CBIS 2007
CB CKB with the GIG

Scott Kothenbeutel, Battelle PM

Moses Kamai, Battelle PI

CB CKB Overview

Client need addressed:

- Secure on-line common knowledge base of chemical and biological weapon related data, accessible and validated.

- Identification of gaps in CB related data.

- Process to accredit data sources.

- Foster communication within CB community.

Future Potential:

- Baseline system for input into

DTRA Program of Record

Description:

- **C**hemical-**B**iological **C**ommon **K**nowledge **B**ase

- CB CKB is an application and virtual data store that allows users to publish, locate and retrieve relevant CB data, while maintaining stewardship of access and control.

- 3 phases to the project, 1st – implementation planning; **2nd- Pilot system**; 3rd – Secure on-line system.

- **Current effort is 2nd Phase – includes development of a pilot system focusing on M&S resources and locally available data such as CDMD, Agent Fate, ASK.**
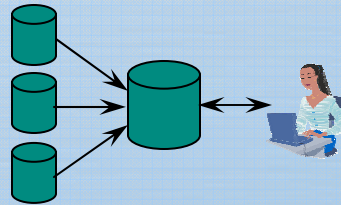
CB CKB Overview

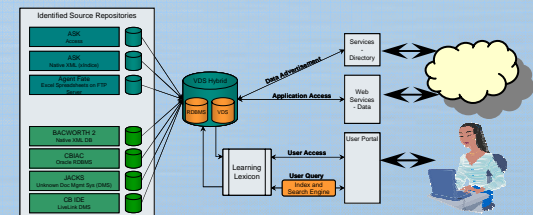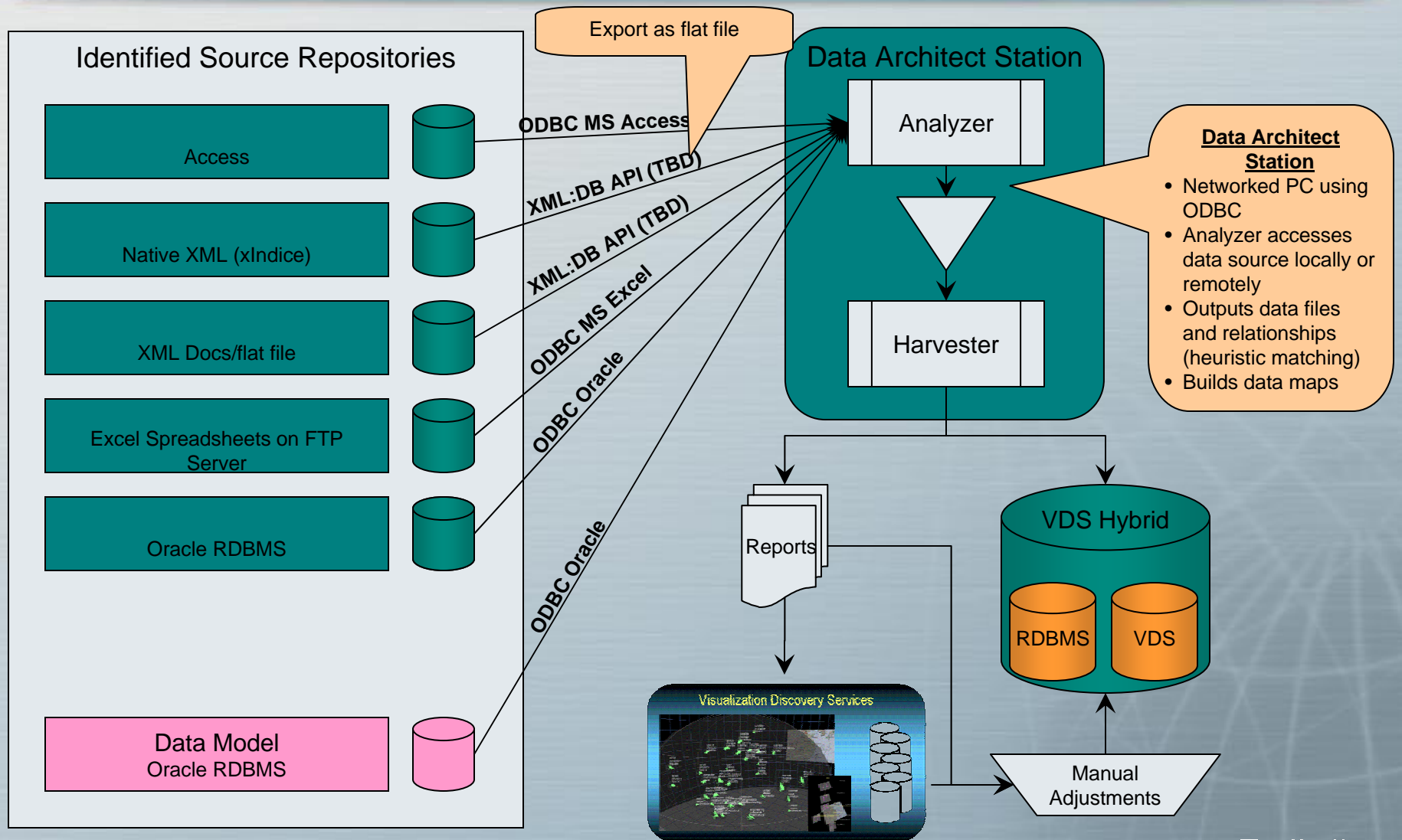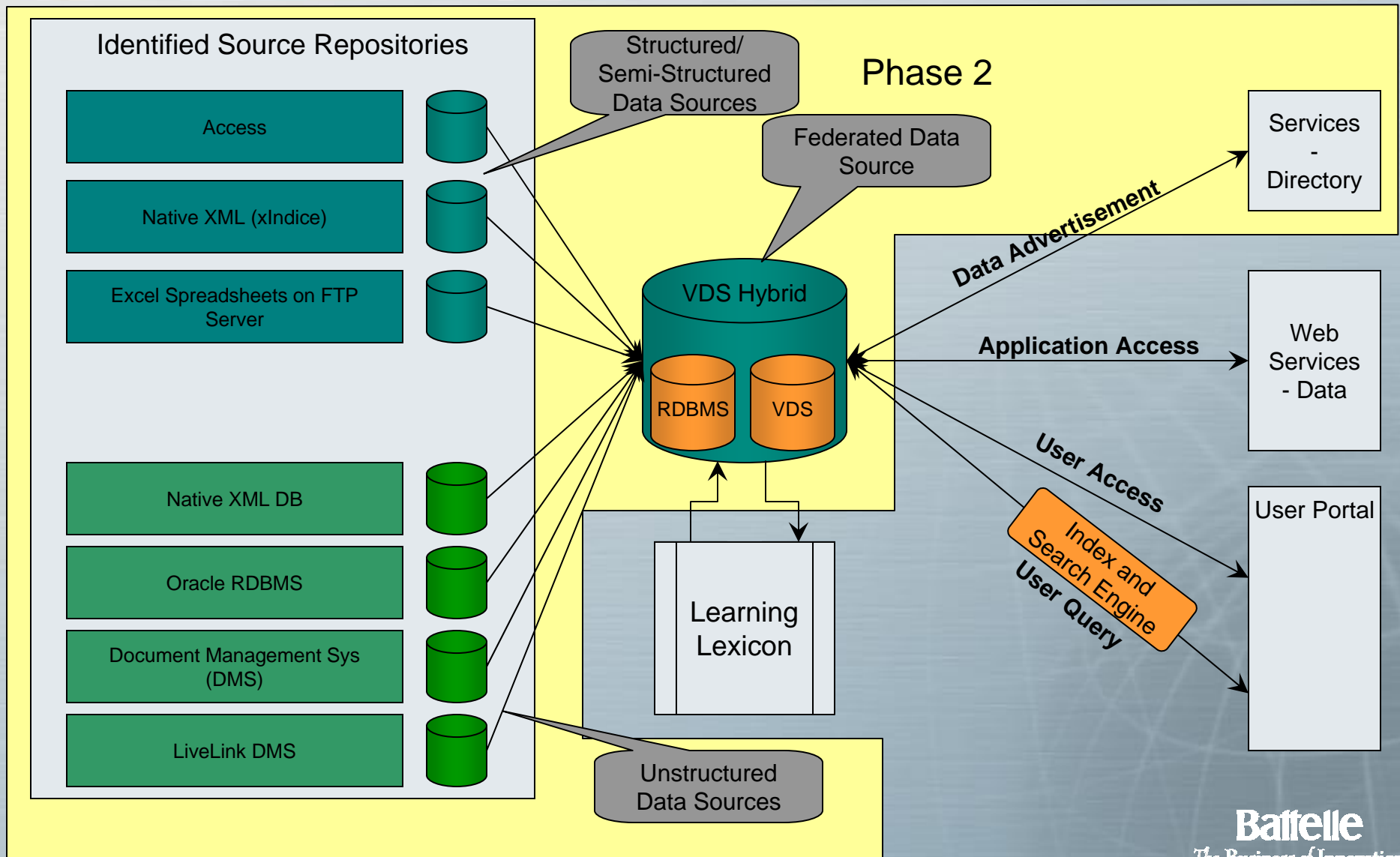| Phase 1	Phase 2	Phase 3
Implementation Plan	*Pilot System*	*Secure On-line CB CKB*
May 05 – Jun 06	**Jun 06- May 07**	**Jun 07 – TBD**

The key objectives for this program are:

- Identify and fuse CBIAC and other CB repositories relevant to the CB Community
- Implement and sustain a DoD information assured compliant system
- Implement proven and best practices for the CB Community
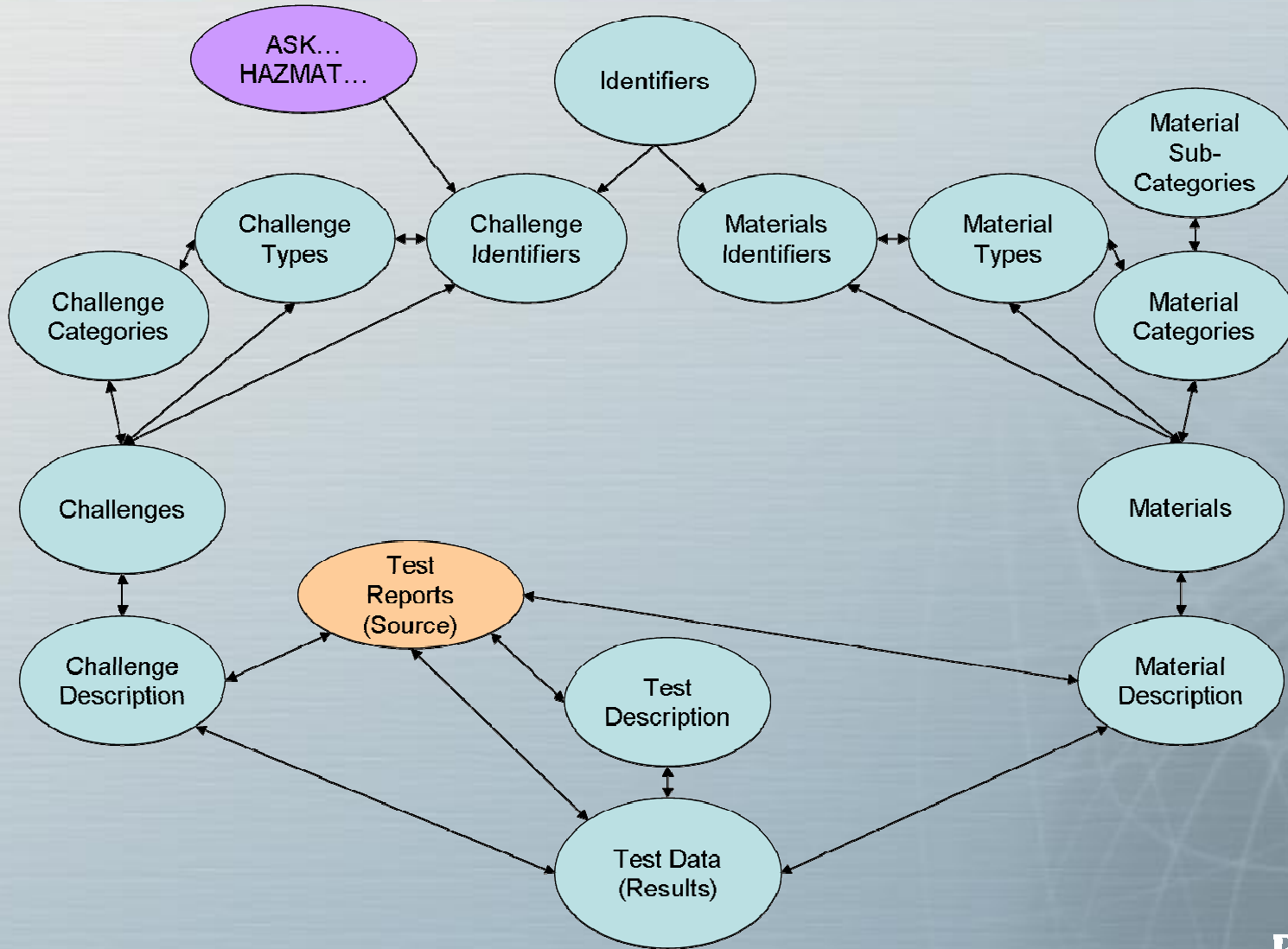- Leverage subject matter experts and available tools to identify and analyze relevant CB data
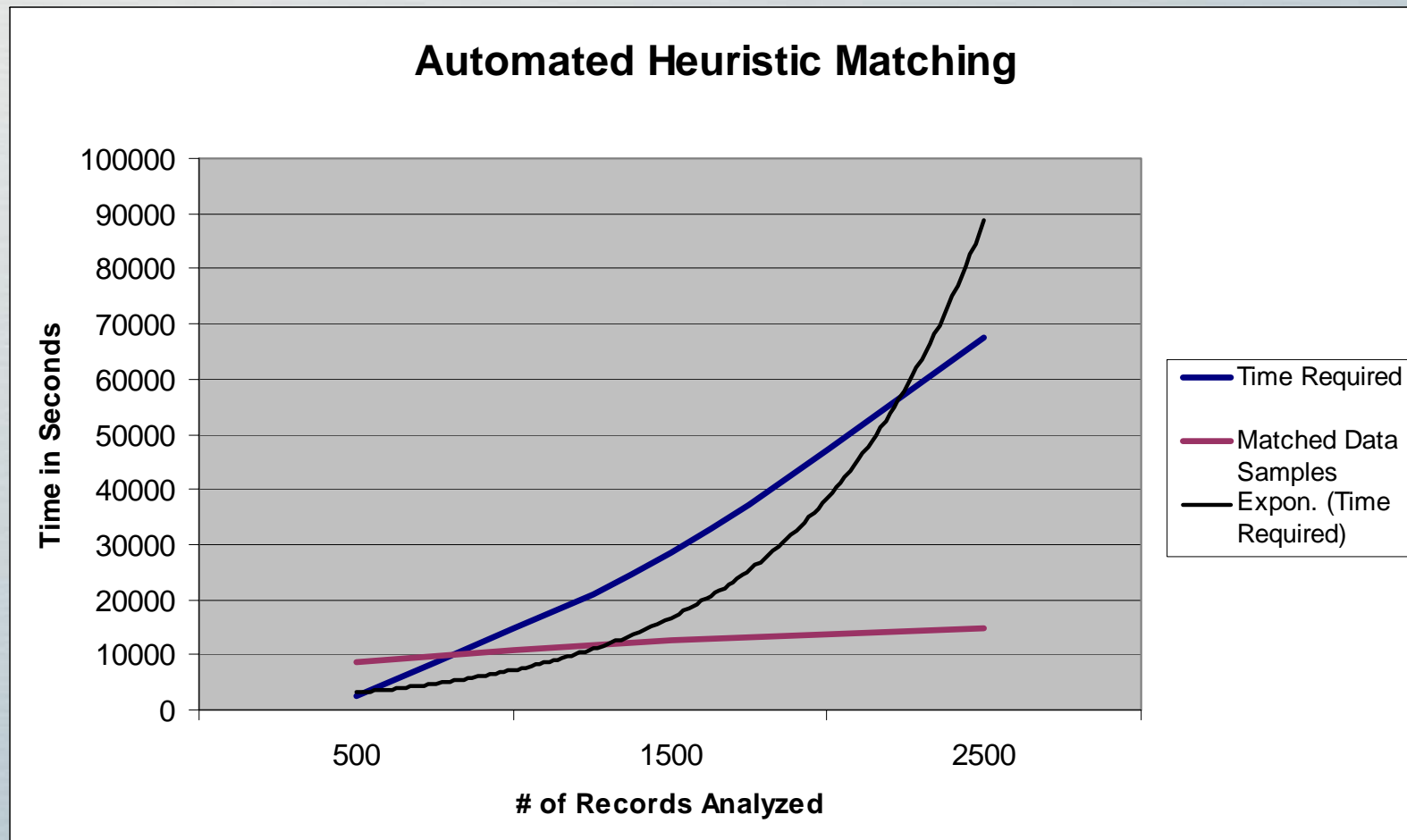
Information Fusion Build Process

Identified Source Repositories

Access

Native XML (xIndice)

XML Docs/flat file

Excel Spreadsheets on FTP Server

Oracle RDBMS

Data Model
Oracle RDBMS

Export as flat file

ODBC MS Access

XML:DB API (TBD)

XML:DB API (TBD)

ODBC MS Excel

ODBC Oracle

ODBC Oracle

ODBC Oracle

Data Architect Station

Analyzer

Harvester

Data Architect Station
- Networked PC using ODBC
- Analyzer accesses data source locally or remotely
- Outputs data files and relationships (heuristic matching)
- Builds data maps

Reports

Visualization Discovery Services

VDS Hybrid

RDBMS   VDS

Manual Adjustments

Information Fusion Example

Chemical-Biological Material Effects Database
(CBMED Extract)

Typical Analyzer Results

Demonstration

- **Analyzer**
  - Configuration and Automated Mapping

- **Harvester: User interface to**
  - Review Analyzer results
  - Correct/Update Mappings
  - Create Virtual Data Store (VDS)

- **Federated Query**
  - Simple query example