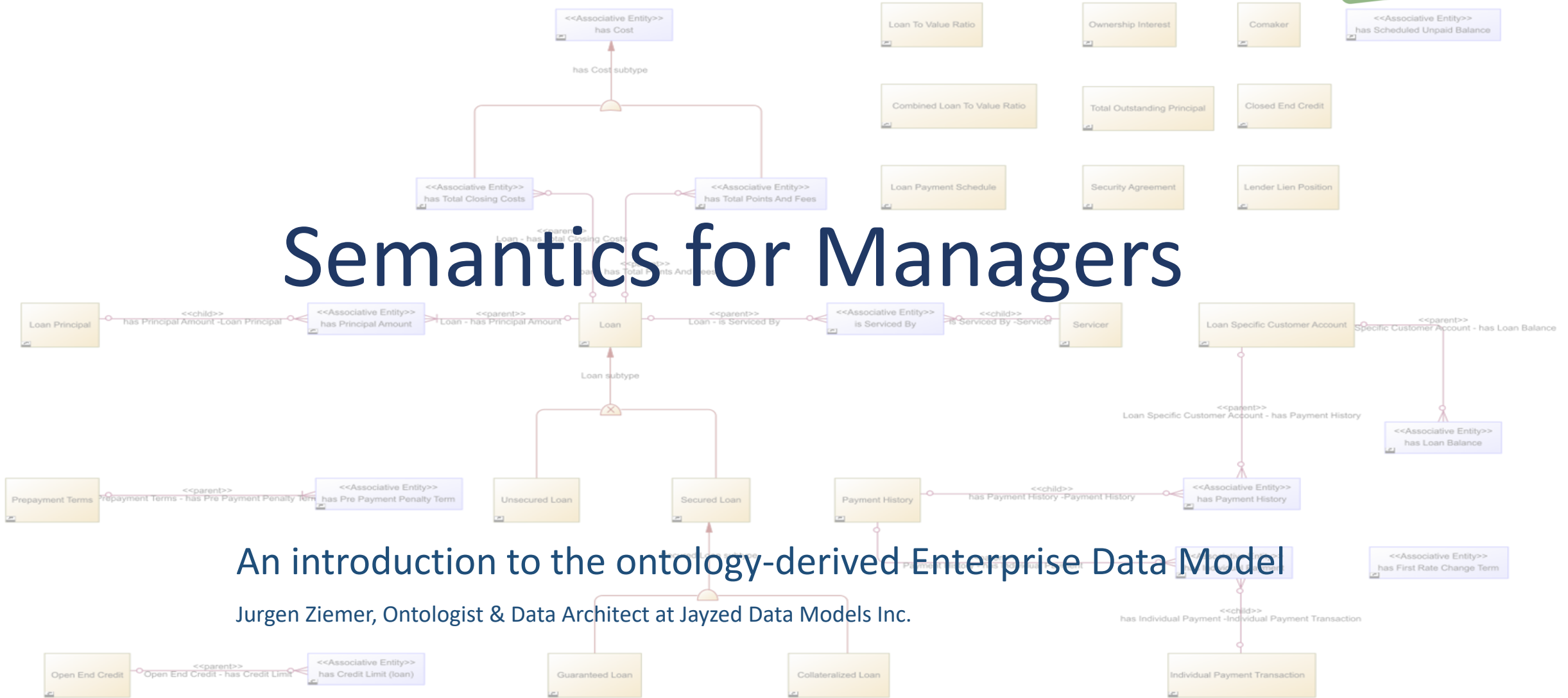


UPDATED for  
OMG Commons

# Semantics for Managers



An introduction to the ontology-derived Enterprise Data Model

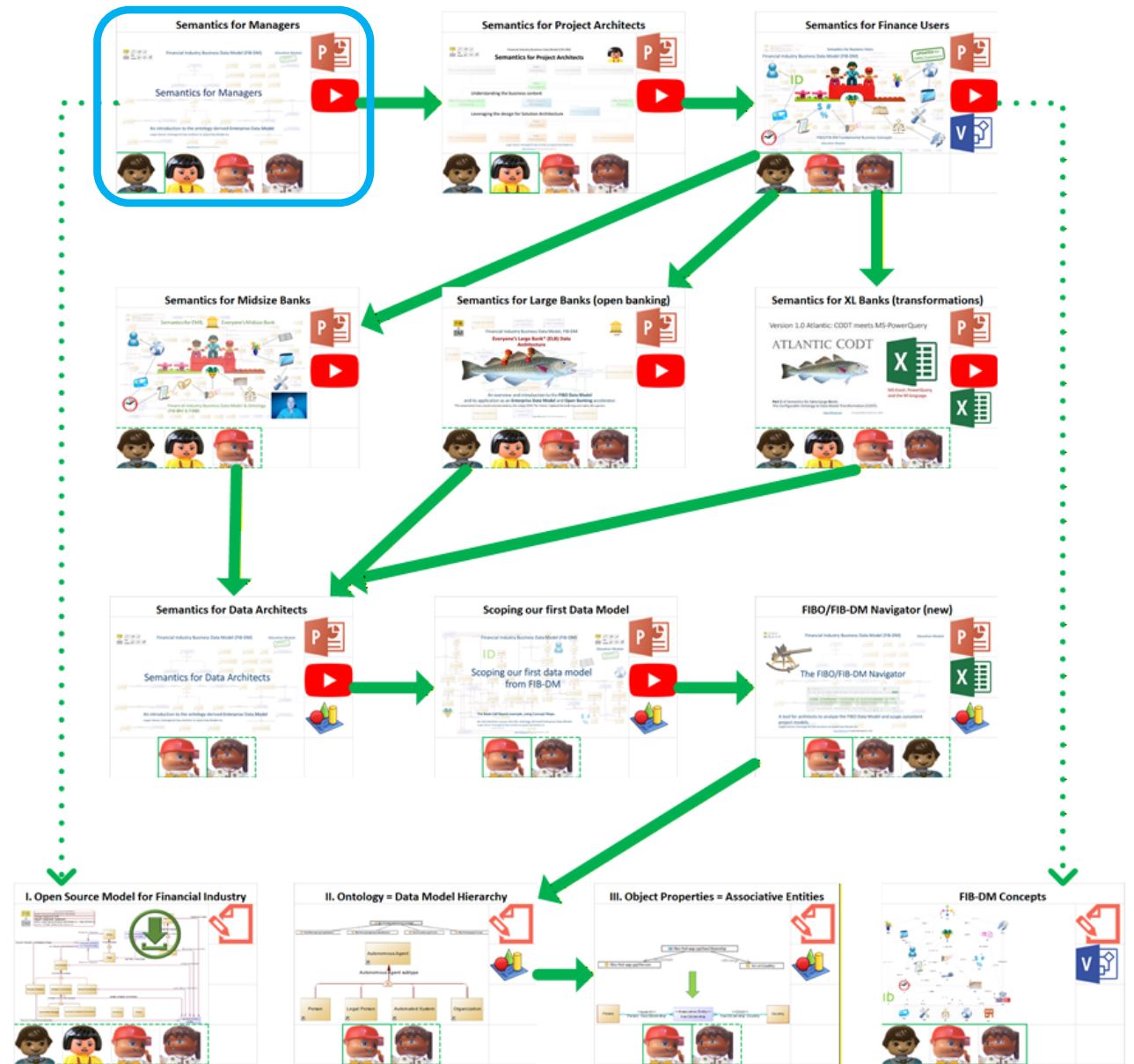
Jurgen Ziemer, Ontologist & Data Architect at Jayzed Data Models Inc.

# FIBO Data Model Education course.

9 Classes, 1-2 hours  
Articles and tools (MS Visio and Excel)

The kickstart is a high-level overview for non-technical audiences.

If you have licensed FIB-DM already, copy from the PowerPoint for your internal presentations



You work at a Financial Institution and already embrace model-driven development, industry standards, and reference models.



**Finance** business stakeholder and expert with a working knowledge of Entity-Relationship and Ontology diagrams.



**Data** or **Application Architect** experienced in Enterprise Reference models. You may have used FIBO design patterns and definitions.



As an **Ontologist** with an in-depth understanding of the FIBO, you already use the reference ontology for your design and want to spread adaptation across your enterprise.

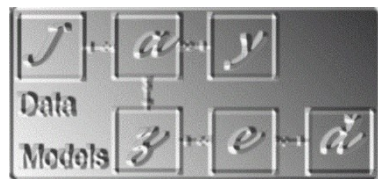


# Introduction to author and publisher



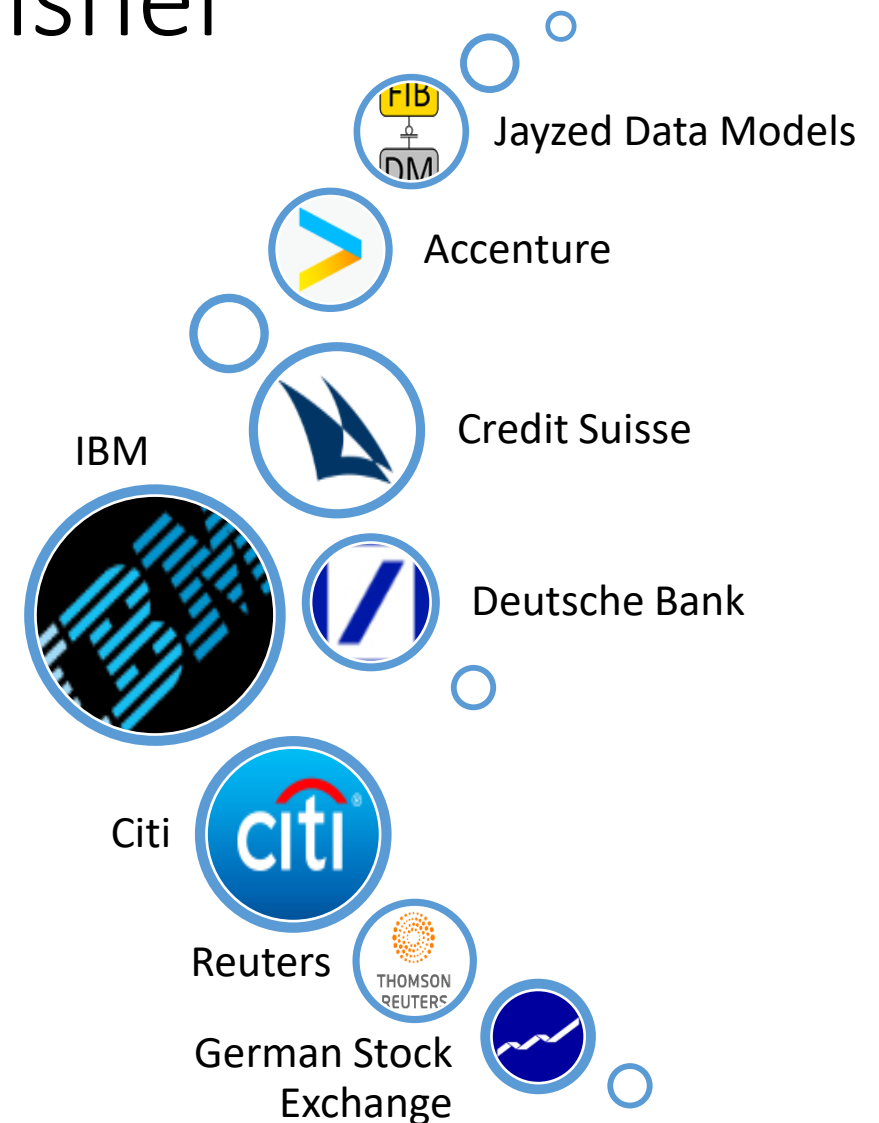
Jurgen Ziemer has 20 years industry experience as a data architect and ontologist at leading Financial Institutions and service providers.

- Seven years as an IBM Software Group Consultant for the Banking and Financial Markets Data Warehouse (BFMDW) model at 45 banks in North America, Europe, and Asia.
- Four years implementing BFMDW at Citi and Deutsche Bank.
- Speaker at FIBO conferences



Jayzed Data Models Inc. is a US consulting company incorporated in 1999.

Jayzed holds the FIB-DM copyrights and is the designated assignee to the CODT Patent.

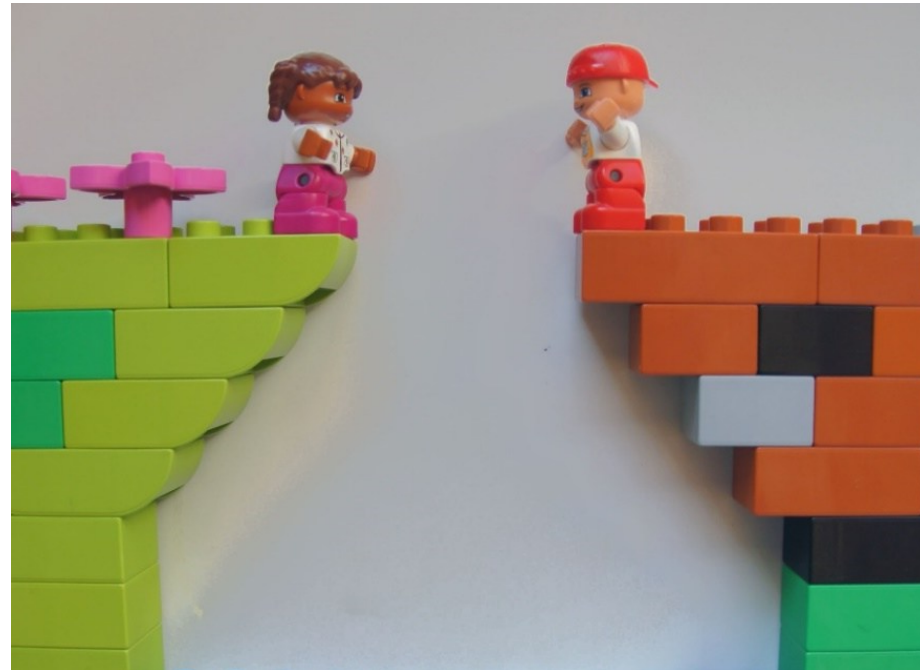


# There is a chasm between semantic and conventional data management.

The EDMC specified FIBO in Ontology Web Language (OWL).

FIBO is comprehensive with detailed coverage of business entities, loans, securities, derivatives, and indicators.

Large financial institutions started implementations on RDF (“triple”) stores



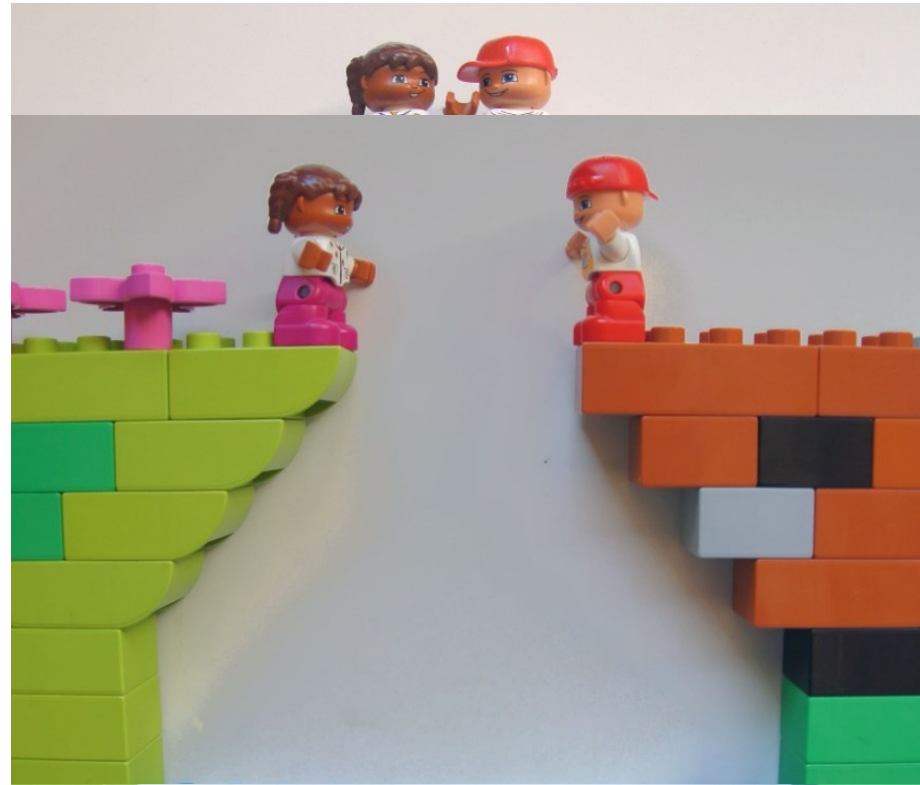
OWL needs highly specialized ontologists.

Many banks and investment managers don't have the expertise inhouse.

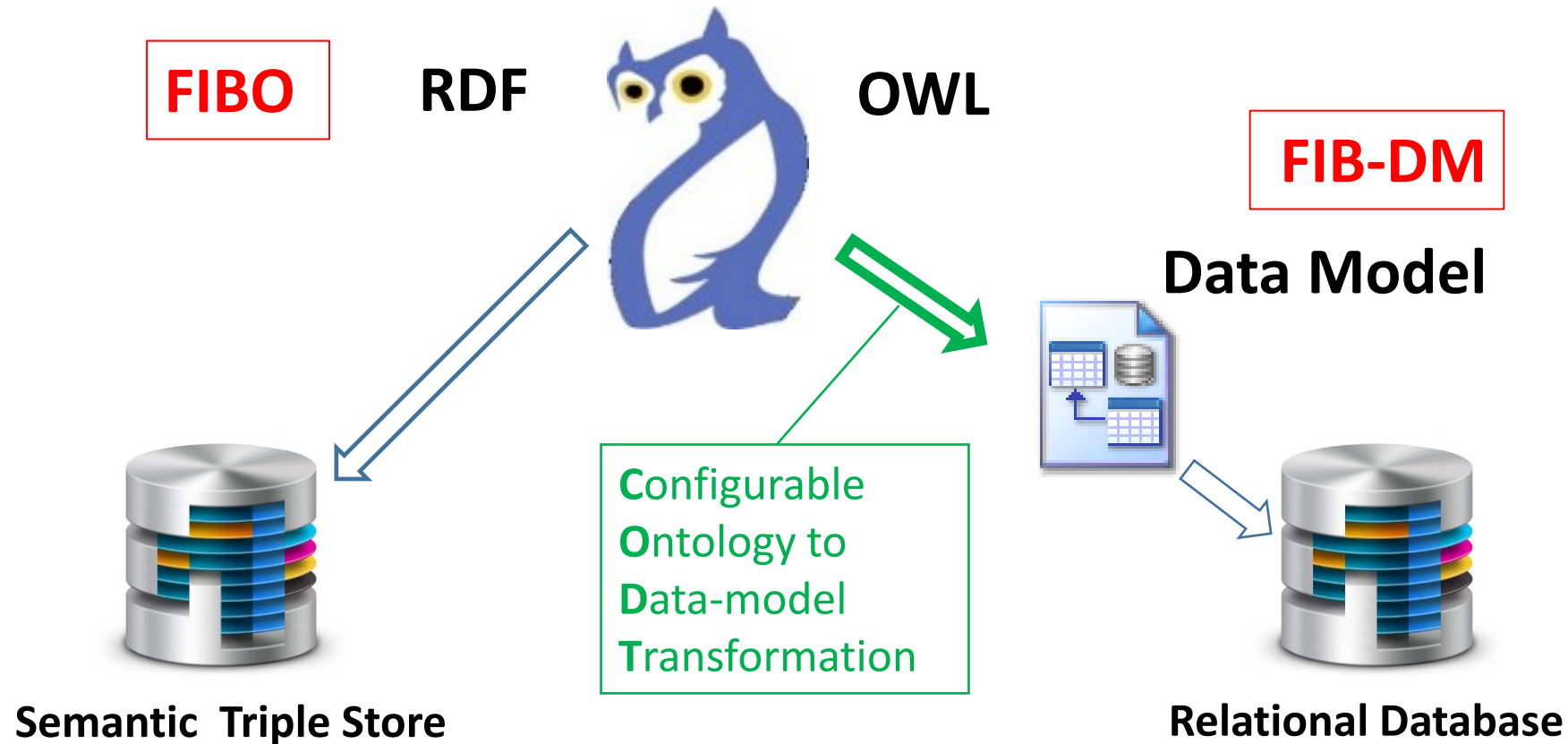
IT departments must still support and design conventional databases.



# FIB-DM is the bridge across the chasm.



# The ontology transformed into a data model leverages the design for relational databases.



# Predictions



- RDF stores dominate data systems for knowledge management.
- RDBMS remains the standard for core transactional and business intelligence systems.



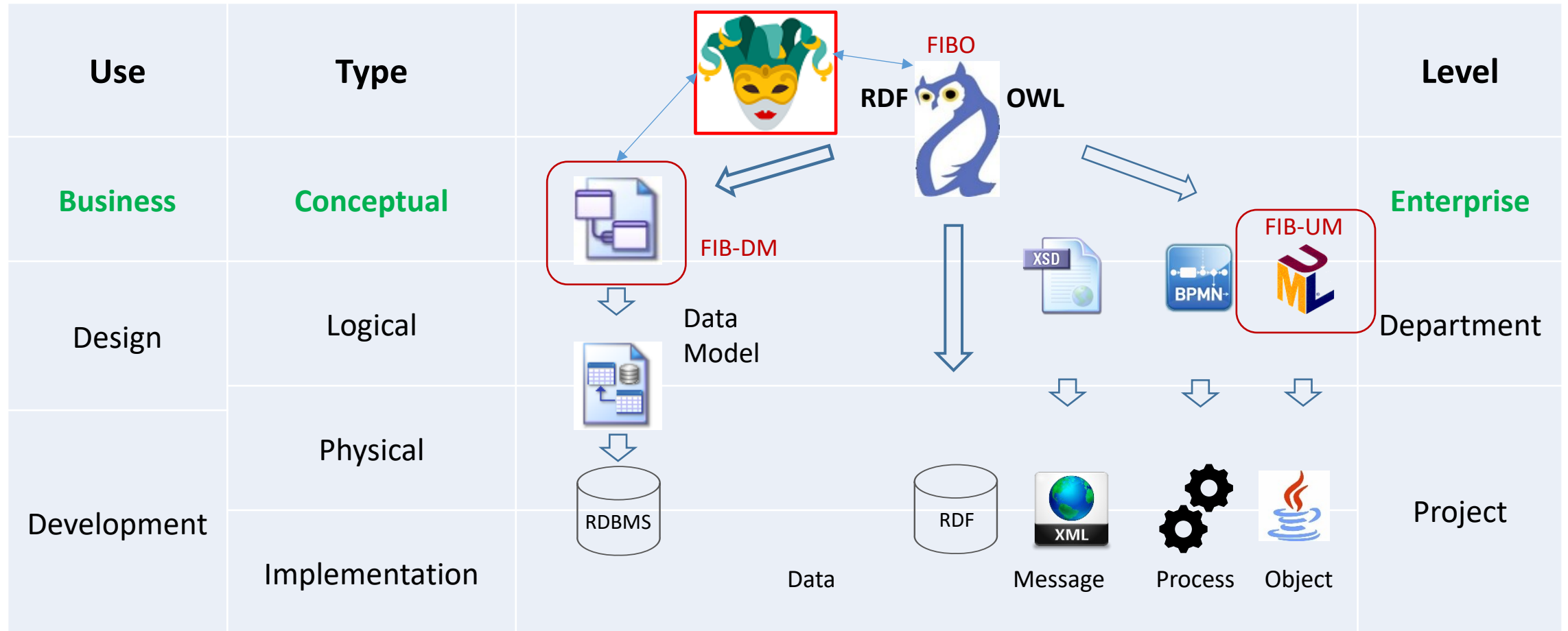
- Hence, Financial Institutions still need relational models and data modelers.



- However, Ontology Web Language (OWL) replaces the Entity-Relationship Model (ERM) as the notation of choice for Industry Domain and Enterprise Models.

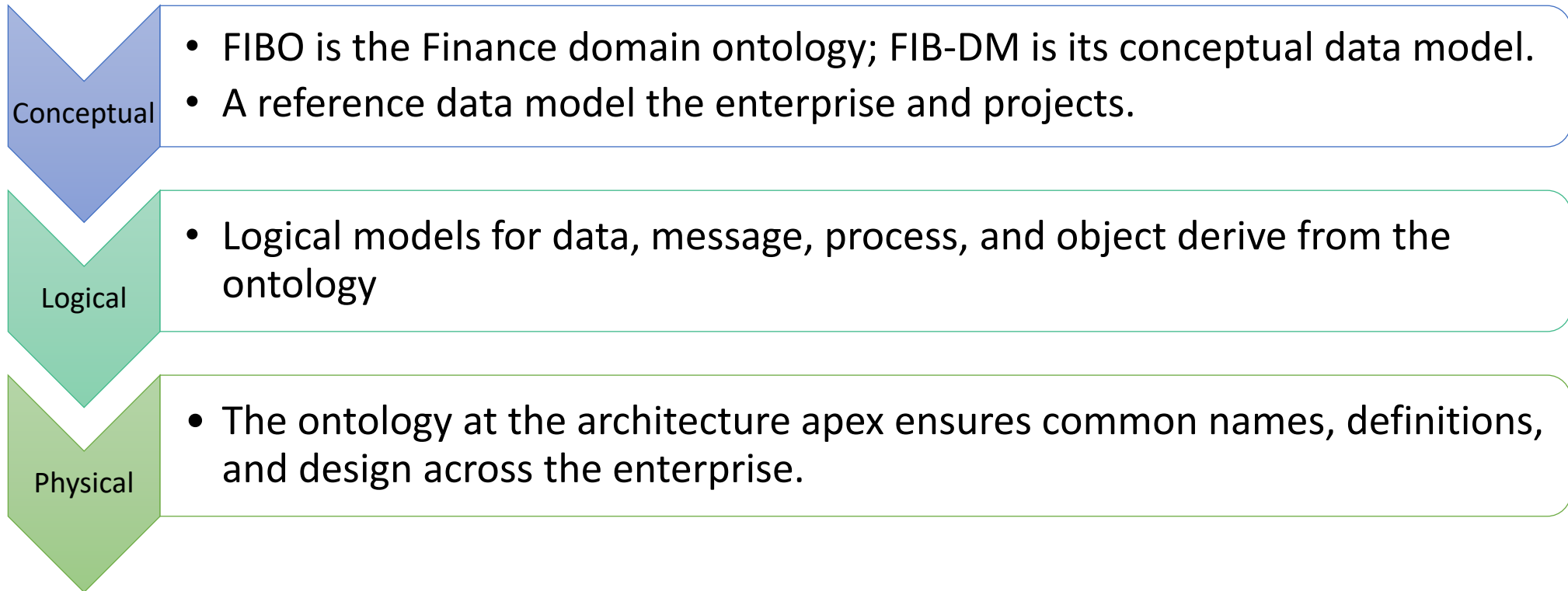


# Semantic Enterprise Information Architecture



Finance key point

# Semantic Model-Driven Development



- Midsize Financial Institutions without Semantic Technologies yet, adopt FIB-DM, a strategic enterprise model.
- Large institutions use CODT to transform their in-house ontologies into data models for downstream implementation.



# Financial Industry Business Data Model



- Financial Industry Business Data Model of 3,173 Entities, complete definitions, annotations, and axioms (business rules).
- Data Architects leverage the full content of the Industry Standard.
- **Common Language and design patterns for Semantic & Relational data.**



# Transformation principles & considerations for the derived data model

1. The model must be **practical**.

Overly normalized designs become too abstract for business users and developers.

2. The model must be **complete**.

We don't want to miss information from the ontology

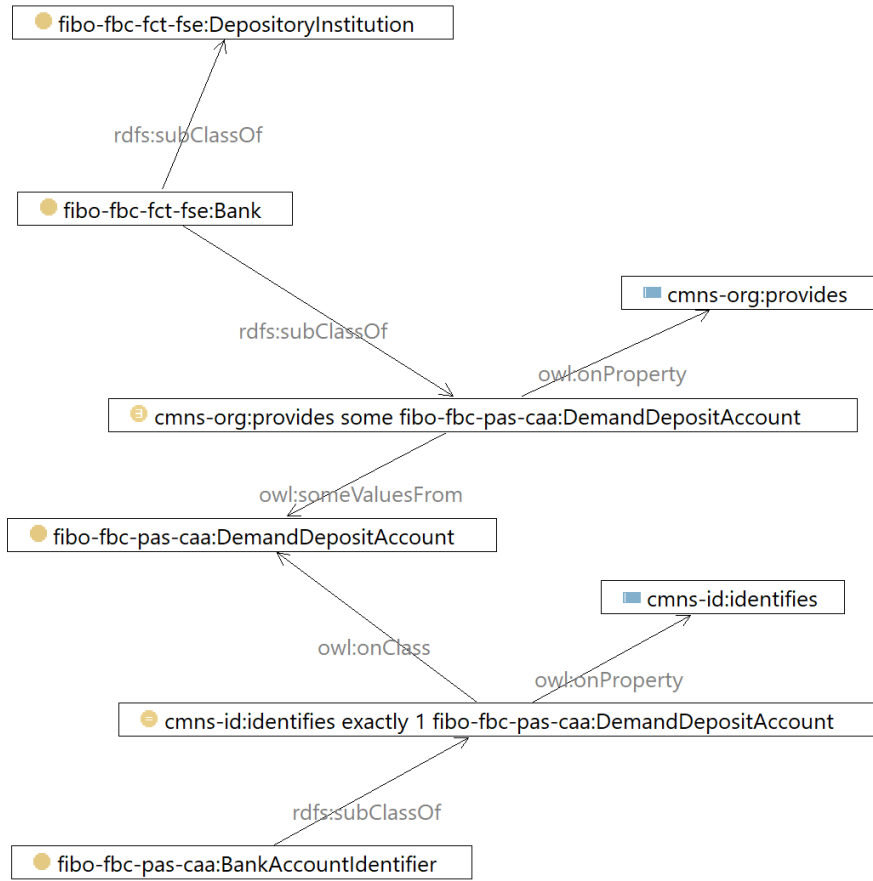
3. The model has complete **documentation**. The **diagrams** depict all subject areas and design patterns.

4. The model **maps** back to its source, the ontology



# Domain ontology generates a perfect CDM

## Ontology graph

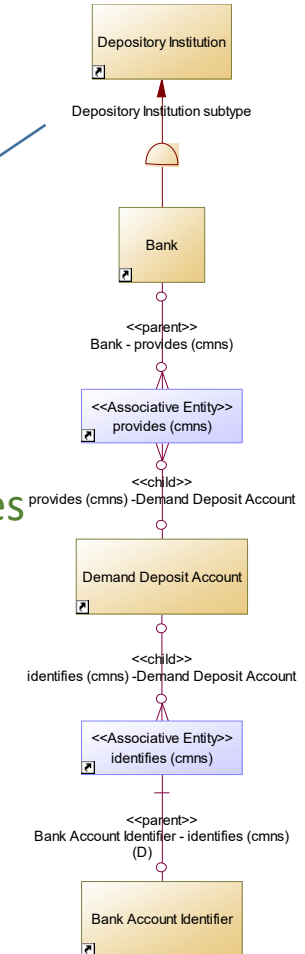


This entity-relationship diagram is the best representation of the Bank Account, its provider, and ID.

IR

There are no missing or superfluous entities or relationships in the design.

## Conceptual Data Model



# From FIBO to FIB-DM - how does it work?

The Configurable Ontology to Data-Model Transformation (CODT) is basic ETL.



We extract metadata from the source ontology, transform it into conceptual data model metadata, and load it into the data modeling tool PowerDesigner.

The extraction process runs SPARQL queries on the ontology to retrieve the metadata. PowerDesigner imports MS-Excel workbooks. The Transformation in between is a 2-step process using the patented *Metadata Sets*.



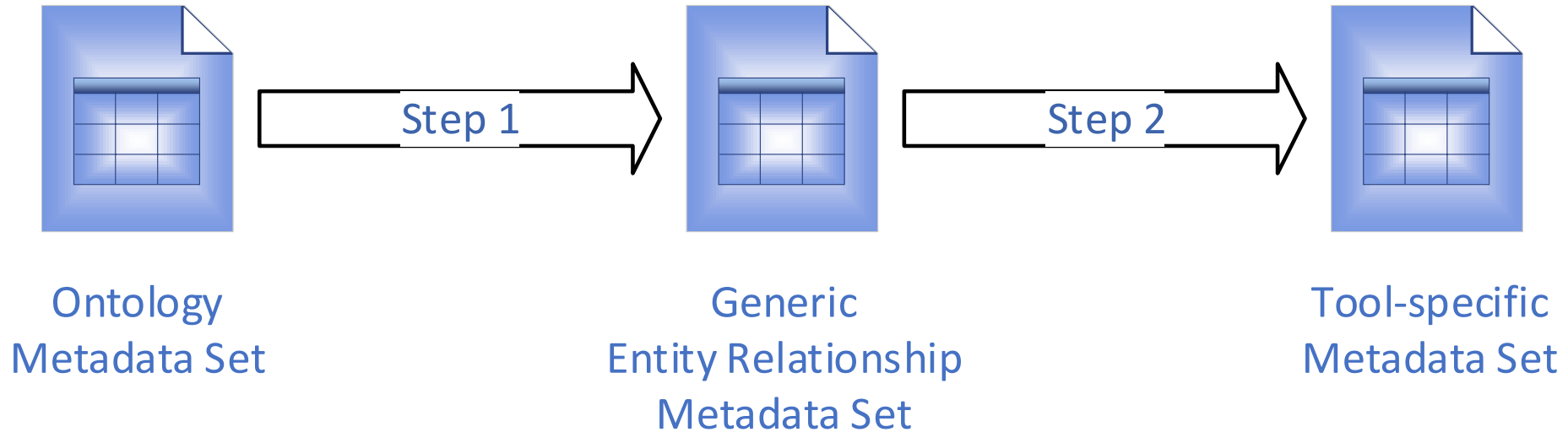
Data Architect



Ontologist

# The CODT Metadata Sets.

The Extract process populates the Ontology Metadata Sets for classes, object-, data properties, and annotations.



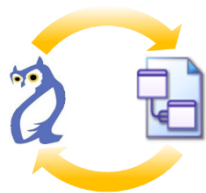
Step one transforms the ontology metadata and populates the generic ER representation. The Tool-specific metadata set is in PowerDesigner format. Step two is a simple conversion from generic ER to PowerDesigner objects, properties, and extended attributes. We serialize to MS Excel and load it directly into the data modeling tool.



# CODT Utility Patent US12038939

The groundbreaking and broad patent awarded means that Jayzed Data Models Inc. has protected its intellectual property to:

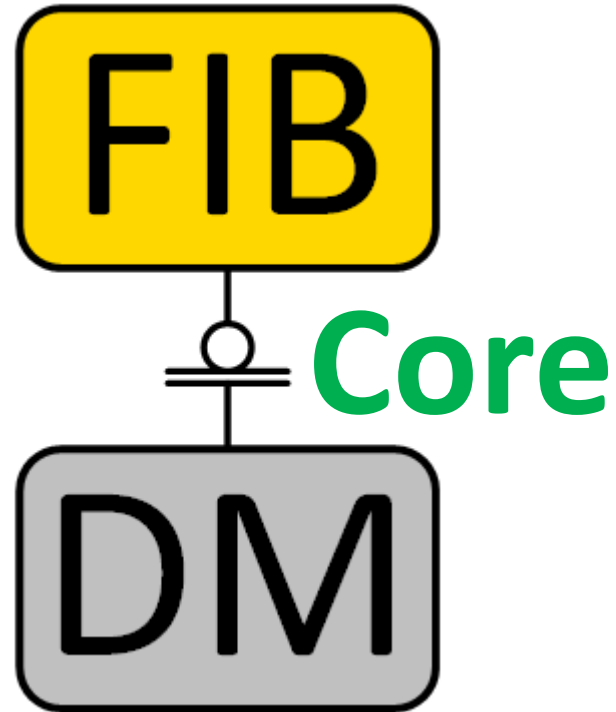
- Protect FIB-DM open-source core users and licensees of the whole model
- Transform very large ontologies.
- Make the transformation process available for licensing.
- Transforms other domain ontologies, Gene, oil, auto, in the future.



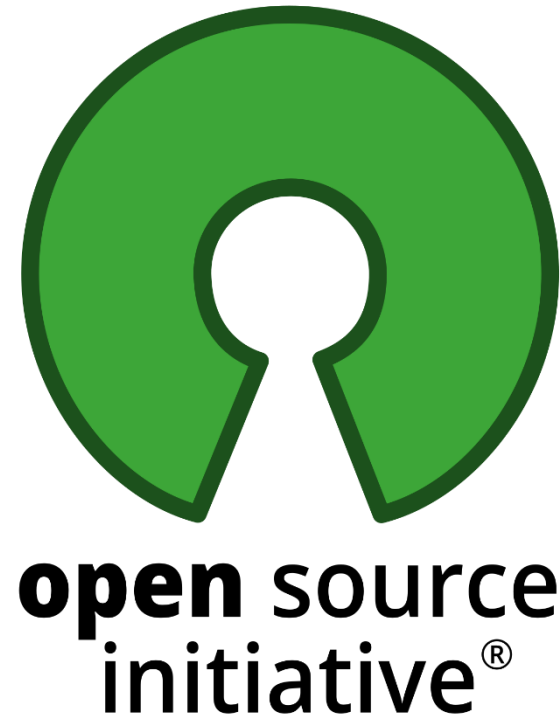
<https://codt.net/patent/>



# FIB-DM Core is Open Source



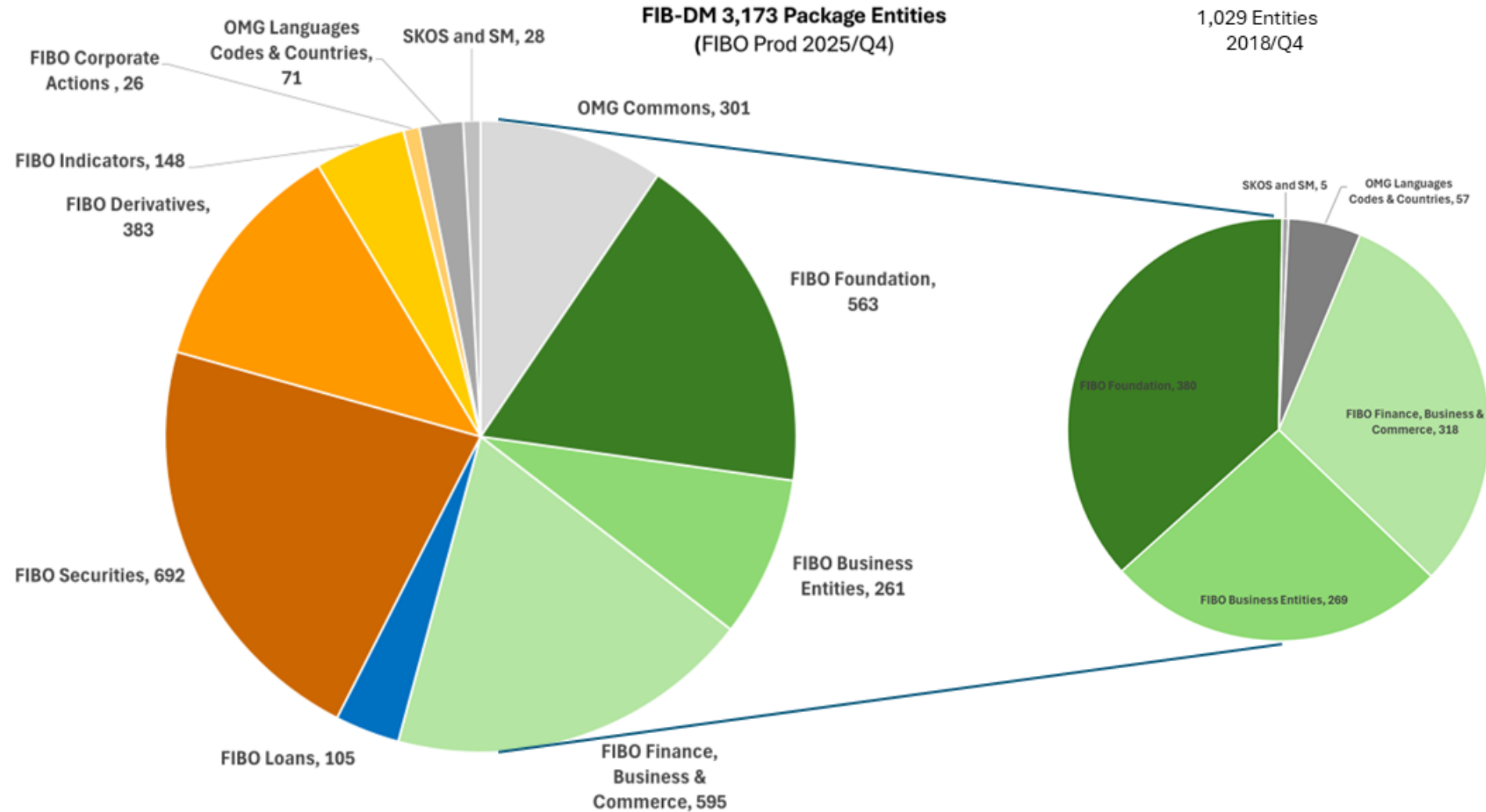
*is*



GNU General Public License ([GPL-3.0](https://www.gnu.org/licenses/gpl-3.0.html)), an Open Source Initiative® recommended license.  
Available for download on the FIB-DM website: <https://fib-dm.com/data-model-download/>

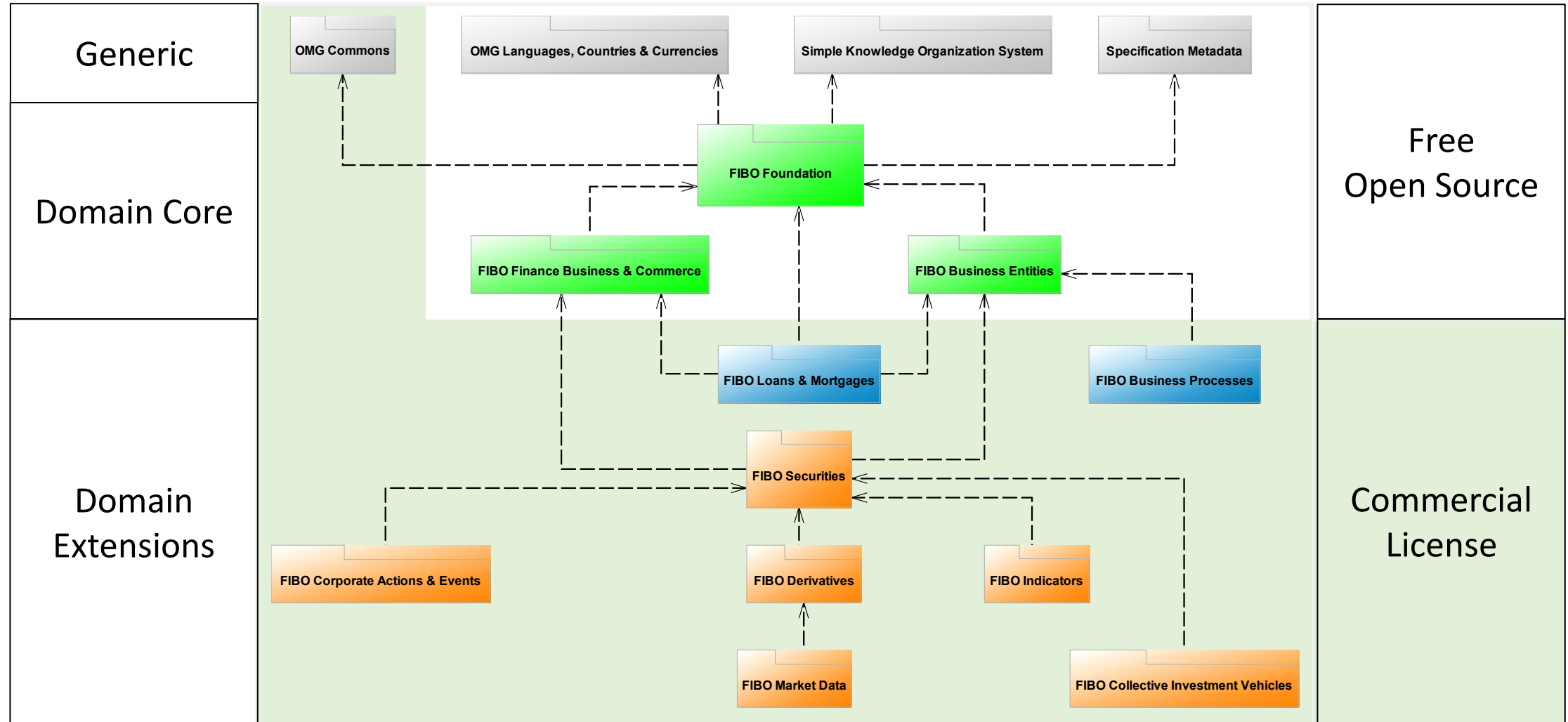


# A one-thousand-entity open-source model

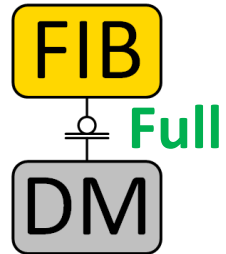


Finance key point

# A self-contained, standalone data model.

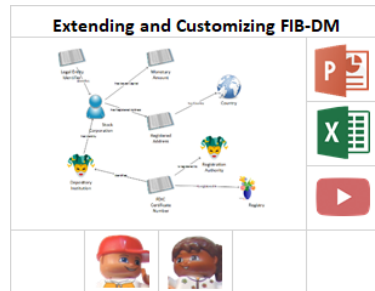


# FIB-DM Extended for Financial Institutions



The complete 3173-entity data model.

Quarterly updates as new FIBO modules for banking and investment become available (with optional maintenance).



Access to data diagrams, PowerPoint, Excel, and Visio resources  
Permission to lift off and rebrand for internal use.

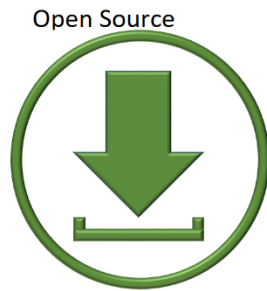
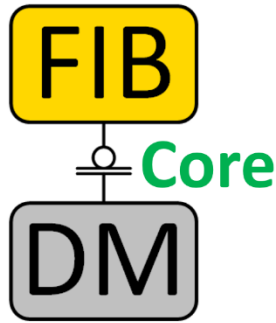


Optional 12- month Maintenance agreement with training, model, and resource updates.

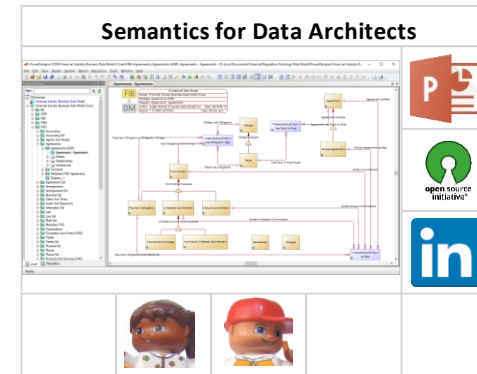
**Tiered pricing based on asset size with discounts for regulators and governments.**



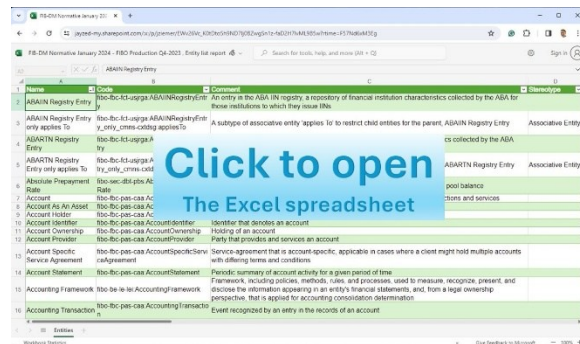
# Transparency for your FIB-DM evaluation



Download the Open Source



Review the Education resources



Examine the Full Model report




Schedule an online demo and Q&A








**Core**





**open source initiative®**



**FIBO**  
 Financial Industry Business Ontology

*in*




**POWERDESIGNER**

(ERWin and other data modeling tools)

<https://fib-dm.com>

[jziemer@jayzed.com](mailto:jziemer@jayzed.com)

Finance key point



<https://fib-dm.com> © 2026 Jayzed Data Models Inc.

22