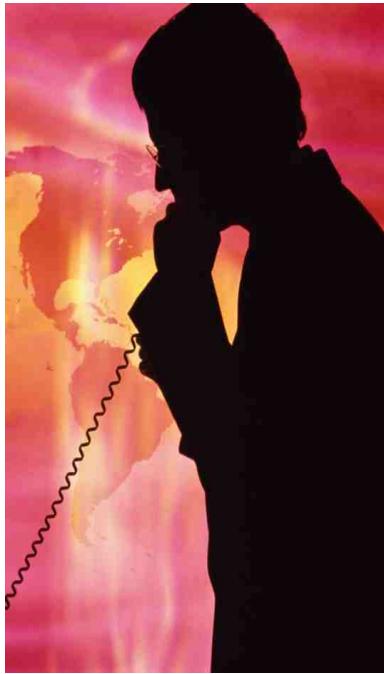




Fusion Center
in Service of Homeland Security

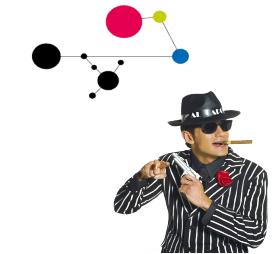
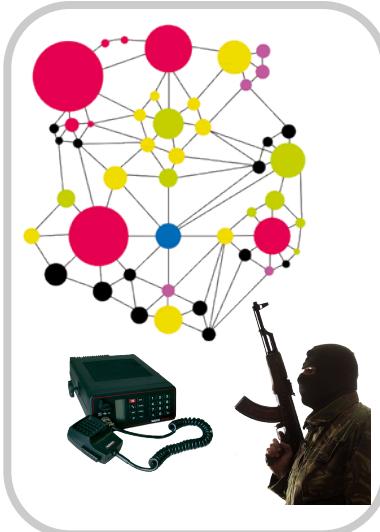
Expertise – Experience – Consulting – System provider – for more than 25 years



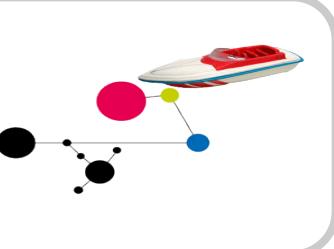
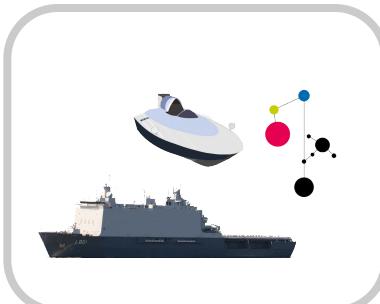
After the 9/11 terrorist attacks Homeland Security attracted attention globally



- Asymmetric threats and terror
- Military conflicts
- Attacks to infrastructure
- Organized crime
- Smuggling and illegal arms trade
- Preparation of attacks from abroad
- Piracy



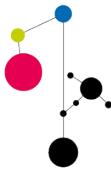
In today's globalized world
countries, communities and
organizations
are threatened differently.



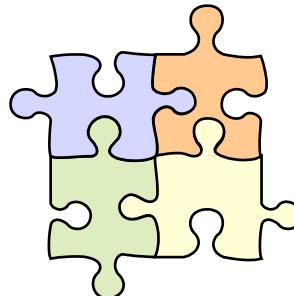
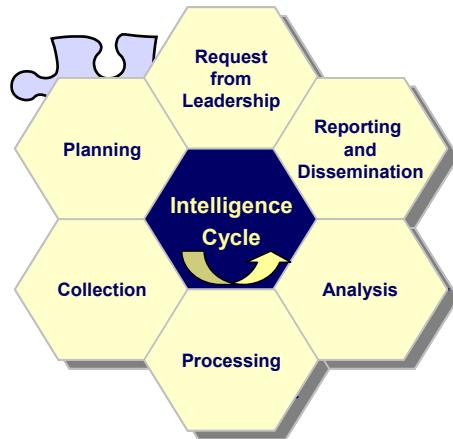
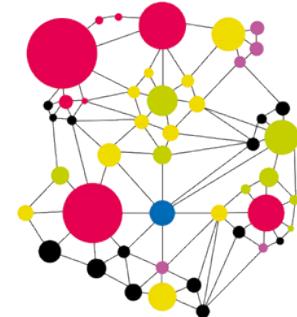
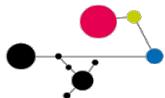


Threats
... are noticeable early

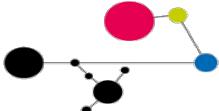
Information, networks and relationship analysis provide pieces of intelligence



- Emission of electromagnetic waves
 - From radio transmitters
 - From radar and telemetry
- Network of communication
 - Cross-channel relations
 - Individual and entity relations
- Deployment and changes of location
- Comms content and open sources



The whole is
more than the
sum of the
parts.



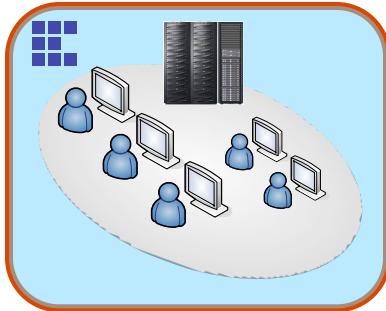
Task Forces



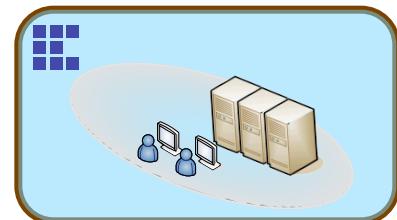
intelligence
request

- Military
- Special Security Services
- Police
- Coast Guard
- Communication Intelligence
- Signal Intelligence – with partners
- Imagery Intelligence
- Open Source & Human Intelligence
- Information & Intelligence Fusion

Fusion Centre



information
task





Intelligence Fusion Integrated in the C2 – Collection Process

C2

TASK FORCES
Command
Control



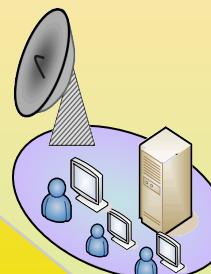
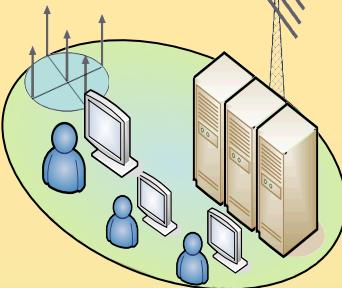
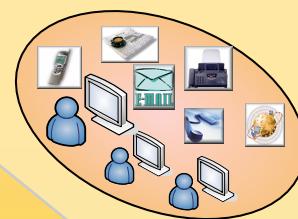
ISTAR

FUSION CENTER
Intelligence
Surveillance
Target Acquisition
Reconnaissance



... INT

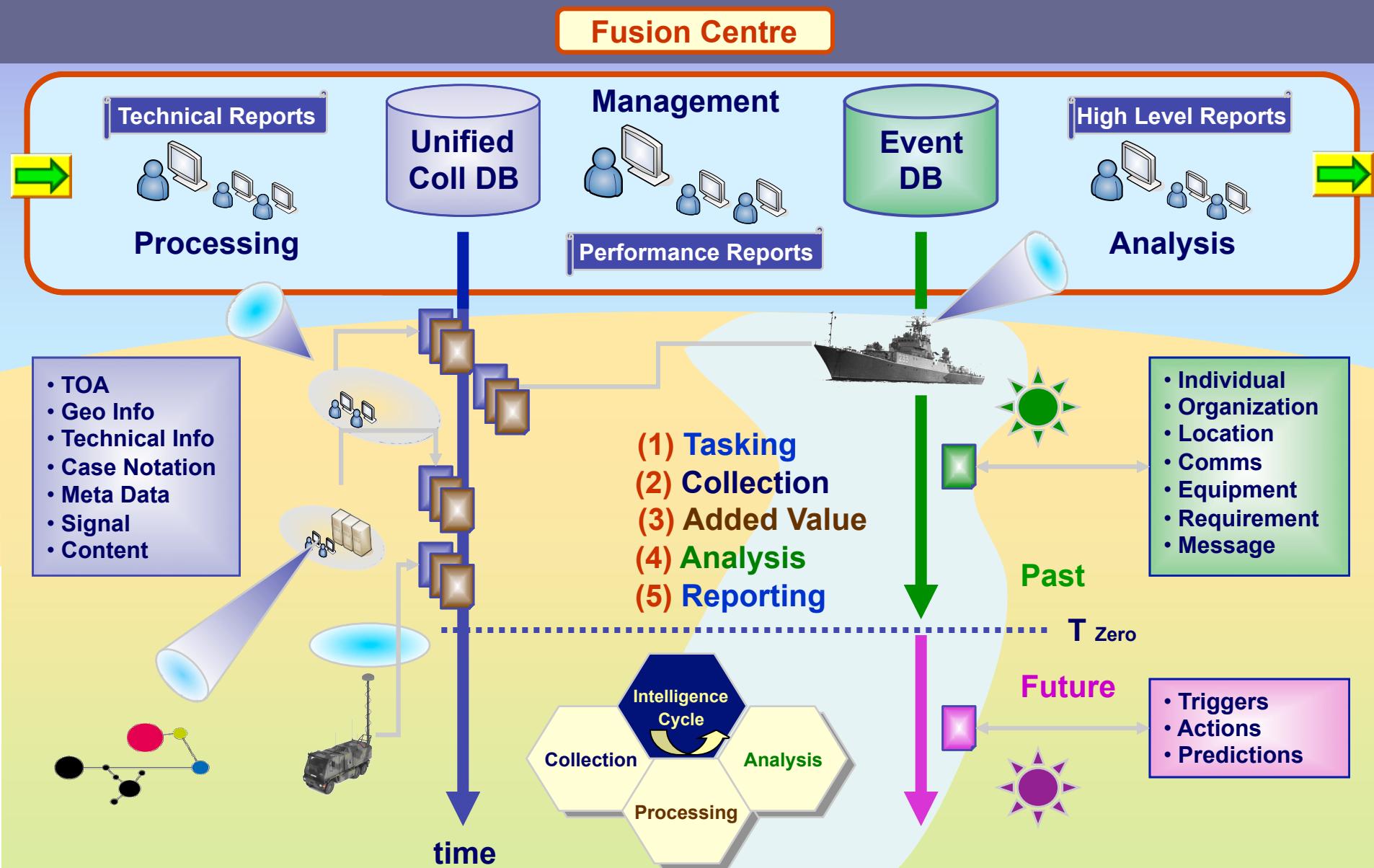
SENSORS
Raw Intelligence
Collection

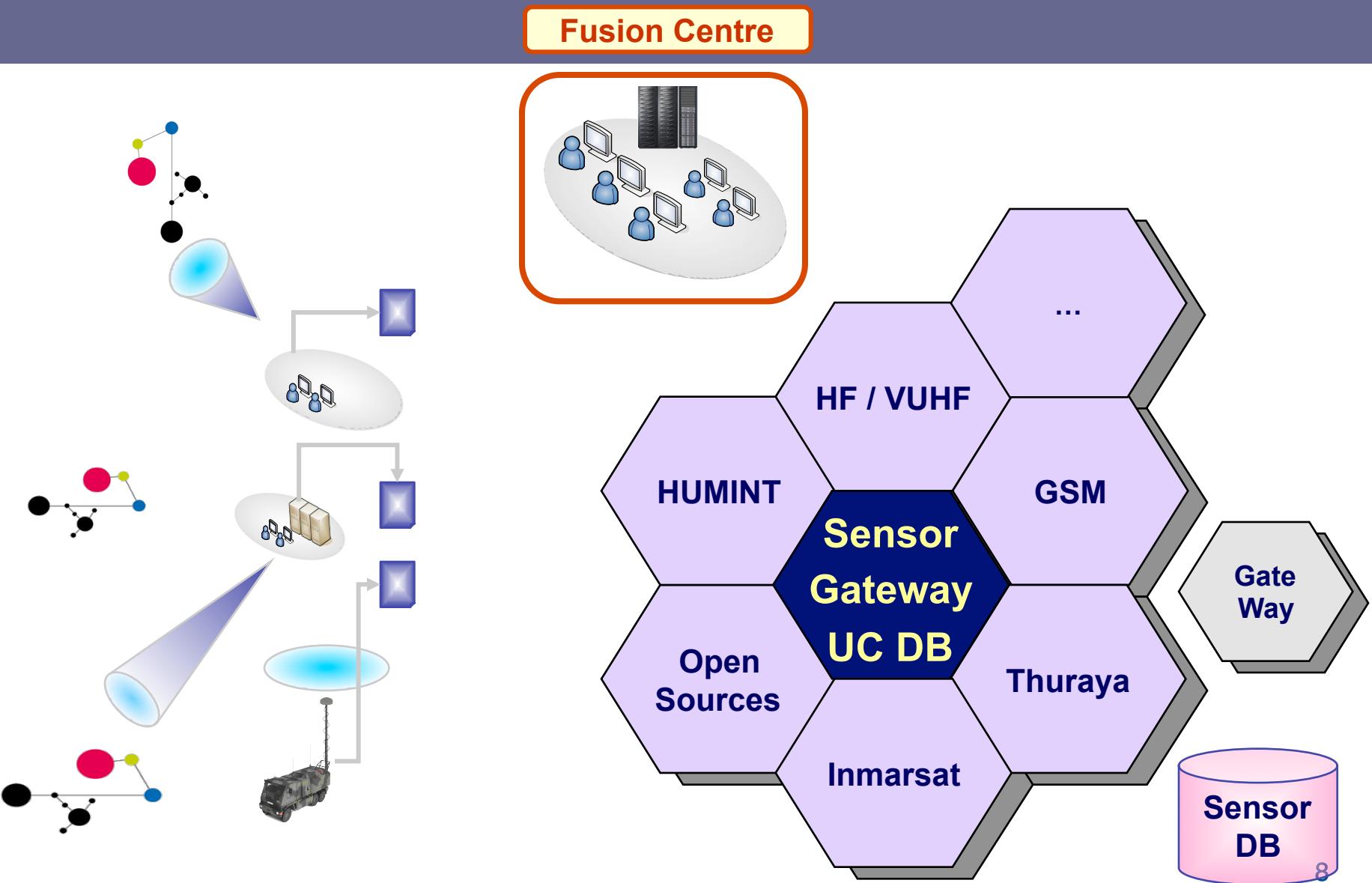


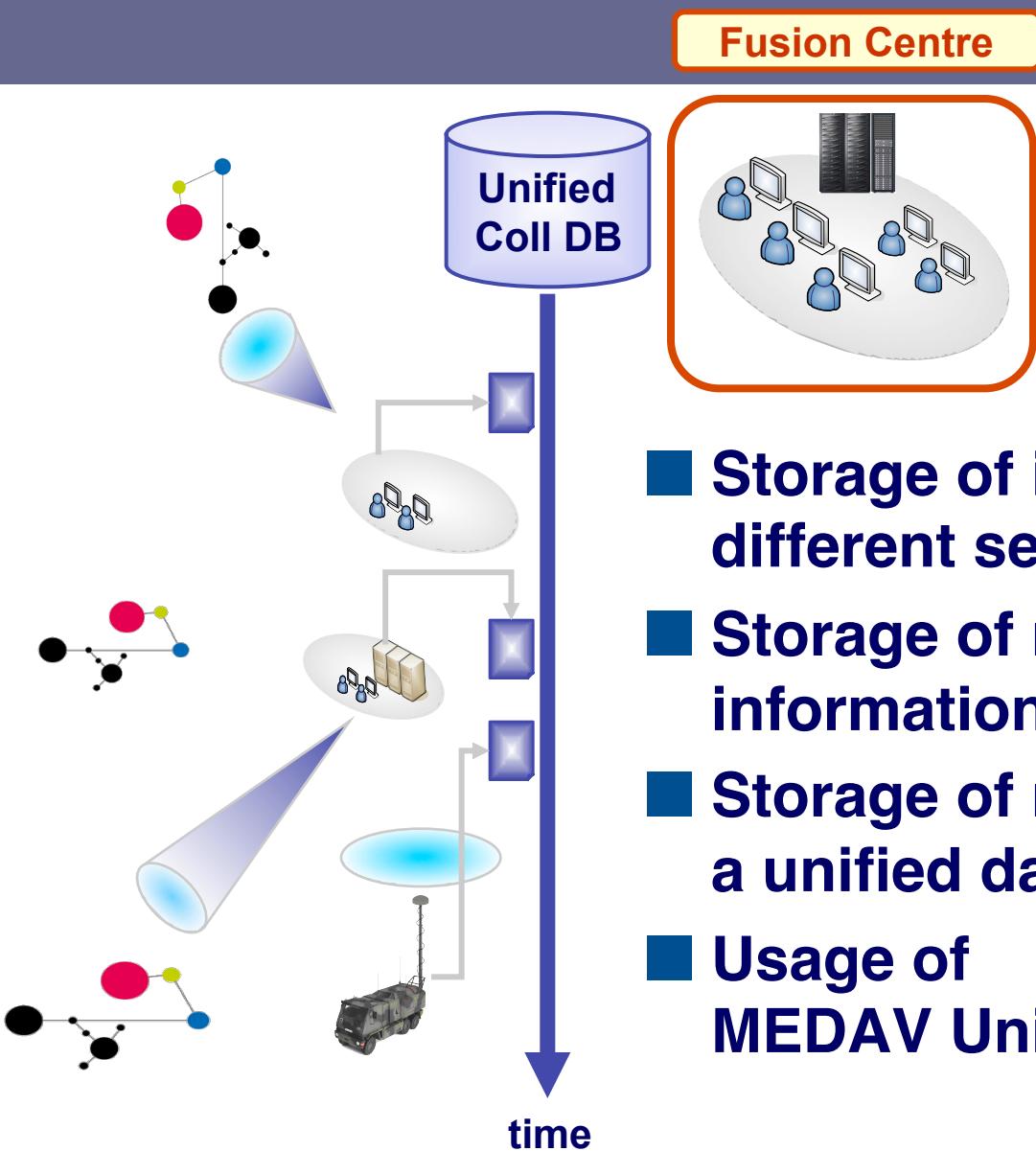


Intelligence Fusion Integrated in the C2 – Collection Process









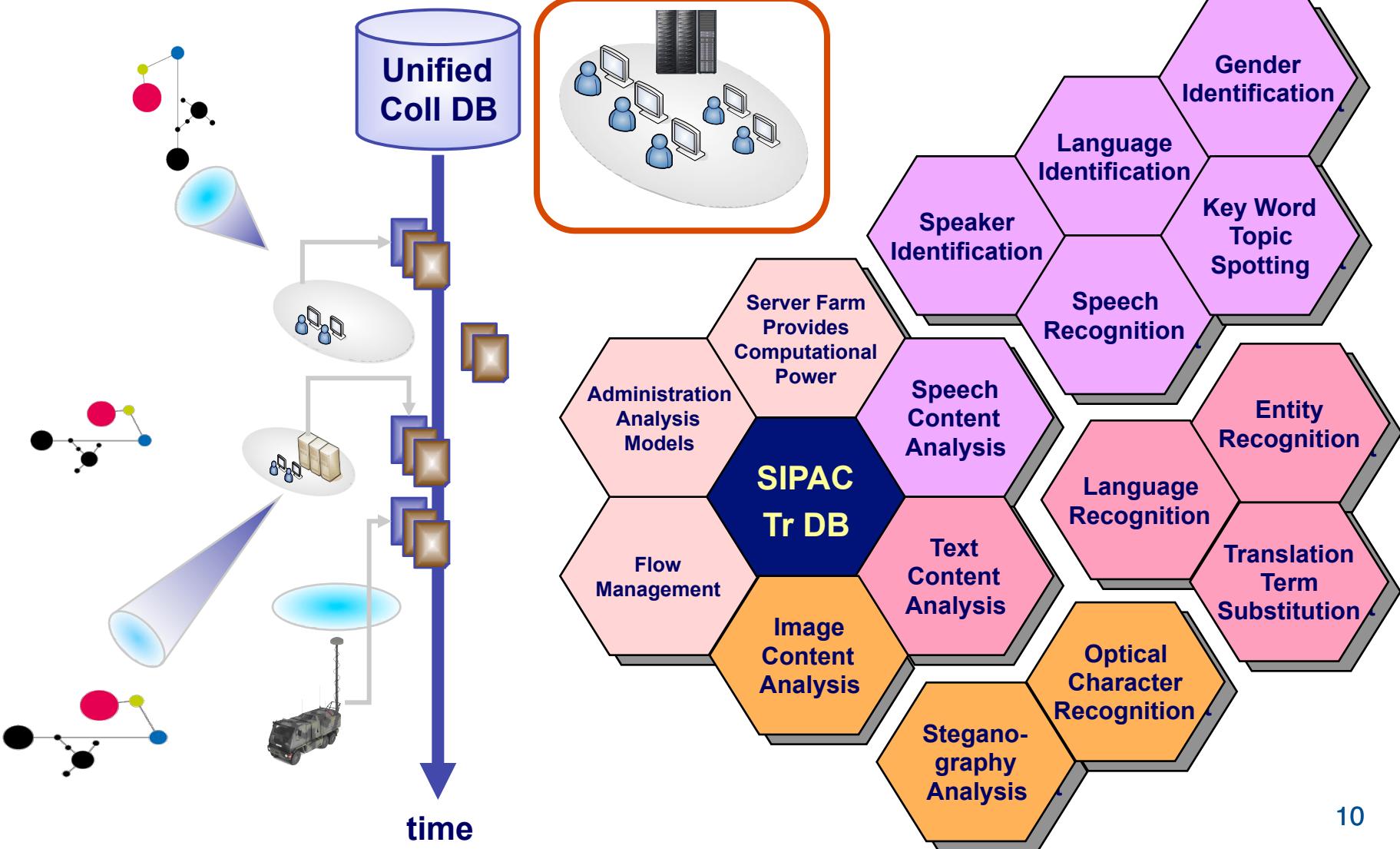
UCDB

- Storage of information from different sensors
- Storage of multi media content information
- Storage of meta information in a unified data model
- Usage of MEDAV Unified Message format



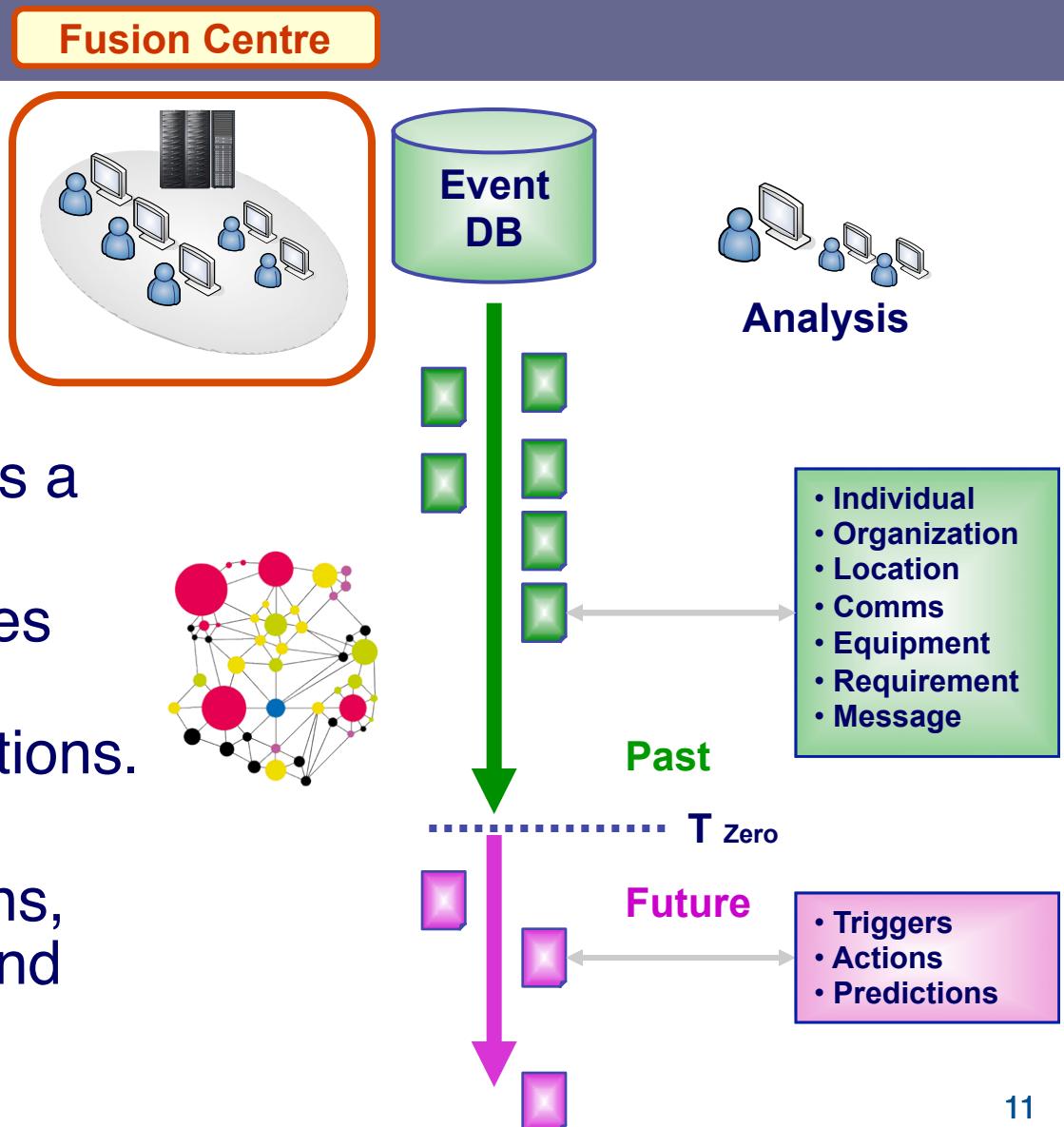
Details – Intelligence Fusion Automatic Content Processing

Fusion Centre



EDB

- The Event Database is a relational database.
- The database manages entities stored therein and their multiple relations.
- Entities are persons, organizations, locations, equipment, projects and events.





Conclusion
Reporting
Additional
Value for
the DBs



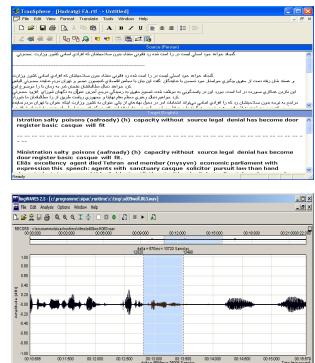
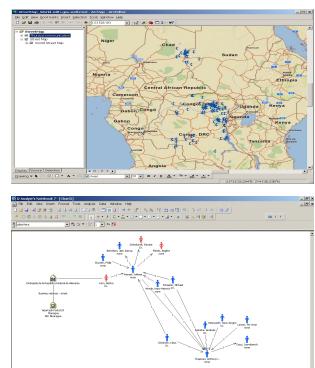
Geo
Intelligence

REL
Intelligence

Text
Intelligence

Audio
Intelligence

- Select a View
- Geo Analysis
- Relation Analysis
- Text Analysis
- Audio Analysis



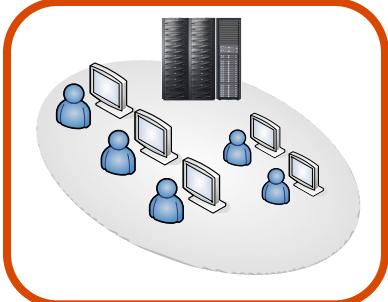
Data Space Geo

Data Space REL

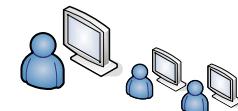
Data Space Text

Data Space Audio

Fusion Centre



Event DB



Analysis

View

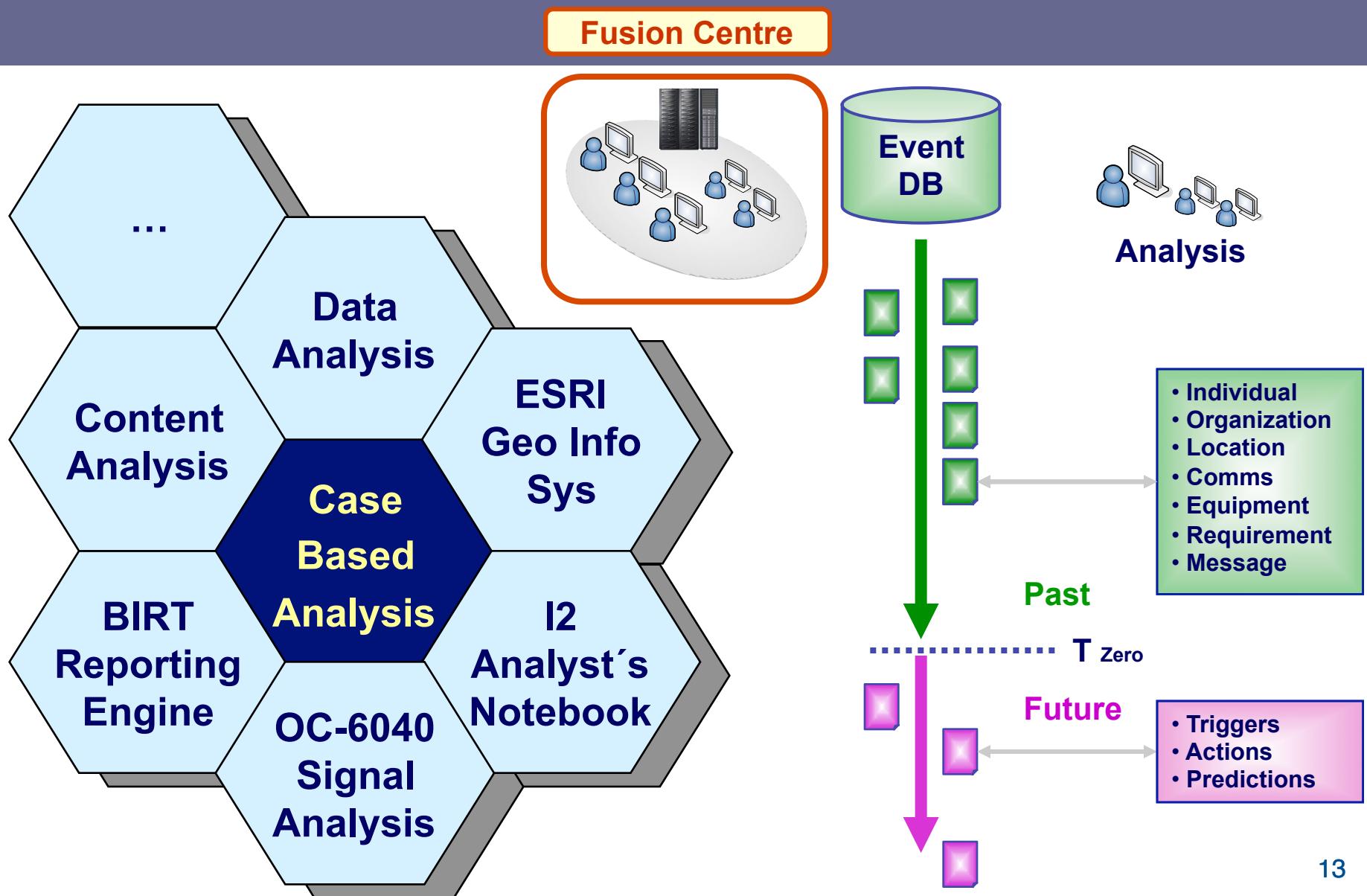
Past

T Zero

Future

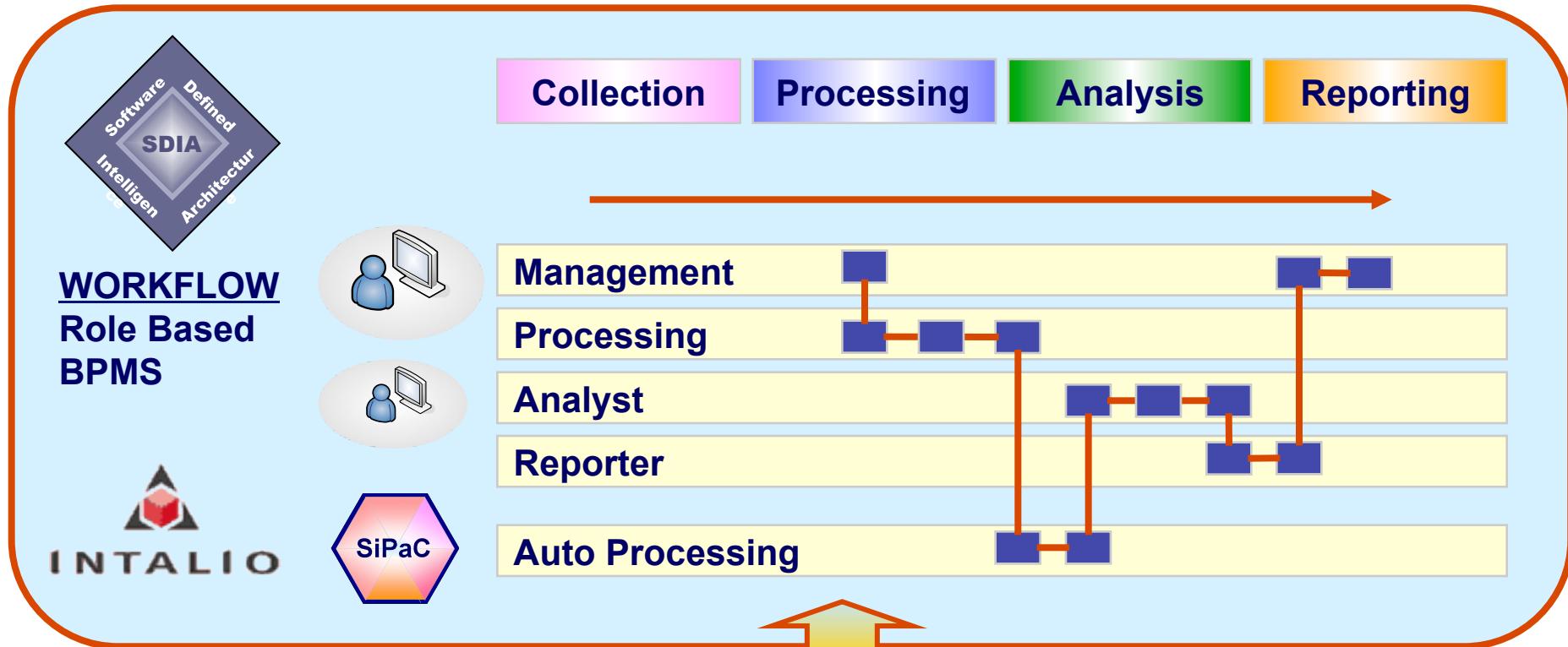
- Individual
- Organization
- Location
- Comms
- Equipment
- Requirement
- Message

- Triggers
- Actions
- Predictions



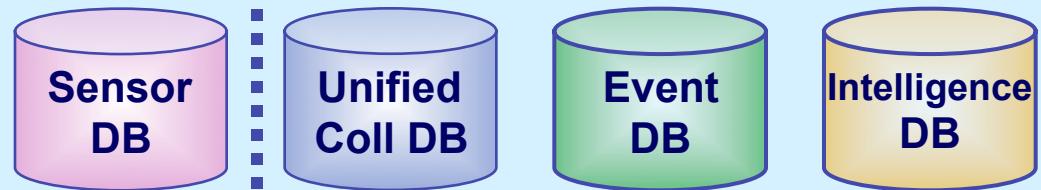
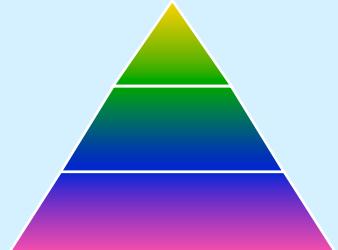


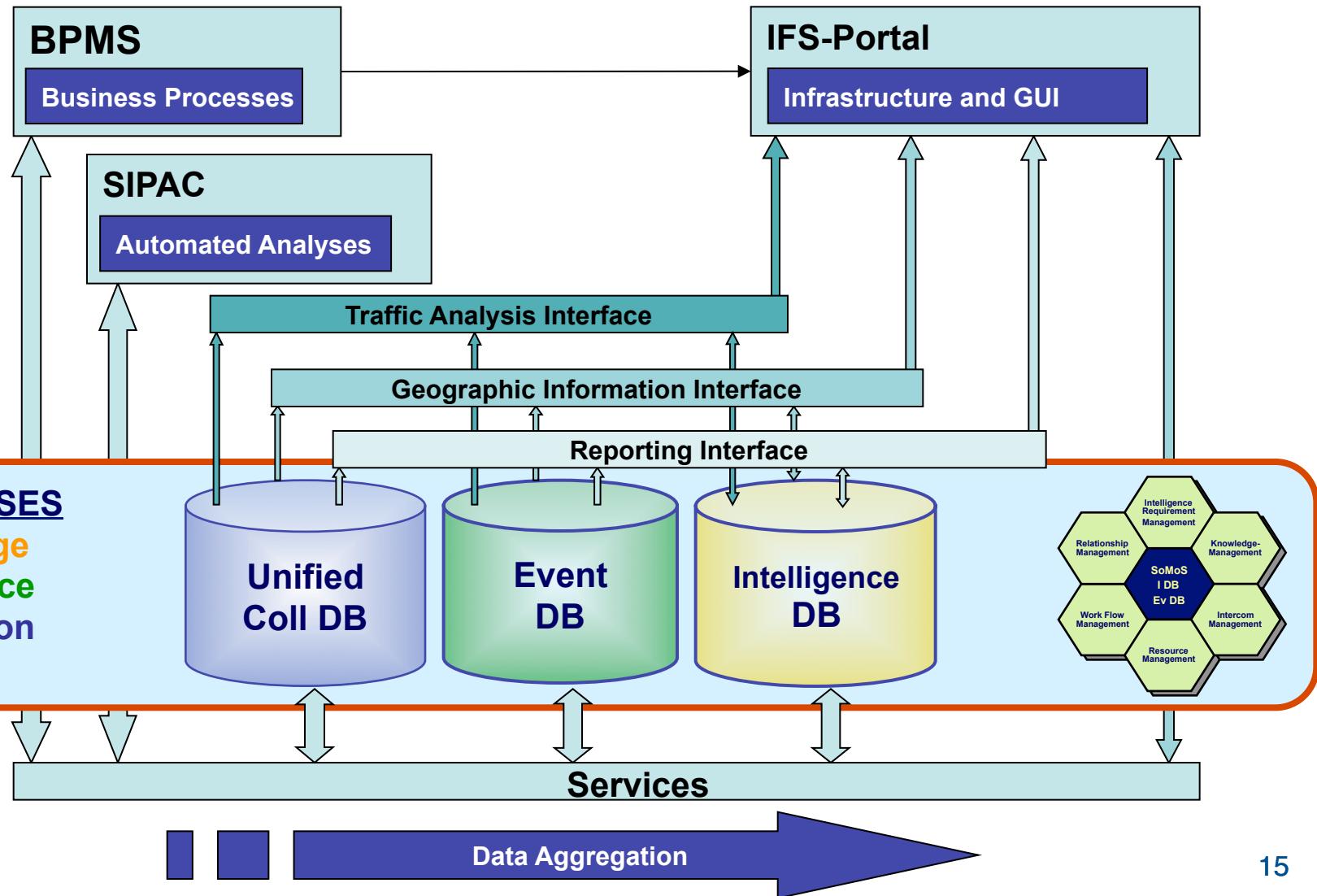
Fusion Centre



DATA BASES

Knowledge
Intelligence
Information
Data

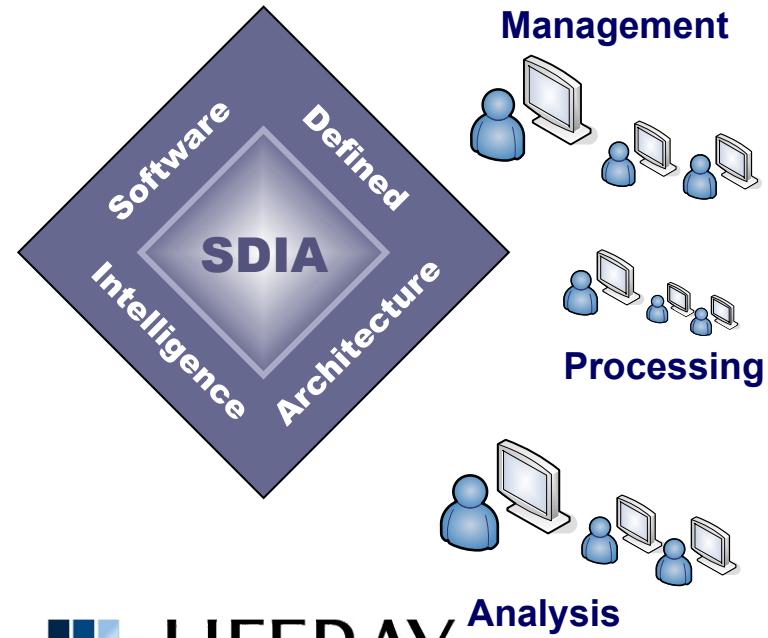






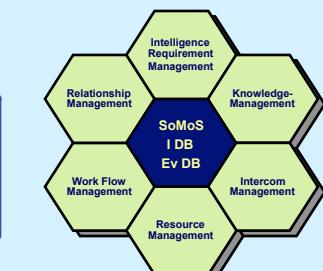
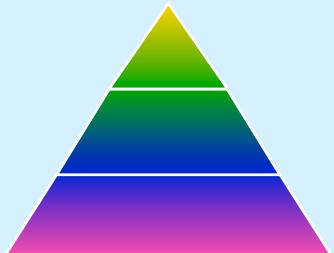
Details – Intelligence Fusion Role and User Specific Portal Solution

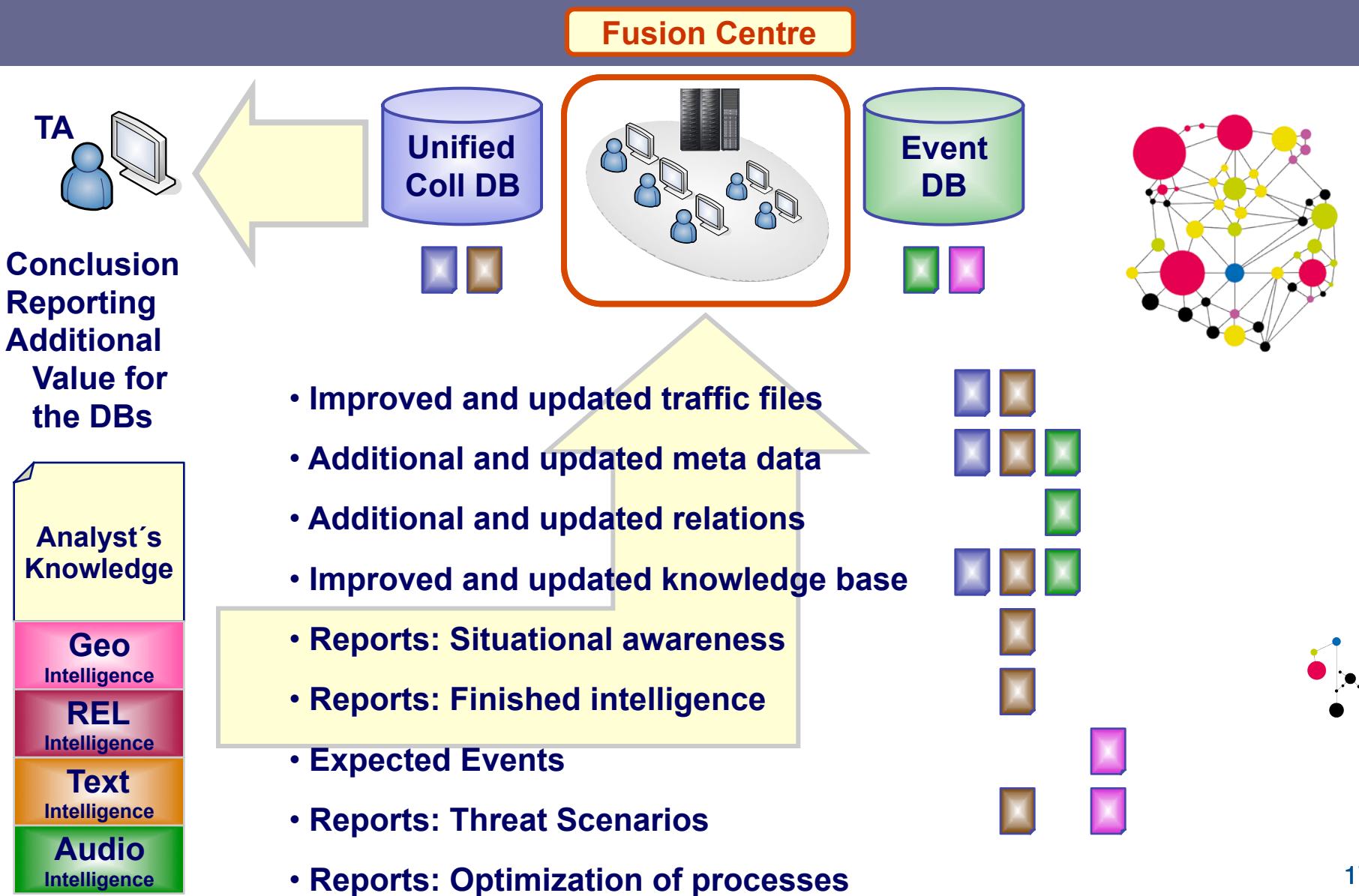
Fusion Centre



DATA BASES

Knowledge
Intelligence
Information
Data







Fusion Center Integrated in the C2 – Collection Process

C2

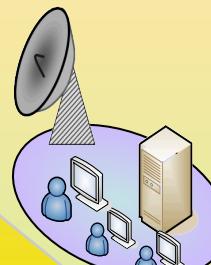
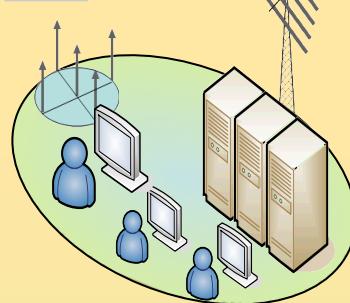
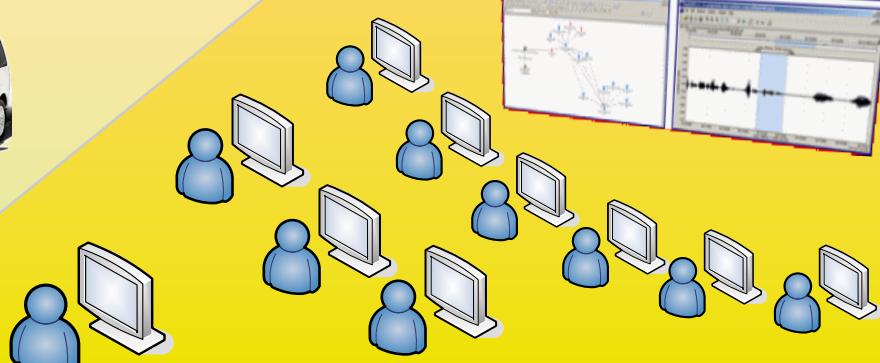
ISTAR

... INT

TASK FORCE
Command
Control

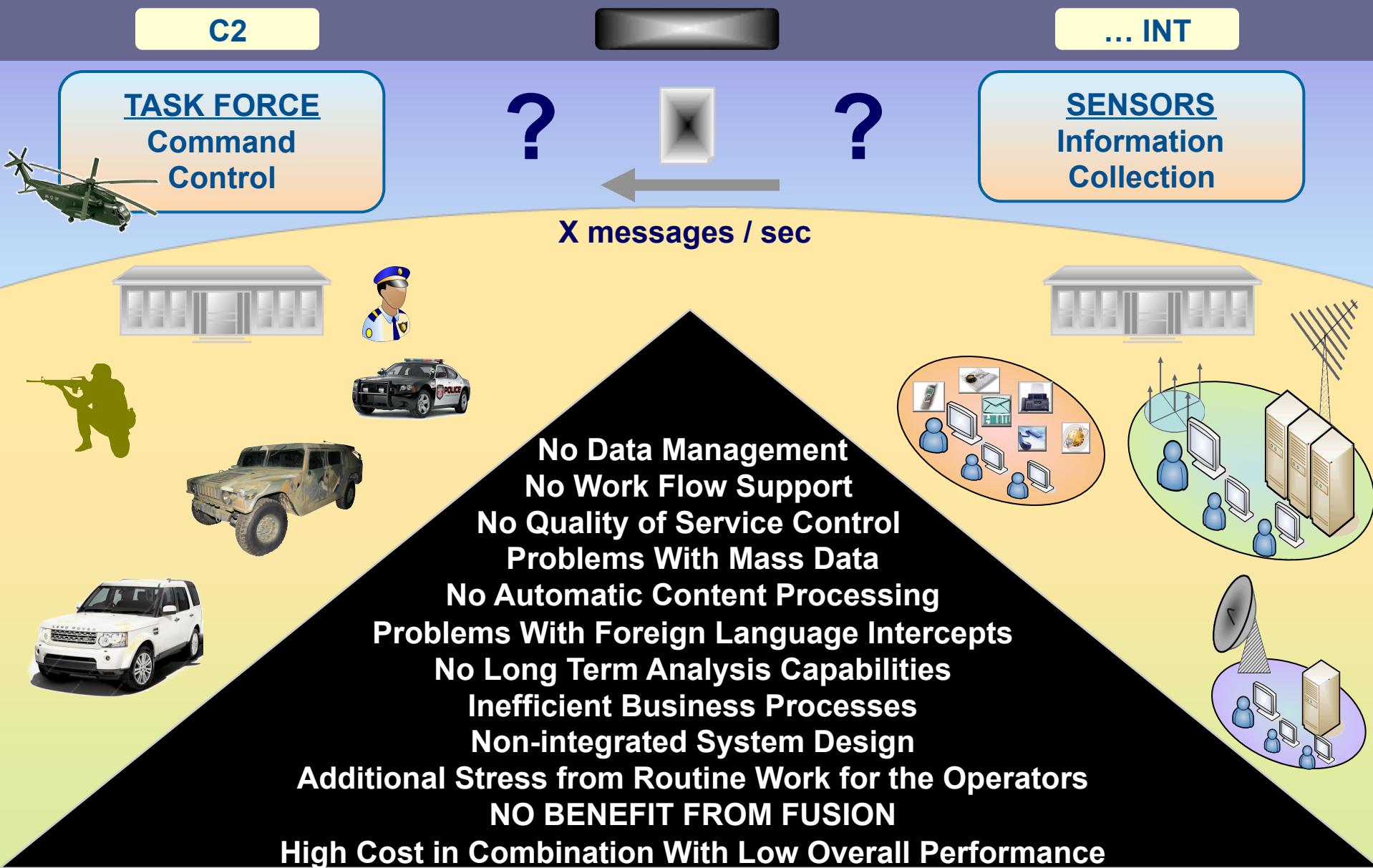
FUSION CENTER
Intelligence
Surveillance
Target Acquisition
Reconnaissance

SENSORS
Information
Collection





WHAT, IF NO Fusion Center ? → A GAP in the C2 – Collection Process





Managing Global & Domestic Homeland & Military Security Scenarios

