wakelight Technologies, Inc.**

**Innerwall**

**L3C**

**Lockheed Martin**

**Microsoft**

**Northrop Grumman**

**Oracle**

**Raytheon**

**Rockwell Collins**

**SAAB**

**SAIC**

**Smiths Aerospace**

**Sun Microsystems**

**Thales**

**Themis**

**Bay Microsystems, Inc.**

**Sikorsky Aircraft**

**Total - 33 as of Nov 04**

# *NNEC Benefits*

- Support to Expeditionary Operations
- Higher Operational Tempo
- Reach Back
- Specialist Capabilities
- Economies of Scale
- Agile Command and Force Structures
- Force Multiplier



# *NATO Network Enabled Capability ACT's Strategy for Change*

Focus on  
NRF

Incremental  
Approach

Agree on a  
Achievable  
Vision

Experimentation  
to de-risk

Seek  
Economies  
of scale

Education  
&  
Marketing

Target areas  
offering  
early success





# Questions?

*Transforming the NATO Alliance:*  
**NATO Network Enabled Capability  
Initiatives**

**Mr. J. Troy Turner**

**Section Head, Interoperability  
Standardization & Architectures**

**HQ SACT, C4I Division**