







EPA Data Area & Classes

DATA CLASS
 Acquisition Assistance


 Business Partner	 Acquisition Vehicle
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DATA CLASS
 Capital Assets (Property)

 EPA Facility	 Equipment
 Services	

DATA CLASS
 Environmental

DATA CLASS
 Environmental and Impacts


 Body Burden	 Assistance Resources
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DATA CLASS
 Environmental


 Habitat Disruptions	 Incidents and Spills
 Routine/Chronic Stressors	







DATA CLASS
 Facilities


 Facilities	 Monitoring Stations
 Other Properties or Sites	













DATA CLASS
 Financial


		
		
		



DATA CLASS
 Human Assets

DATA CLASS
 Information


			
			
			



DATA CLASS
 Location Geos

	
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DATA CLASS
 Places


 Non-Point Features	 Natural Features
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DATA CLASS
 Populations

 Human	 Non-Human
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DATA CLASS
 Sources

 Equipment/Process Sources	 Mobile Sources
 Non-Point Sources	 Point Sources

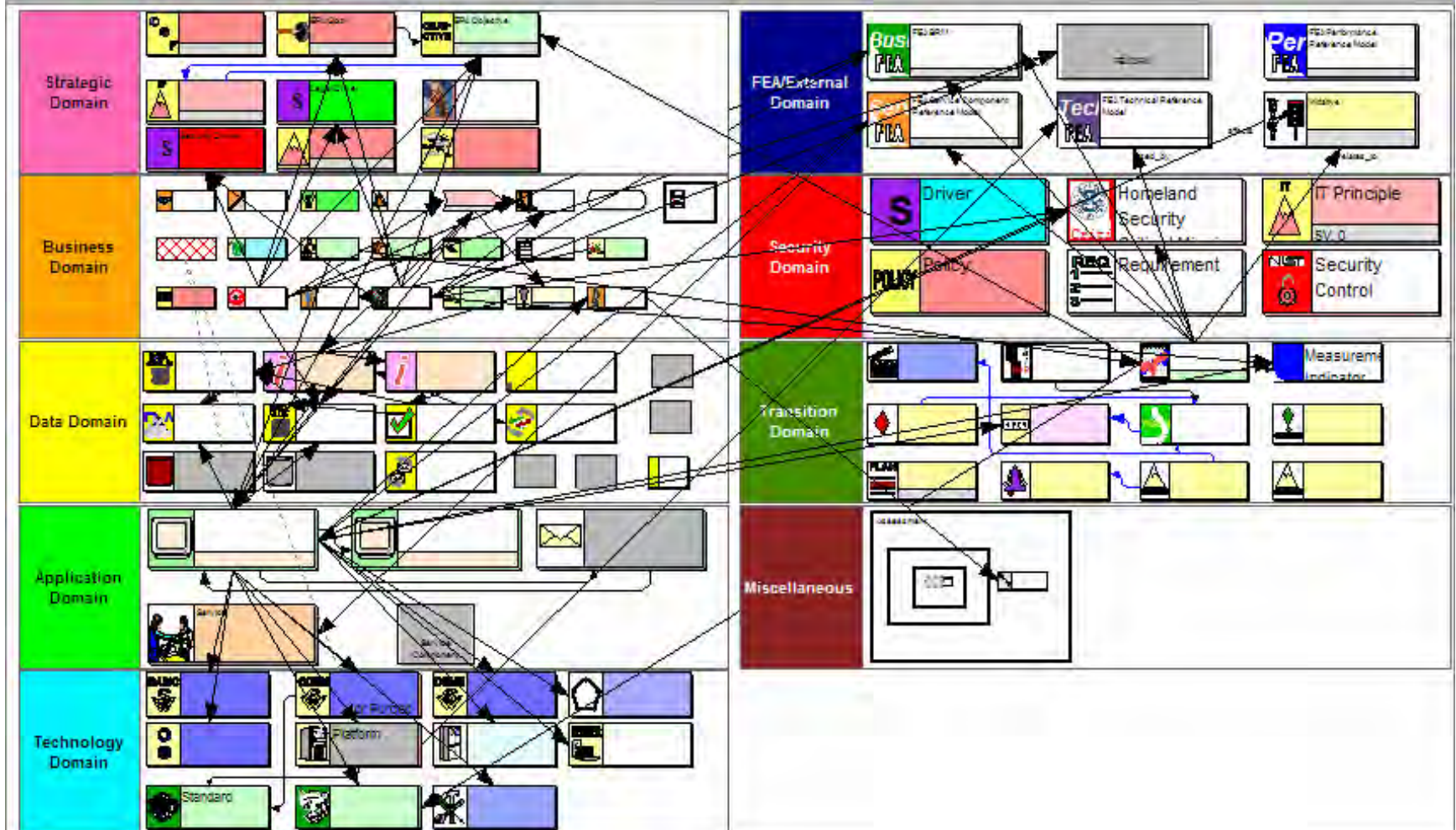
DATA CLASS
 Substances

Completion Capability Area: Data Architecture

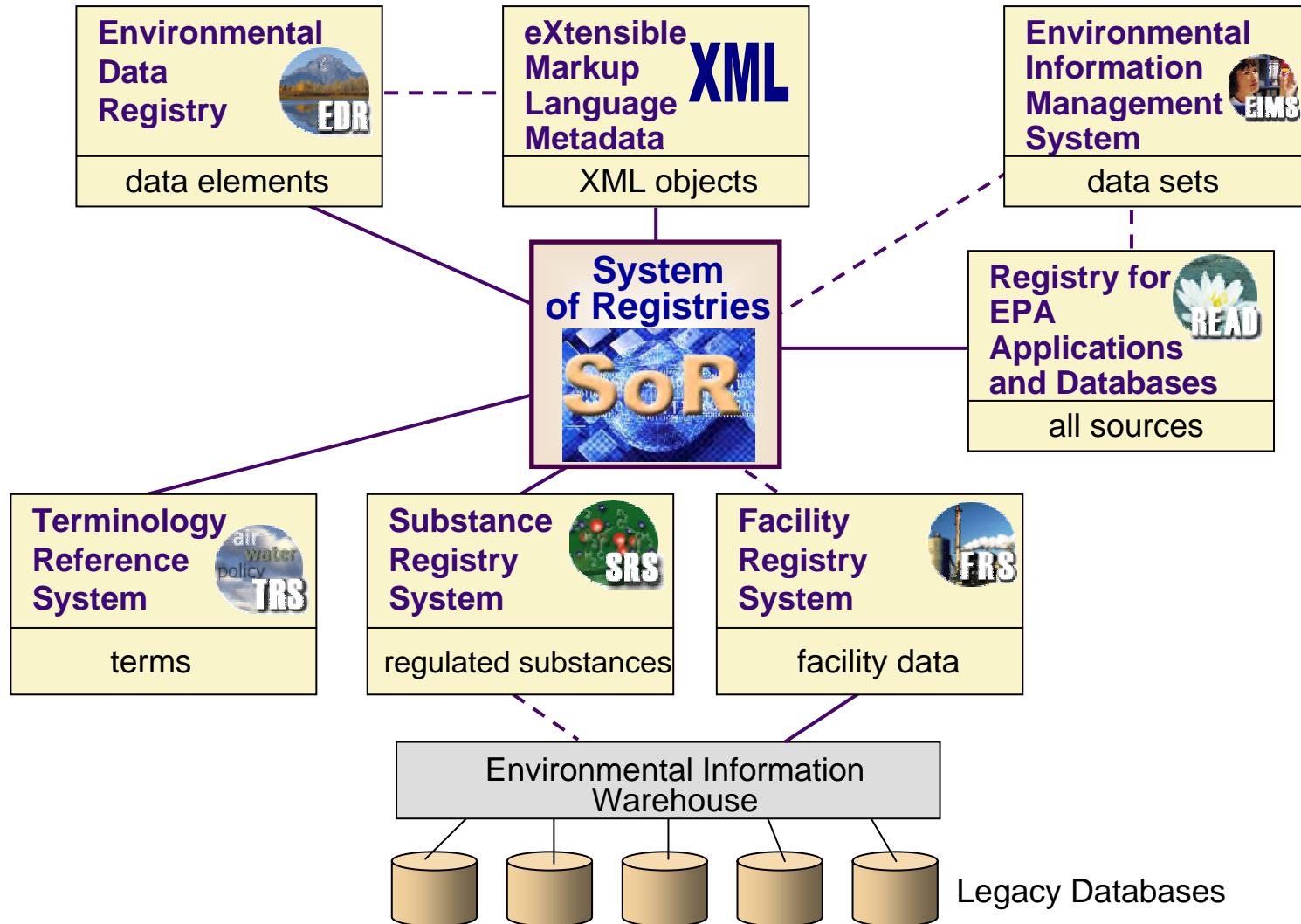
Level: 1 Practices: Baseline Agency EA Repository Metamodel

EPA Framework Metamodel 3.0



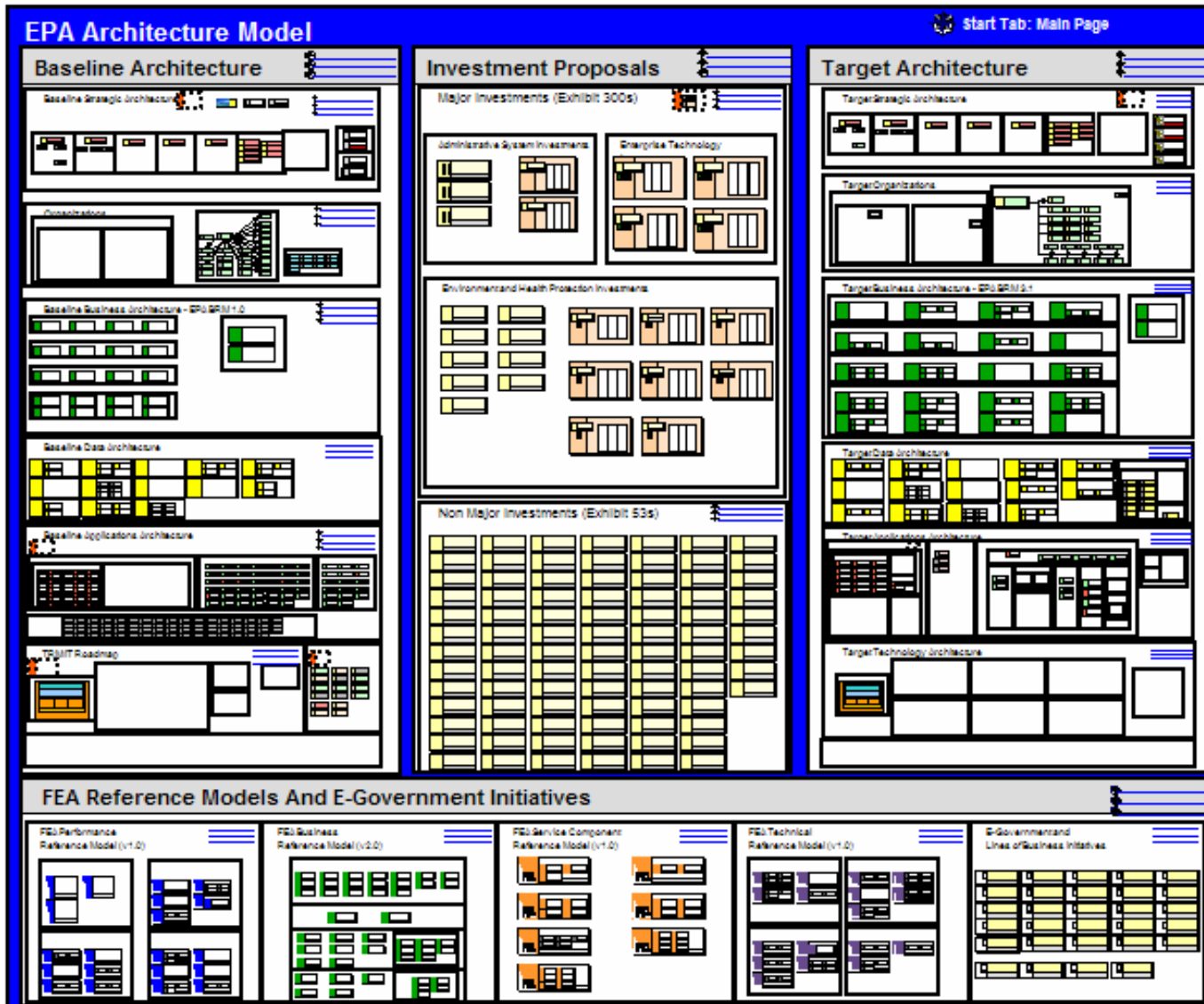
Completion Capability Area: **Data Architecture**

Level: 1 Practices: **Baseline System of Registries Conceptual Diagram**



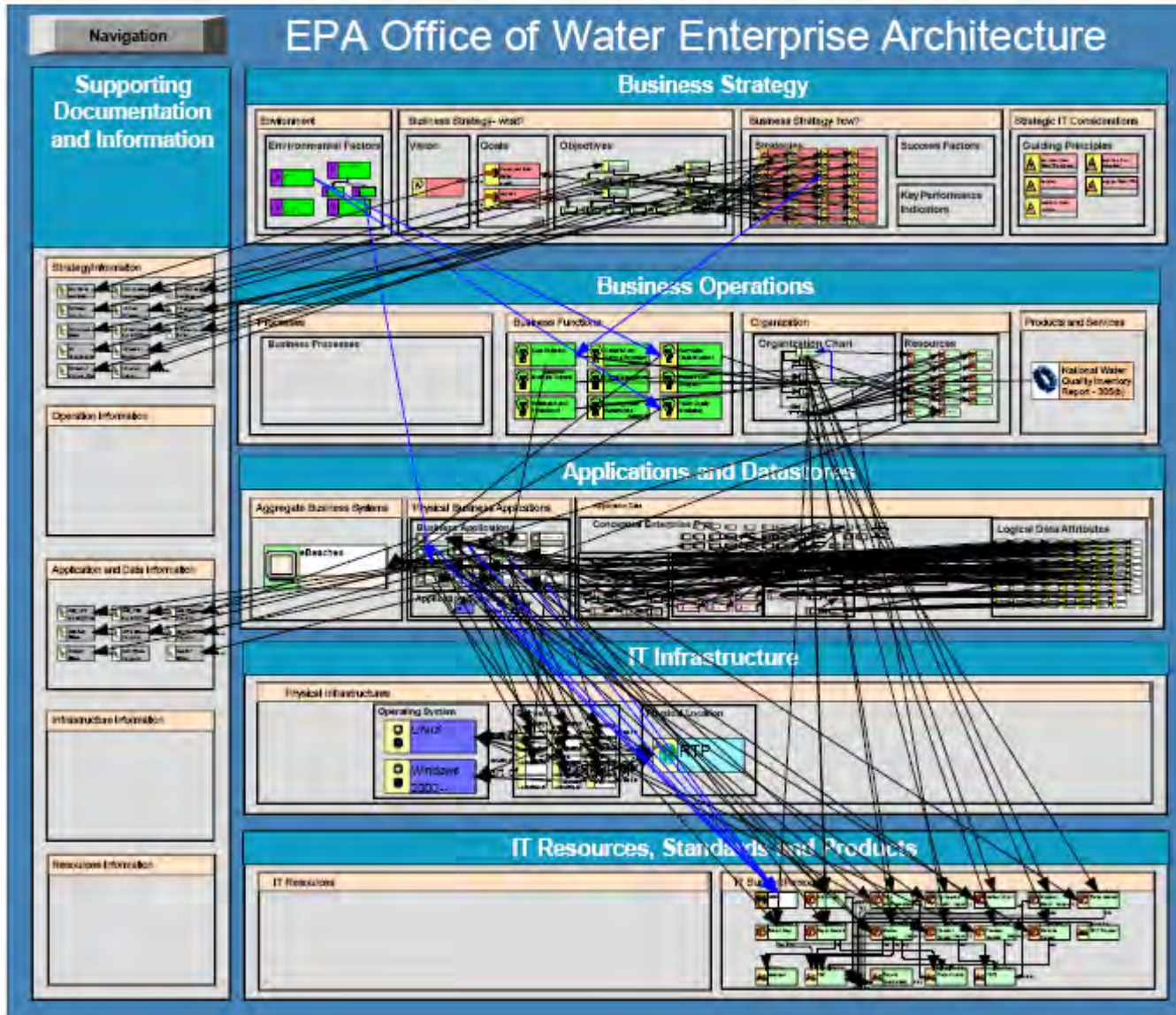
Completion Capability Area: Data Architecture

Level: 2 Practices: **Baseline EPA Enterprise Architecture Repository and Tool (ART) Metamodel v3.0**



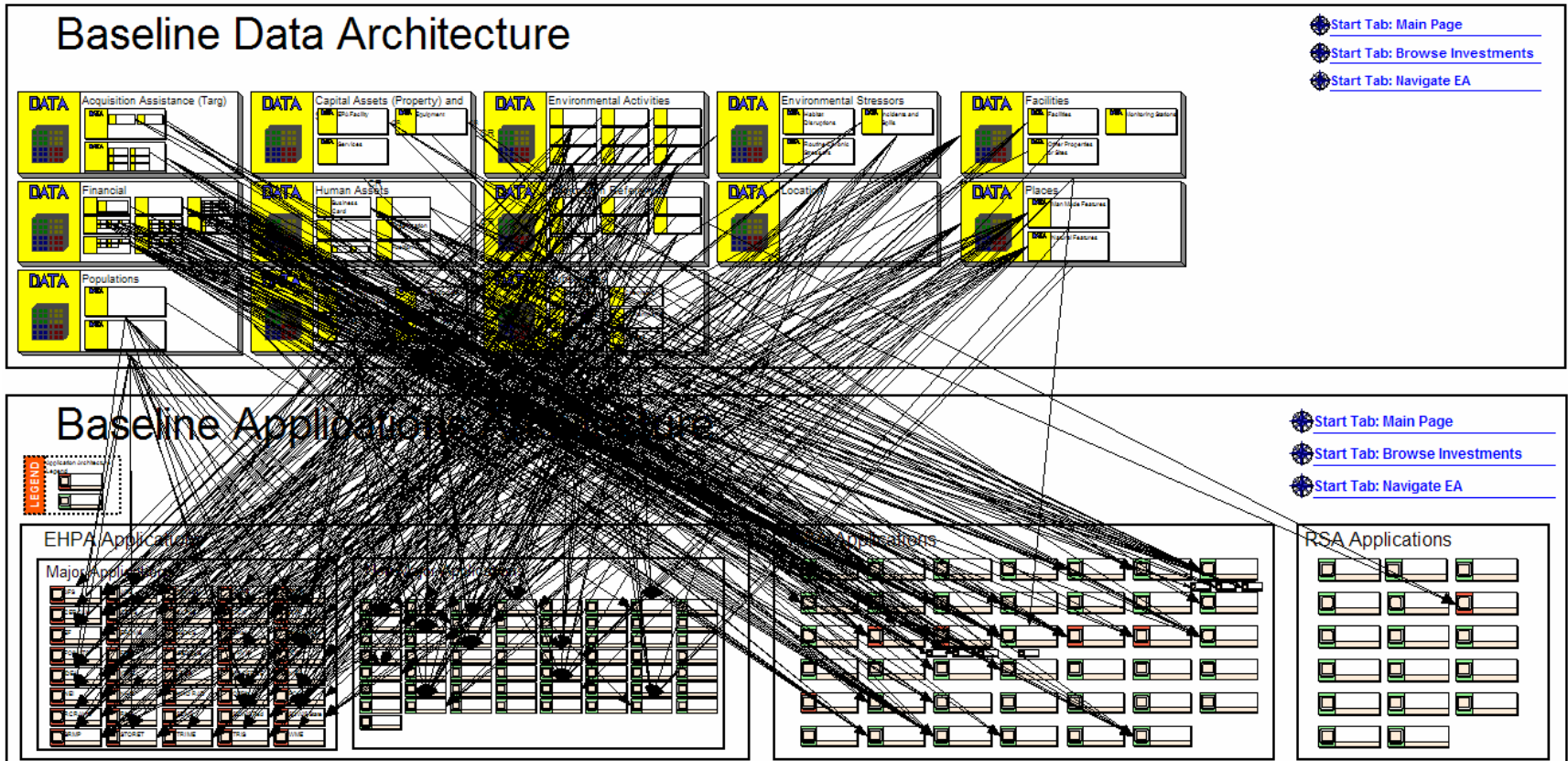
Completion Capability Area: Enterprise Architecture

Level: 2 Practices: Office of Water (OW) Baseline Enterprise Architecture

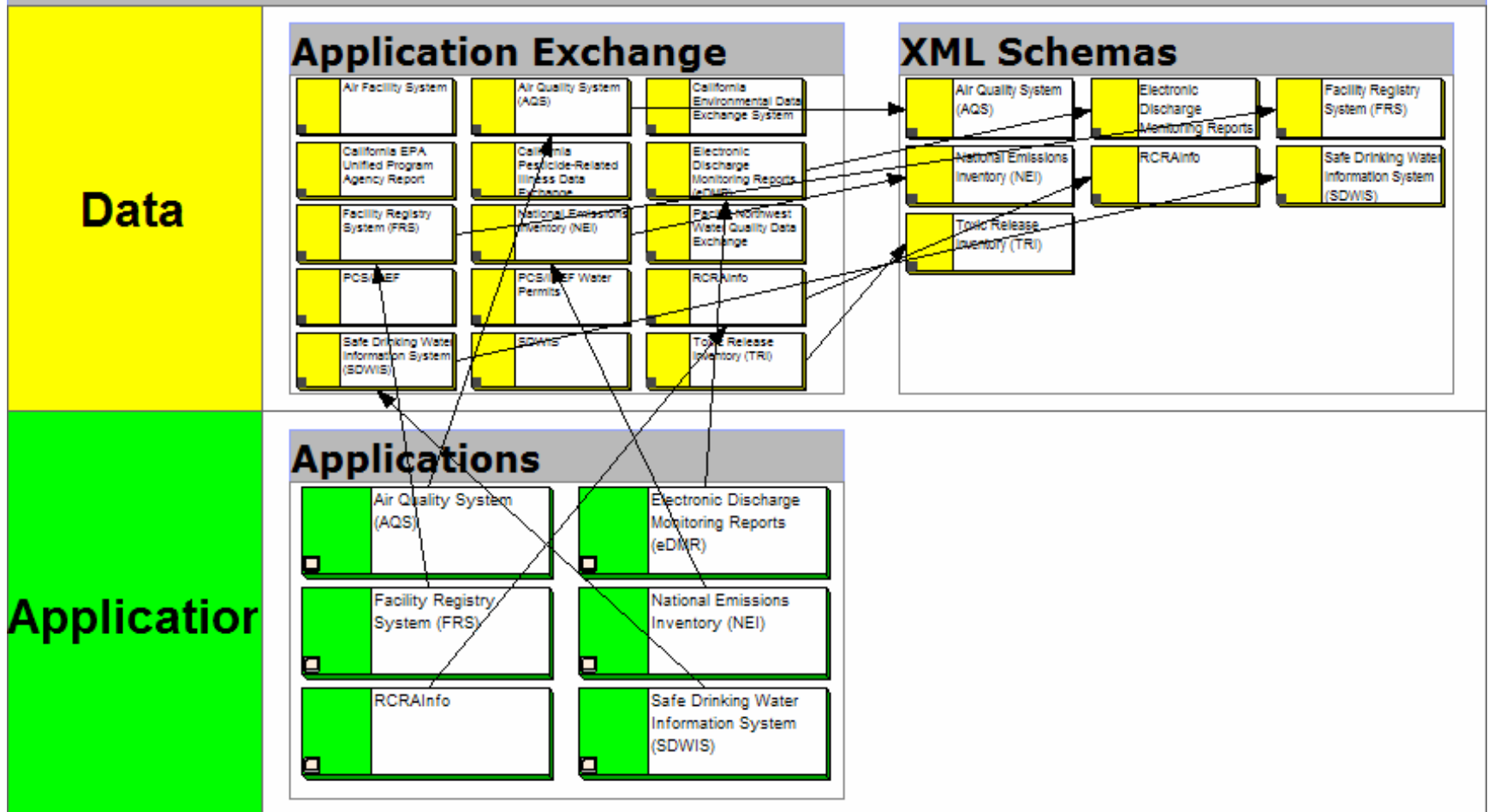


Completion Capability Area: Data Architecture

Level: 2 Practices: Baseline Applications aligned to Data



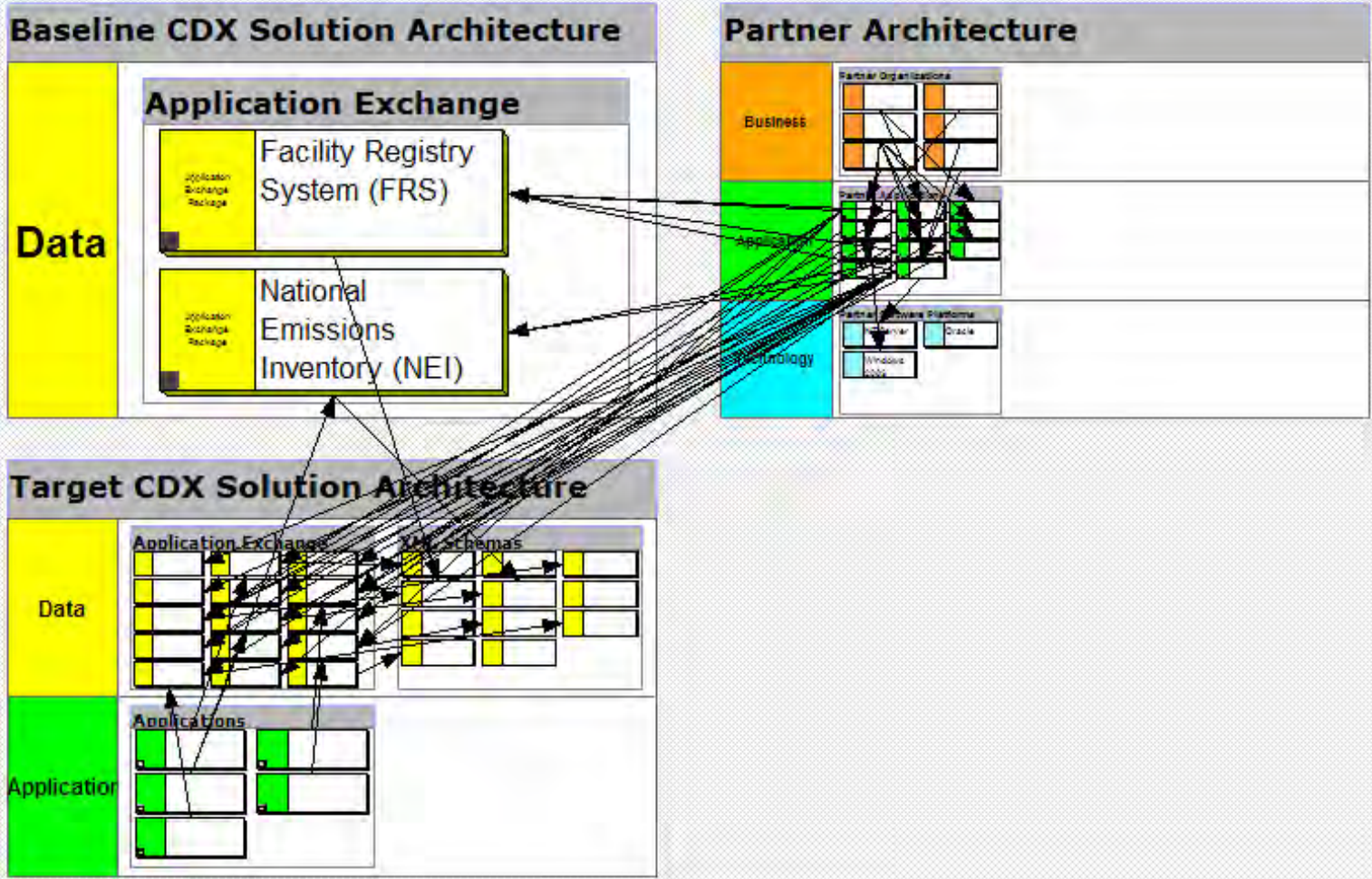
CDX Solution Architecture



Completion Capability Area: Data Architecture

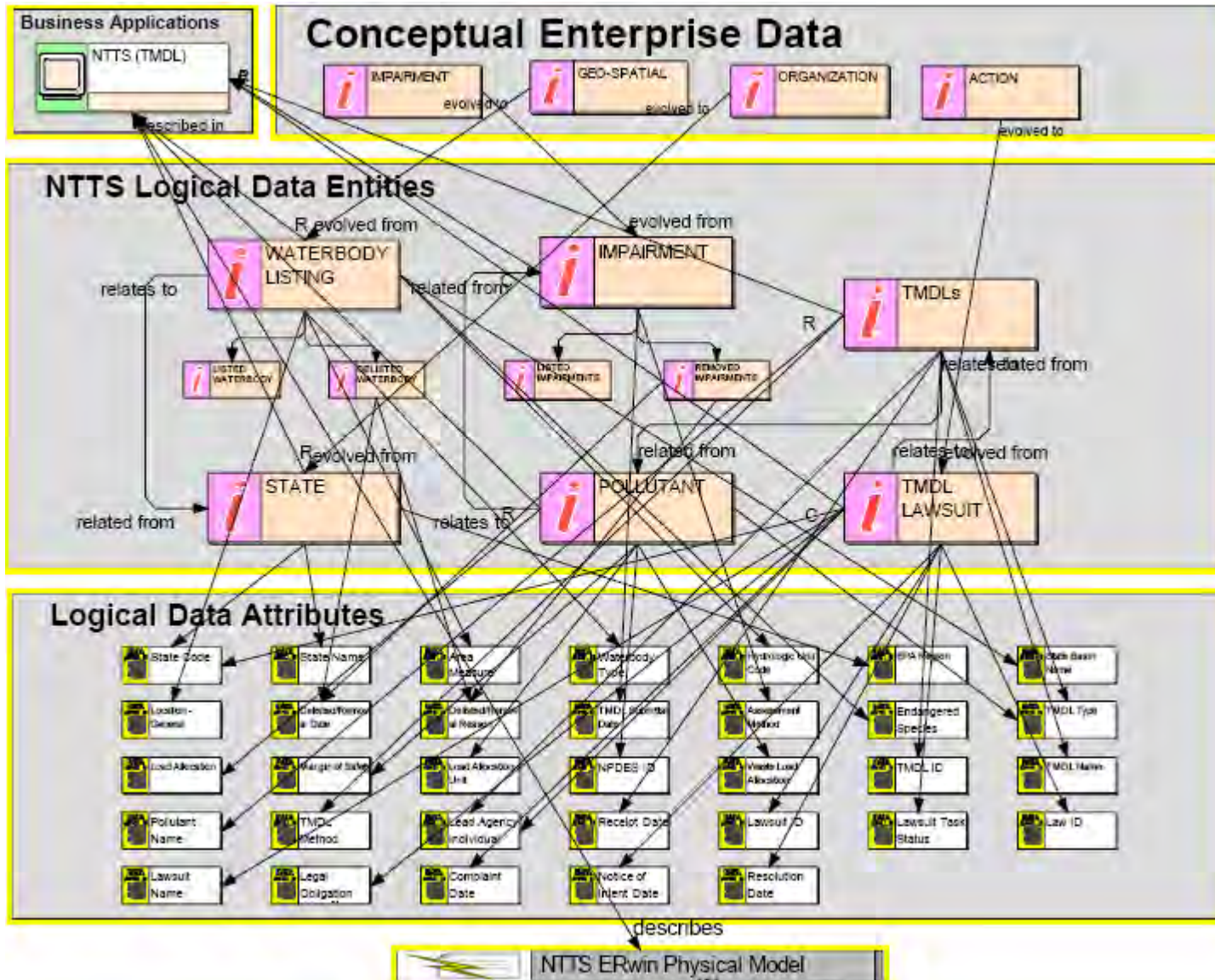
Level: 2 & 3 Practices: CDX Data Flows between EPA and External Partners

EPA Architecture Repository and Tool (ART)



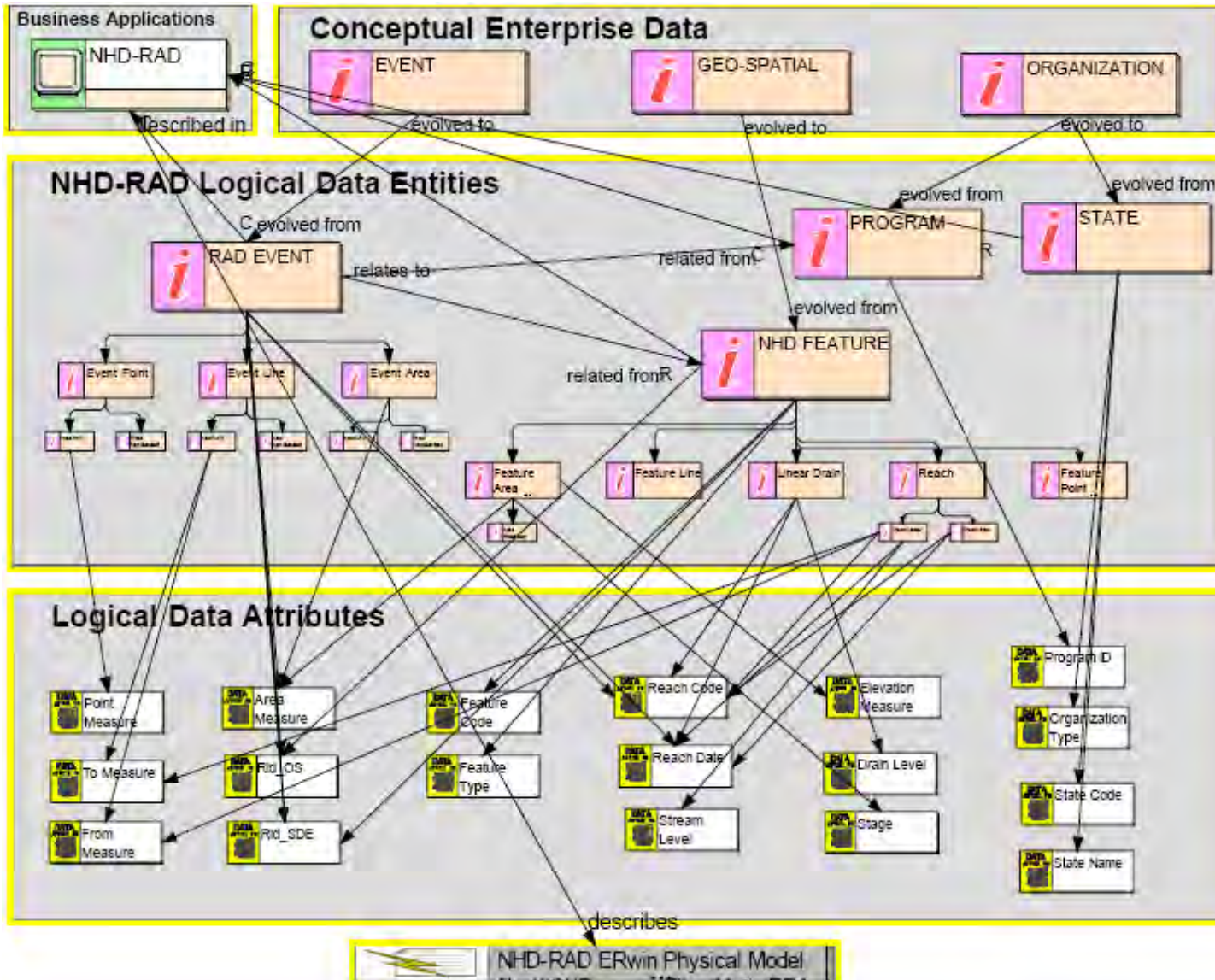
Completion Capability Area: Data Architecture

Level: 2 Practices: Baseline Office of Water (OW) Applications to Data



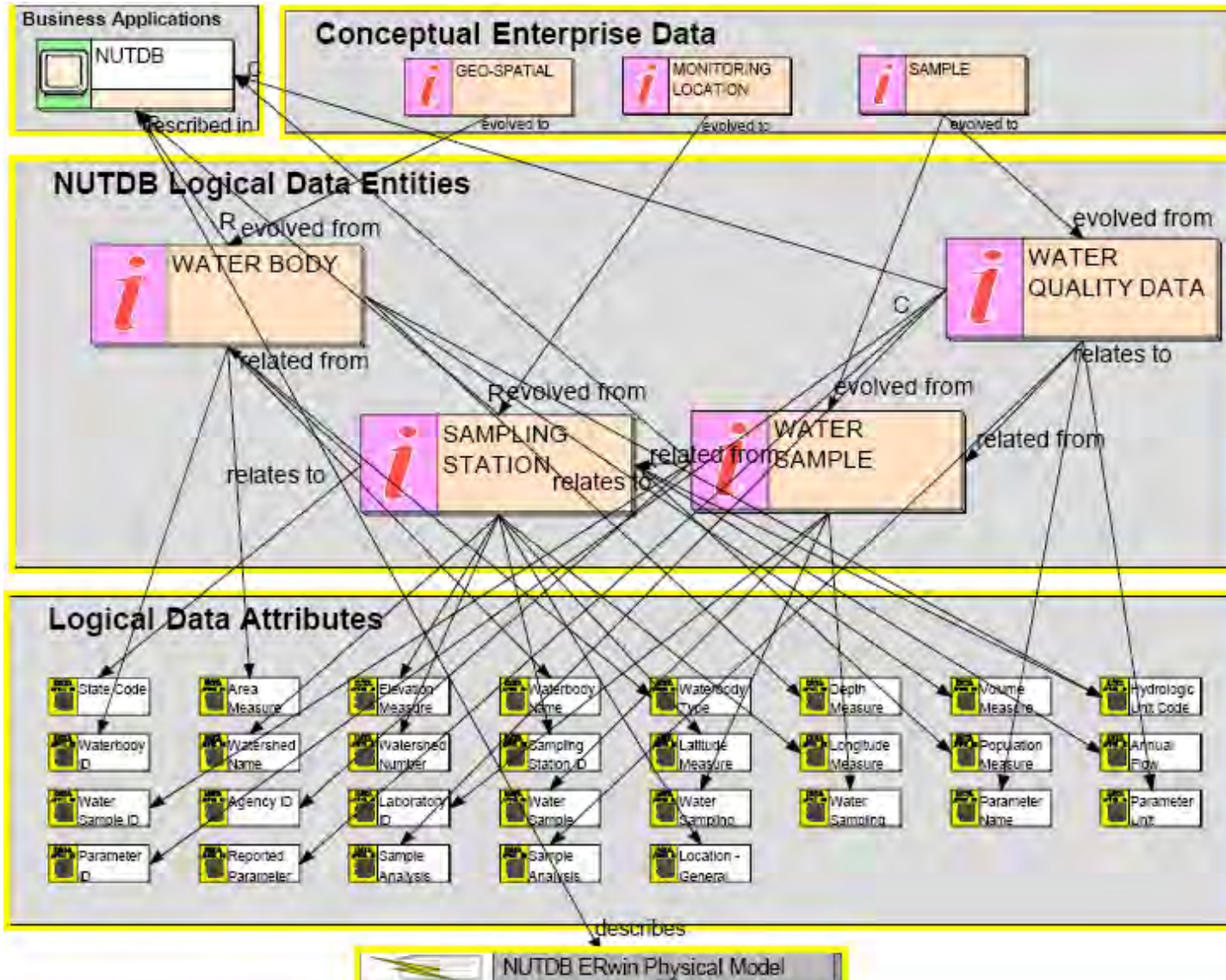
Completion Capability Area: Data Architecture

Level: 2 Practices: Baseline Office of Water (OW) Applications to Data

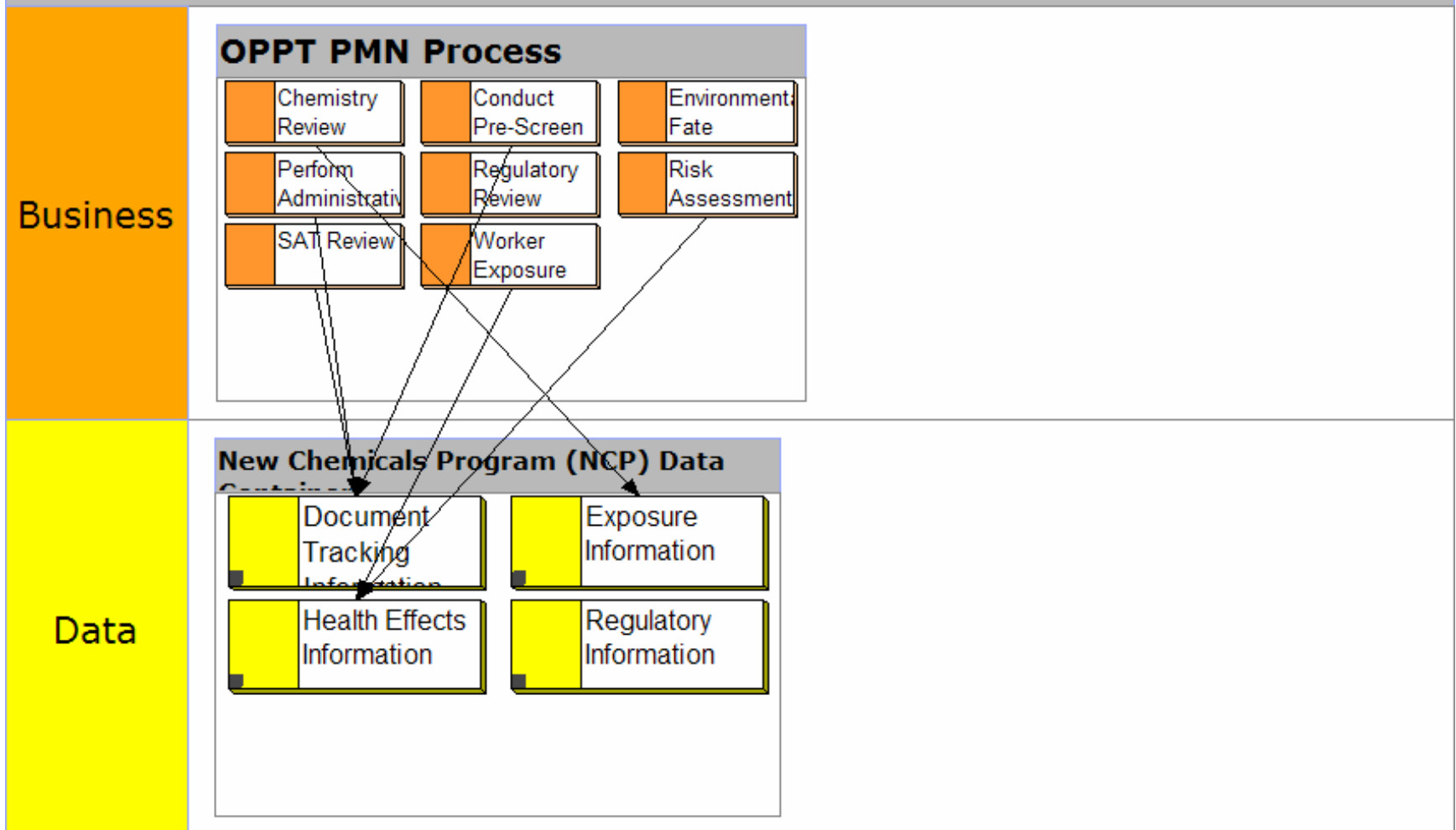


Completion Capability Area: Data Architecture

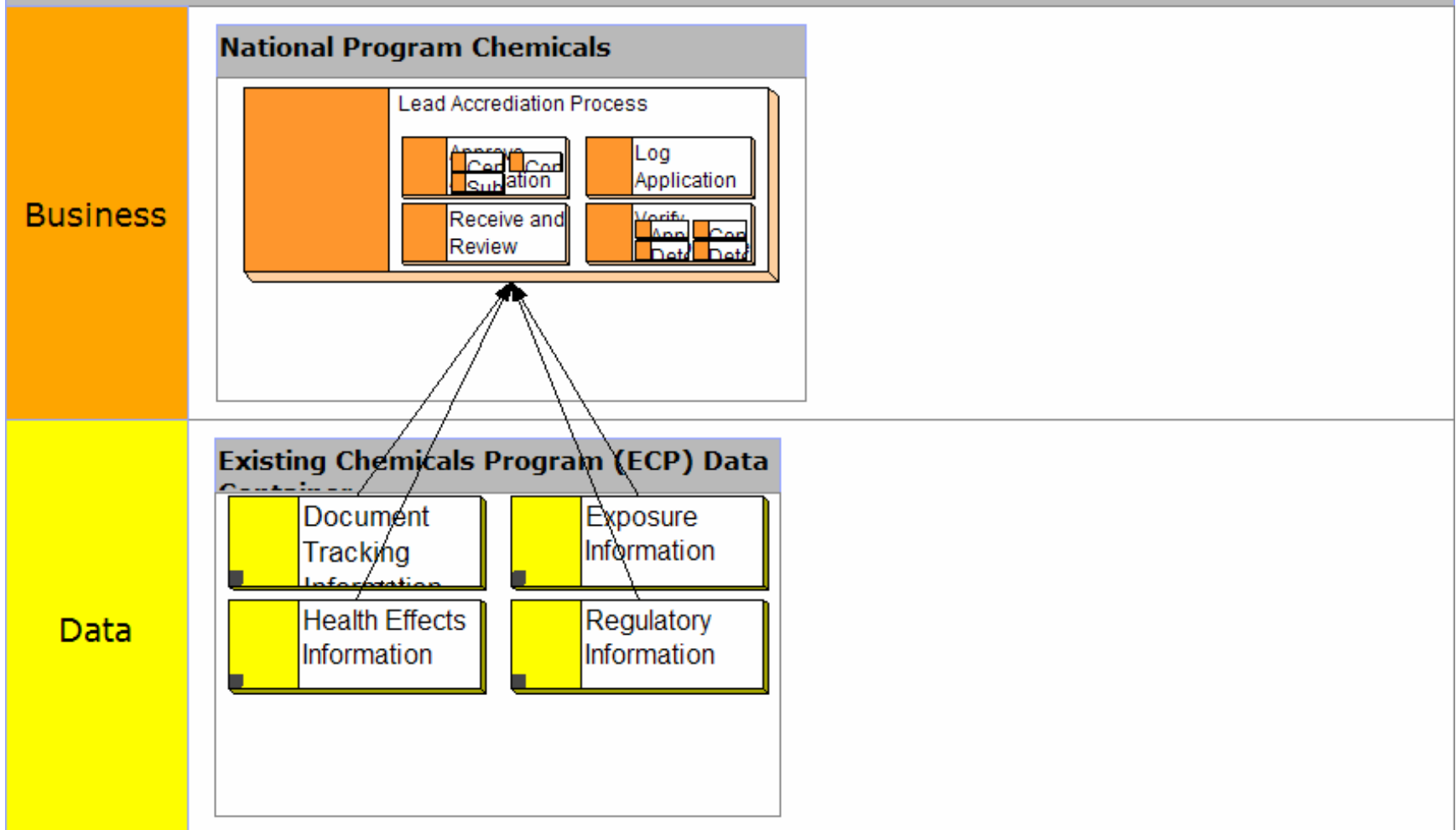
Level: 2 Practices: Baseline Office of Water (OW) Applications to Data



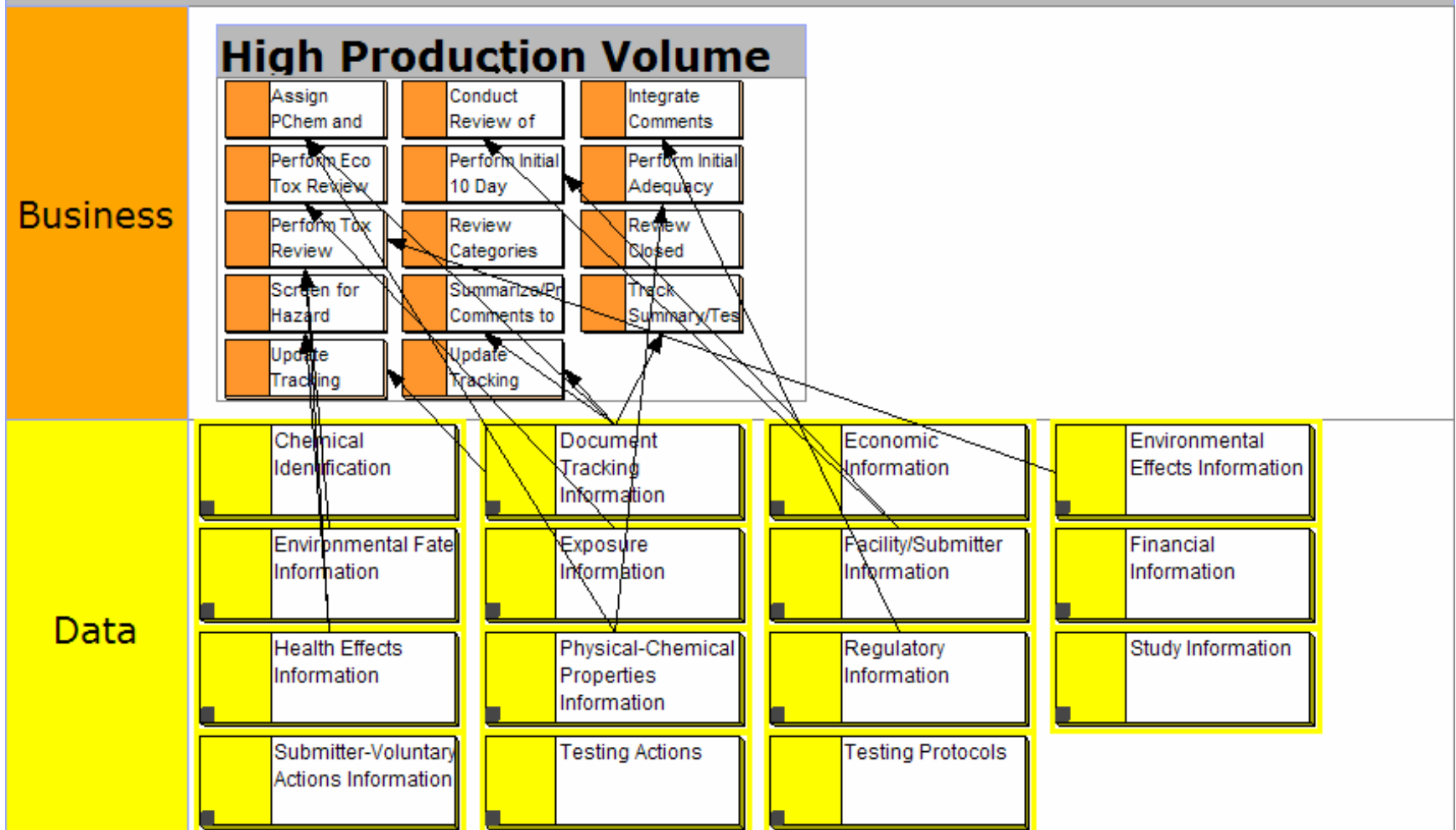
OPPT Segment Architecture



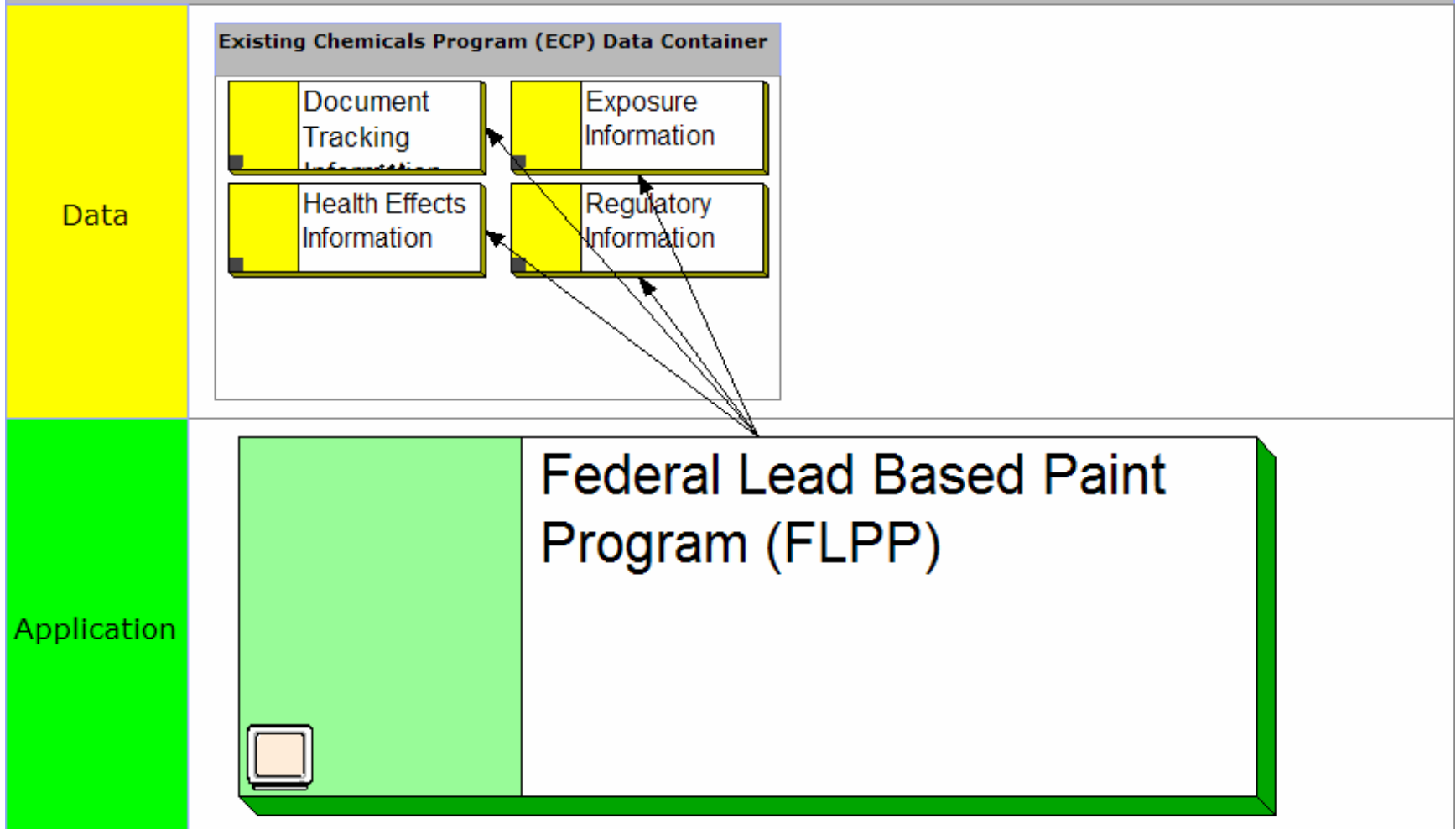
OPPT Segment Architecture



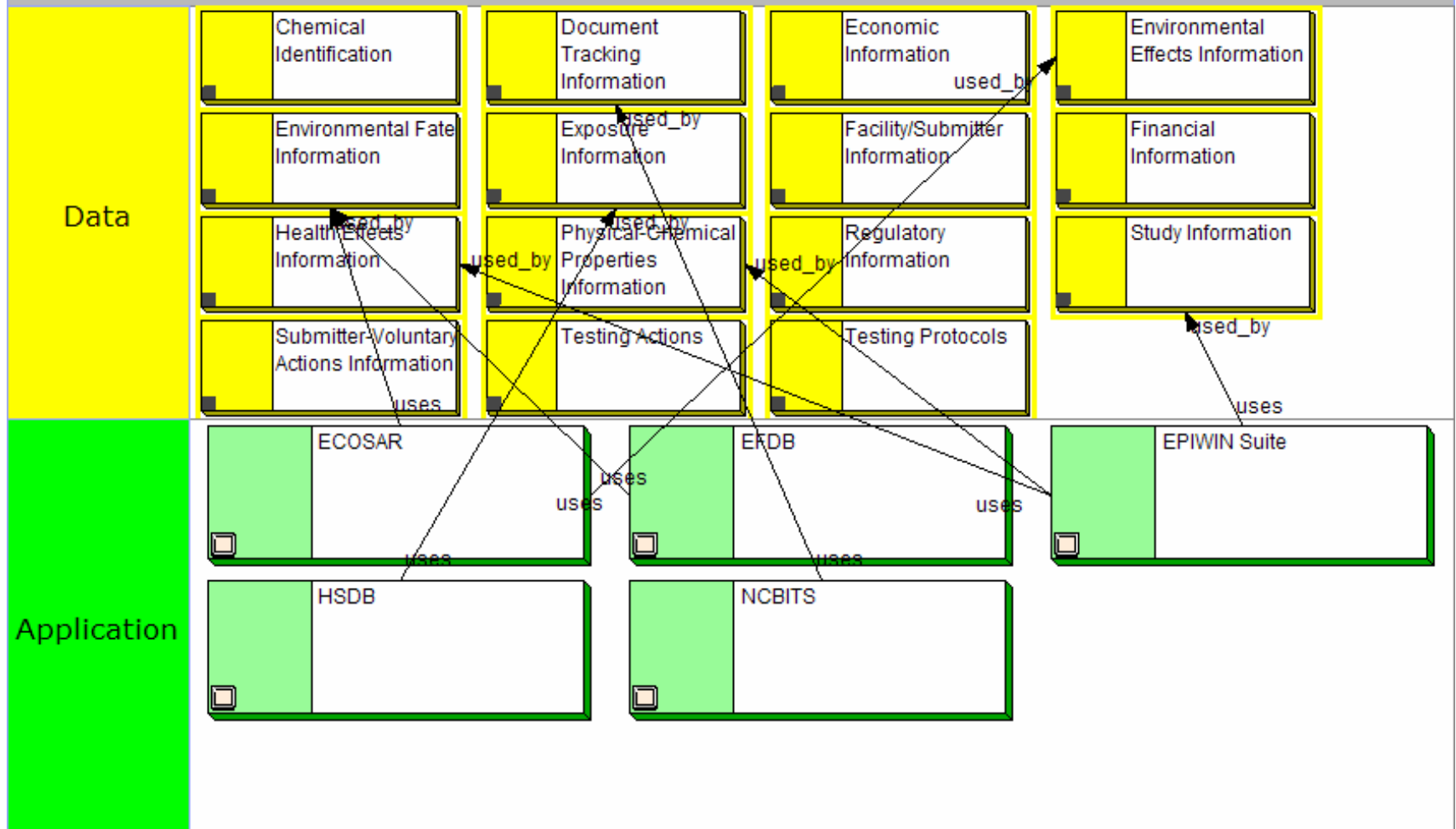
OPPT Segment Architecture



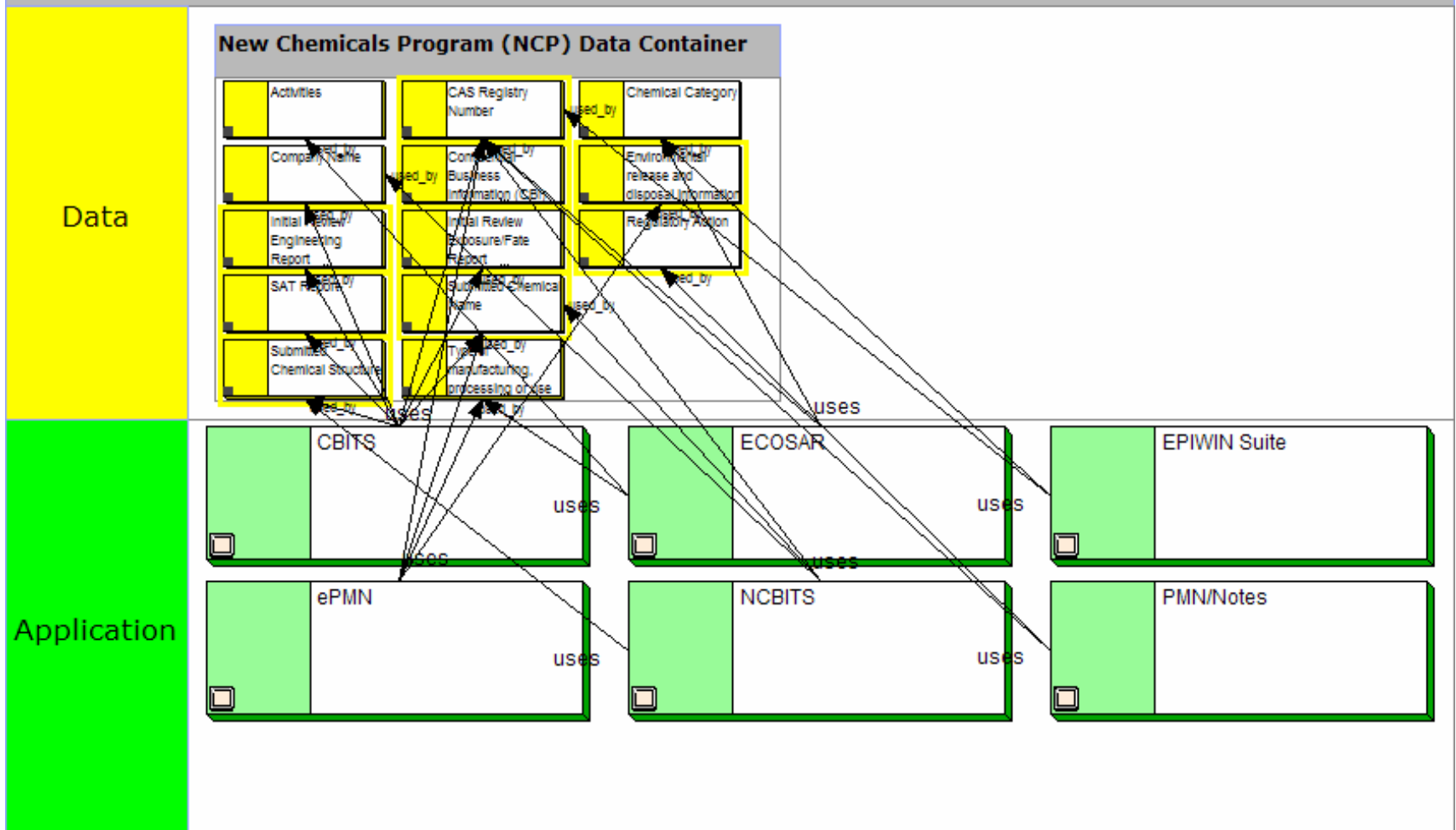
OPPT Segment Architecture



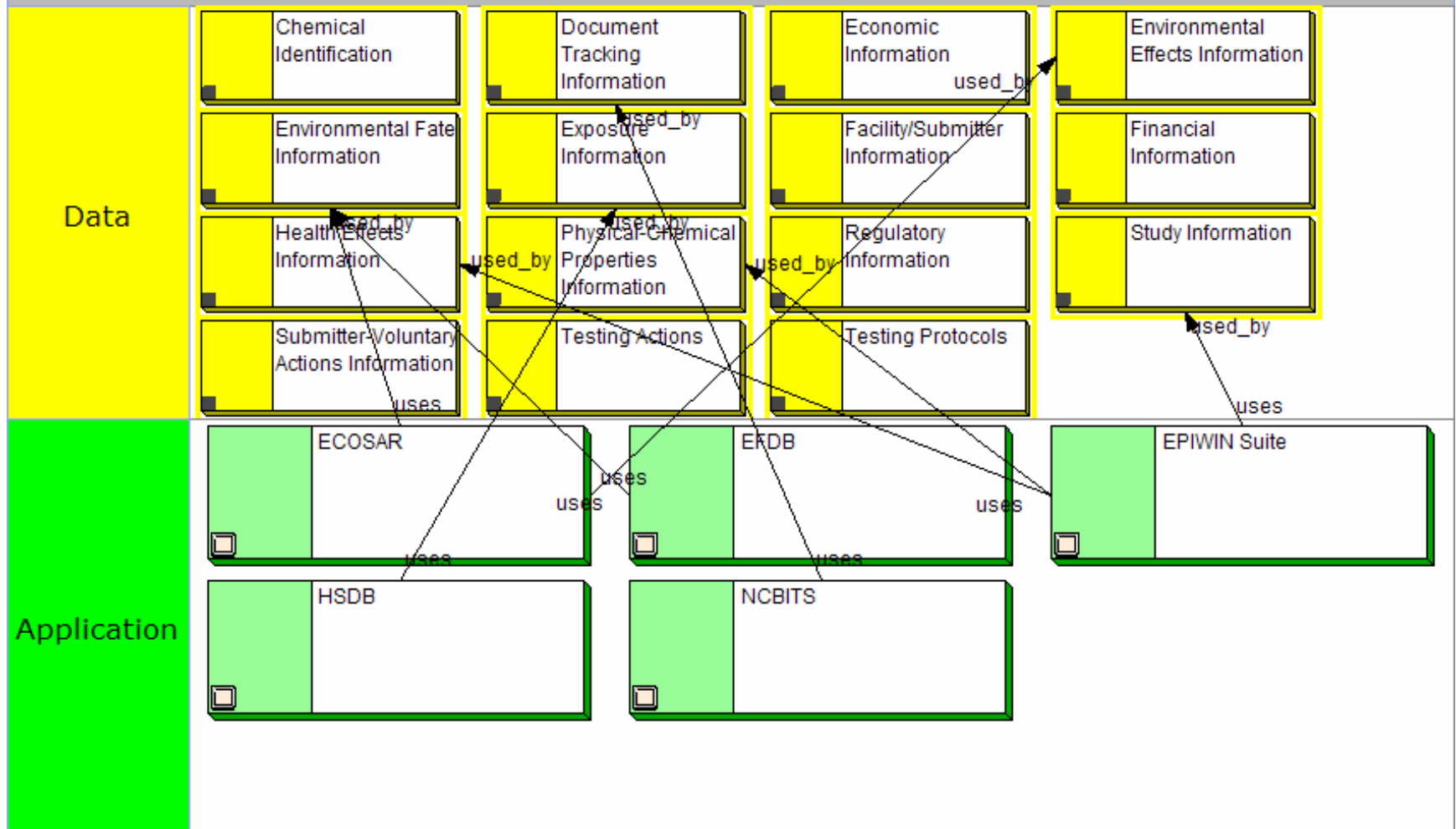
OPPT Segment Architecture



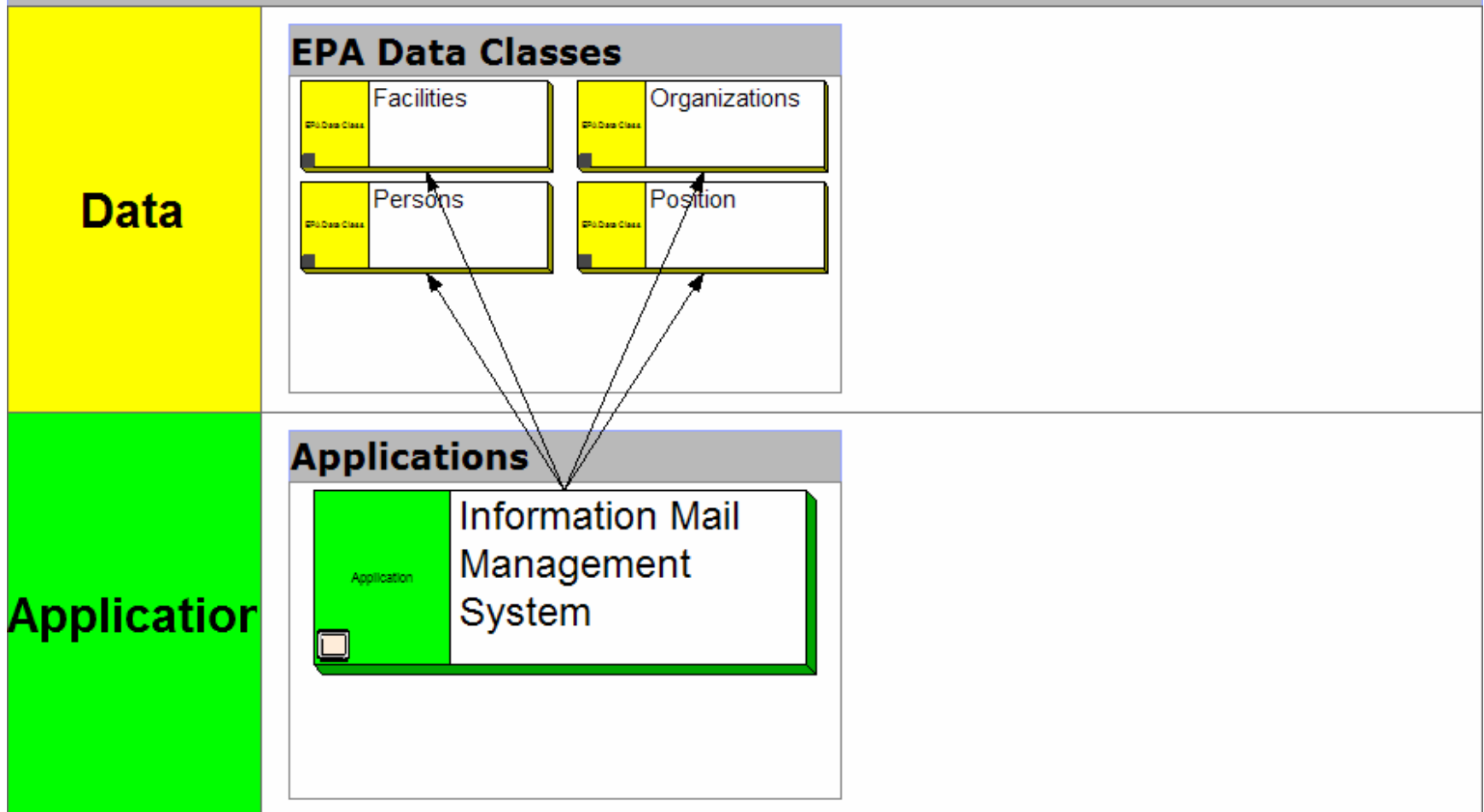
OPPT Segment Architecture



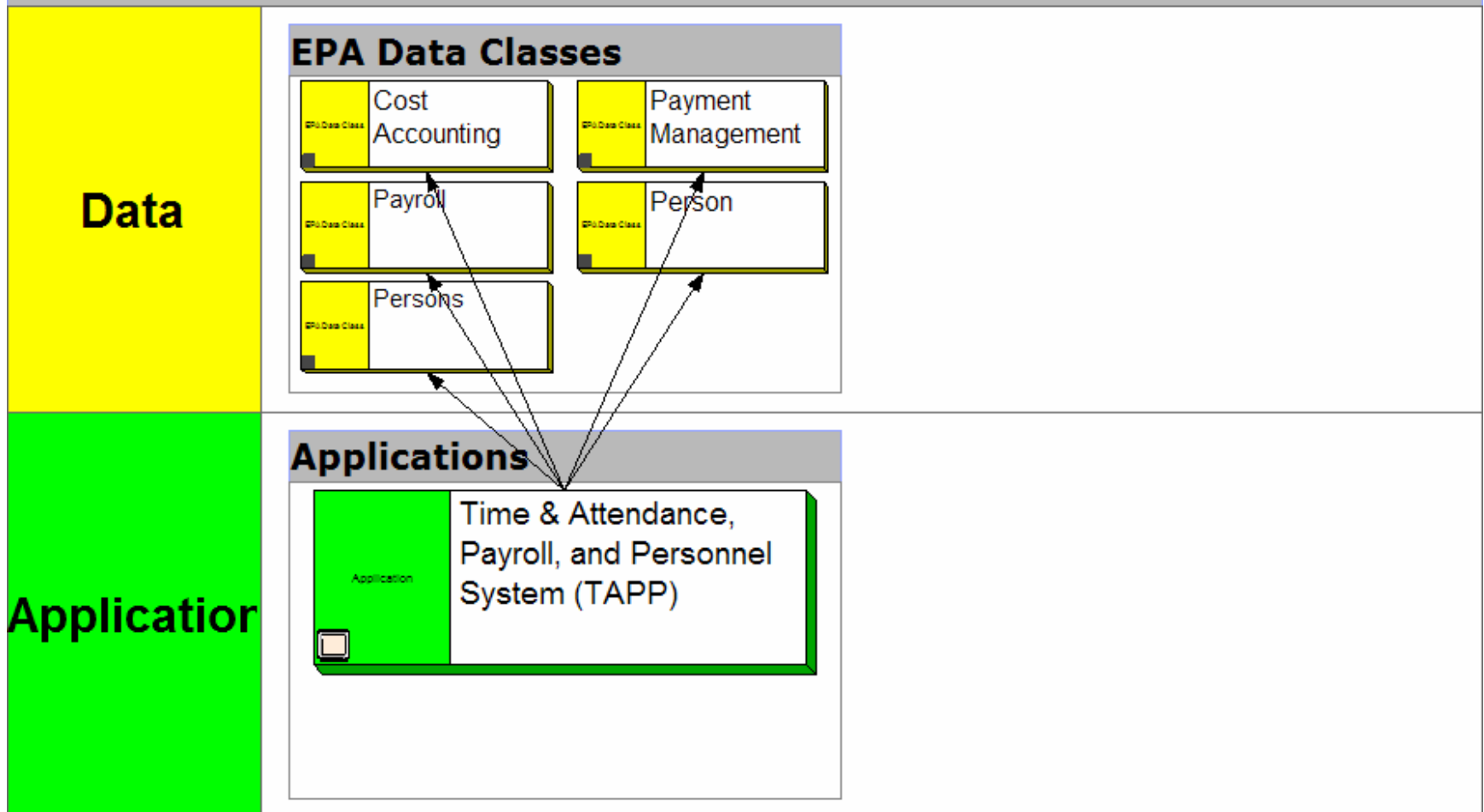
OPPT Segment Architecture



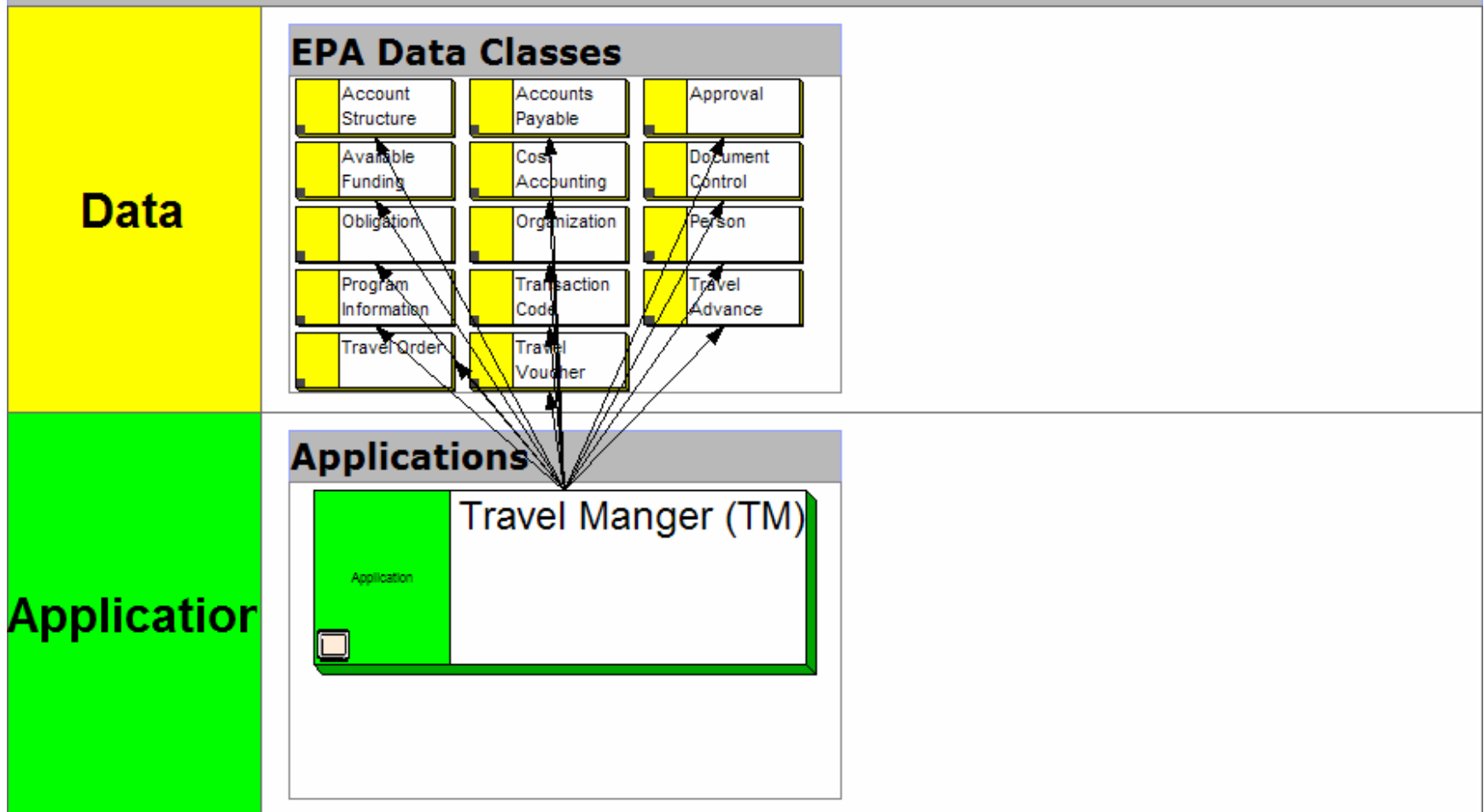
OCFO Segment Architecture



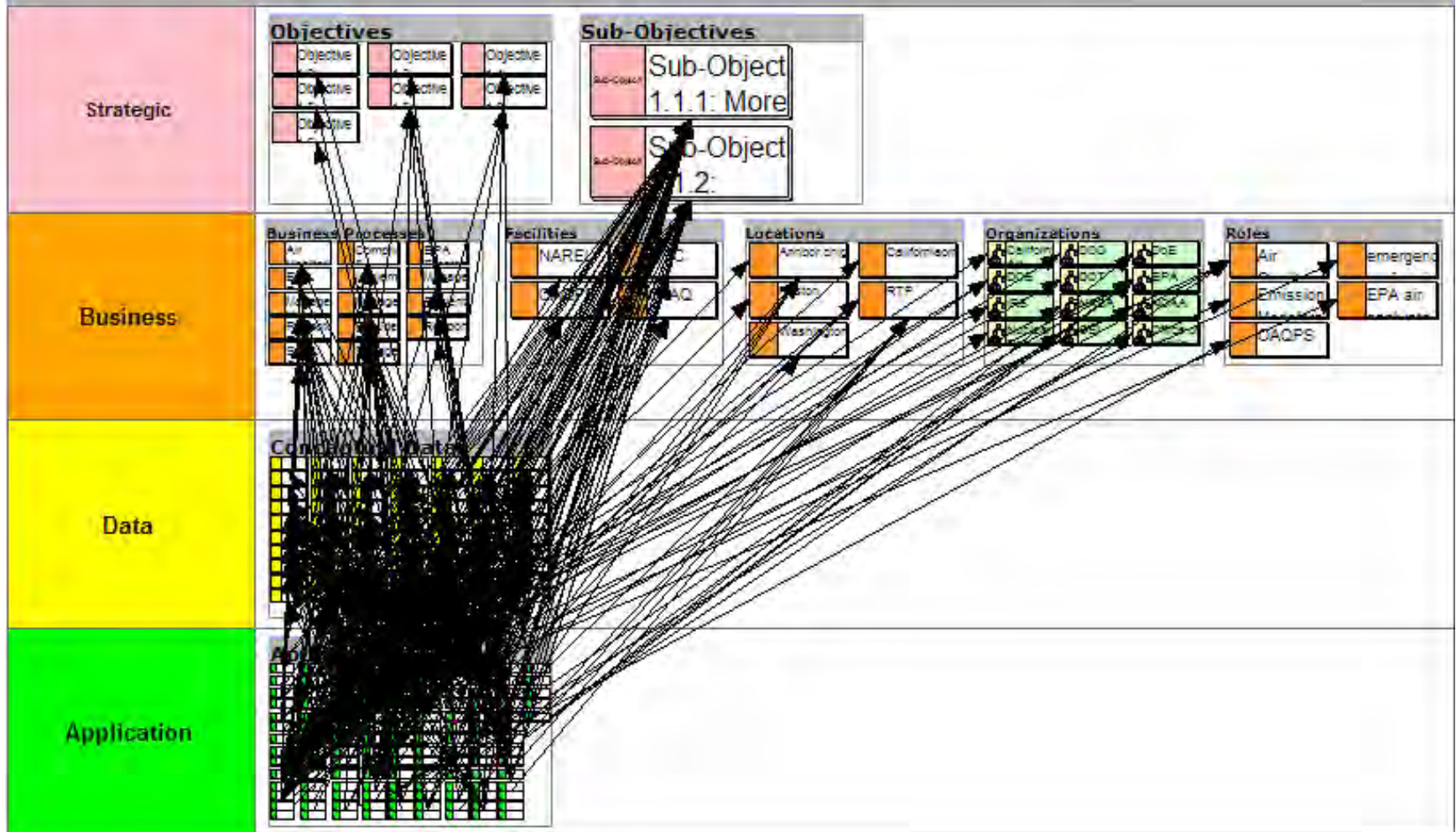
OCFO Segment Architecture



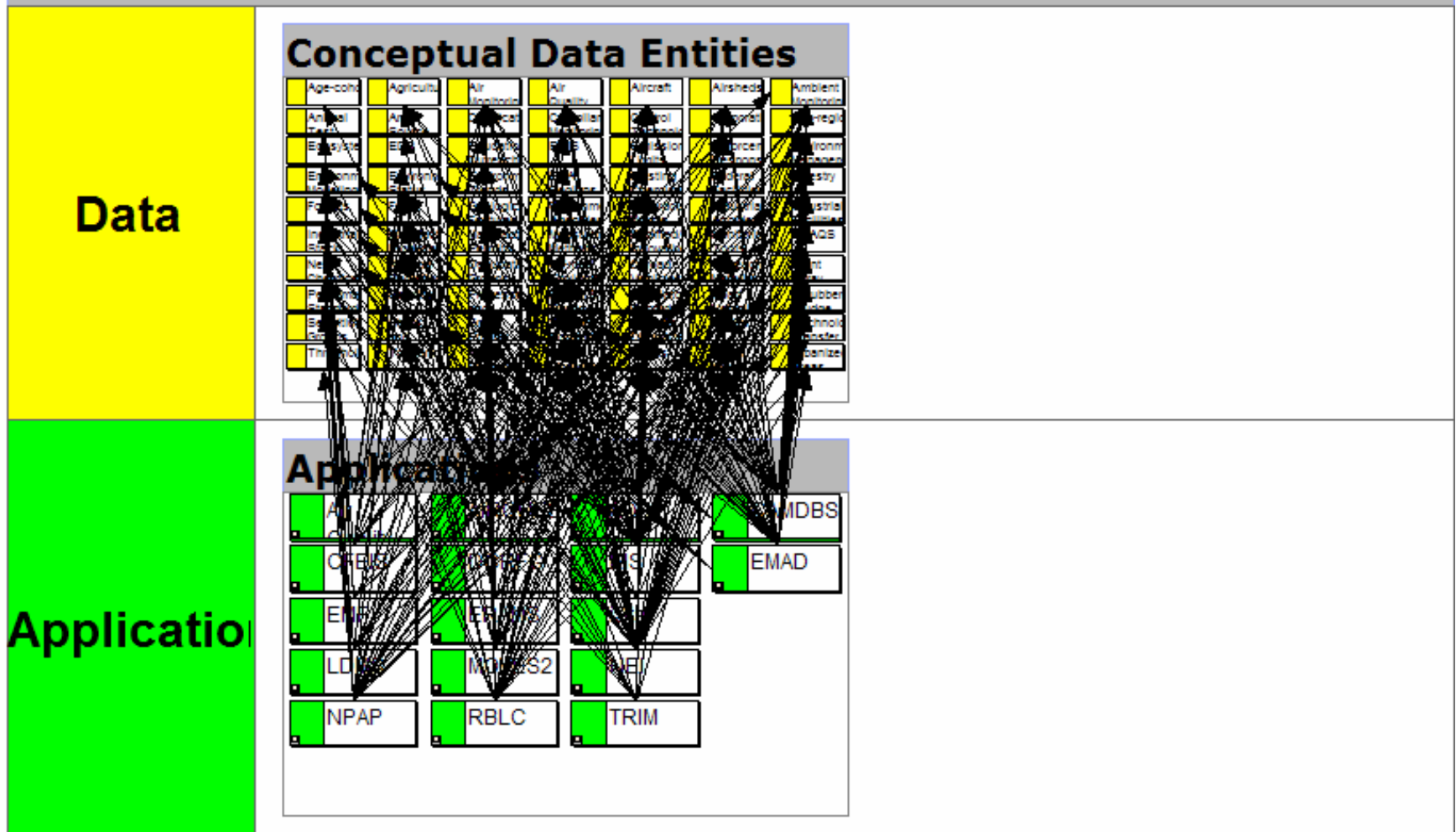
OCFO Segment Architecture



OAR Segment Architecture



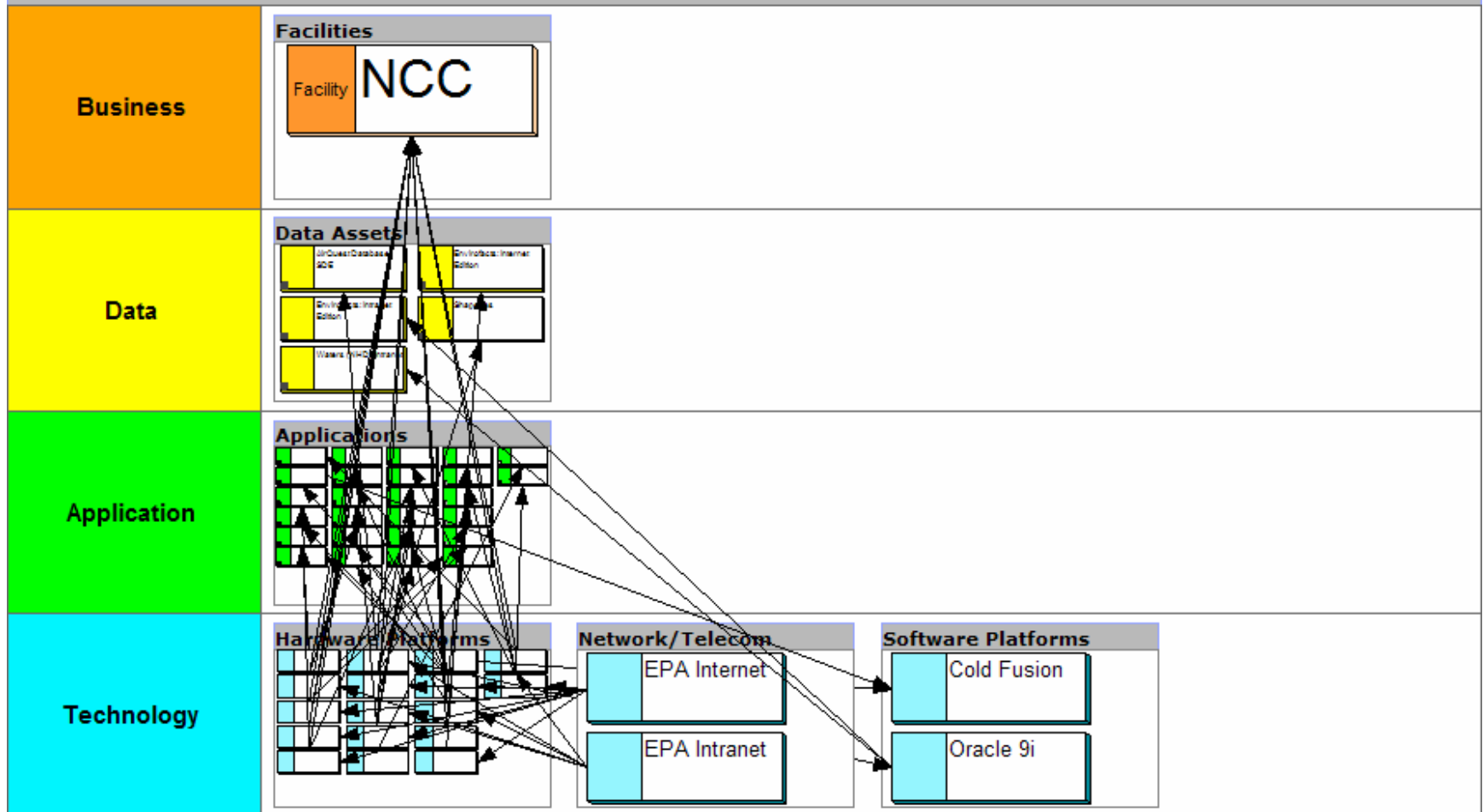
OAR Segment Architecture



Completion Capability Area: **Data Architecture**

Level: **2** Practices: **Baseline Geospatial Segment Data mapped to other layers**

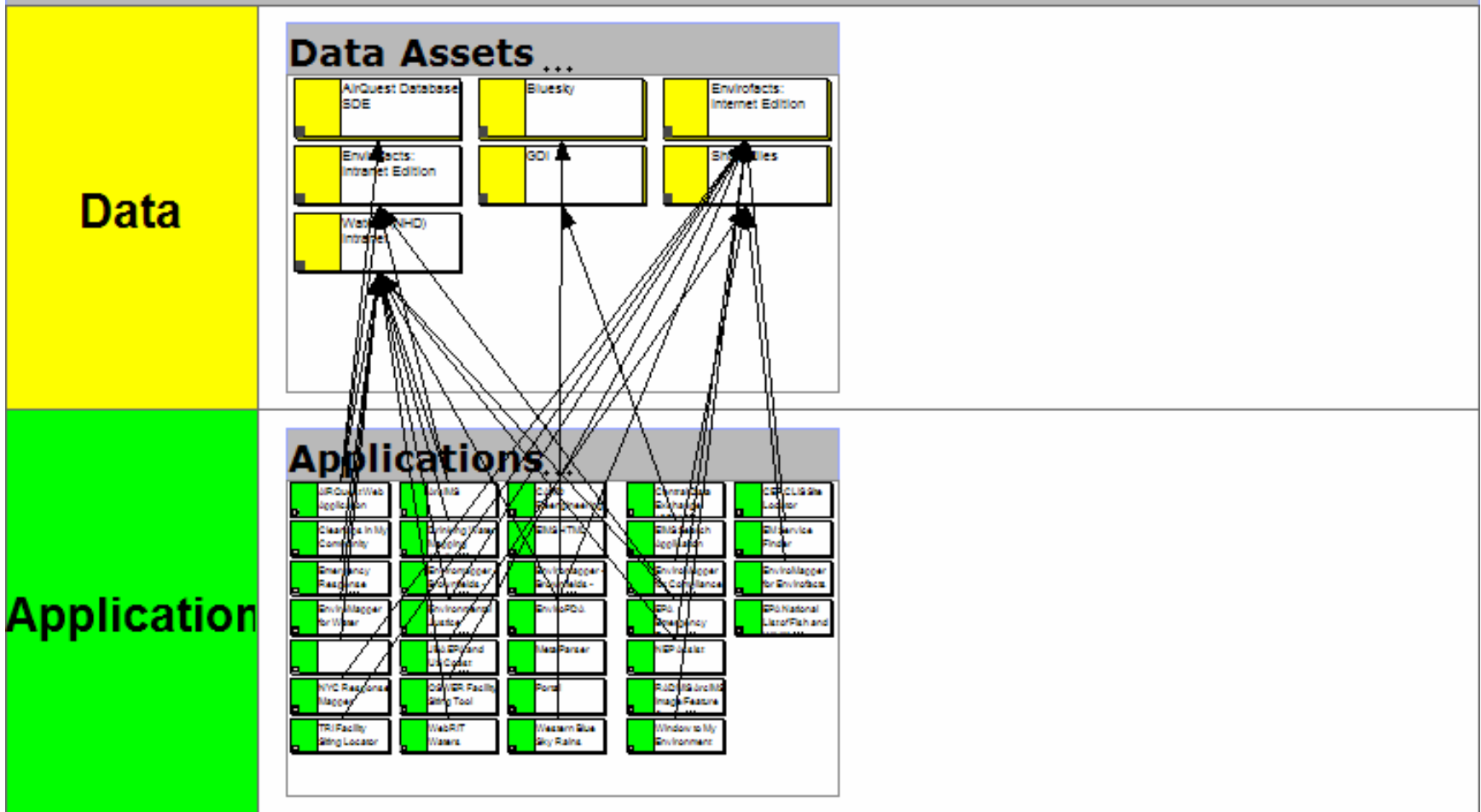
Baseline Geospatial Metadata Segment Architecture



Completion Capability Area: **Data Architecture**

Level: 2 Practices: **Baseline Geospatial Segment Applications to Data Assets**

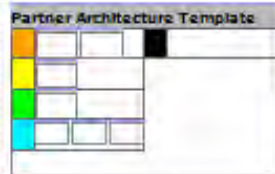
Geospatial Metadata Segment Architecture



EPA Architecture Repository and Tool (ART)



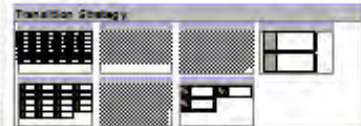
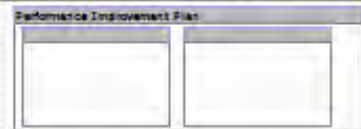
FEA



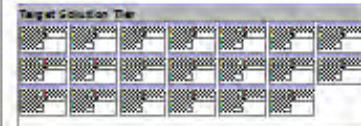
Baseline Architecture



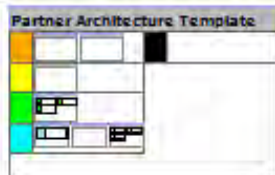
Transition Architecture



Target Architecture

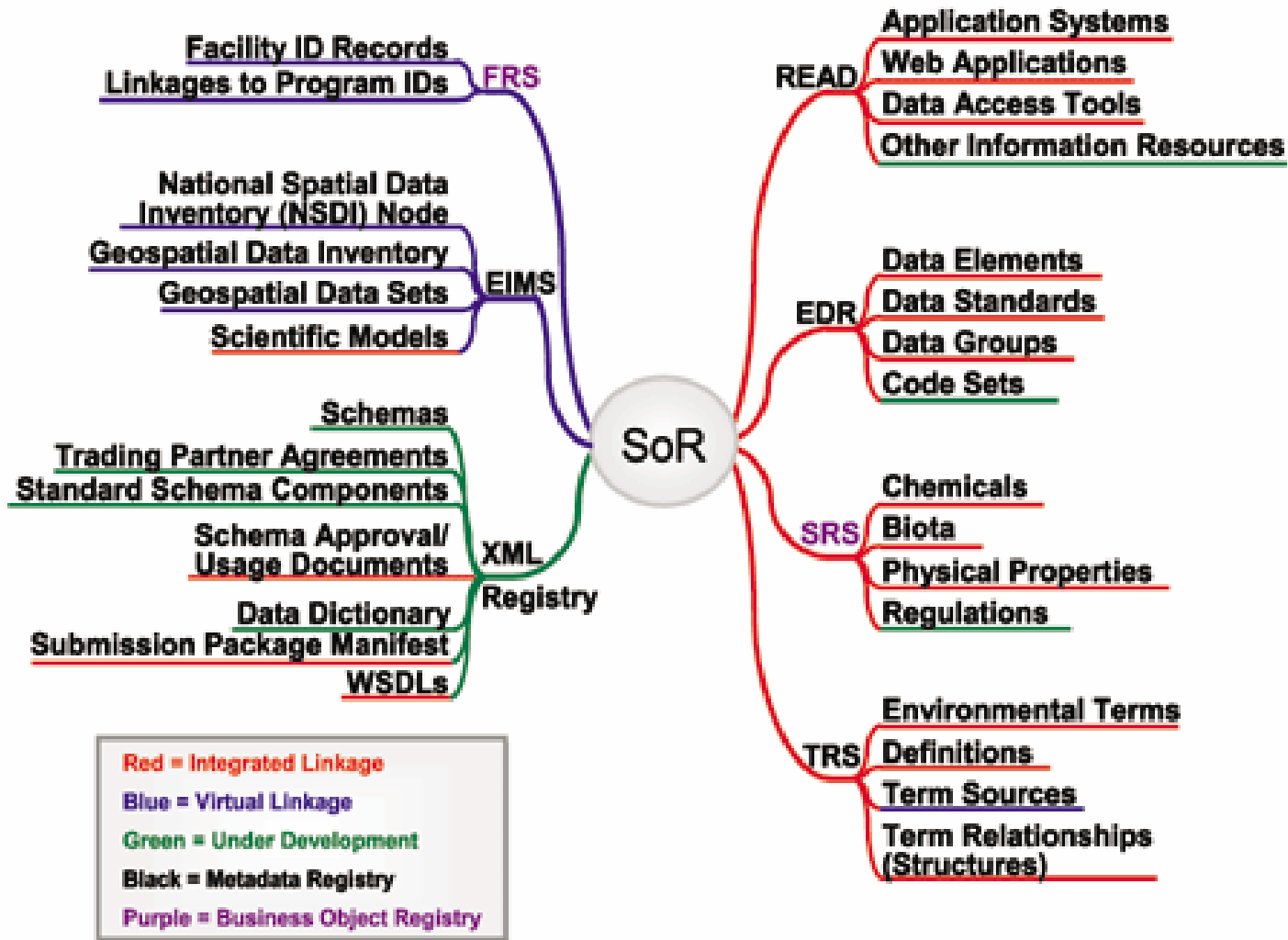


EPA Non-Federal Partner Architectures

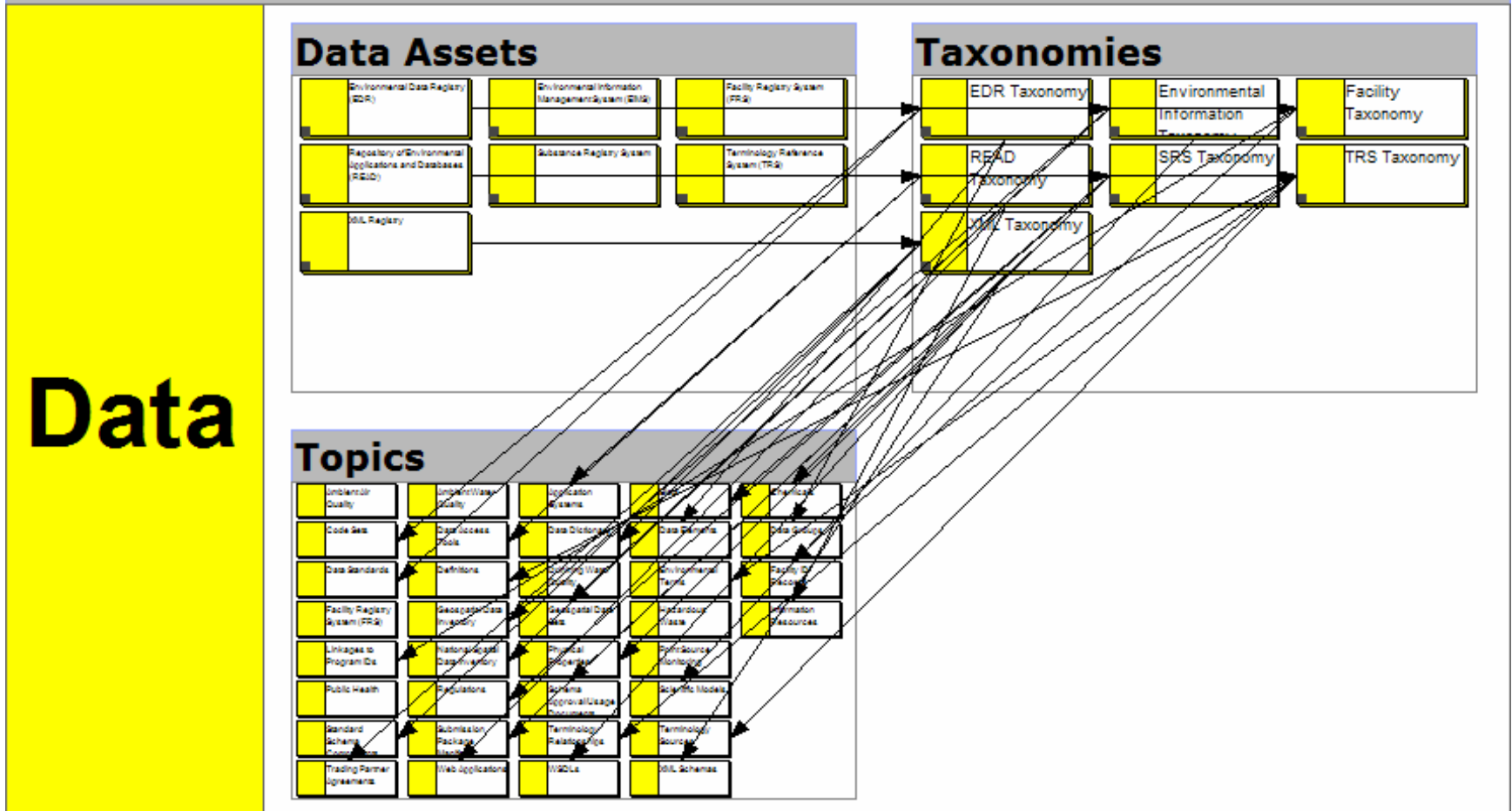


Completion Capability Area: **Data Architecture**

Level: **3** Practices: **EPA System of Registries Information Taxonomy**



Target SoR Solution Architecture



Completion Capability Area: Data Architecture

Level: 3 Practices: Target Data Architecture: Published Data Assets


EPA: Registry of EPA Applications and Databases - Microsoft Internet Explorer

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 U.S. Environmental Protection Agency
Registry of EPA Applications and Databases

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Welcome to the Registry of EPA Applications and Databases



The Registry of EPA Applications and Databases (READ) is an authoritative registry that uniquely identifies the Environmental Protection Agency's (EPA) diverse information resources including computer application systems, databases, and models. As a catalog of available EPA information, READ provides a single point of entry to identify, locate, and access Agency information resources. READ supports EPA's metadata vision to: create and store metadata in as few places as possible; improve the quality and consistency of metadata; and provide a central point of access to the complete collection of all Agency information resources metadata.

READ currently has basic metadata for some, but not all, EPA data systems. The information is being expanded to support the requirements of the application inventory. To demonstrate the application inventory functions, four fully populated data system records have been completed in READ. The complete records are the Risk Management Plans Information (RMP*Info), Storage and Retrieval for Water Quality Data (STORET), Safe Drinking Water Information System/Federal Version (SDWIS/FED), and the Environmental Data Registry (EDR). An effort is underway to populate the database with information about all EPA application systems.

READ [Search](#) provides the ability to query information by data system, information resources, Agency organizations, and contact persons.

Click on a letter/number below to retrieve a list of data systems beginning with that letter/number.

[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [0](#)

Enter keyword (e.g., air) or text string (e.g., Clean Air Act) in keyword field. The search will query all text fields (e.g., name, acronym, abstract, etc.) and results will be limited to data systems.

Keyword:

Search Options: Containing Beginning With Exact Match

Information Resource

Type:

Completion Capability Area: Data Architecture

Level: 3 Practices: Target Data Architecture: Published Data Assets

EPA: Environmental Data Registry - Microsoft Internet Explorer

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Address

U.S. Environmental Protection Agency

Environmental Data Registry

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Welcome to the Environmental Data Registry

The Environmental Data Registry (EDR) is a comprehensive, authoritative reference for information about the definition, source, and uses of environmental data. The EDR supports the creation and implementation of data standards that are designed to promote the efficient sharing of environmental information among EPA, states, tribes, and other information trading partners. The EDR also catalogs data elements in application systems. The EDR does not contain environmental data - it provides descriptive information to make the data more meaningful.

Updates and Features

- XML - Search for [XML tags](#) registered in the EDR, and access the [XML Registry](#), which contains XML schemas, DETs, and supporting files for the [Environmental Information Exchange Network](#) [EII Disclaimer](#). The data can also be found in [READ](#).
- [Data Standards](#) - Contains new final data standards for Contact Information, Federal Facility Identification, and Permitting Information.
- [Registry Update](#), Winter 2004 - In this issue, find out the latest on the Registry for EPA's Applications and Databases (READ), updates to the registries, the status of data standards development efforts, and Web services.
- Searches - Find standard and application [Data Elements](#), [XML Tags](#), [Organization](#), and other metadata information on [EDR's Search Page](#).
- [Code Sets](#) - Contains commonly used code sets associated with EPA's Data Standards and other sources.
- [Compare Tool](#) - Search any data element list to compare data elements from various sources (e.g., data standards, data systems).
- [Information Resource Search](#) - Use to find application system metadata.
- [How To...](#) - Use this function to guide your data standard conformance and data harmonization activities.

Please read the [SoR Disclaimer](#) for the Environmental Data Registry. The [Introduction](#) and [Help](#) pages provide information to assist in understanding and using the EDR.

EDR Home
SoR Home

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Completion Capability Area: Data Architecture

Level: 3 Practices: Target Data Architecture: Published Data Assets

EPA: Substance Registry System - Microsoft Internet Explorer

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U.S. Environmental Protection Agency

Substance Registry System

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Welcome to the Substance Registry System



The Substance Registry System (SRS) provides information on substances and how they are represented in the Environmental Protection Agency (EPA) regulations and information systems.

Using the search below, you can query for substances by common identifiers, names, or alternate identifiers. Additional search capabilities are available on the [Search](#) page.

Type:

Keyword/Identifier:

Search Options: Containing Beginning With Exact Match

The search options apply only to Substance Name and Alternate Identifier searches.

Please read the [SoR Disclaimer](#) for the Substance Registry System. The [Introduction](#) and [Help](#) pages provide information to assist in understanding and using the SRS.

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Last updated on Friday, March 26th, 2004 SRS Version 2003
URL: <http://www.epa.gov/srs/>

Completion Capability Area: Data Architecture

Level: 3 Practices: Target Data Architecture: Published Data Assets

XML Registry - Microsoft Internet Explorer

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Address

Environmental Information
exchange
Network

Exchange Network Net

CALENDAR PARTICIPANTS CONTACTS FAQs

XML Registry

Welcome to the interim XML Registry for the Environmental Information Exchange Network. This Registry provides the capability to share information about XML Data Exchange Template (DETs), XML Schemas, Namespaces, WSDL files, and other supporting files needed to map data flows between partners. The Registry contains information about schemas approved for use on the Network, as well as information about schemas under development. The XML Registry provides a clearinghouse for information related to data flows on the Network.

Data Submission

Registration of new schema information in the interim XML Registry can be done using a Microsoft Excel spreadsheet data template. Below is the draft data input template and an example template populated with FRS schema data.

- [Draft Data Template \(.xls\)](#)
- [Data Template with Example FRS Schema Data \(.xls\)](#)

To submit new information please contact: Tim Crawford via email at crawford.tim@epa.gov or by phone at 202-566-1652.

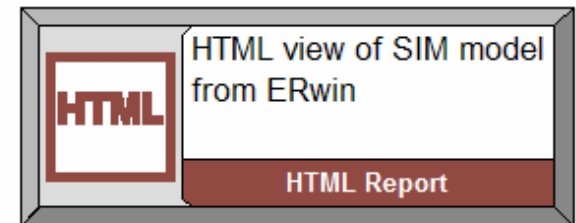
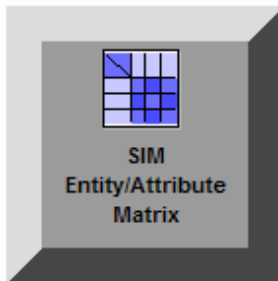
XML Object Search

The following registered DETs/XML Schema for major Network data flows are available:

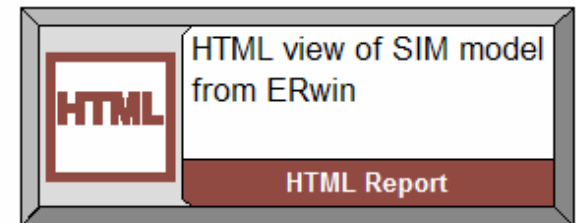
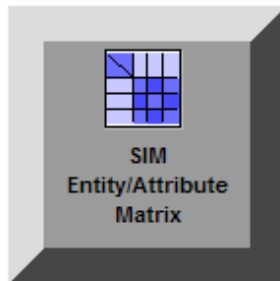
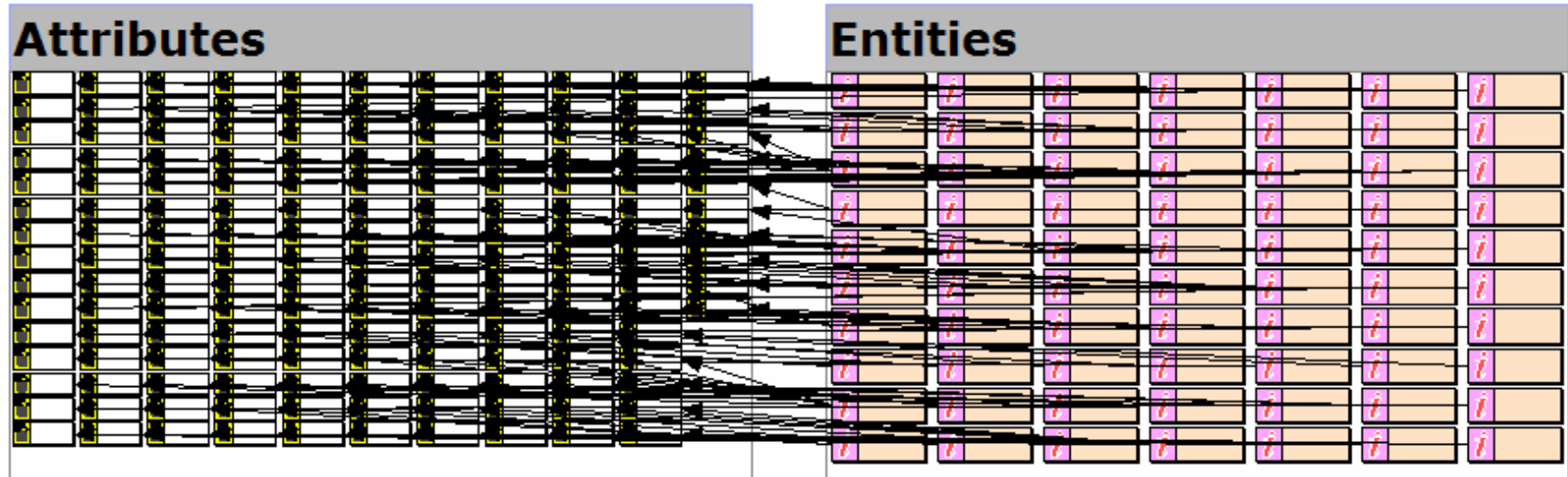
Strategic Information Model (SIM)

Attributes

Entities

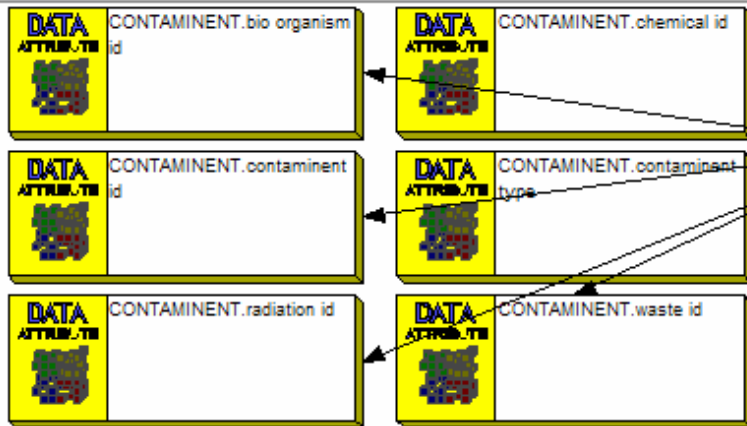


Strategic Information Model (SIM)

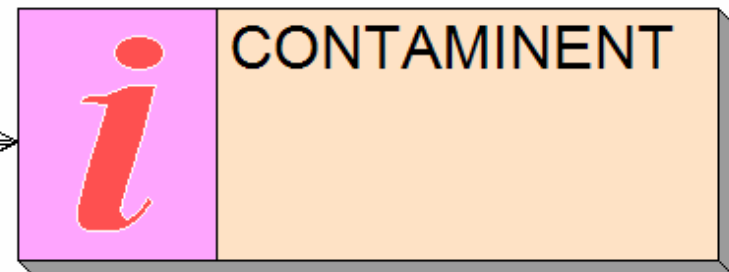


Strategic Information Model (SIM)

Attributes

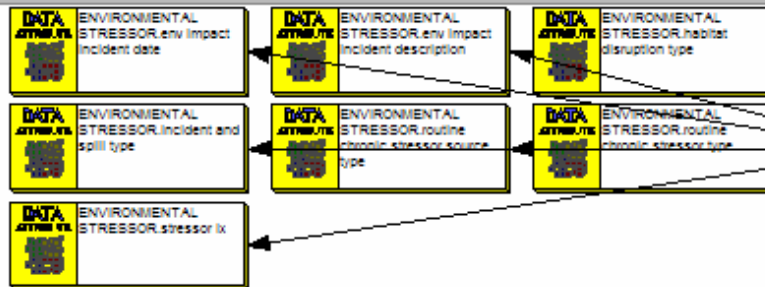


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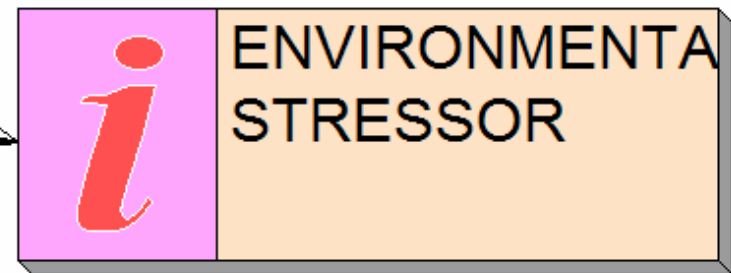


Strategic Information Model (SIM)

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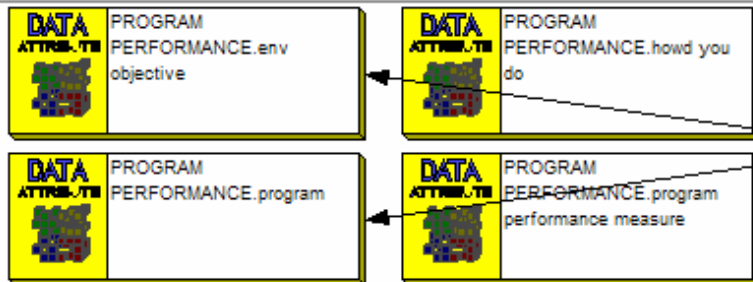


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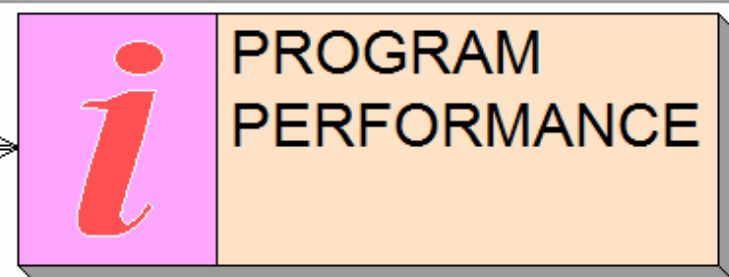


Strategic Information Model (SIM)

Attributes



Entities



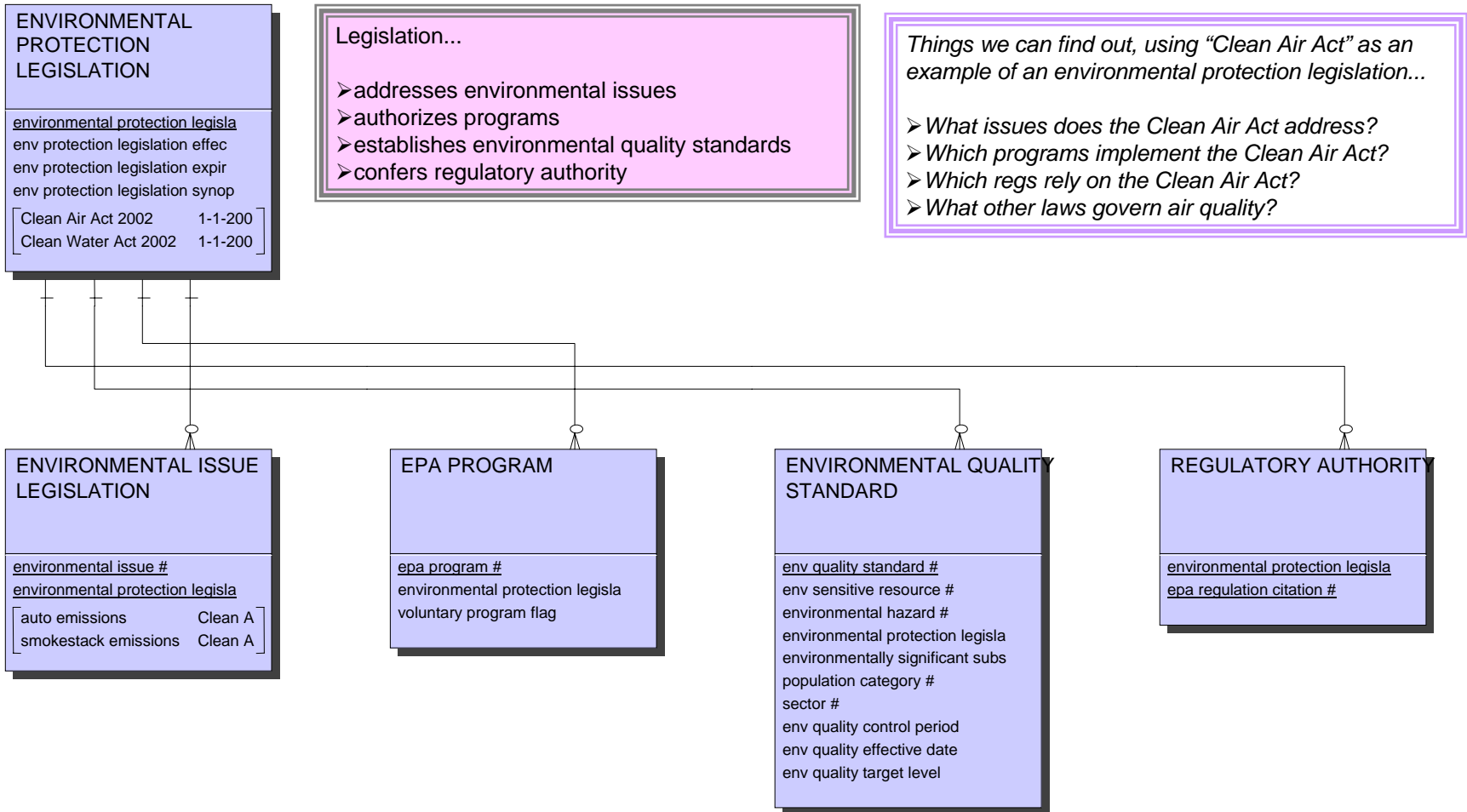
Completion Capability Area: **Data Architecture**
Level: **3** Practices: **EPA Strategic Information Model**

1. Environmental management authority *Legislation, regulation*
2. Environmental concern *Issue, hazard, risk*
3. Environmental components *Resource, population, place, stressor, substance*
4. Environmental management *Program, activity, incident, data, program management*
5. Environmental management partners *Sector, organization*
6. Places *Site, facility, geographic area*

Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

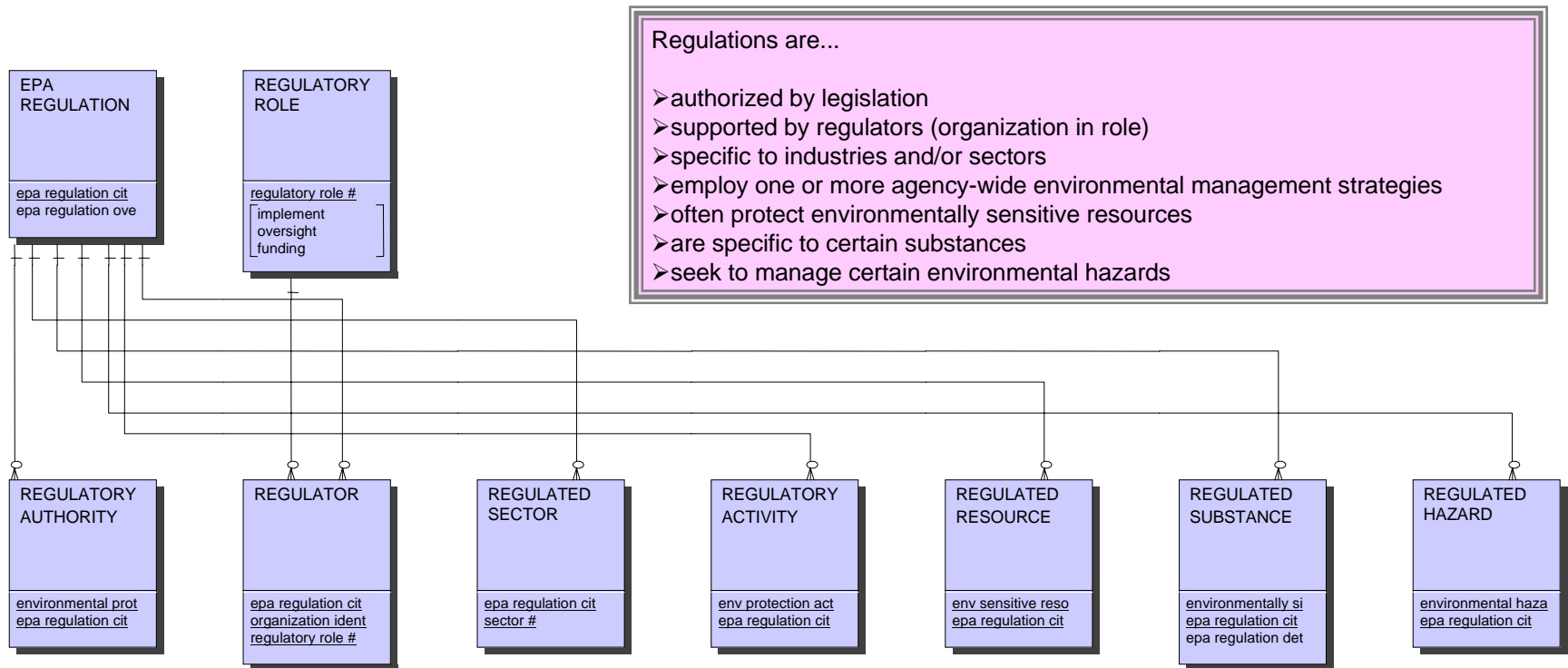
1.1 Environmental management legislation



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

1.2 Environmental management regulation



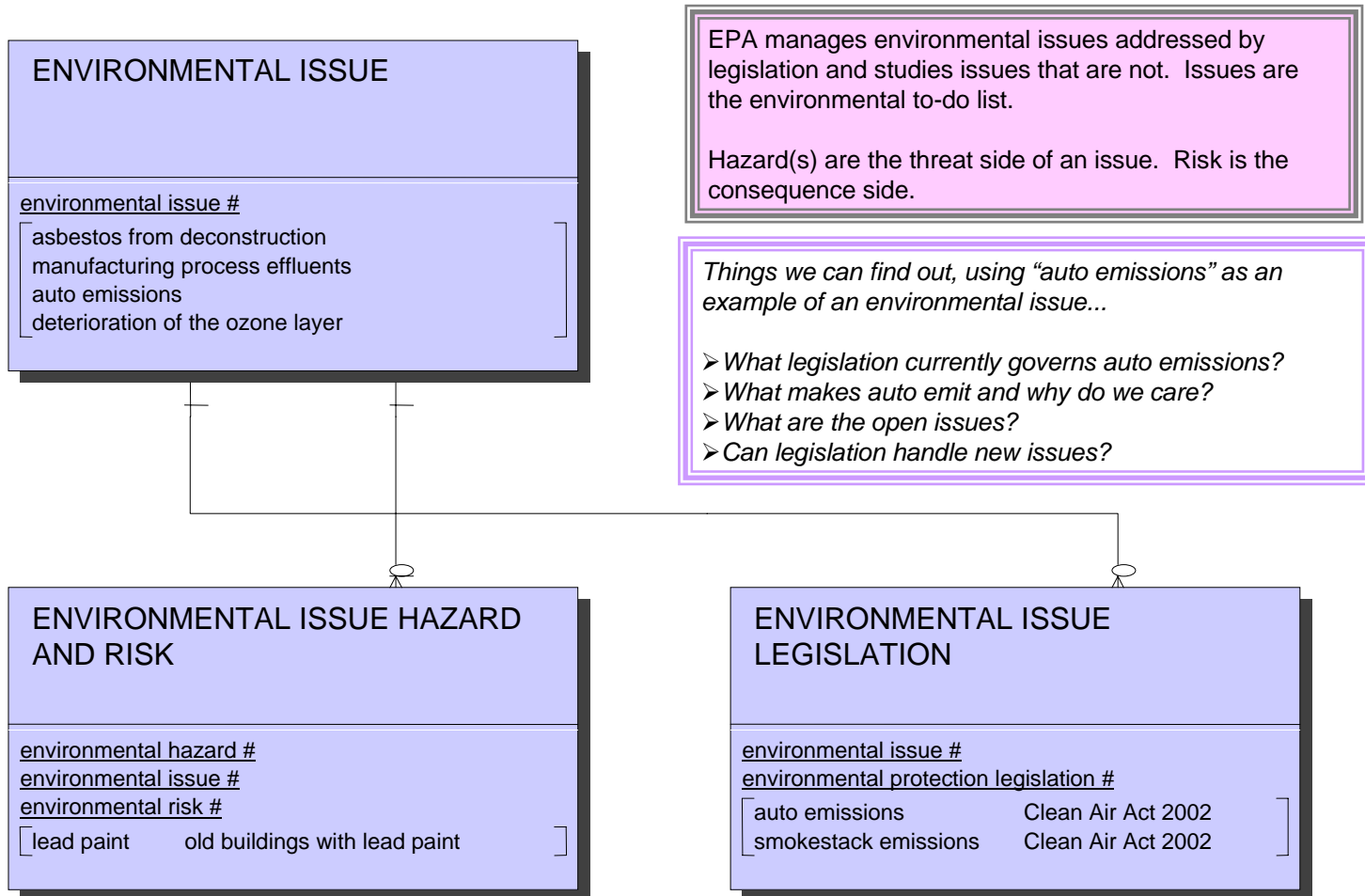
Things we can find out, using “auto emission standards” as an example of an EPA regulation...

- *Where did EPA get the authority to issue auto emission standards? Is the authority still valid?*
- *Who implements auto emission standards?*
- *Which regulations require permitting?*

Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

2.1 Environmental issue



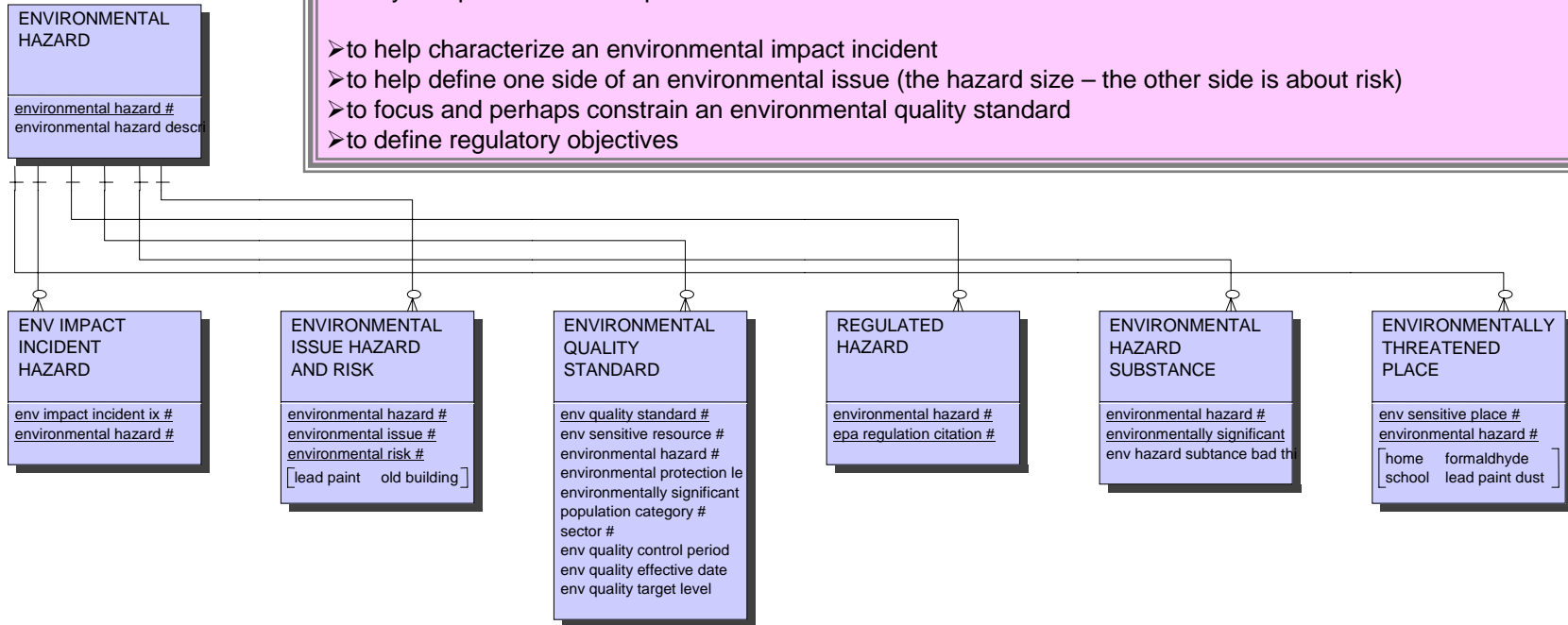
Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

2.2 Environmental hazard

EPA develops strategies for managing (eliminating, diminishing, diluting) hazards. A hazard is substance, usually in a particular sort of place. Once a hazard is defined it can be used...

- to help characterize an environmental impact incident
- to help define one side of an environmental issue (the hazard size – the other side is about risk)
- to focus and perhaps constrain an environmental quality standard
- to define regulatory objectives



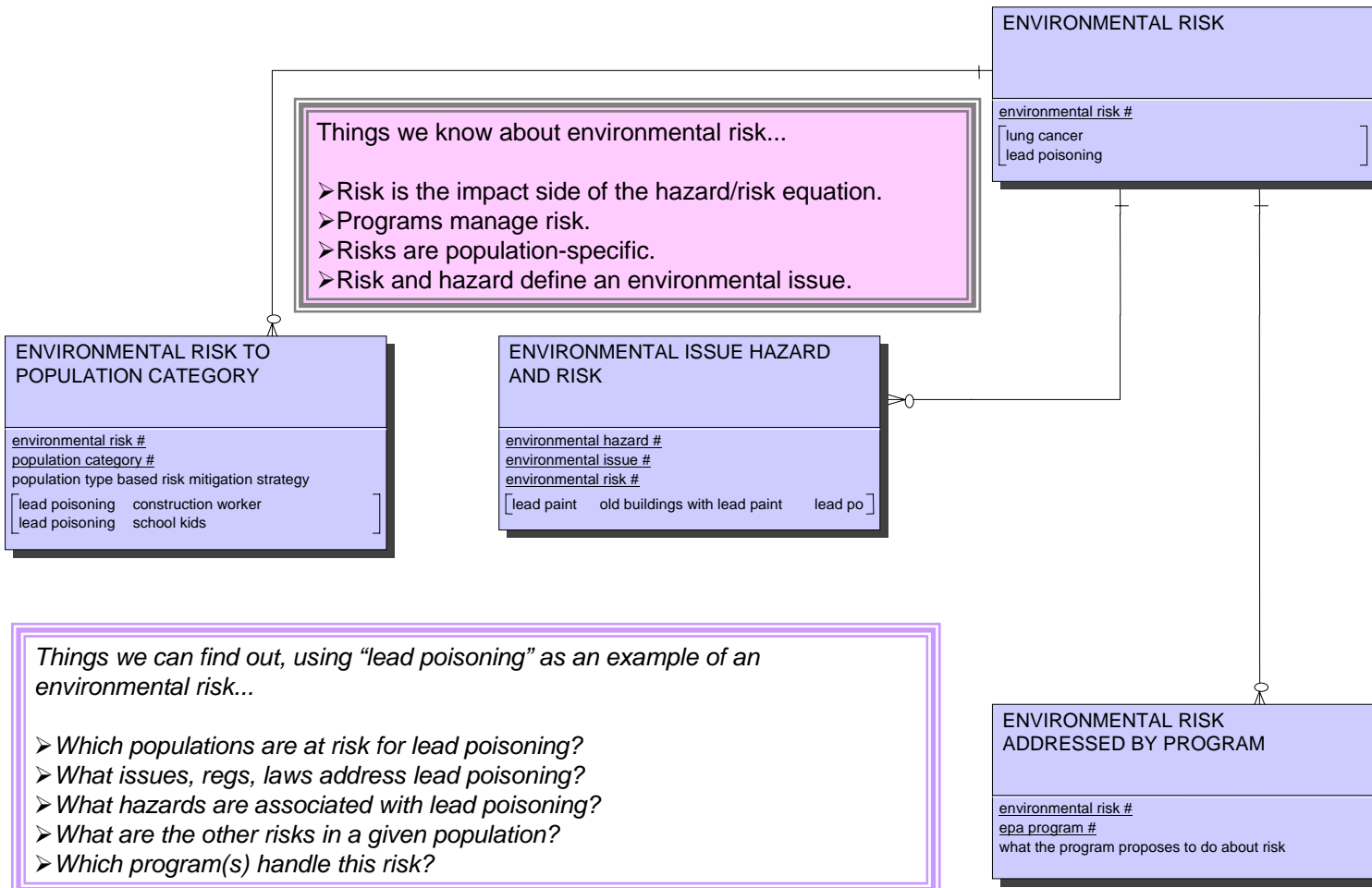
Things we can find out, using "lead paint dust" as an example of an environmental hazard...

- What sort of places have lead paint dust?
- What other problems do those places have?
- How many incidents involve lead paint dust?
- What issues, regs, laws and standards address lead paint dust?
- What other hazards involve lead paint?

Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

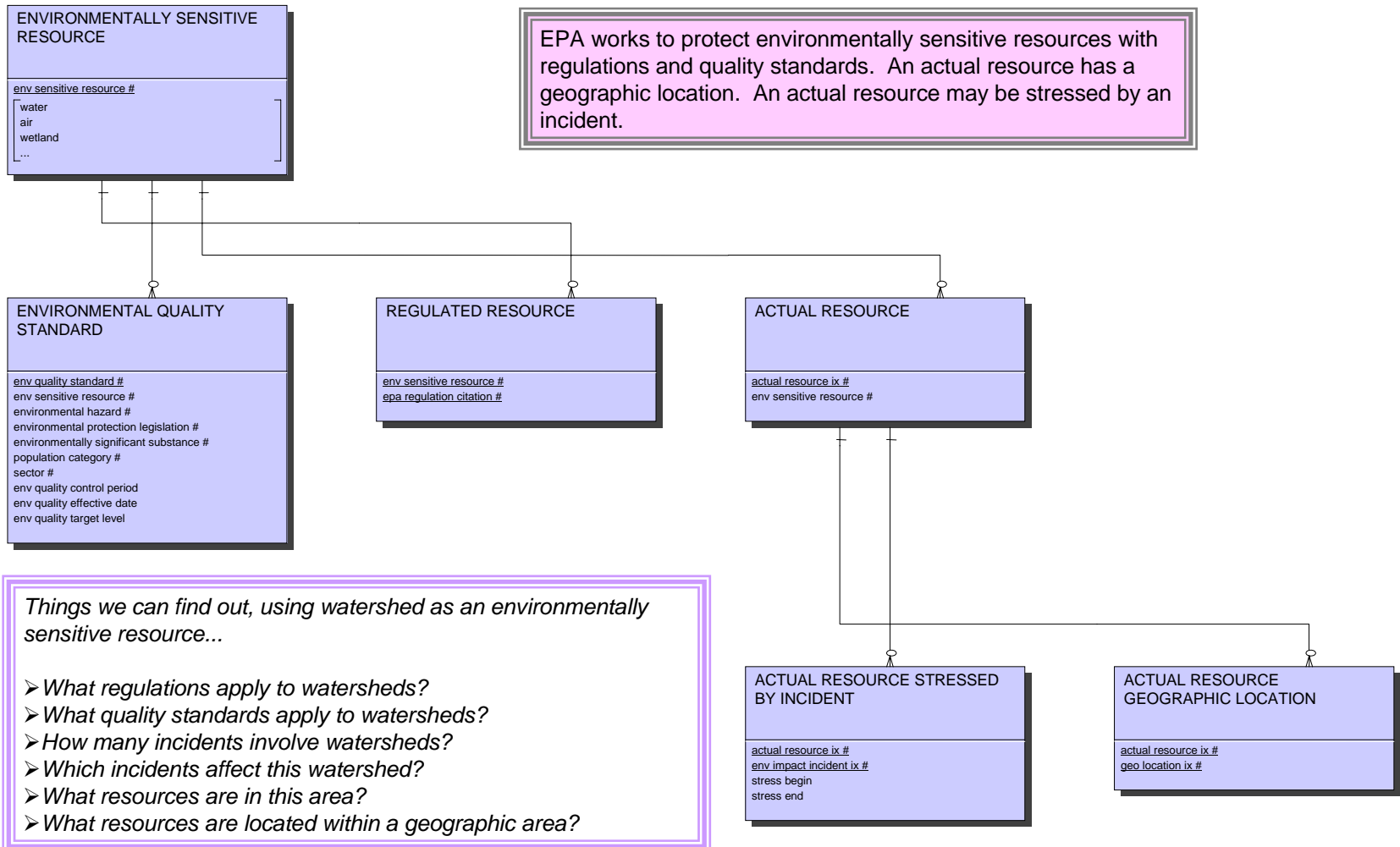
2.3 Environmental risk



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

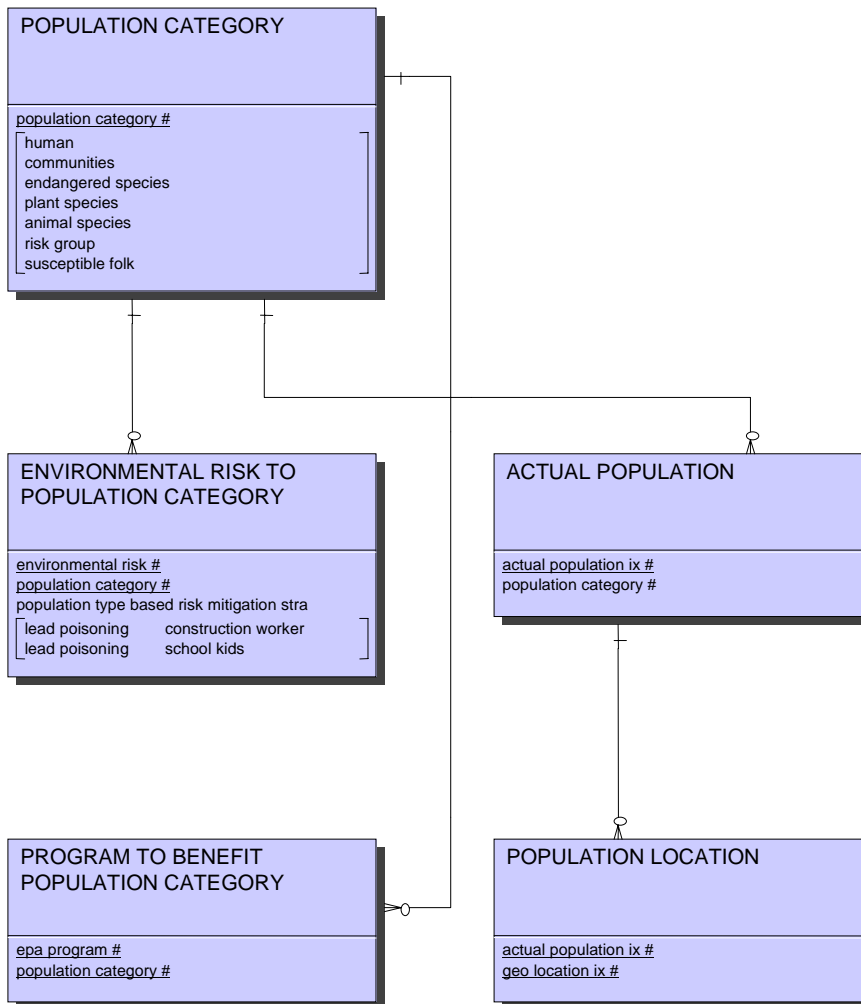
3.1 Environmentally sensitive resource



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

3.2 Environmentally sensitive population



Population category is used to qualify environmental risk because risk factors vary by population category.

Population category provides focus to EPA programs.

An actual population has an actual geographic location.

Things we can find out, using kids as a population category...

- What environmental risks do kids face?
- Which programs are intended to benefit kids?
- Do we know if there are kids near the clean-up site?

Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

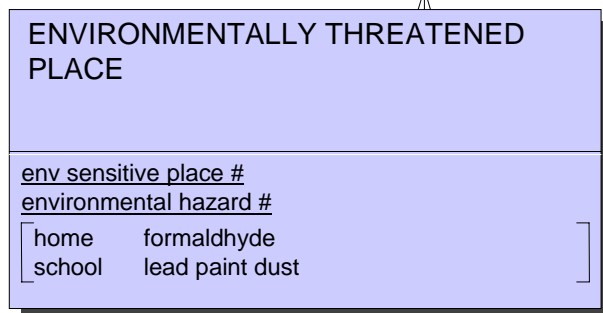
3.3 Environmentally sensitive place



An environmentally sensitive place is used to qualify environmental threats. Hazard / risk assessments are different for different sorts of places.

Things we can find out, using the home as an environmentally sensitive place...

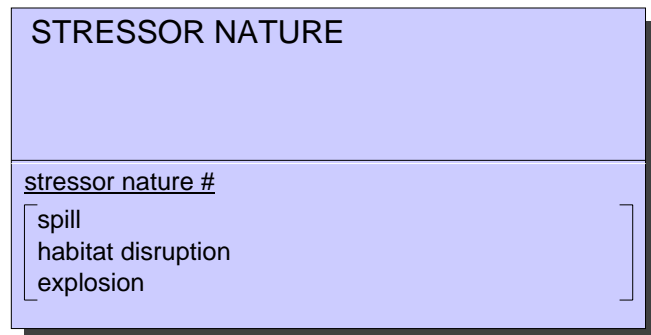
- What environmental hazards are found in the home?
- What sort of places are threatened by a given hazard?



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

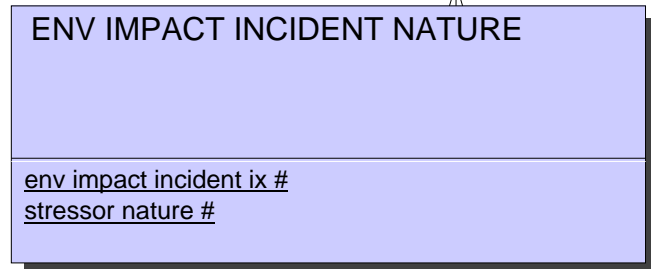
3.4 Environmental stressor



Stressors provide a way to characterize environmental impact incidents in order to facilitate response and management.

Things we can find out, using spill as a stressor...

- How many spills have we seen in the last year?
- What did spill incidents turn out?

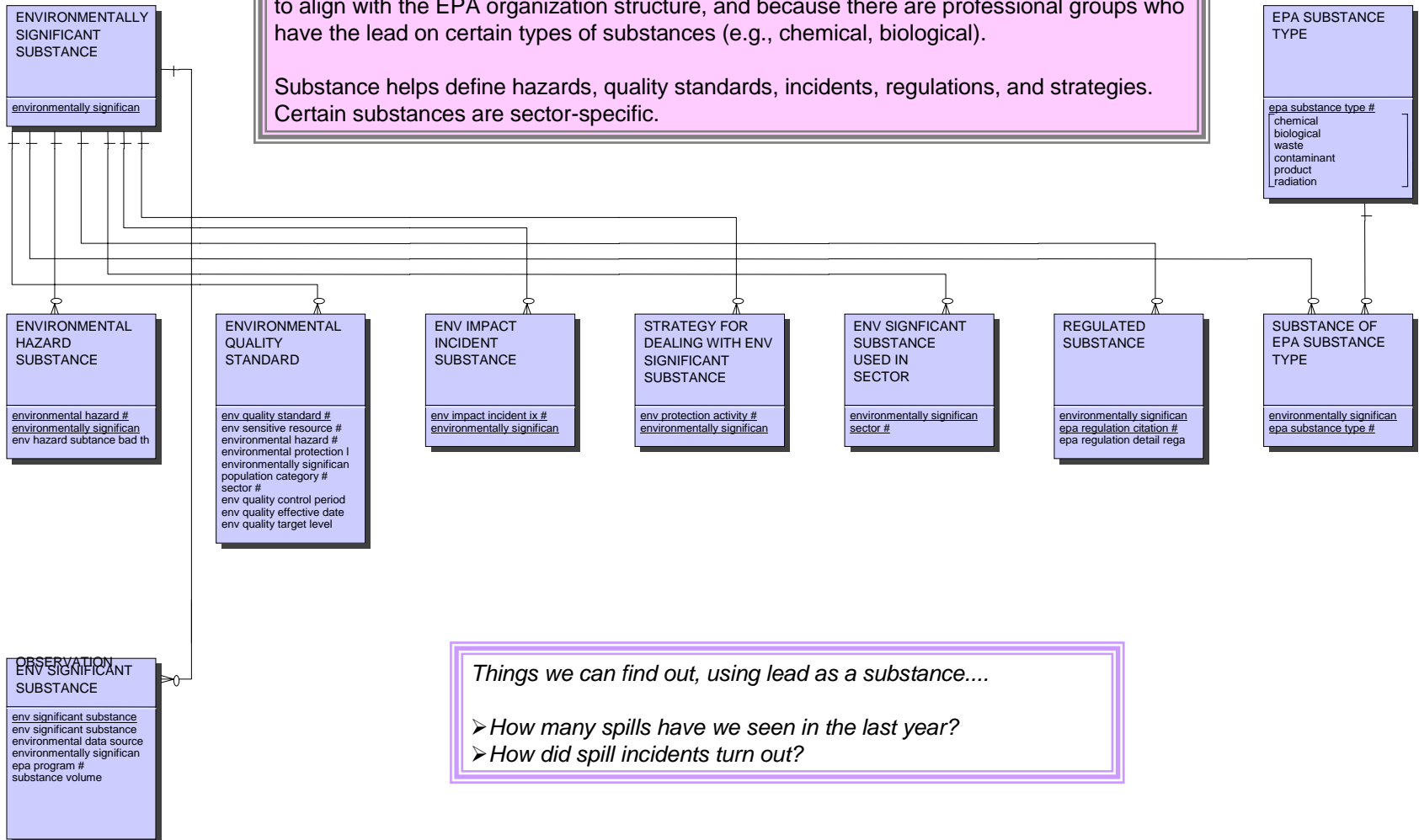


Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

A substance is not a substance unless / until EPA looks at it. EPA categorizes substances to align with the EPA organization structure, and because there are professional groups who have the lead on certain types of substances (e.g., chemical, biological).

Substance helps define hazards, quality standards, incidents, regulations, and strategies. Certain substances are sector-specific.

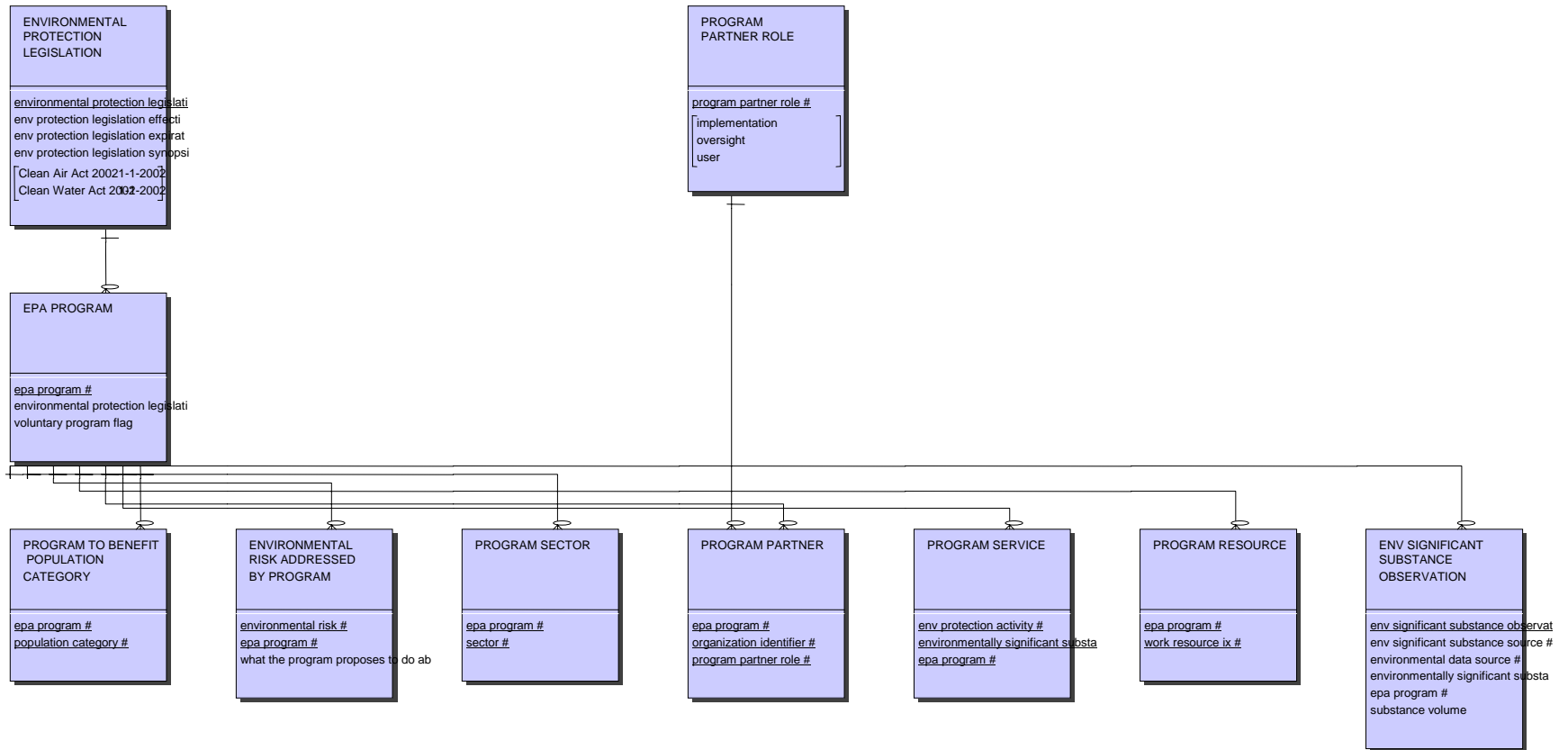


Things we can find out, using lead as a substance....

- How many spills have we seen in the last year?
- How did spill incidents turn out?

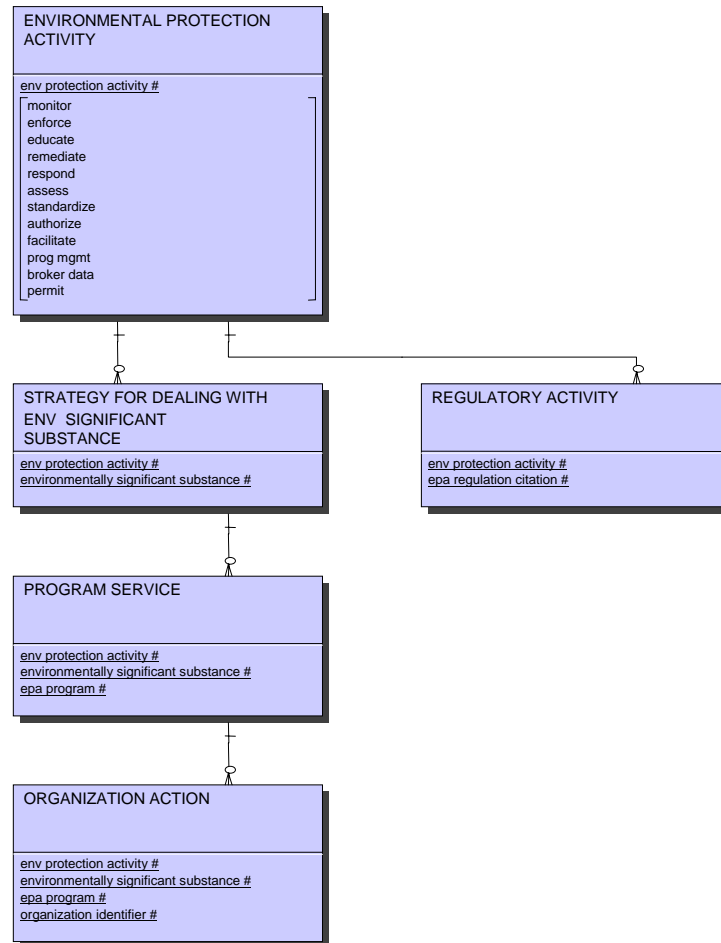
Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model



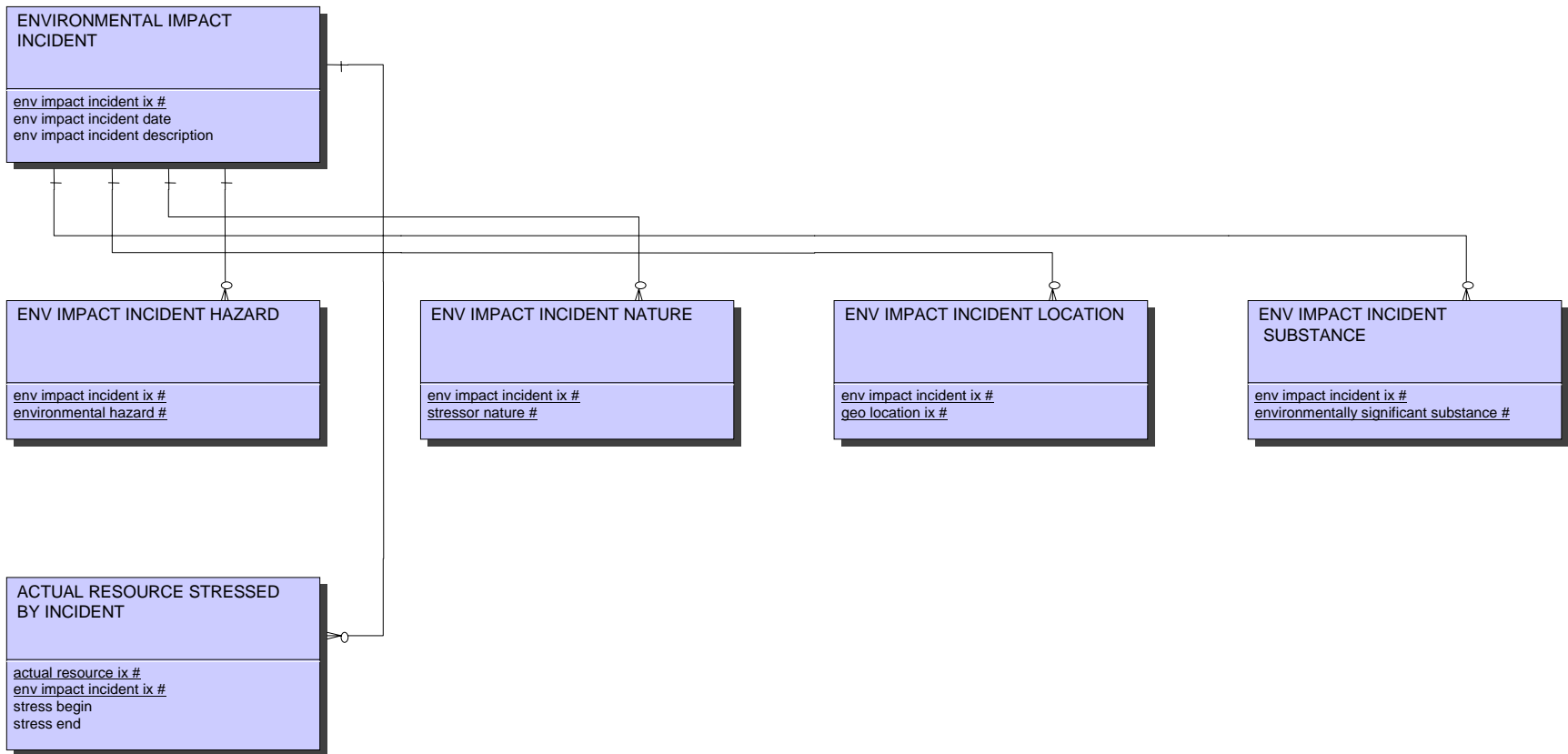
Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model



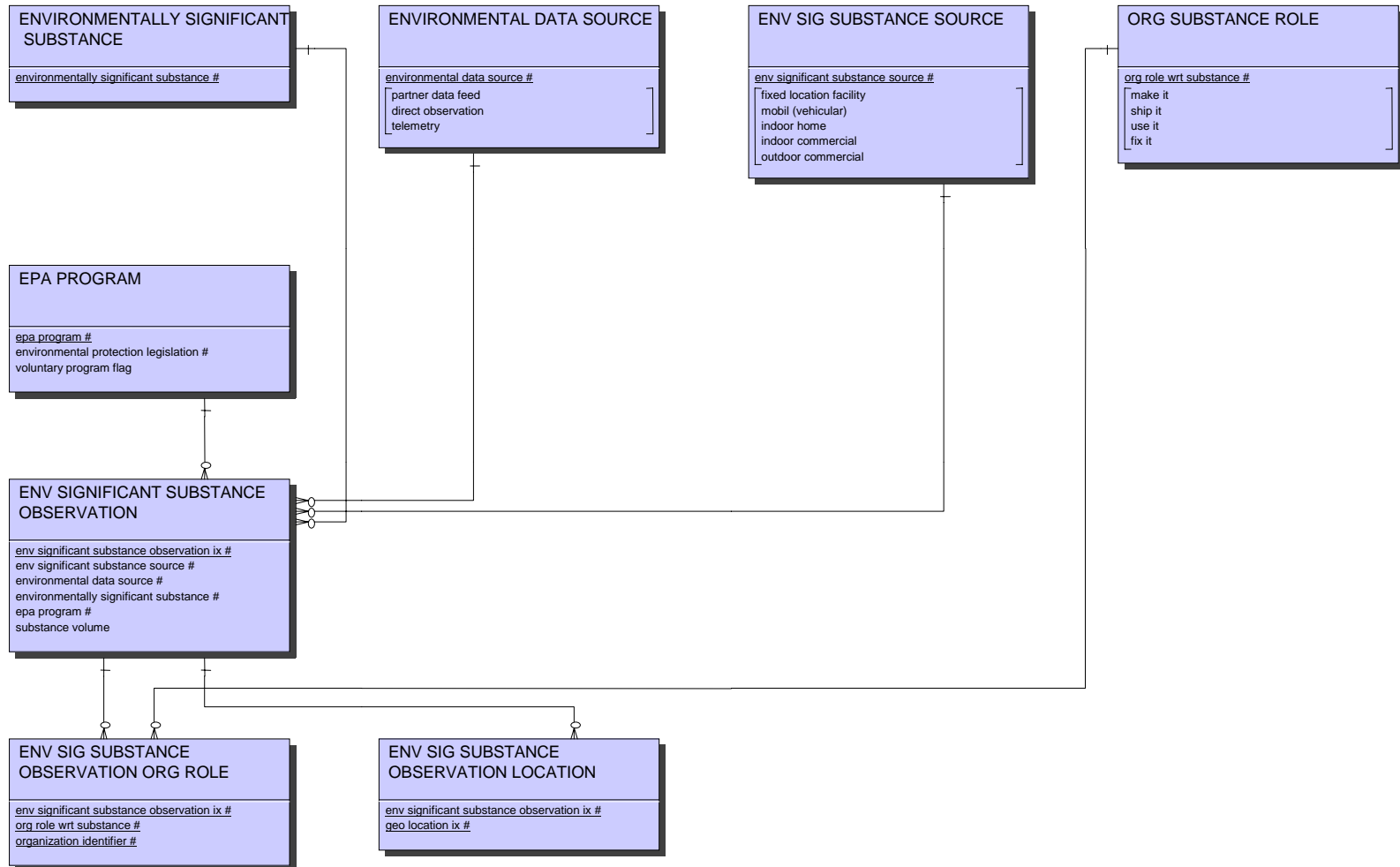
Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model



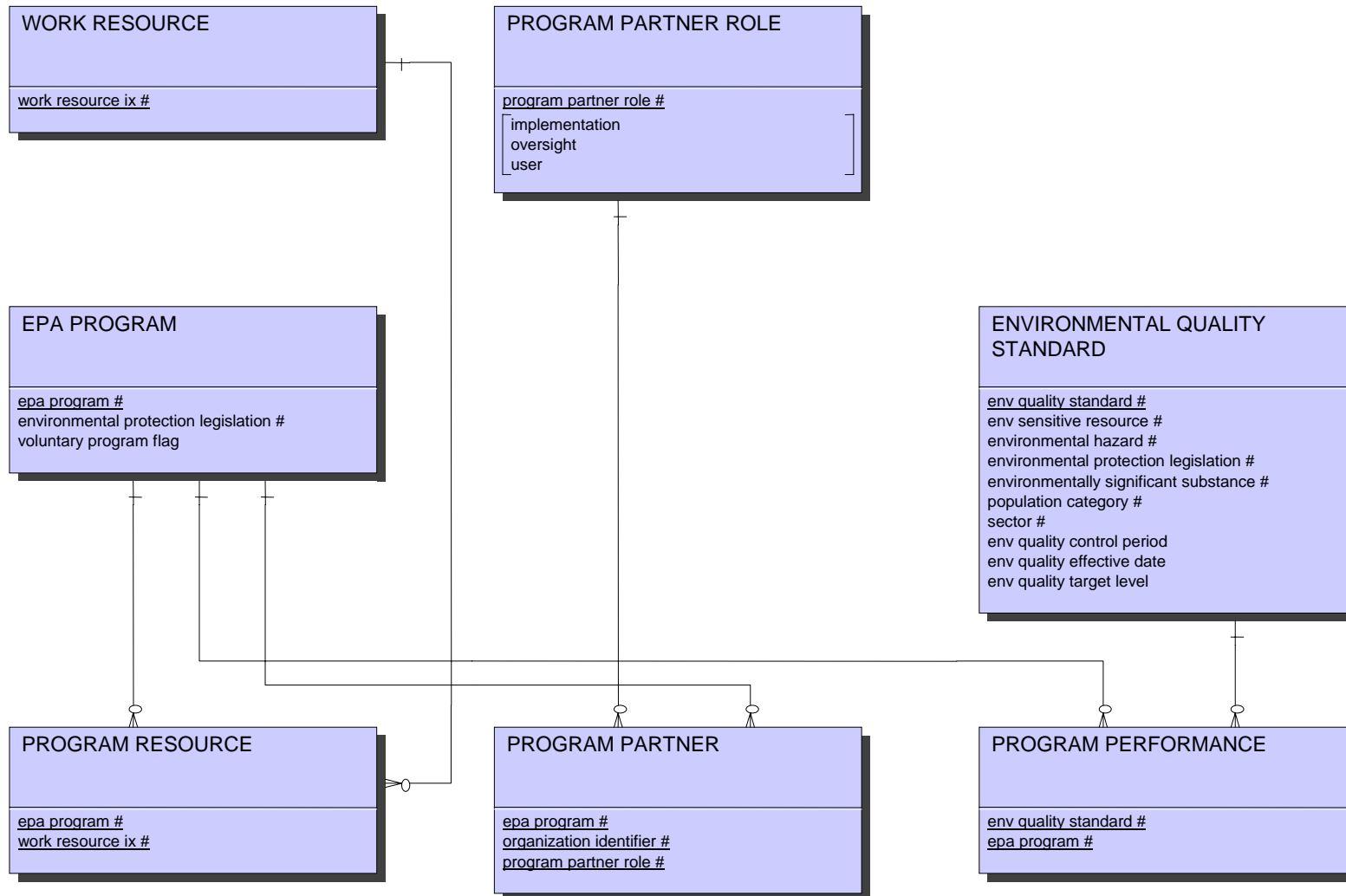
Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model



Completion Capability Area: Data Architecture

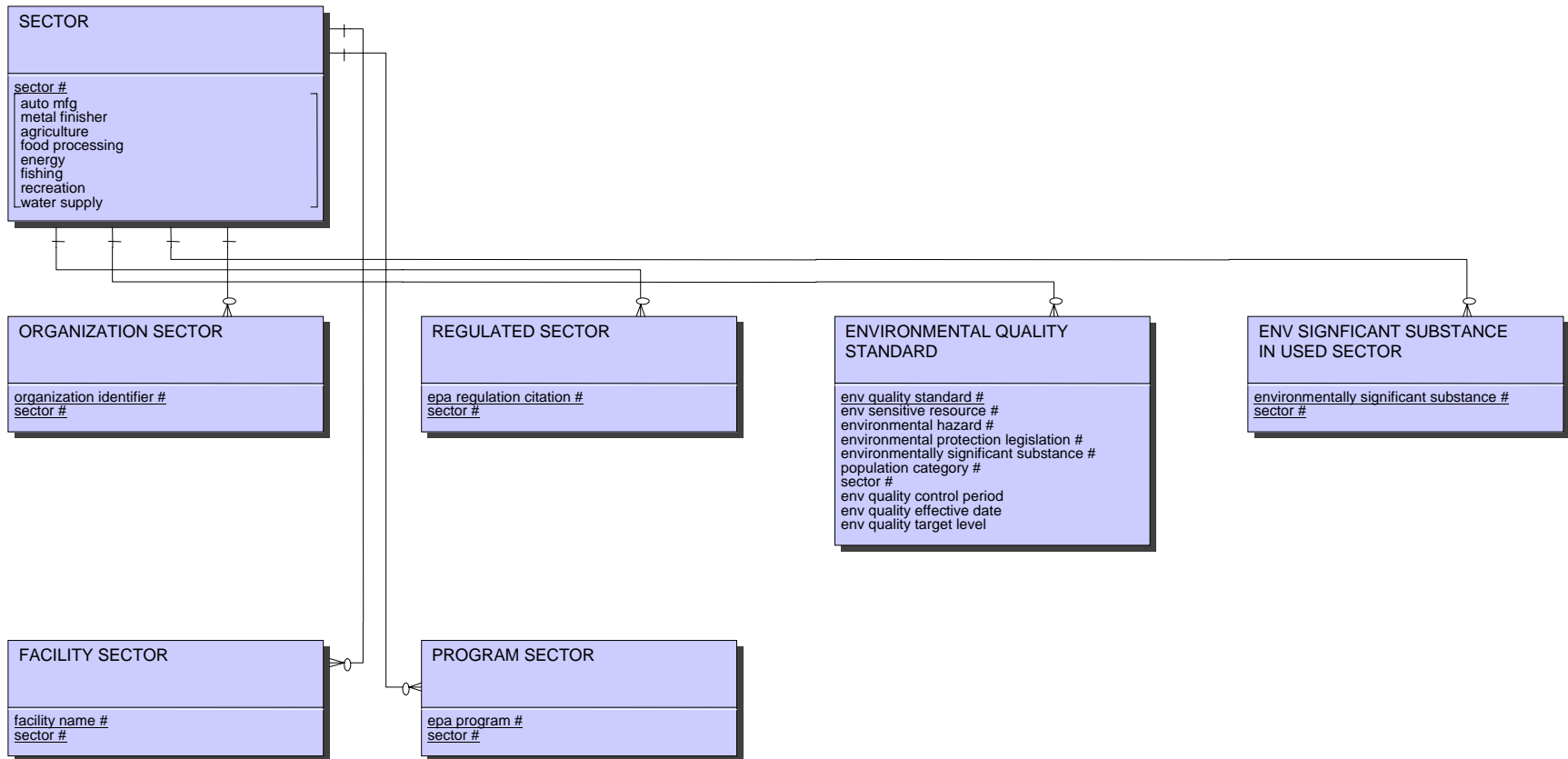
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Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

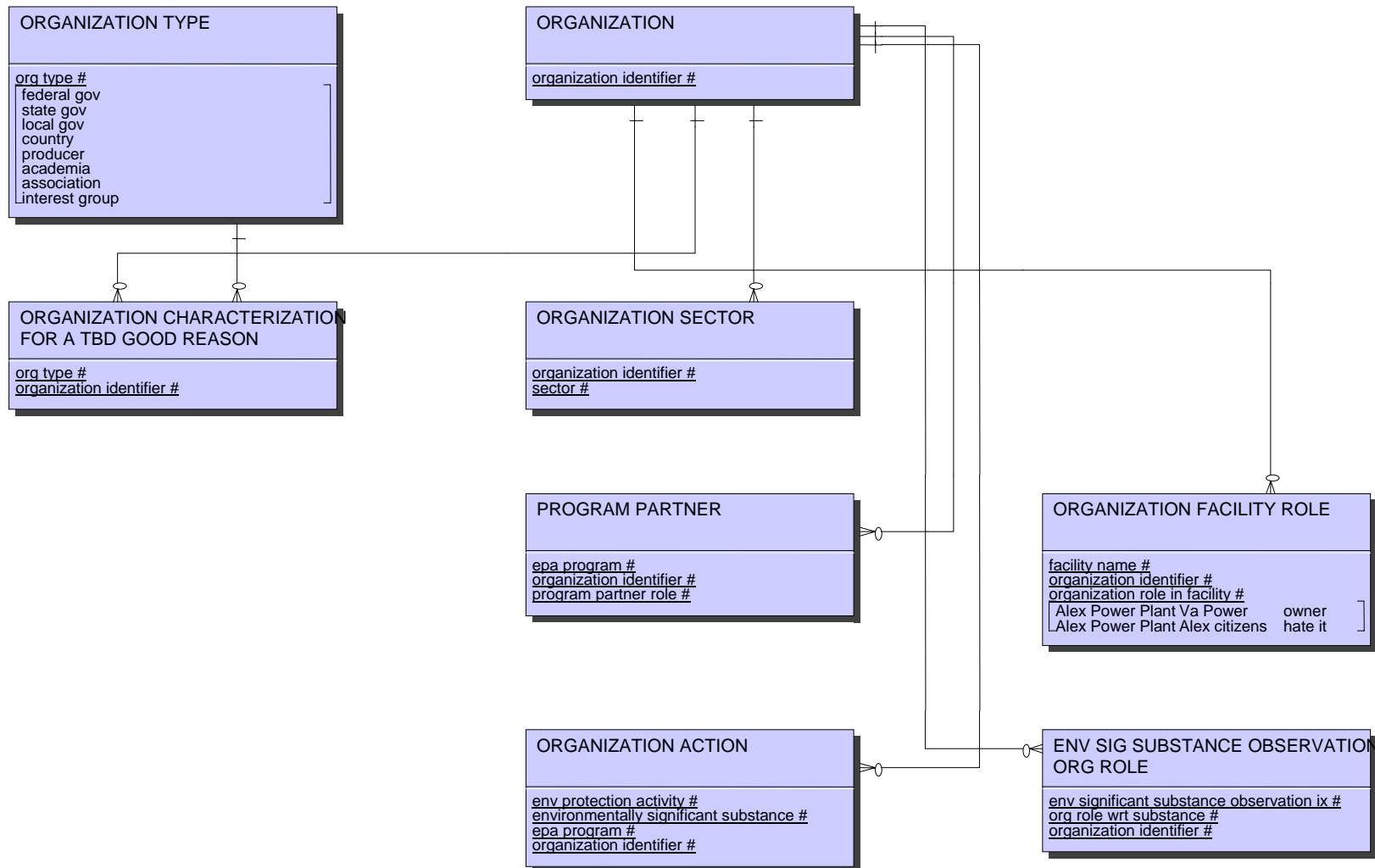
5.1 Sector



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

5.2 Organization

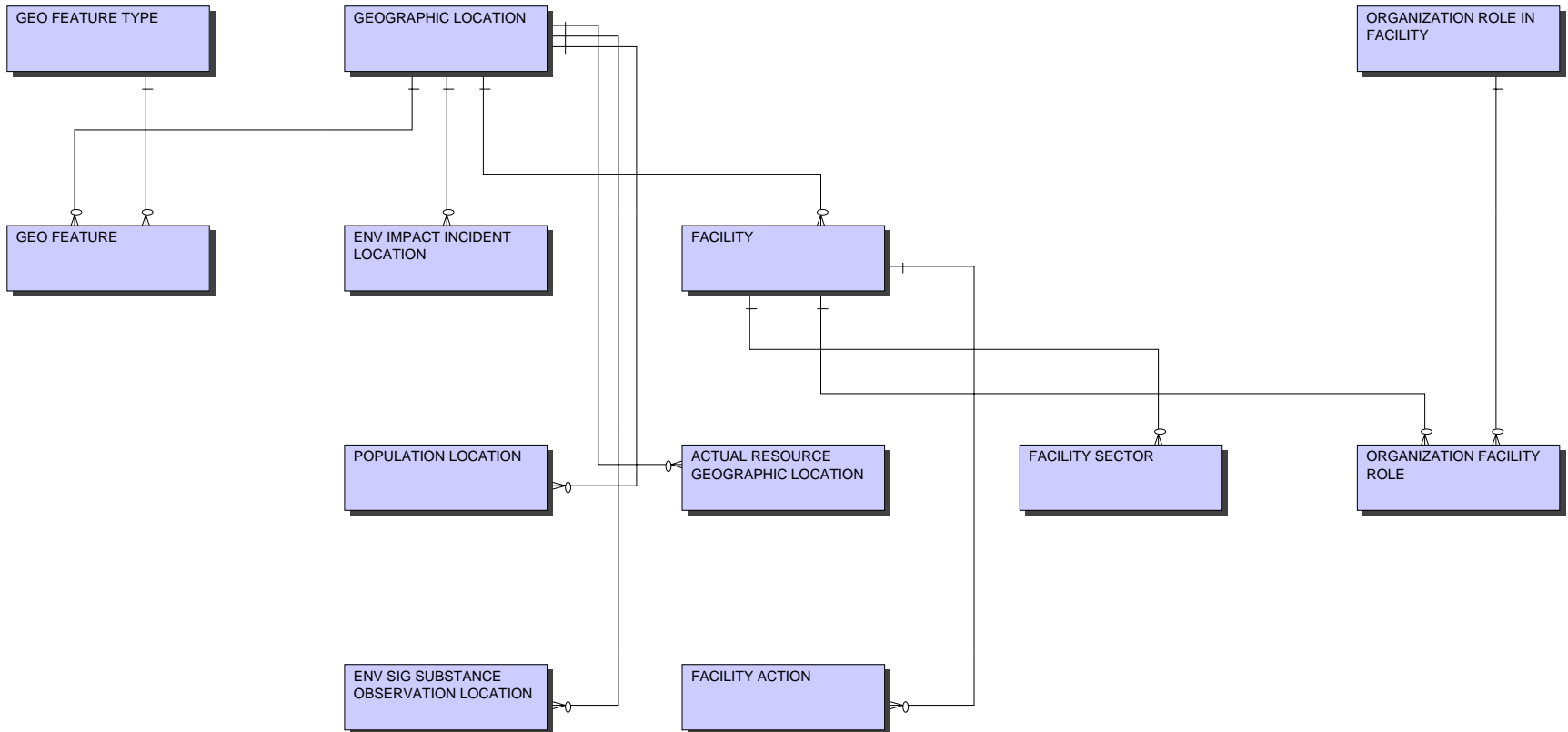


Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

6 Places

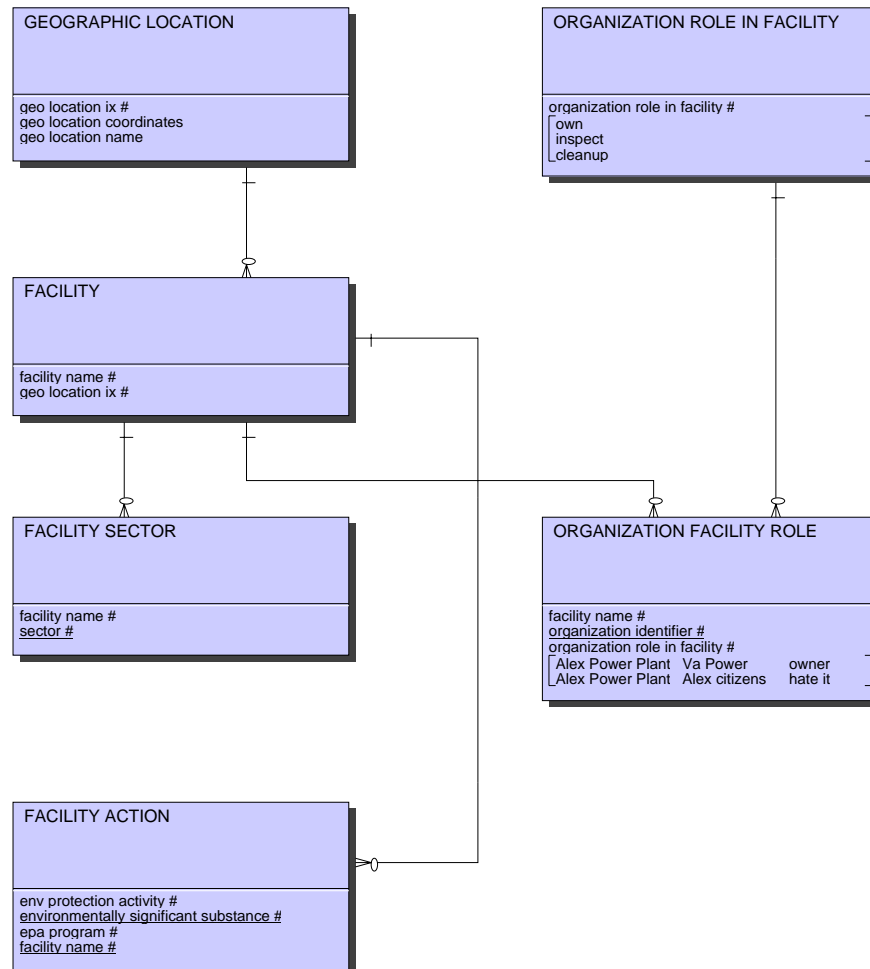
- 6.1 Sites
- 6.2 Facility
- 6.3 Geographic area



Completion Capability Area: Data Architecture

Level: 3 Practices: EPA Strategic Information Model

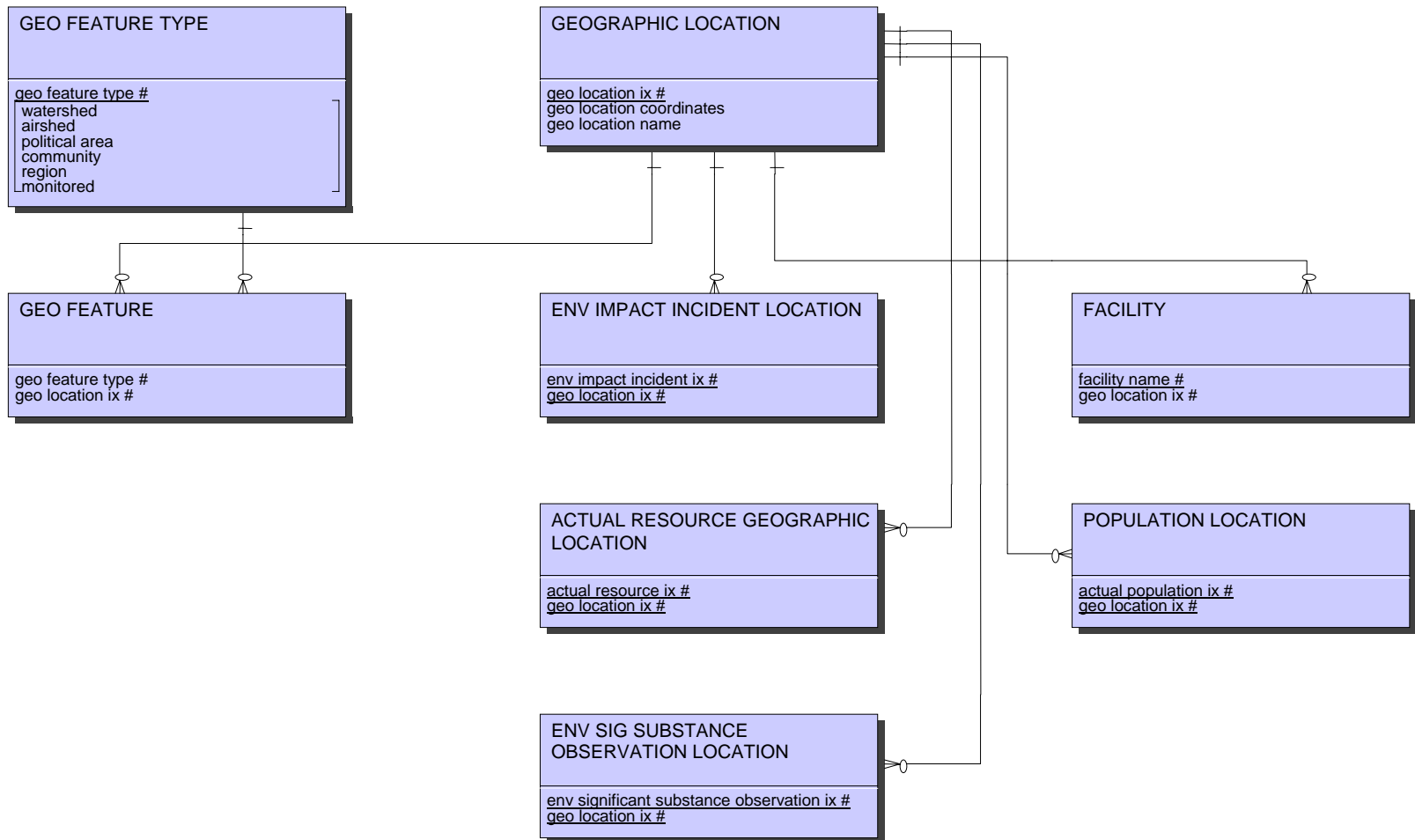
6.2 Facility



Completion Capability Area: Data Architecture

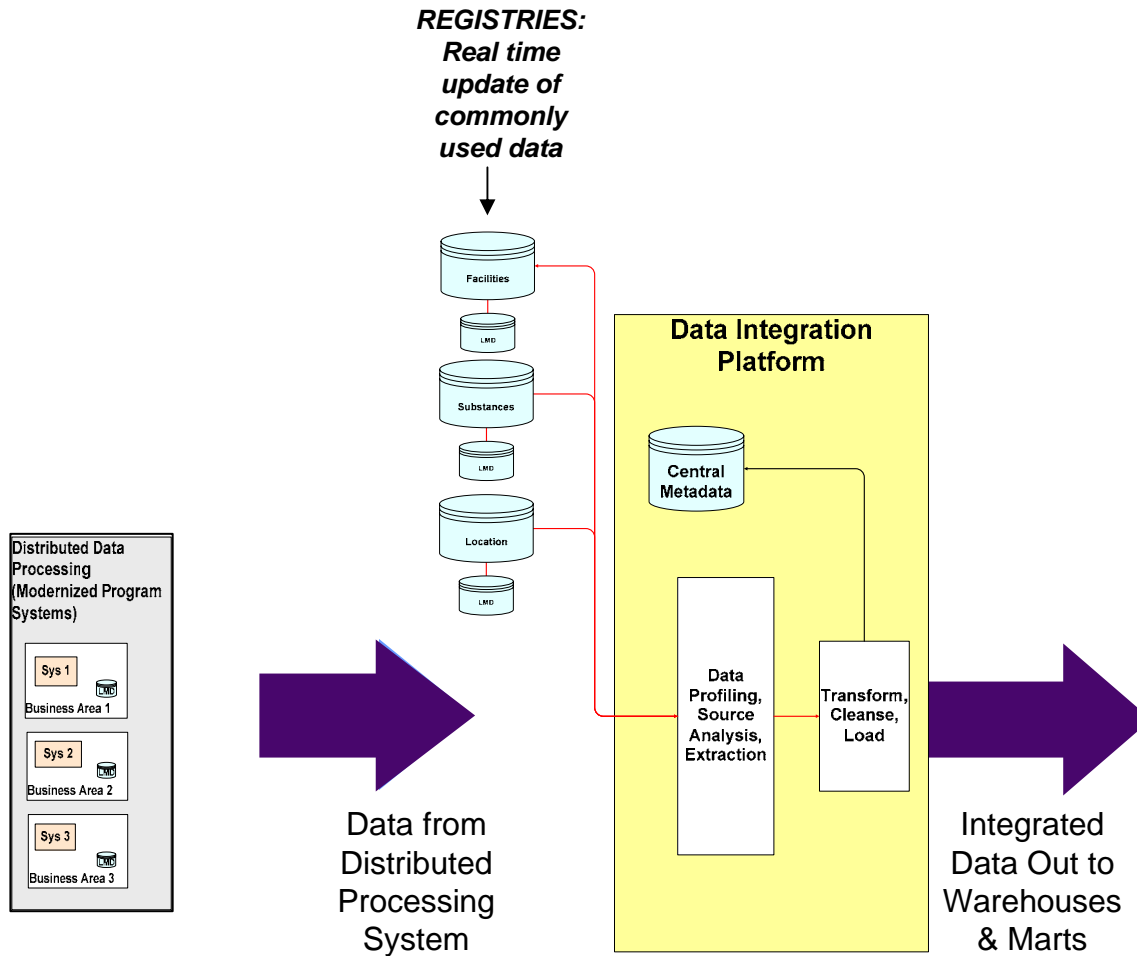
Level: 3 Practices: EPA Strategic Information Model

6.3 Organization



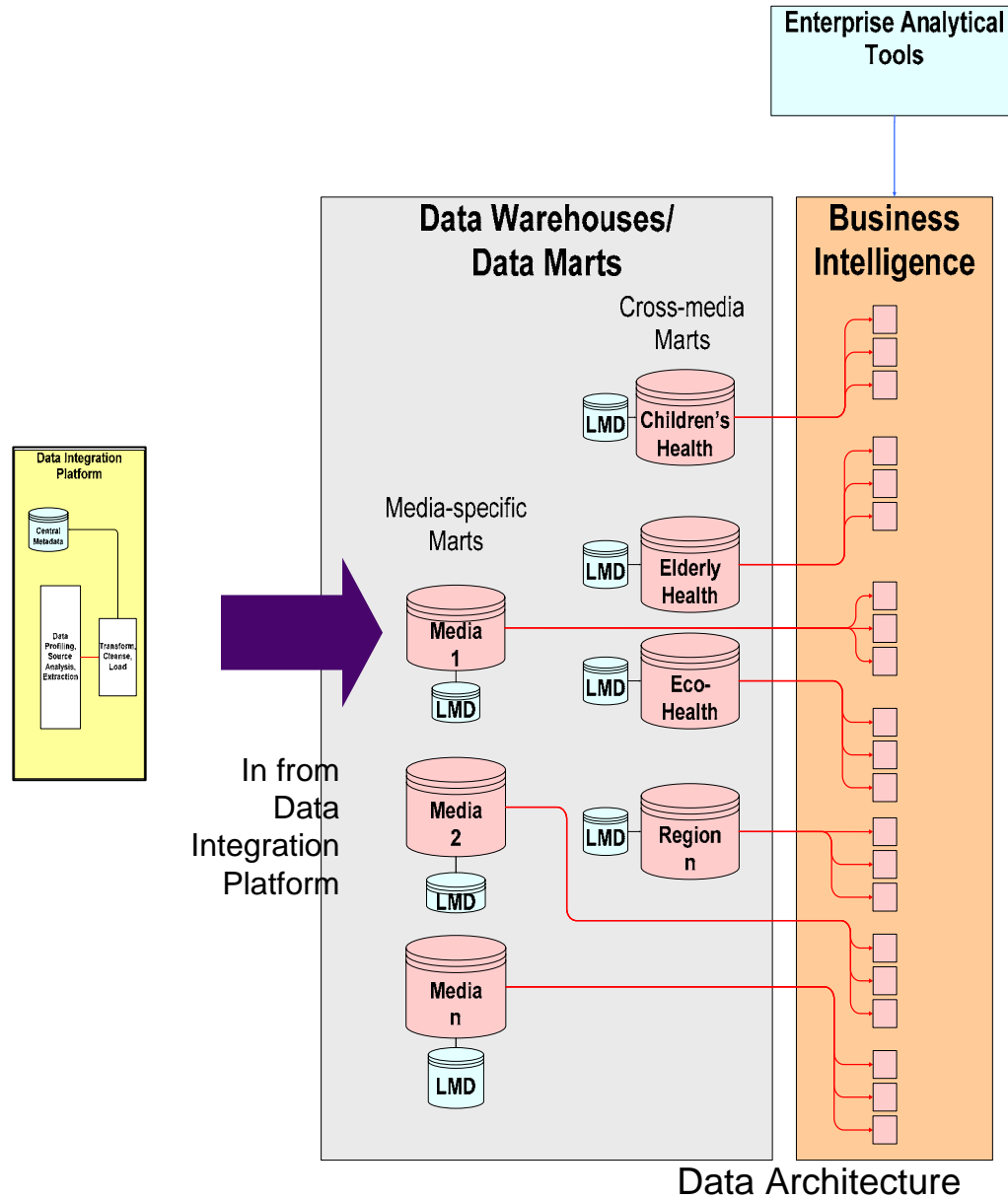
Completion Capability Area: **Data Architecture**

Level: **3** Practices: **Target Enterprise Tools Registries integrated with Data Integration Platform**



Completion Capability Area: Data Architecture

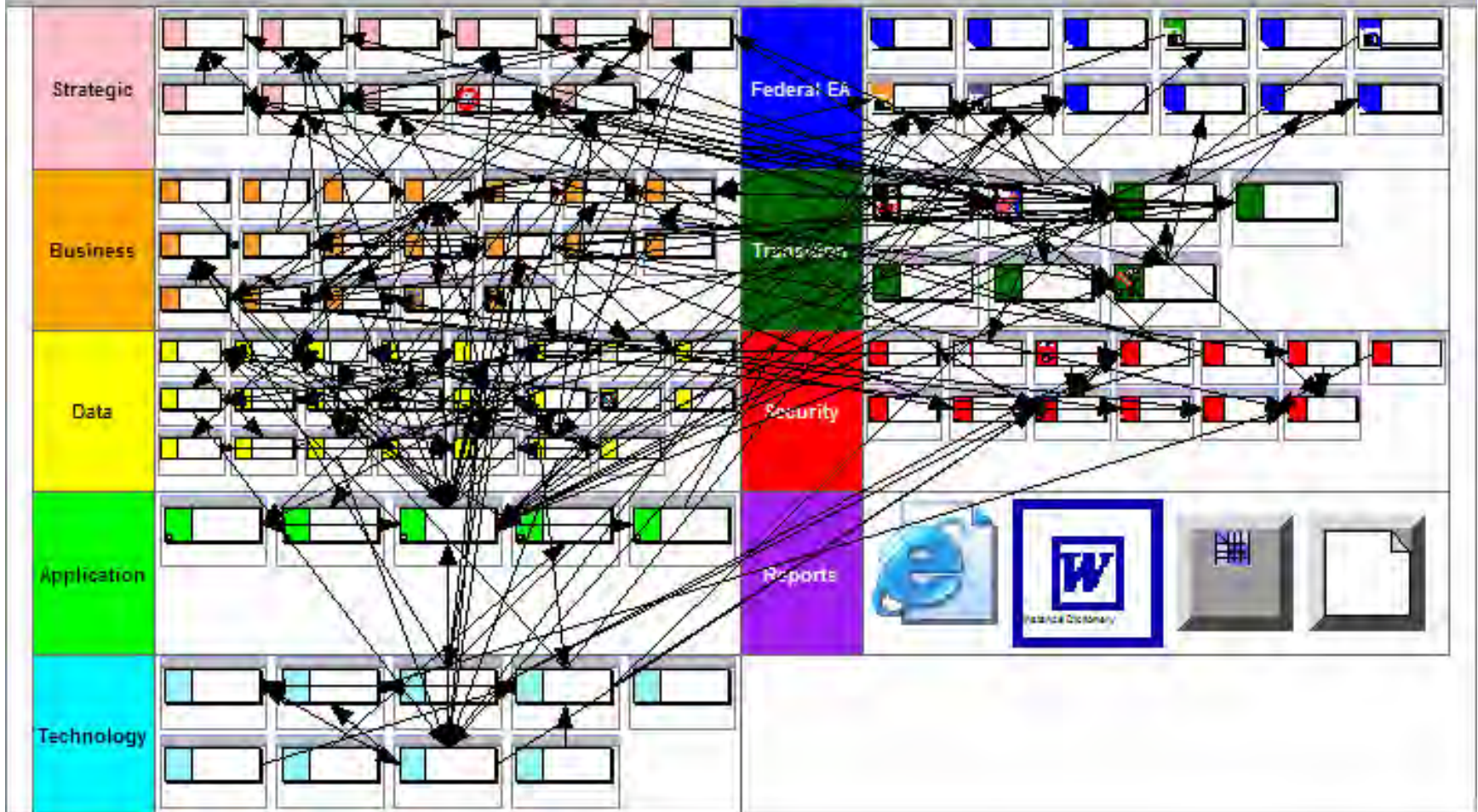
Level: 3 Practices: Target Enterprise Tools Registries integrated with Data Warehouses and Data Marts























Completion Capability Area: **Data Architecture**

Level: **3** Practices: **Target Agency EA Repository Metamodel**

EPA Framework Metamodel 4.0



EPA Data Standards

 Attached Binary Object	 Biological Taxonomy	 Chemical Identification	 Contact Information
 Date	 Enforcement/Compliance	 Environmental Sampling, Analysis, and Results	 EPA Office of Water Data Standards
 Facility Identification	 Federal Facility Identification	 Institutional Controls	 Latitude/Longitude
 Measure	 Method	 Permitting Information	 Reporting Water Quality Results for Chemical and Microbiological
 Representation of Data and Time	 Sample Treatment	 SIC/NAICS	 Tribal Identifier

Completion Capability Area: Data Architecture

Level: 4 Practices: EPA Data Standards on the Internet

U.S. Environmental Protection Agency



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Data Standards

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- [EPA Standards Under Development](#)
- [EPA Superceded Standards](#)
- [Program Specific Data Standards](#)
- [Data Standards Process](#)
- [Data Standards References](#)



The vision for the Environmental Protection Agency's (EPA) data standards program is to promote the efficient sharing of environmental information among EPA, states, tribes, and other information partners through the cooperative development of data standards. In partnership with the [Environmental Data Standards Council \(EDSC\)](#), the EPA is developing data standards for environmental information collection and exchange. The use of common data standards among partners will foster consistently defined and formatted data elements and sets of data values, and provide public access to more meaningful data. The data standards are developed by EDSC sponsored action teams that include members representing states, tribes, and federal agencies. All proposed data standards are submitted for public review before adoption by the EDSC and the EPA. The links below enable users to quickly access key components of final EPA standards and standards under development. Data standards being adopted by the EDSC can be found at www.envdatastandards.net.

EPA Final Standards

The following data standards have been adopted by the EPA for use by Agency program offices. Specific usage and implementation instructions can be found in the EPA Business Rules associated with each final data standard. For each data standard there are data element lists and related standard documents such as EPA Business Rules and implementation fact sheets describing how a data standard is to be used by Agency programs. Data standards, EPA business rules, and data elements are available for viewing and downloading in several file formats. The final standards and associated documents are also available in zipped, preformatted file formats for easy download and use.

[Attached Binary Object](#) (Ver 1)

[Bibliographic Reference](#) (Ver 1)

Completion Capability Area: **Data Architecture**
Level: **3** Practices: **Target ART Solution Architecture**

ART Solution Architecture

