

# **Data Management**

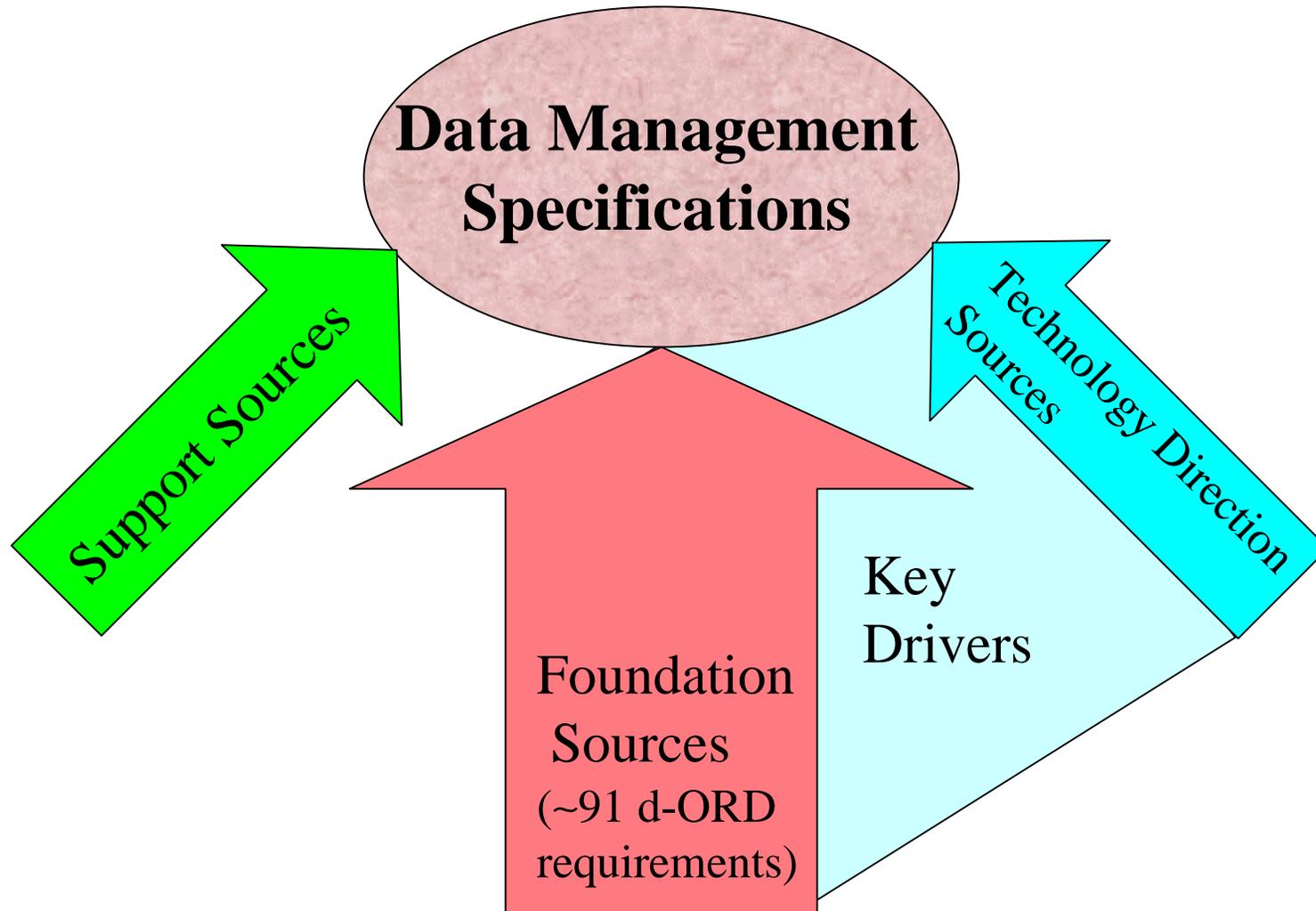
Patrick K Welton

**CTC-OIS**  
**Industry Day**

# Agenda

- Specification Generation Process
- What is Data Management?
- Sources of Data
- Provides data
- Levels of query

# Specification Generation



# Specification Generation Sources

- **Foundation Sources**

- NTC-IS Operational Requirements Document (ORD)
- Selected Army ARTEPS

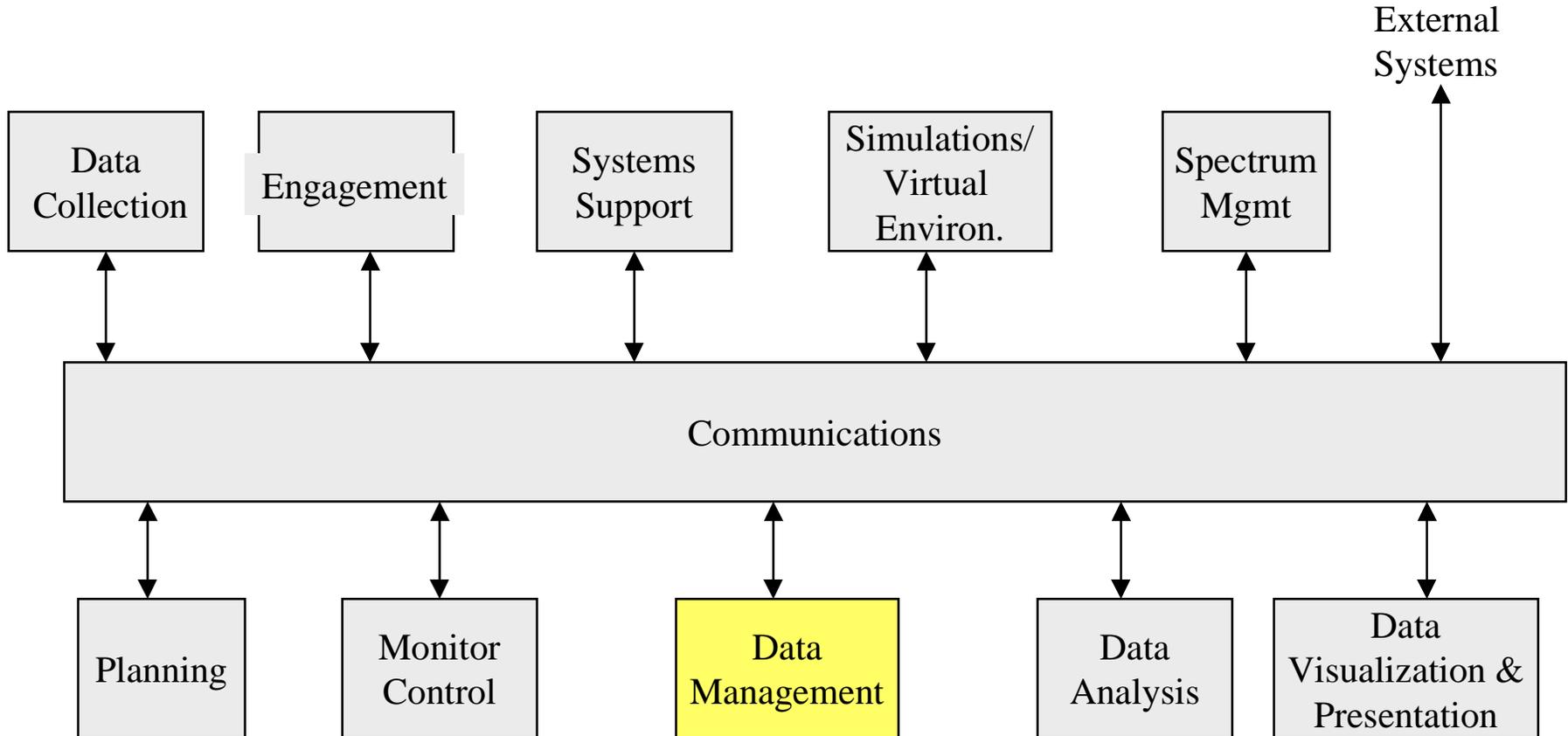
- **Support Sources**

- AFTS Documents
- CAF Study
- NTC Domain Modeling Interviews and Visits
- TAAF Aids Study
- CMTC-Live Fire/Objective Instrumentation System Technical Reports

- **Technology Direction Sources**

- Industry Suggestions & Information

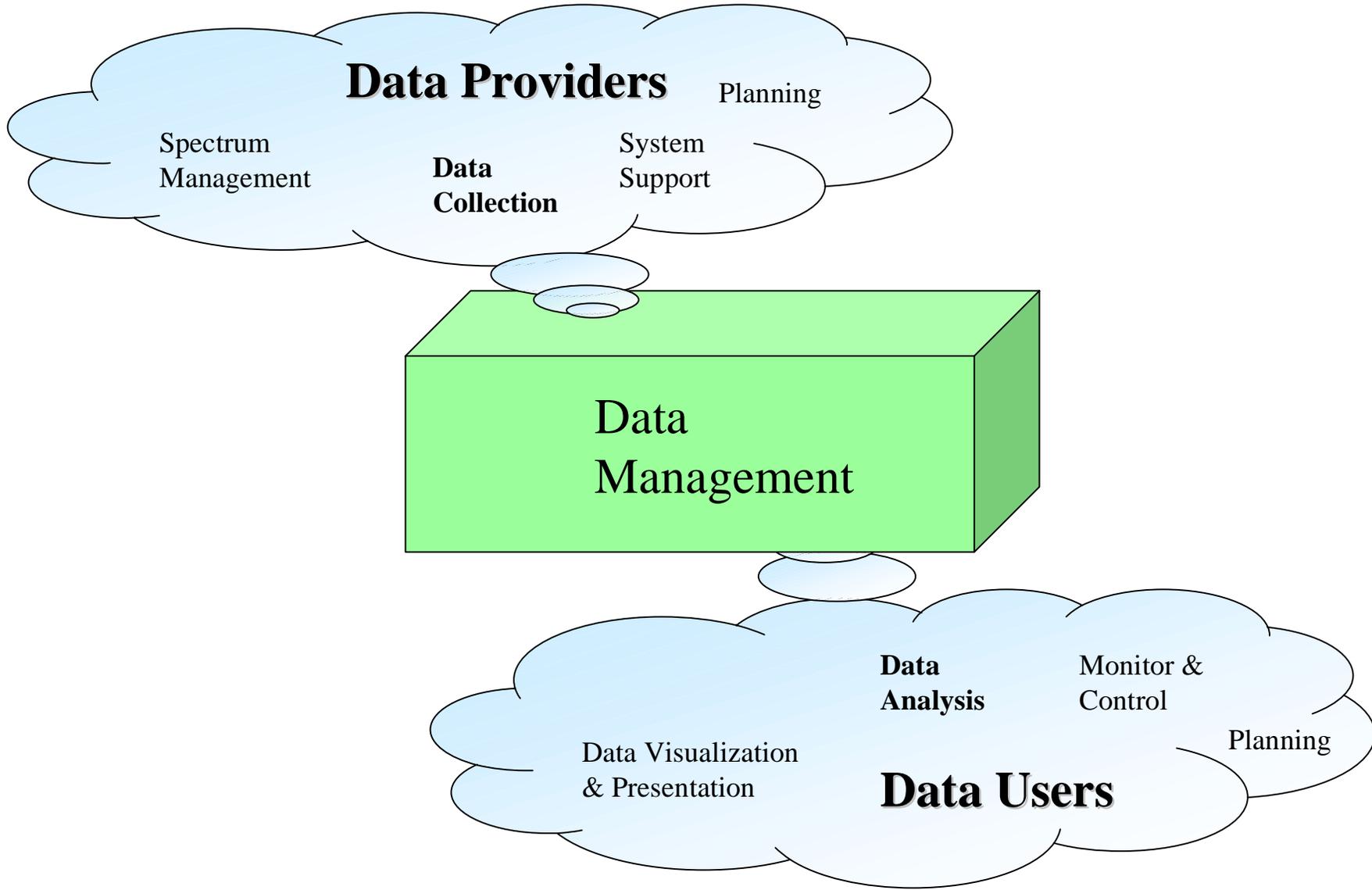
# OIS Functional Model



# Definition

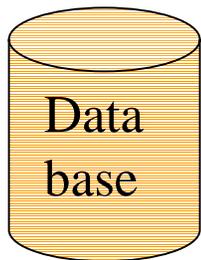
- Data management provides storage of and access to data required by multiple subsystems. It also provides data services and the processing necessary to convert user requests into specific data access commands.

# Data Management

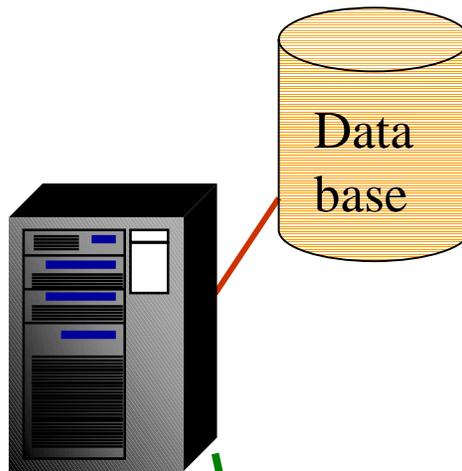


# Sources of Information

Persistent



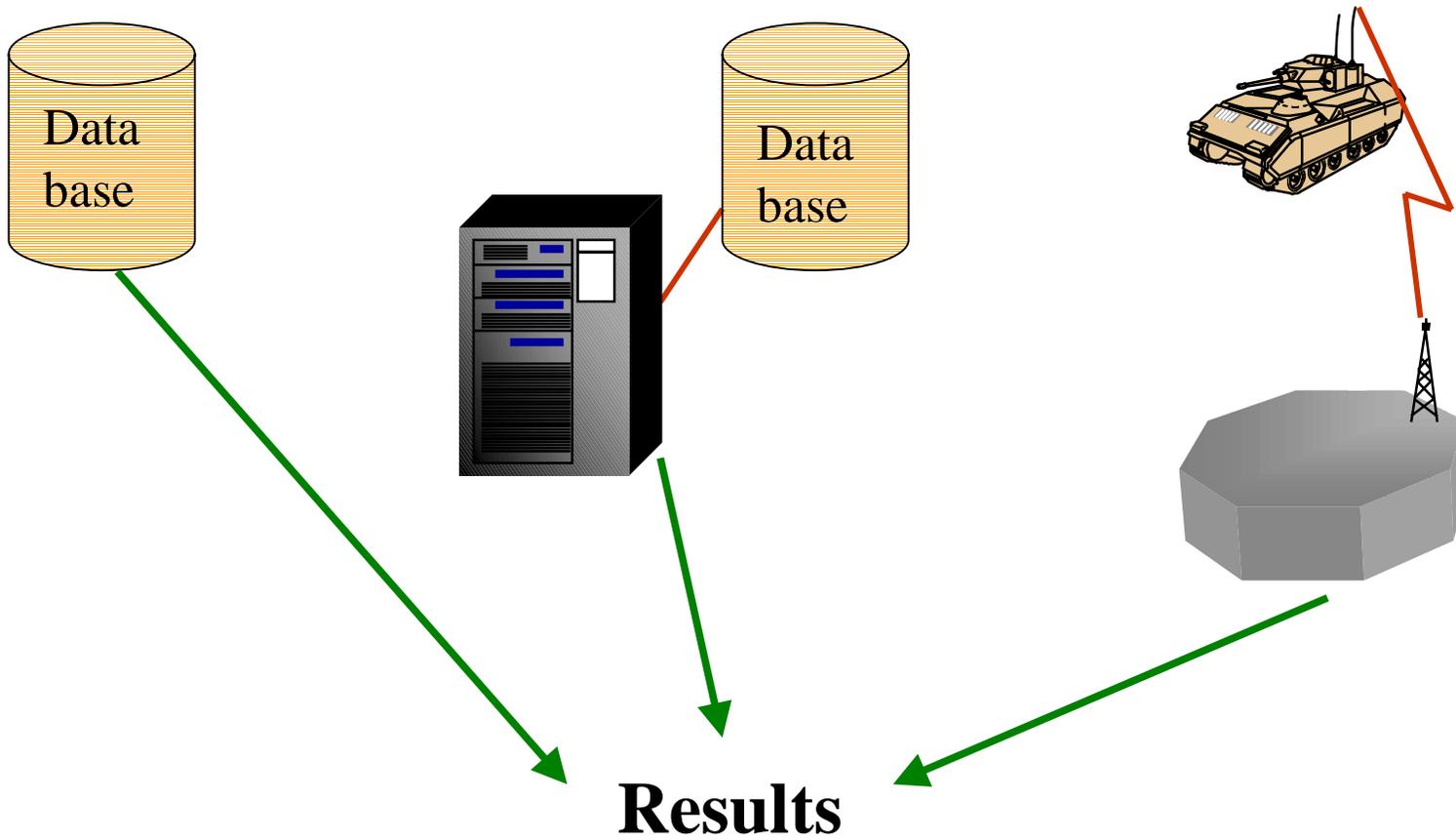
Derived  
(e.g. interpolation)



Real-time



**Results**



# Data Management Provides Data

User Requested



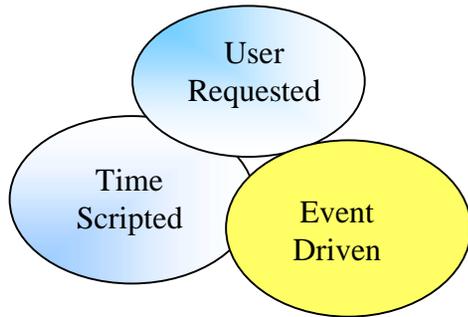
Time Scripted



Event Driven

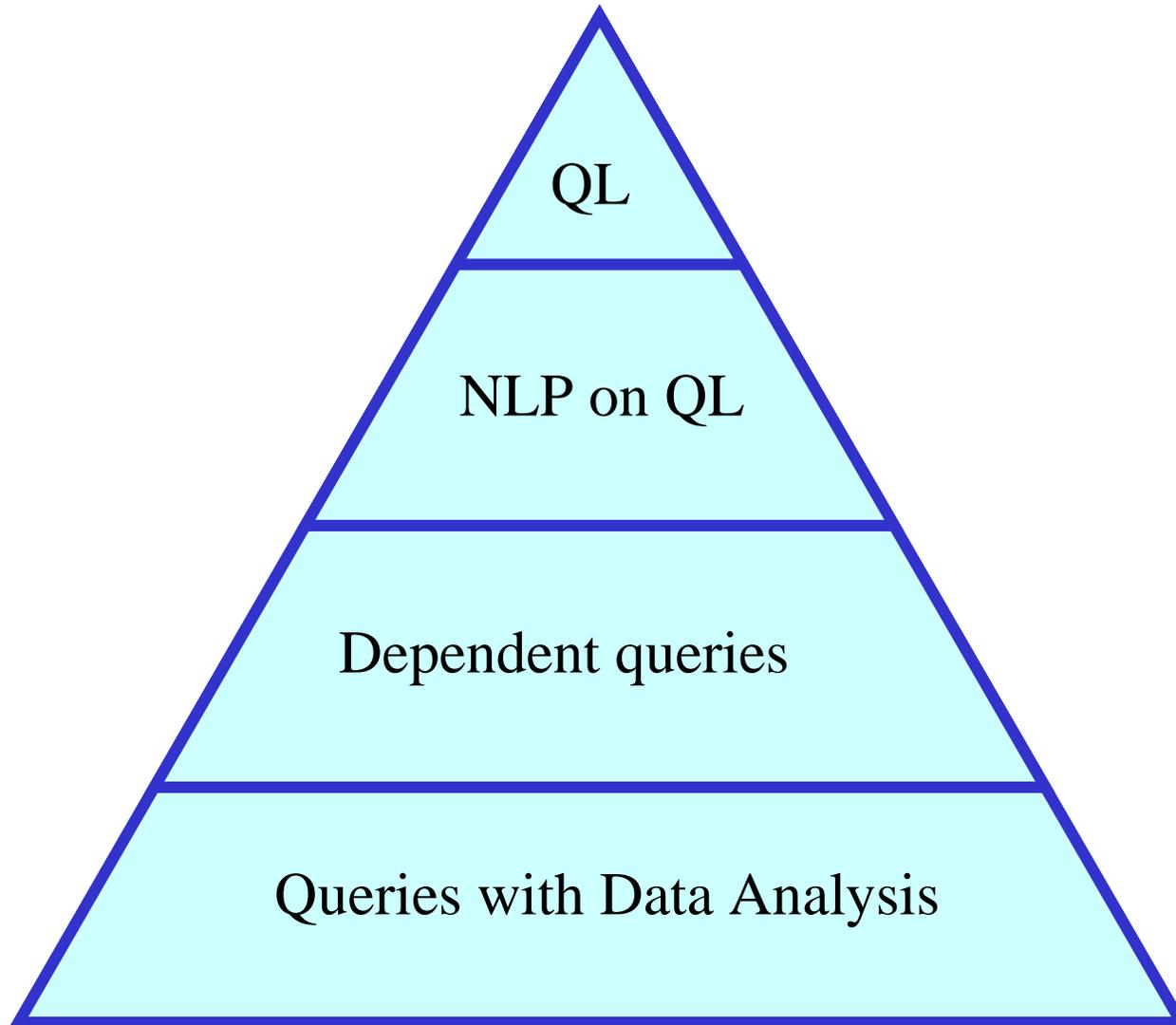


# Event Driven

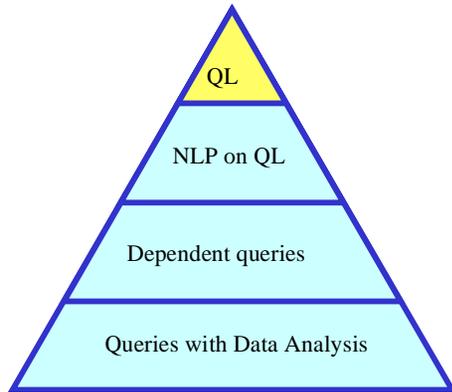


- In conjunction with the Data Analysis function, the Data Management function detects Events which can then be distributed through the OIS.

# Queries

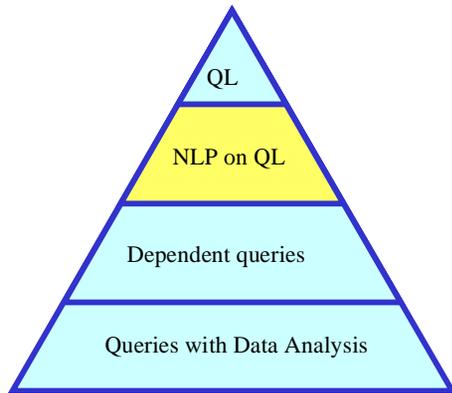


# Query Language



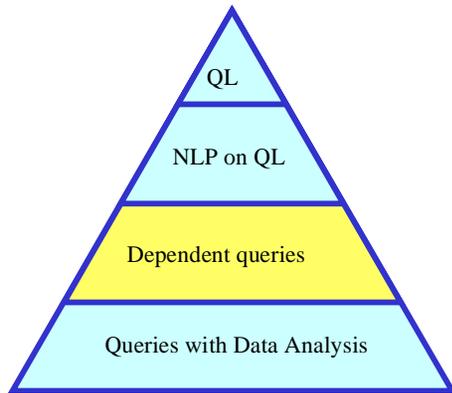
- **SELECT LOCATION FROM  
TABLE Tank\_Locations  
WHERE TANK=tank\_15  
AND TIME=14:00ZT**

# Natural Language



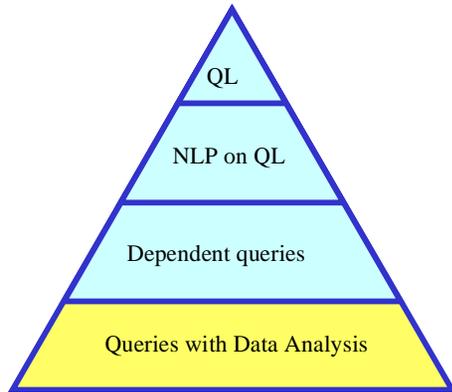
- Where is tank 15 at 14:00?

# Dependent queries



- Where is tank 15 when tank 12 was killed?

# Queries with Data Analysis



- When did company A meet Mission objective 1?