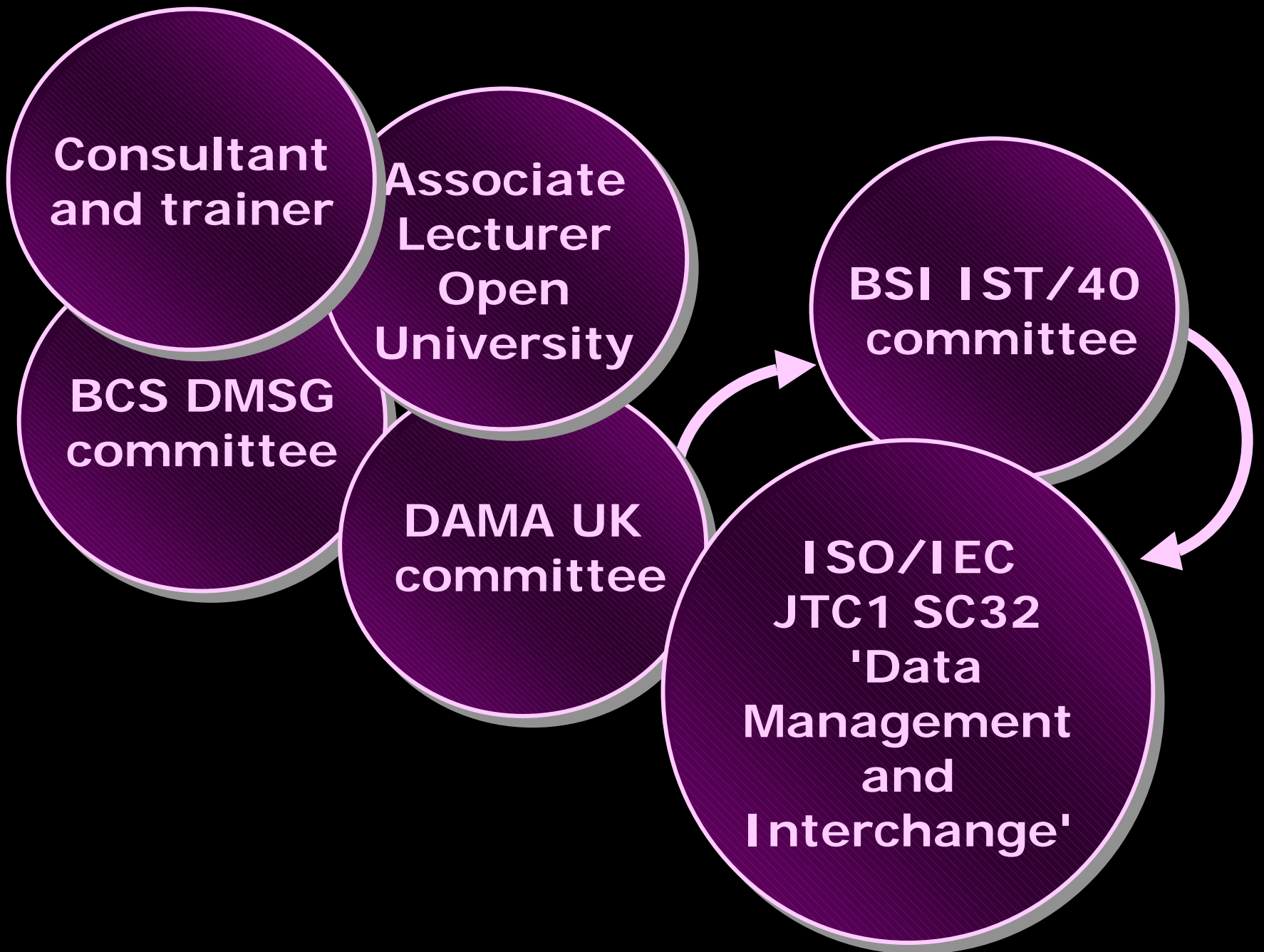


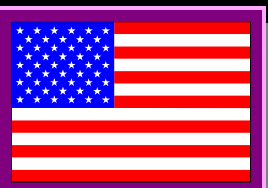
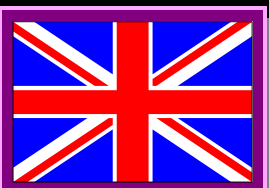
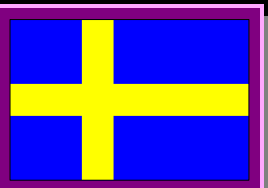
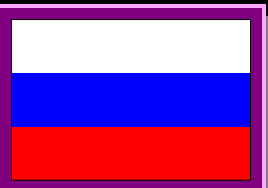
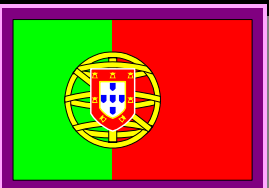
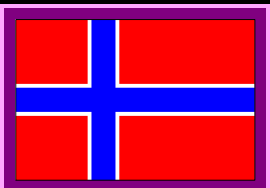
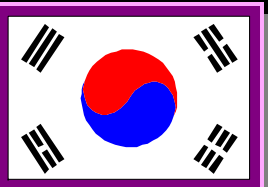
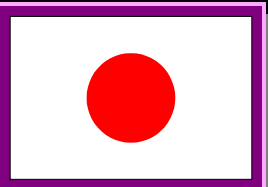
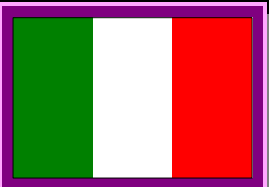
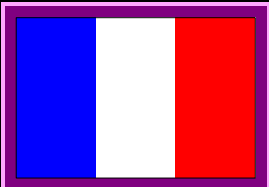
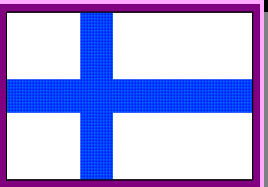
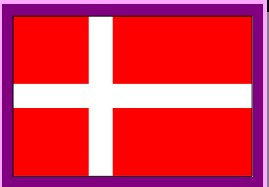
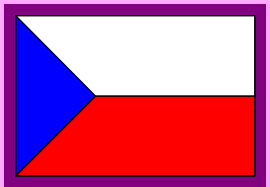
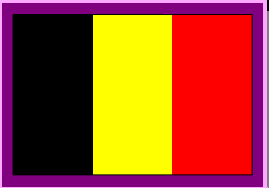
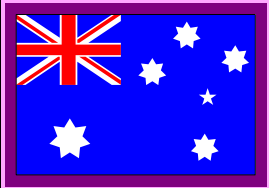
International Data Management Standards



Keith Gordon
Gordon Blain Associates Limited



ISO/IEC JTC1 SC32 Members



The development stages



ISO/IEC JTC1 SC32 Working Groups

WG1 e-Business

WG2 Metadata



WG3 Database languages (*ie SQL*)

**WG4 SQL multimedia
and application packages**

The database language, SQL (ISO/IEC 9075)

Part 1 Framework

Part 2 Foundation

Part 3 Call Level Interface

Part 4 Persistent Stored Modules

Part 9 Management of External Data

Part 10 Object Language Bindings

Part 11 Information and Definition Schemata

*Part 13 SQL Routines and Types using the
Java Programming Language*

Part 14 XML-Related Specifications



A leap forward ...

✘ *“Databases only handle simple text, numbers and dates”* **✘**

But SQL now provides:

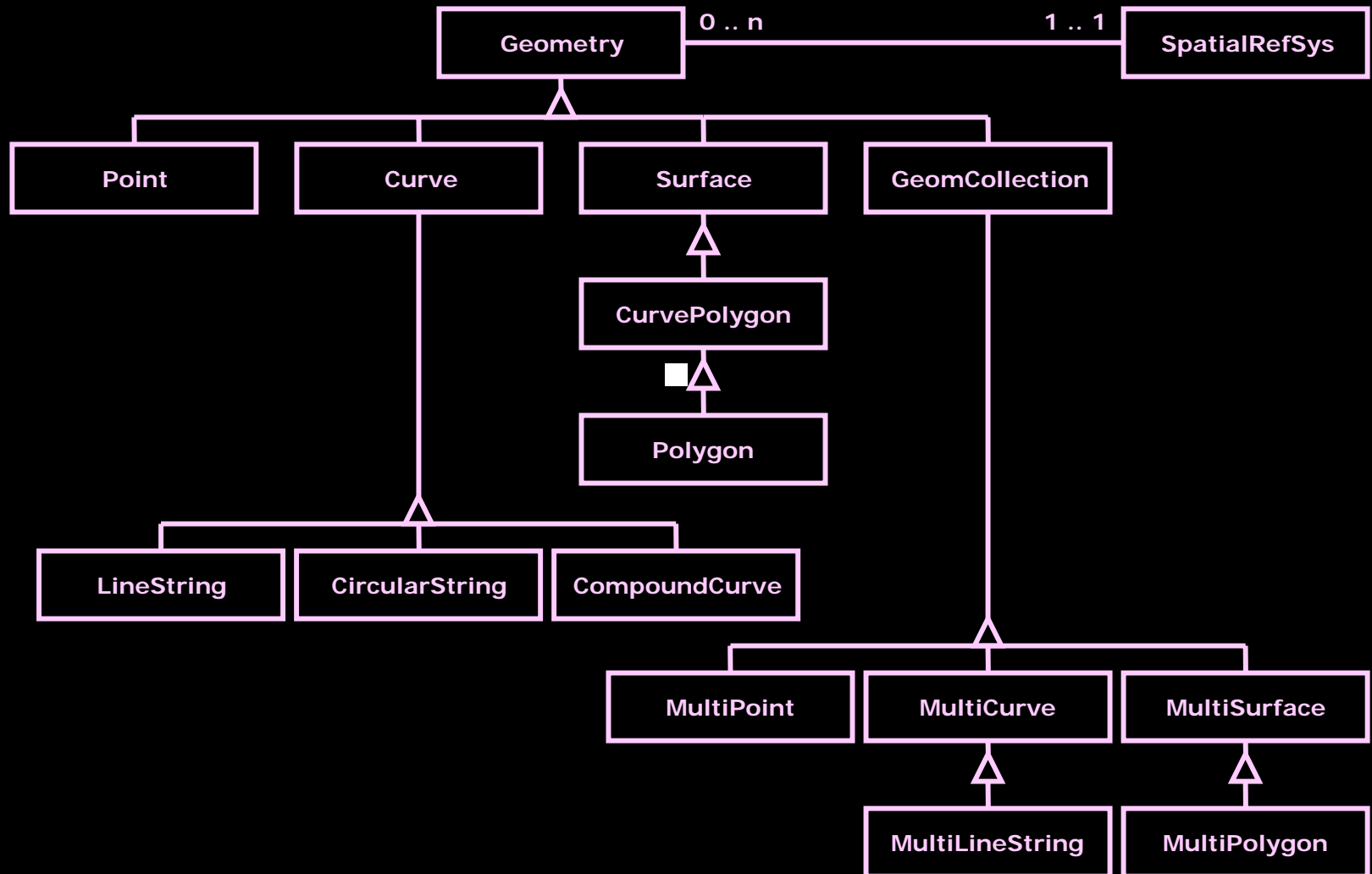
- ✓ *User defined types - distinct types*
 - *- structured types*
- ✓ *Collections - multisets*
 - arrays*
- ✓ *Large objects - character*
 - binary*
- ✓ *Datalinks*

SQL Multimedia and Application Packages (ISO/IEC 13249)

- Part 1 Framework*
- Part 2 Full-Text*
- Part 3 Spatial ■*
- Part 5 Still Image*
- Part 6 Data Mining*
- Part 7 History (???)*



Part 3: Spatial - key concepts



e-Business

- **Open-edi reference model (ISO/IEC 14662)**
- **Business agreement semantic descriptive techniques (ISO/IEC 15944)**

Part 1 Business operational aspects of open-edi for implementation

Part 2 Representation of scenarios and their components

Part 3 Open-edi descriptive techniques

Part 4 Business transaction scenarios - accounting and economics ontology

Part 5 Identification and mapping of various categories of jurisdictional domains



(Too?) many metadata standards

- **Metadata registries (ISO/IEC 11179)**
- **Framework for metamodel interoperability (ISO/IEC 19763)**
- **Metadata registry - interoperability and bindings (ISO/IEC 20944)**
- **Procedures for achieving metadata registry content consistency (ISO/IEC 20943)**
- **Metadata registry modules (ISO/IEC 19773)**
- **Representation of data element values (ISO/IEC 14957)**
- **Metadata for technical standards and specification documents (ISO/IEC 24706)**
- **Common Logic (ISO/IEC 24707)**



Metadata registries (MDR) (ISO/IEC 11179)

Part 1 Framework

Part 2 Classification

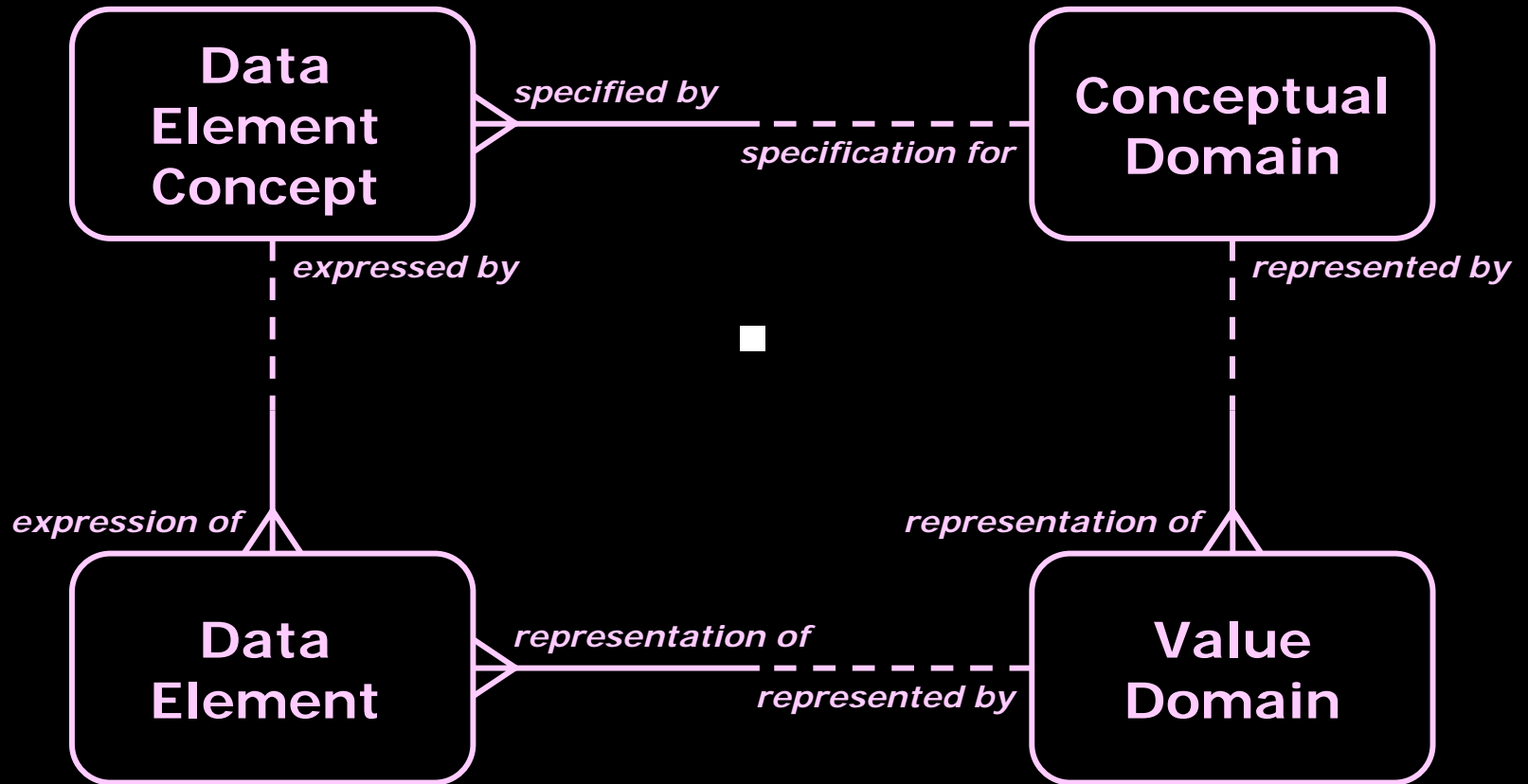
Part 3 Registry Metamodel and Basic Attributes

Part 4 Formulation of Data Definitions

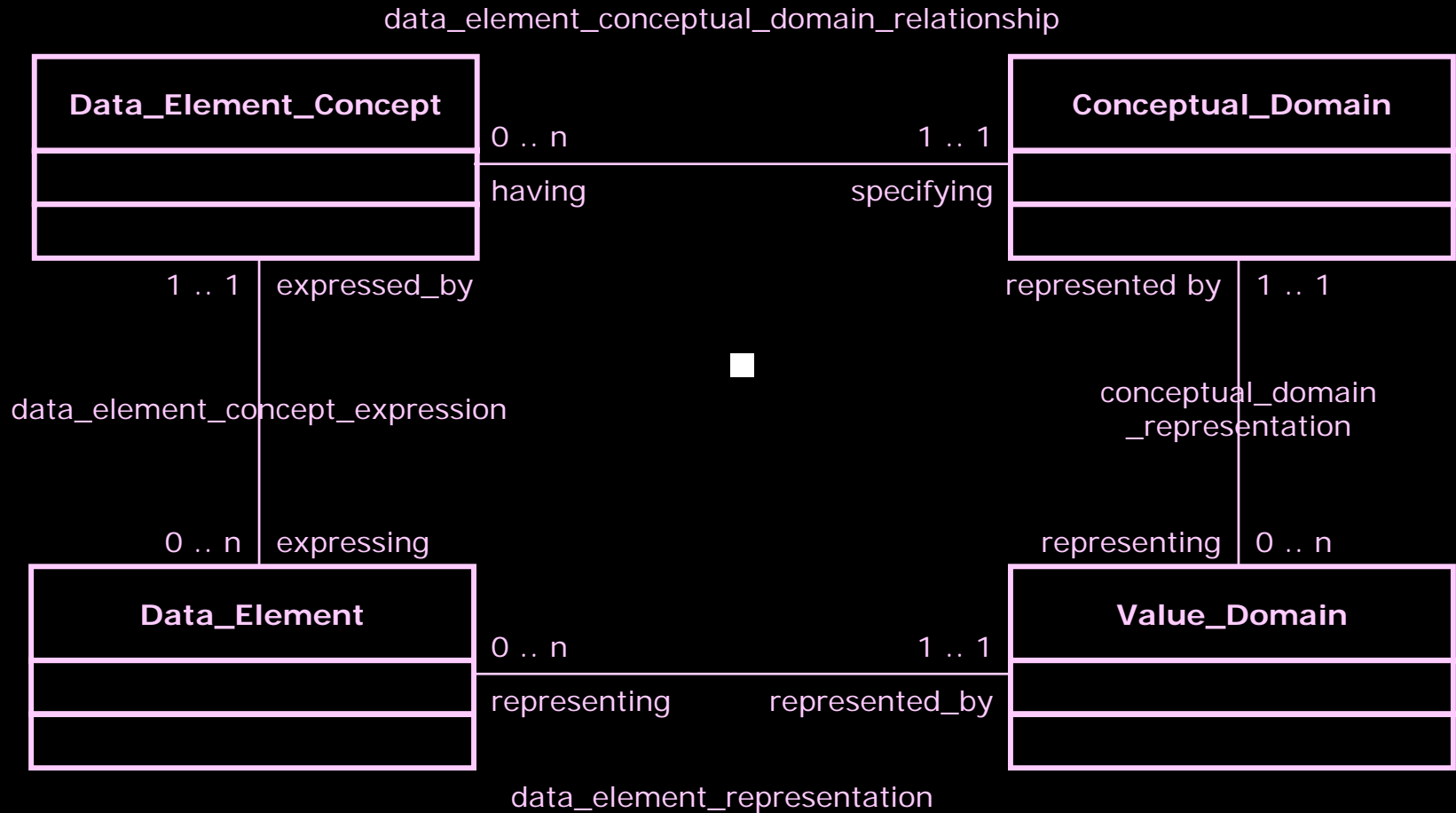
Part 5 Naming and Identification Principles

Part 6 Registration

MDR - key concepts



MDR - key concepts



MDR - the data element concept

The *Country Identifiers* conceptual domain ...

Afghanistan
Belgium
China
Denmark
Egypt
France
Germany
... etc

... has possible data elements ...

Afghanistan
Belgium
China
Denmark
Egypt
France
Germany
... etc

ISO 3166
English Name

AFG
BEL
CHN
DNK
EGY
FRA
DEU
... etc

ISO 3166
3-Alpha Code

004
056
156
208
818
250
276
... etc

ISO 3166
3-Numeric Code

MDR - administered items

Administered Item

(m) administration record

Data
Element
Concept

Conceptual
Domain

Data
Element

Value
Domain

Representation
Class

Context

Classification
Scheme

Derivation
Rule

Object
Class

Property

Problems with MDR

Concentrates on "data elements"

Where are the sets of elements (entities) and the relationships between them?



Ah! We need the Extended Metadata Repository (XMDR) project

- involves US agencies – not ISO/IEC
- but ...

Framework for metamodel interoperability (MMF) (ISO/IEC 19763)

Part 1 Reference model

Part 2 Core model

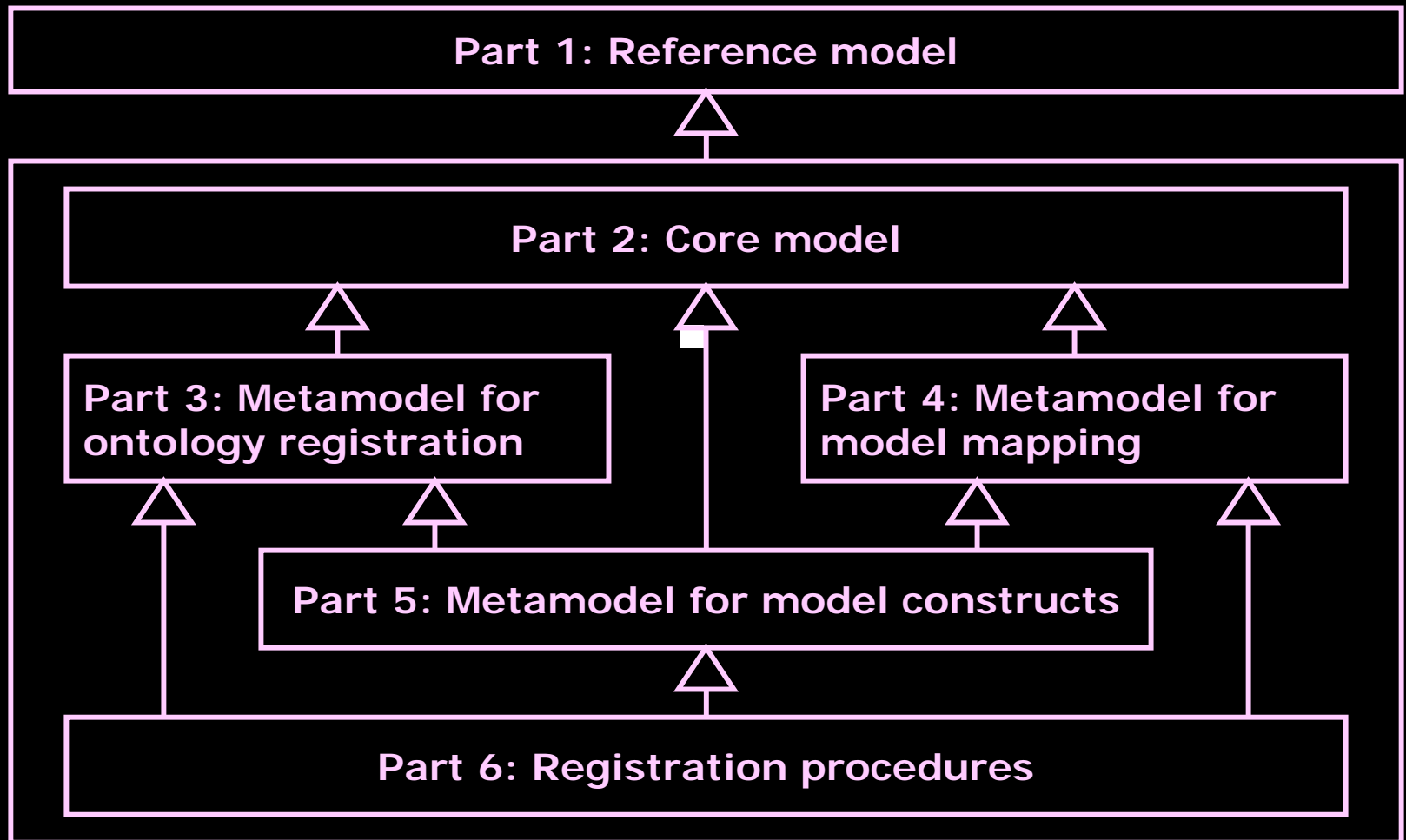
Part 3 Metamodel for ontology registration

Part 4 Metamodel for model mapping

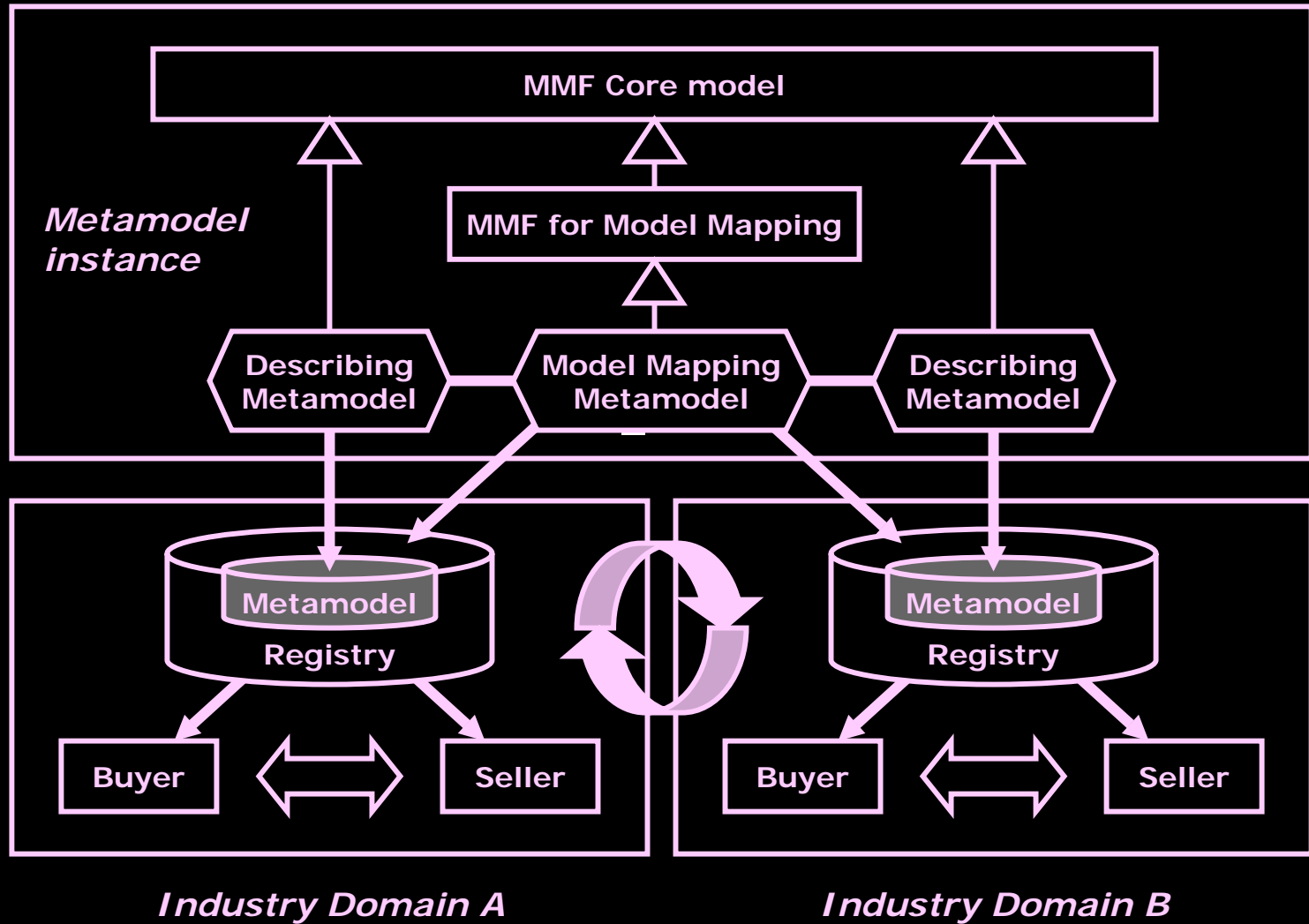
Part 5 Metamodel for model constructs

Part 6 Registration procedures

Framework for metamodel interoperability (MMF) (ISO/IEC 19763)

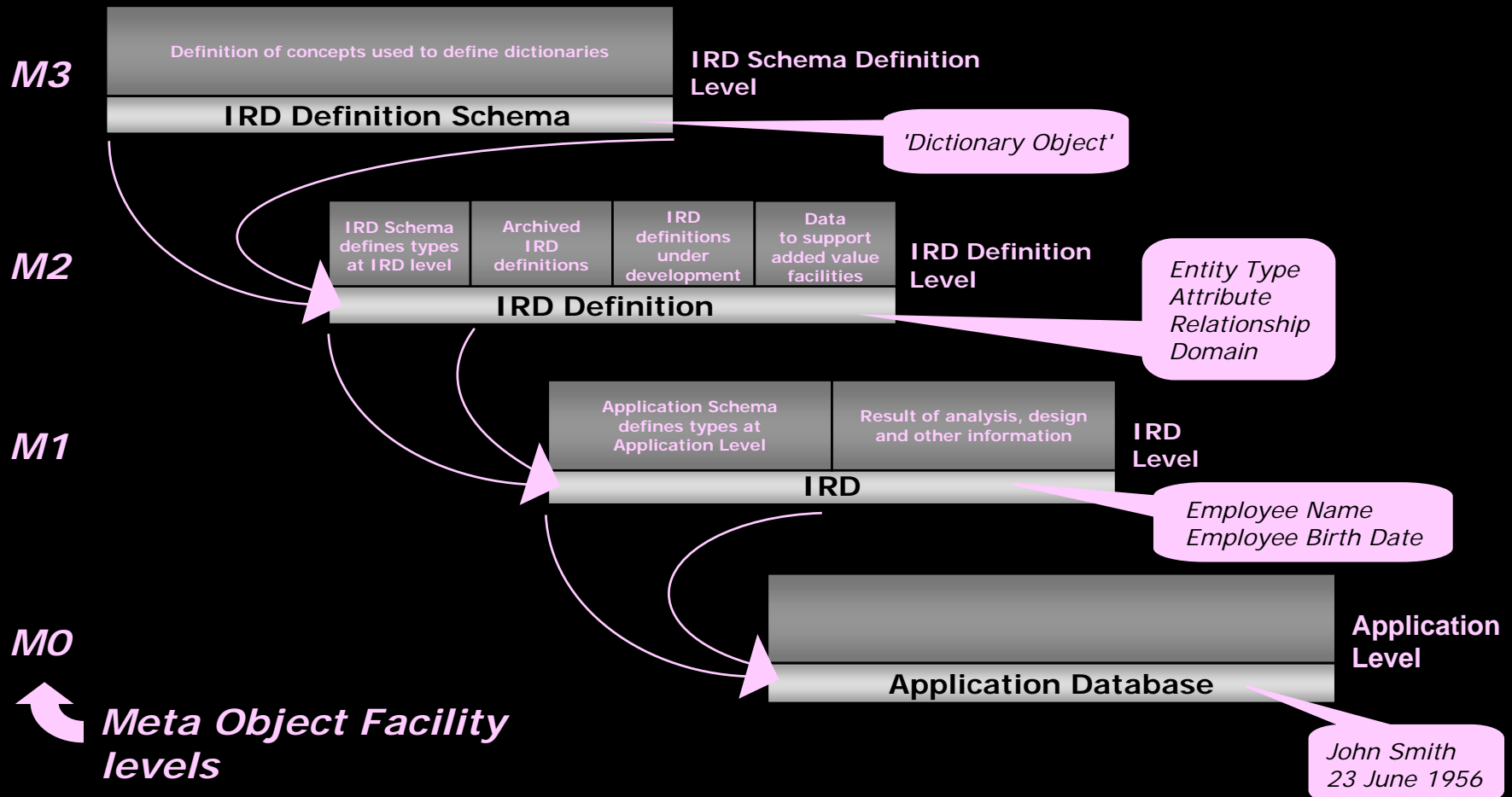


MMF

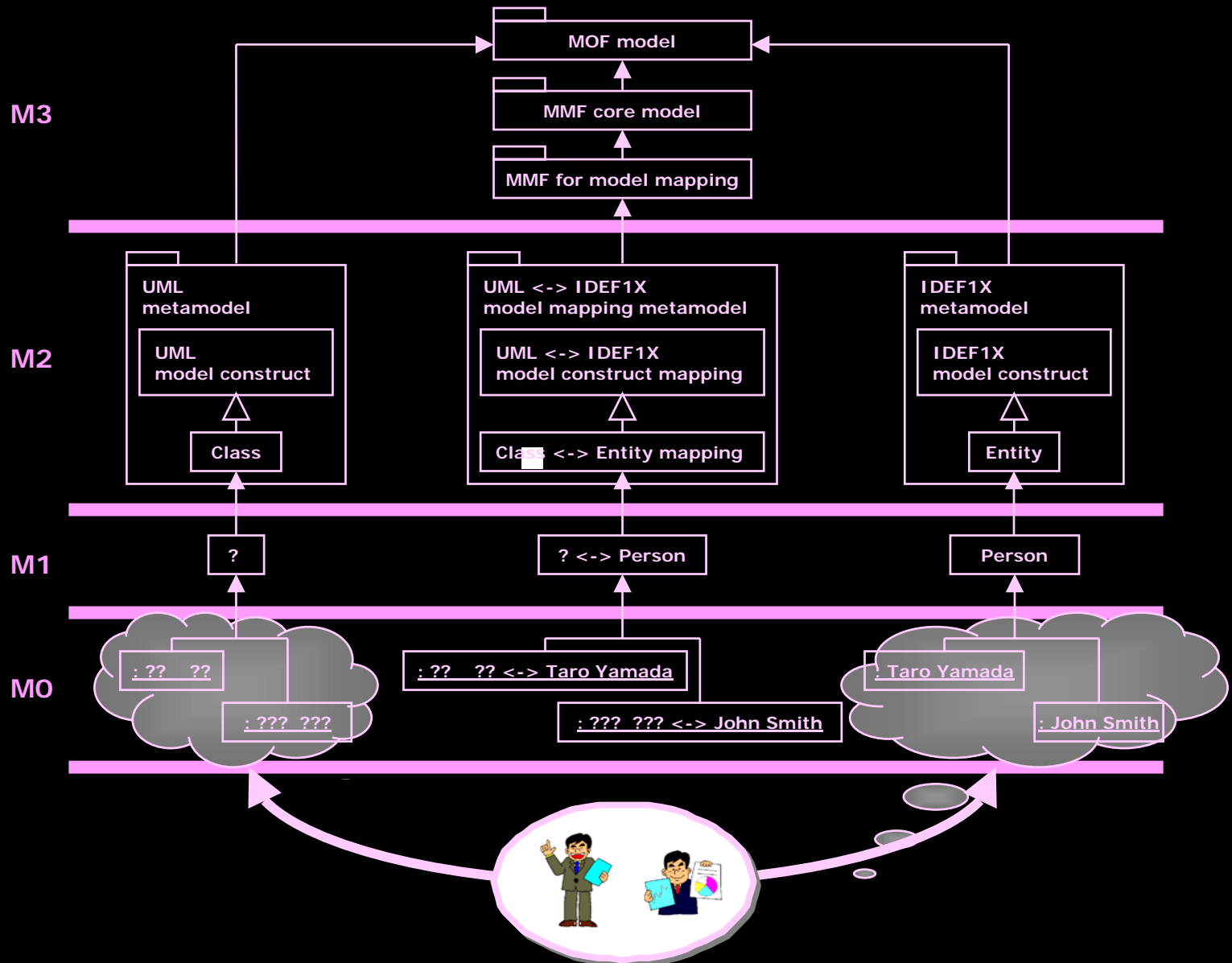


An aside

Information Resource Dictionary System (IRDS)



MMF with the MOF levels



Final thoughts

Great advances with SQL

- but will they be used?

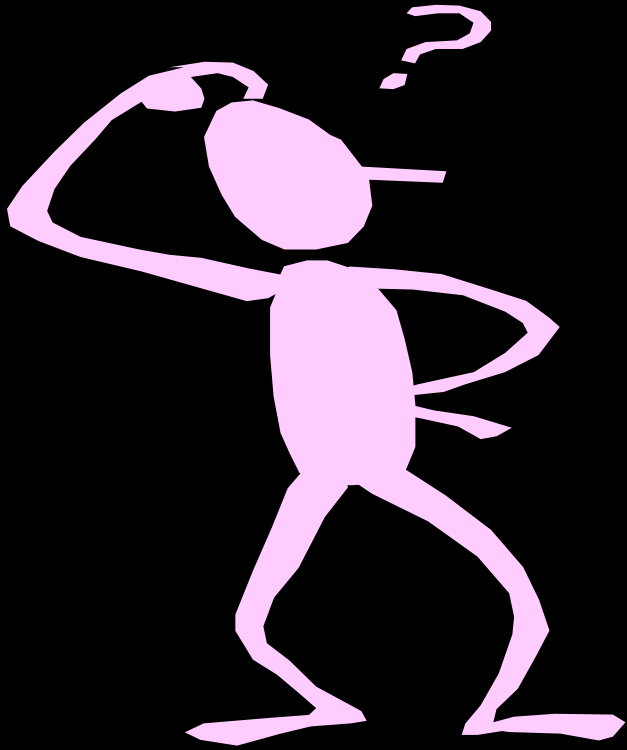
MDR is being used

- but we really need XMDR

MMF looks really interesting

- but we need to make it understandable

I need to find out more about the e-business standards



Any questions?

