EBA DPM and XBRL Taxonomy Introduction

IT Sounding Board
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Who needs to know what?

Business users

- IFRS, FINREP, COREP, … - which accounting regime or standard?
- What do you mean by „financial" (IAS 39/IFRS7/...)?
- Where is it disclosed?
- Gross or net carrying amount?
- Any of it impaired or past due but not impaired yet? Or maybe it is measured at fair value? If so: which level?
- Which operations is it reported for? Banking book, assets management, ...?
- Is any of it portion transferred or partially derecognized?
- Is it audited or unaudited, solo or consolidated (if consolidated then which method)?
- …

1. Balance Sheet Statement [Statement of Financial Position]

1.1. Assets

		References	Breakdown in table	Carrying amount
				010
010	**Cash and cash balances at central banks**	*IAS 1.54 (i)*		
020	Cash on hand	*ITS part 2.1*		
030	Cash balances at central banks	*ITS part 2.2*	3	
040	Other demand deposits	*ITS part 2.3*	3	
050	**Financial assets held for trading**	*IFRS 7.8 (a)(ii); IAS 39.9, AG 14*		
060	Derivatives	*IAS 39.9*	7	
070	Equity instruments	*IAS 32.11*	3	
080	Debt securities	*ITS part 1.14, 15*	3	
090	Loans and advances	*ITS part 1.14, part 3.35*	3	
100	**Financial assets designated at fair value through profit or loss**	*IFRS 7.8 (a) (i); IAS 39.9*	3	
110	Equity instruments	*IAS 32.11*	3	
120	Debt securities	*ITS part 1.14, 15*	3	
130	Loans and advances	*ITS part 1.14, part 3.35*	3	
140	**Available-for-sale financial assets**	*IFRS 7.8.(d); IAS 39.9*	3	
150	Equity instruments	*IAS 32.11*	3	

IT

- Is it a number, date, text? If a number that what is the unit of measure?
- How is it related to other data – which package does it come with (frequency, types of entities)?
- Does it calculate to or from anything else?
- Are there any breakdowns applicable? Are they predefined or flexibly assigned by filers?
- What attributes apply to this data? How is it characterised?
- Which journal-entries roll-up to this value?
- …

What are the options?

DP_1234 | fx | 1090910

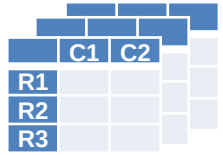
1. Balance Sheet Statement [Statement of Financial Position]

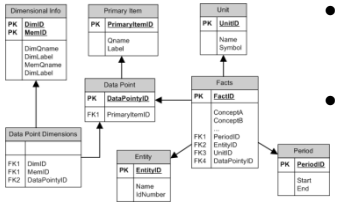
1.1. Assets

		References	Breakdown in table	Carrying amount
				010
010	**Cash and cash balances at central banks**	*IAS 1.54 (i)*		6 390 136
020	Cash on hand	*ITS part 2.1*		3 400 890
030	Cash balances at central banks	*ITS part 2.2*	3	2 980 234
040	Other demand deposits	*ITS part 2.3*	3	9 012
050	**Financial assets held for trading**	*IFRS 7.8 (a)(ii); IAS 39.9, AG 14*		2 358 292
060	Derivatives	*IAS 39.9*	7	1 090 910
070	Equity instruments	*IAS 32.11*	3	1 200 345
080	Debt securities	*ITS part 1.14, 15*	3	59 821
090	Loans and advances	*ITS part 1.14, part 3.35*	3	

"form centric"

- based on presentation of data which conveys all semantics (interpretation in context of views)
- description based on table cells (row/column code, e.g. C6)
- most common solution in projects with no input from business experts
- difficult to maintain and apply e.g. for analysis
- fillers map/extract to/from views (question and error prone)





"data centric"

- explicit and consistent definition irrespective of presentation
- every data cell fully described by business users with all necessary properties in order to explicitly express its meaning
- resulting data model supports data exchange (explicit information for filers) and usage (e.g. in analysis)

WARTOŚĆ.MODUŁU | =DataPoint("Carrying amount";"Assets";"Derivative";"Held-for-trading")

Argumenty funkcji

DataPoint

Metric	"Carrying amount"	= "Carrying amount"
Base	"Assets"	= "Assets"
Category	"Derivative"	= "Derivative"
Portfolio	"Held-for-trading"	= "Held-for-trading"
		= "1090910"

Pomoc niedostępna.

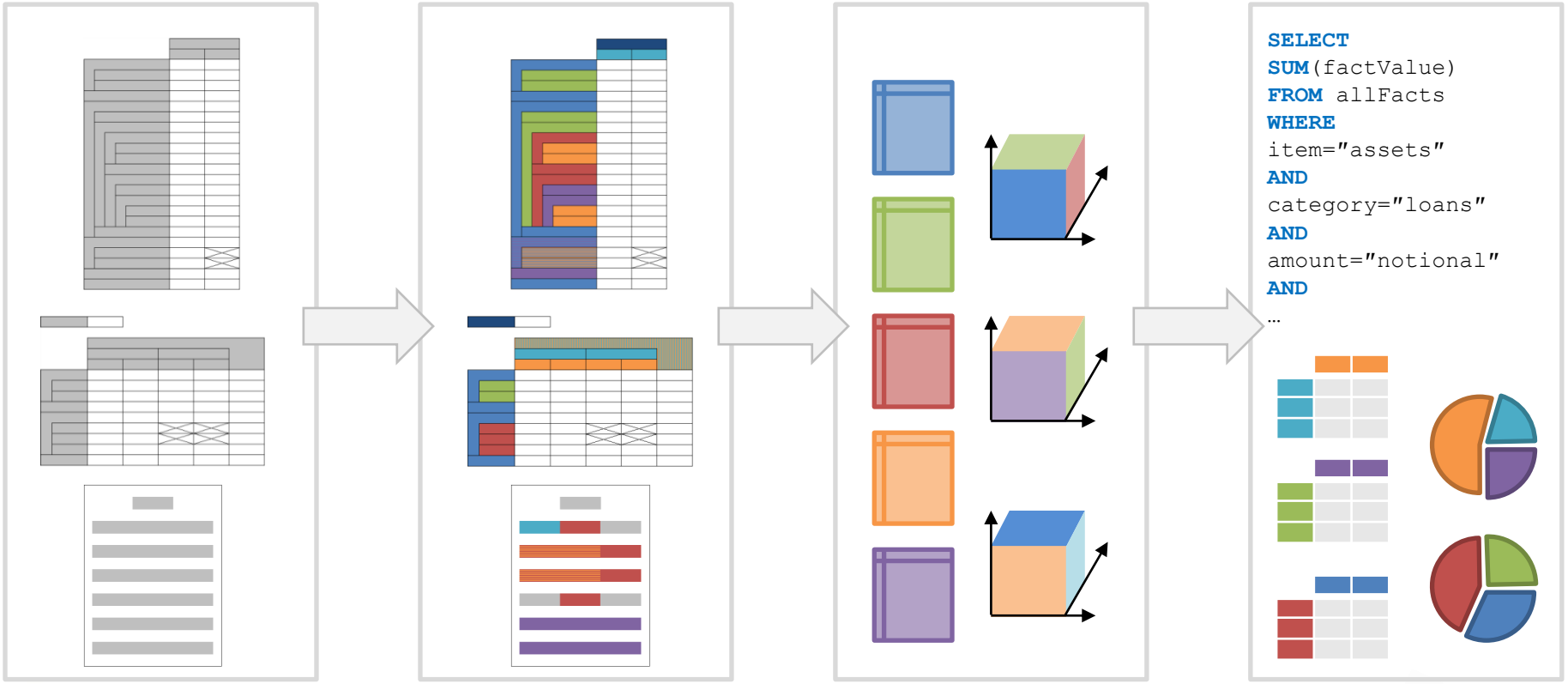
Portfolio

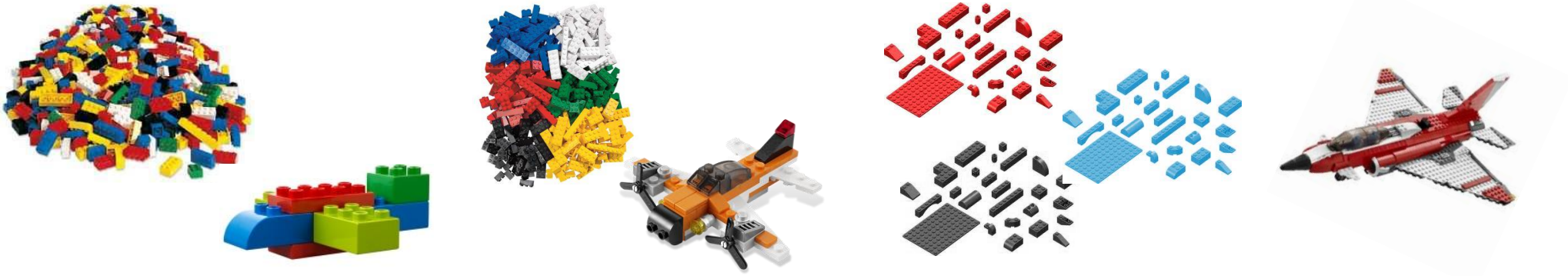
Wynik formuły = 1090910

Pomoc dotyczaca tej funkcji | OK | Anuluj

Carrying amount
010
6 390 136
3 400 890
2 980 234
9 012
2 358 292
or-trading")
1 200 345
59 821
7 216

How to approach data centric modelling?





Define a data point for:

Net carrying amount of not yet impaired but already past due (over 180 days but less than a year) debt securities held, issued in EUR by MFIs located in EMU with original maturity under one year, measured at amortised cost and relating only to business activities conduced in EU?

Measure (metric):
Monetary
Text
Date

Portfolios:
Total (…)
Fair value through profit or loss
Amortised cost

Impairment status:
All / Not-applicable
Impaired
Unimpaired

Time reference:
Current period end
Previous period end
Current period

Base terms:
Assets
Liabilities
Equity
Off-balance sheet
Exposures

Categories:
Total (…)
Cash
Loans
Debt securities
Equity instruments
Tangible and intangible
Other than (…)

Amount types:
Carrying amount
Gross carrying amount
(Specific allowances)
(Collective allowances)

Original currencies:
All / Not-applicable
EUR
Other than EUR

Base term:	Assets
Category:	Debt securities
Portfolio:	Amortised cost
Amount type:	Carrying amount
Impairment status:	Unimpaired
Past due period:	≥ 180 days
Original currency:	EUR
Original maturity:	< 1 year
Counterparty sector:	MFIs
Counterparty residence:	EMU
Location of activity:	EU
Measure (metric):	Monetary
Time reference:	Current period end

Past due periods:
All
< 180 days
≥ 180 days < 1 year
≥ 1 year

Original maturity:
All
< 1 year
≥ 1 year < 2 year
≥ 2 years

Counterparty sectors:
All / Not-applicable
MFIs
MMFs
MFIs other than MMFs
Central Administration
Other general government
Non-MFIs other than government

Counterparty residences:
All / Not-applicable
EMU
Other than EMU (…)

Locations of activities:
All / Not-applicable
EU
Other than EU (…)

How to define the best data model?

$$\varphi_{i,a_i}(s) = \max\{0, u_i(a_i, s_{-i}) - u_i(s)\}$$

$$s_i'(a_i) = \frac{s_i(a_i) + \varphi_{i,a_i}(s)}{\sum_{b_i \in A_i} s_i(b_i) + \varphi_{i,b_i}(s)}$$

$$= \frac{s_i(a_i) + \varphi_{i,a_i}(s)}{1 + \sum_{b_i \in A_i} \varphi_{i,b_i}(s)}$$

data modelling
it's not a science!

it's a (subjective) result of discussion...

...and agreement!

How could data modelling be used by IKEA for their financial statements?

Financial Statement:

Assets	169 645
Living room equipment	130 400
Bedroom equipment	23 000
Bathroom equipment	8 900
Kitchen equipment	7 345

Income	1 039 934
Furniture	480 350
Wooden	15 350
Chairs	13 000
Tables	2 350
Metal	465 000
Chairs	432 100
Tables	32 900
Textiles	79 234
Rugs	12 004
Towels	67 230

View oriented:

Assets categories
Assets
Living room
Bedroom
Bathroom
Kitchen

Income categories
Furniture
Wooden
Chairs
Tables
Metal
Chairs
Tables
Textiles
Rugs
Towels

Normalized:

Financial category
Assets
Income

Destination
Living room
Bedroom
Bathroom
Kitchen

Products
Furniture
Chairs
Tables
Rugs
Towels

Material
Wood
Metal
Textile

De-normalized:

Category
Assets
Living room
Bedroom
Bathroom
Kitchen
Income

Material and type
Furniture
Wood
Metal
Textile
Rugs
Towels

Lines of products
Chairs
Tables

How does it help in e.g. change communication? (1)

Template 3

FINREP ver 1: 51 data points
FINREP rev 2: 45 data points

Identical cells: 0! due to:

different classification of instruments
addition of economic hedges as a new portfolio
introduction of breakdown by markets

How to present this change?

3. Derivatives held for trading

By type of risk	By instrument	Carrying amount		Notional amount
		Assets	Liabilities	
Interest rate	Option/Cap/Floor/Collar/Swaption			
	IRS			
	FRA			
	Forward			
	Interest future			
	Other			
Equity	Equity forward			
	Equity future			
	Equity option			
	Warrant			
	Other			
Currency (FX)	FX forward			
	FX future			
	Cross currency swap			
	FX option			
	FX forward rate agreement			
	Other			

Financial Assets Held for Trading, Trading Derivatives, Equity Option

3. Derivatives held for trading

By type of risk	By product or by type of market	*References*	Carrying amount		Notional
			Assets	Liabilities	Total
Interest rate	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Equity	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Foreign exchange	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				

Financial Assets Held for Trading, Trading Derivatives, Equity Option, OTC

Financial Assets Held for Trading, Trading Derivatives, Equity Option, Organized market

How does it help in e.g. change communication? (2)

3. Derivatives held for trading

By type of risk	By instrument	Carrying amount		Notional amount
		Assets	Liabilities	
Interest rate	Option/Cap/Floor/Collar/Swaption			
	IRS			
	FRA			
	Forward			
	Interest future			
	Other			
Equity	Equity forward			
	Equity future			
	Equity option			
	Warrant			
	Other			
Currency (FX)	FX forward			
	FX future			
	Cross currency swap			
	FX option			
	FX forward rate agreement			
	Other			

Category
Derivatives
Portfolio
Held for trading
Base item
Assets
Liabilities
Assets and/or Liabilities
Amount type
Carrying amount
Notional amount
Risk Type
Currency (FX)
Equity
Interest rate
Instruments
Option
Cross swap
Forward
FRA
Future
IRS
Warrant
Option/Cap/Floor/Collar/Swaption
Other than Option, Cross swap, Forward and Future
Other than Option, Warrant, Forward and Future
Other than Option/Cap/Floor/Collar/Swaption, IRS, FRA, Forward and Future

How does it help in e.g. change communication? (3)

3. Derivatives held for trading

By type of risk	By product or by type of market	*References*	Carrying amount		Notional
			Assets	Liabilities	Total
Interest rate	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Equity	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				
Foreign exchange	OTC options				
	OTC other				
	Organized market options				
	Organized market other				
	of which: economic hedges				

Category
Derivatives
Portfolio
Held for trading
Held for trading, economic hedges
Base item
Assets
Liabilities
Assets and/or Liabilities
Amount type
Carrying amount
Notional amount
Risk Type
Currency (FX)
Equity
Interest rate
Instruments
Option
Other than options
Market
Organized market
OTC

How does it help in e.g. change communication? (4)

FINREP ver 1 vs FINREP rev 2

=

Portfolio
Held for trading

Instruments
Option
Cross swap
Forward
FRA
Future
IRS
Warrant
Option/Cap/Floor/Collar/Swaption
Other than Option, Cross swap, Forward and Future
Other than Option, Warrant, Forward and Future
Other than Option/Cap/Floor/Collar/Swaption, IRS, FRA, Forward and Future

+

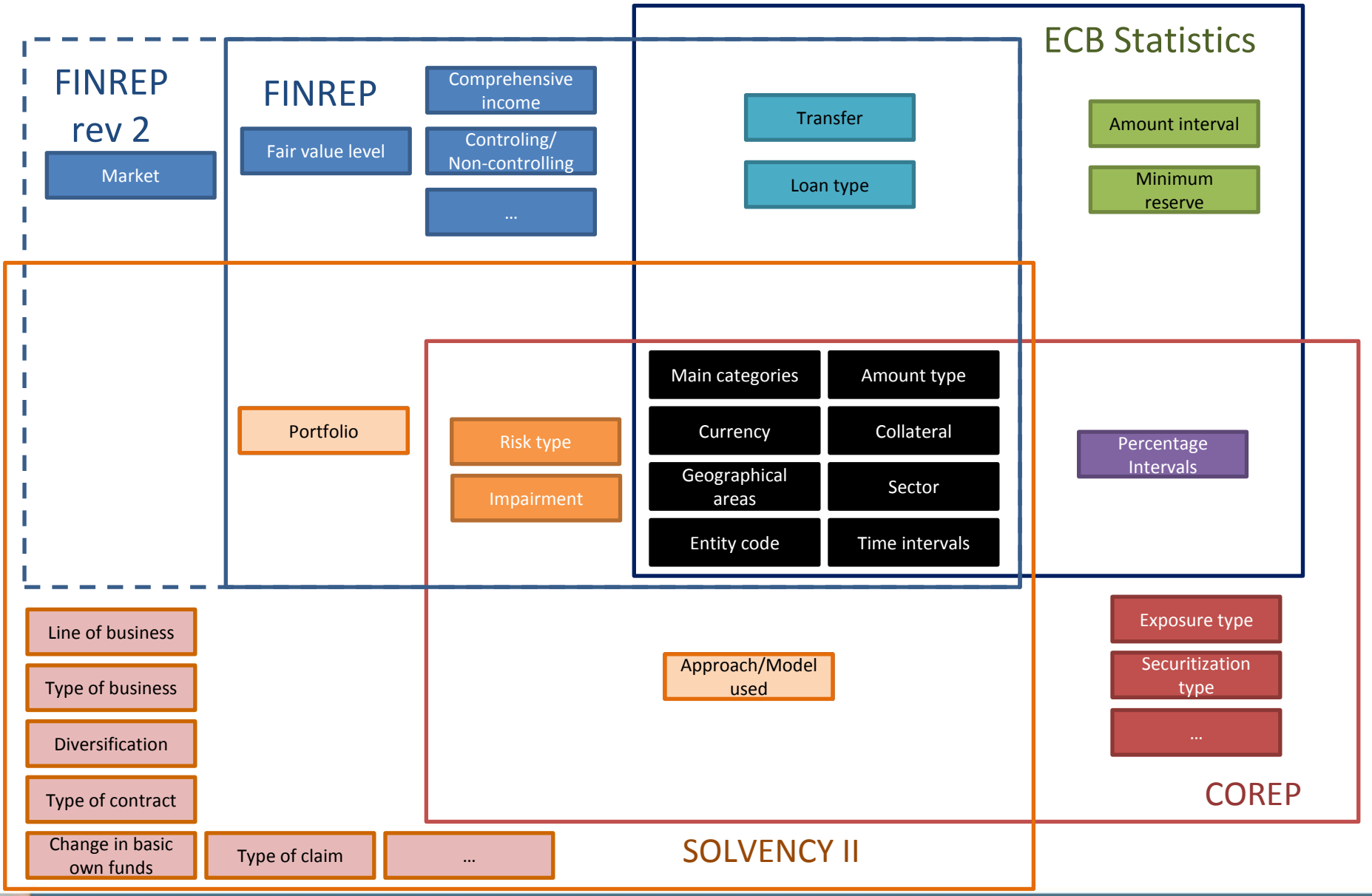
Portfolio
Held for trading
Held for trading, economic hedges

Instruments
Option
Other than options

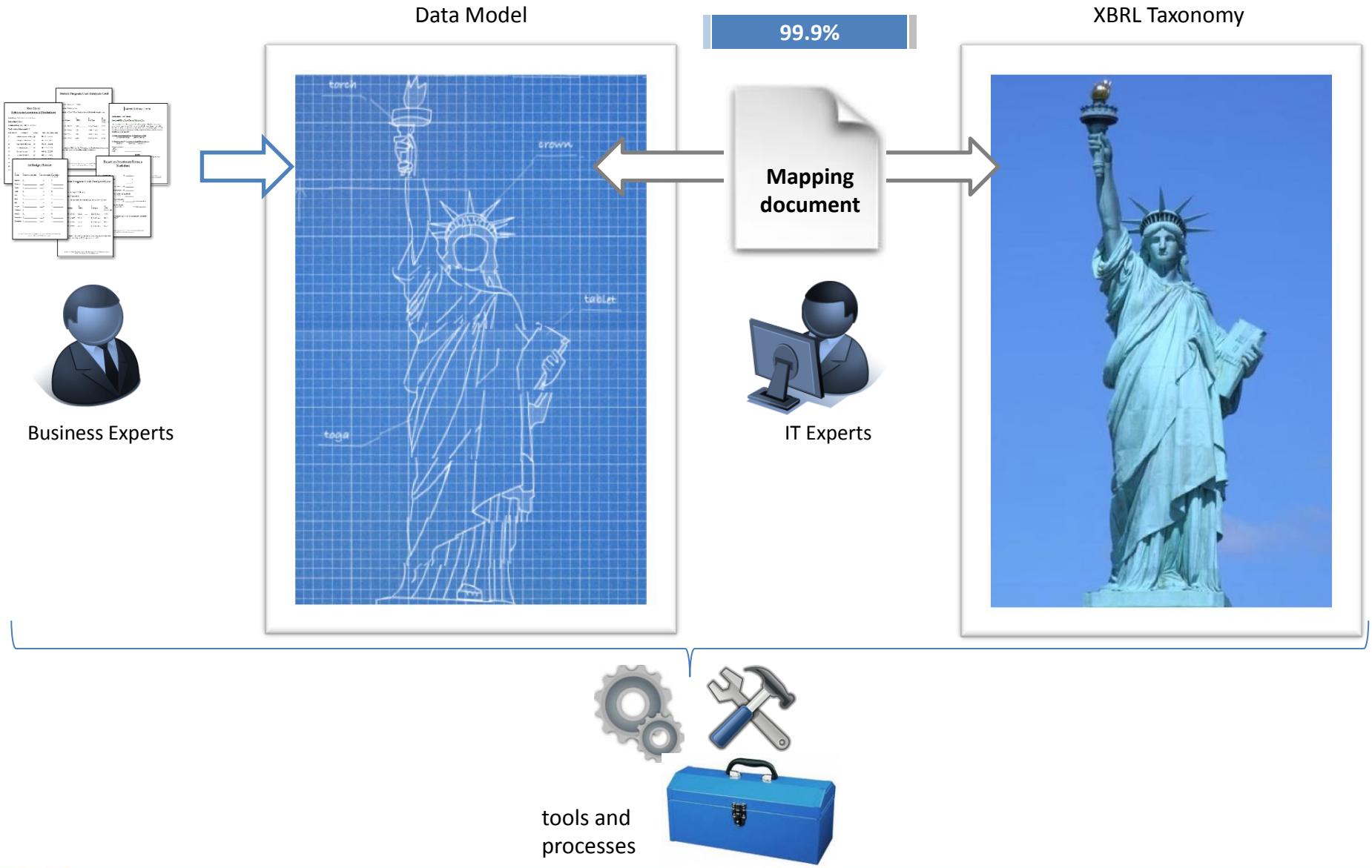
+

Market
Organized market
OTC

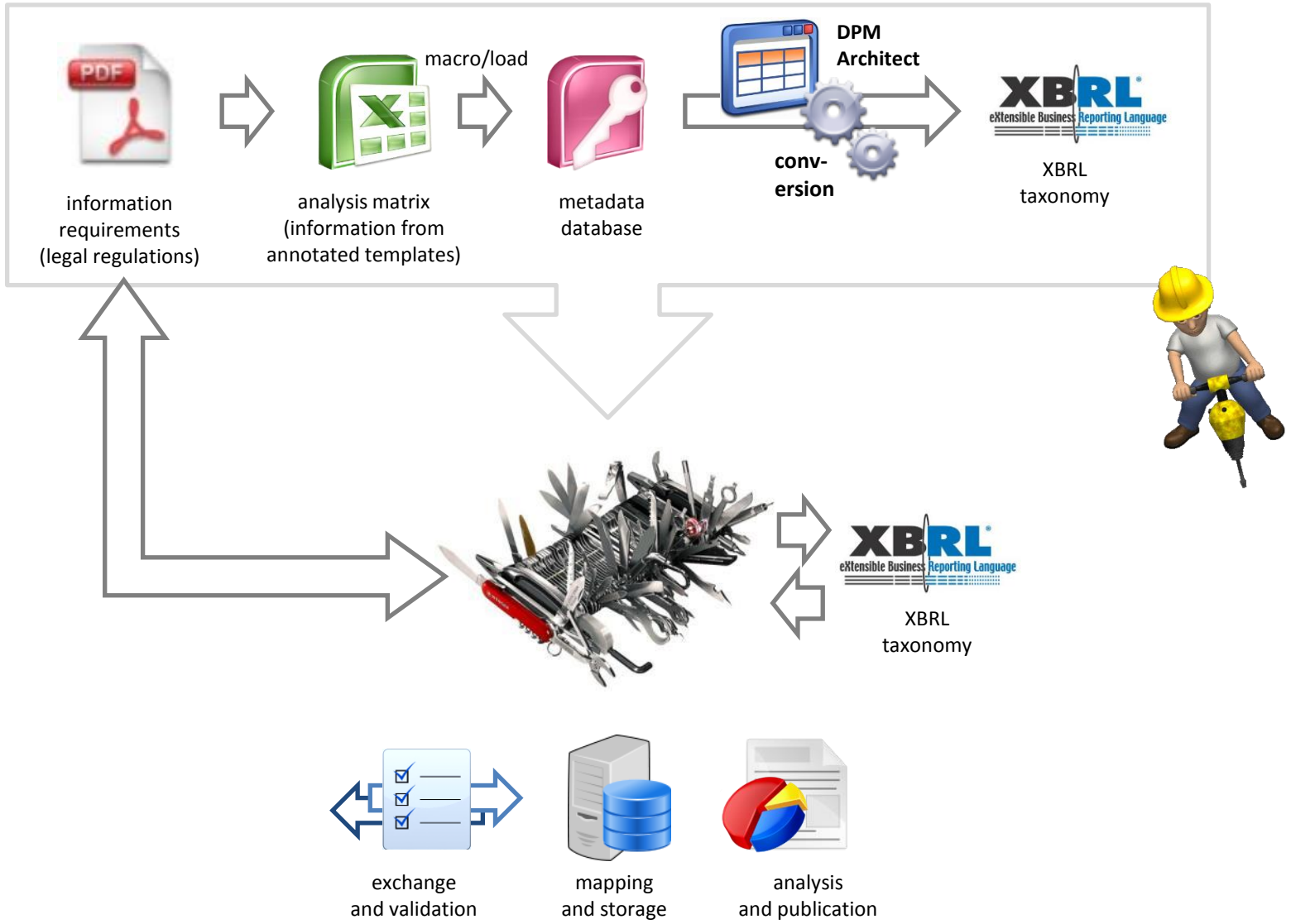
Potential to reuse the breakdowns!



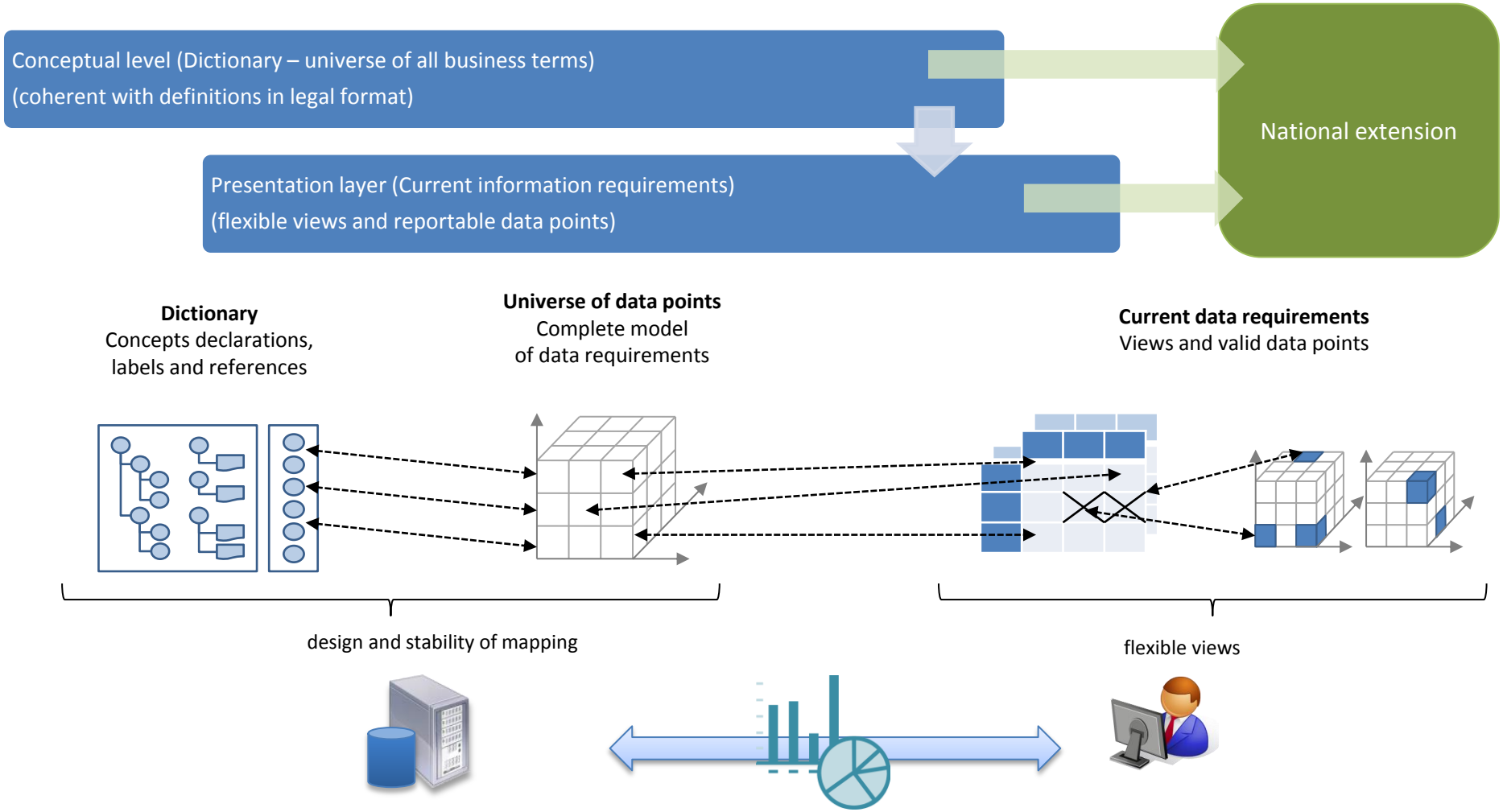
How does it translate on the technology?



How does the development process look like?



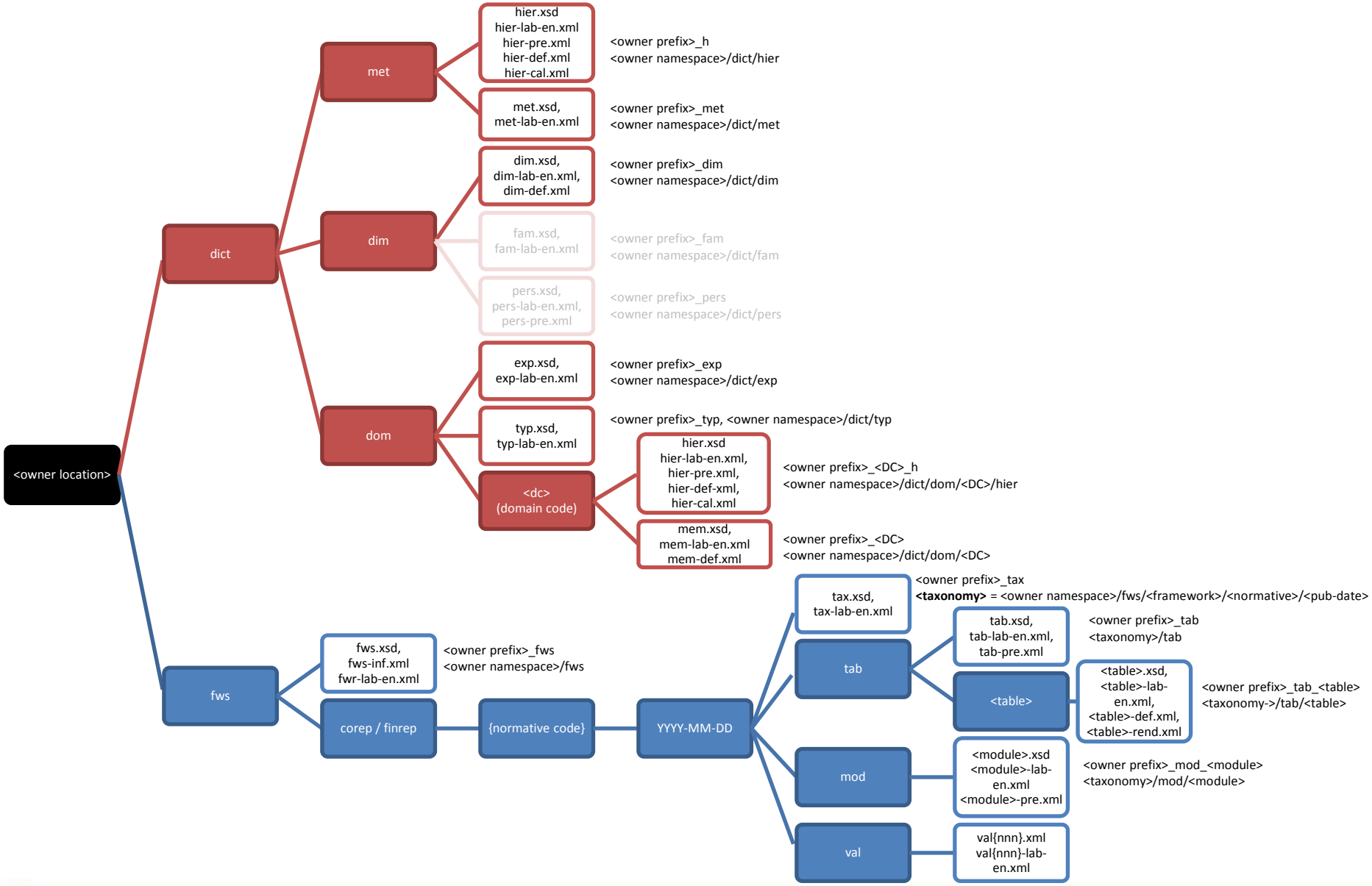
How is the taxonomy structured?



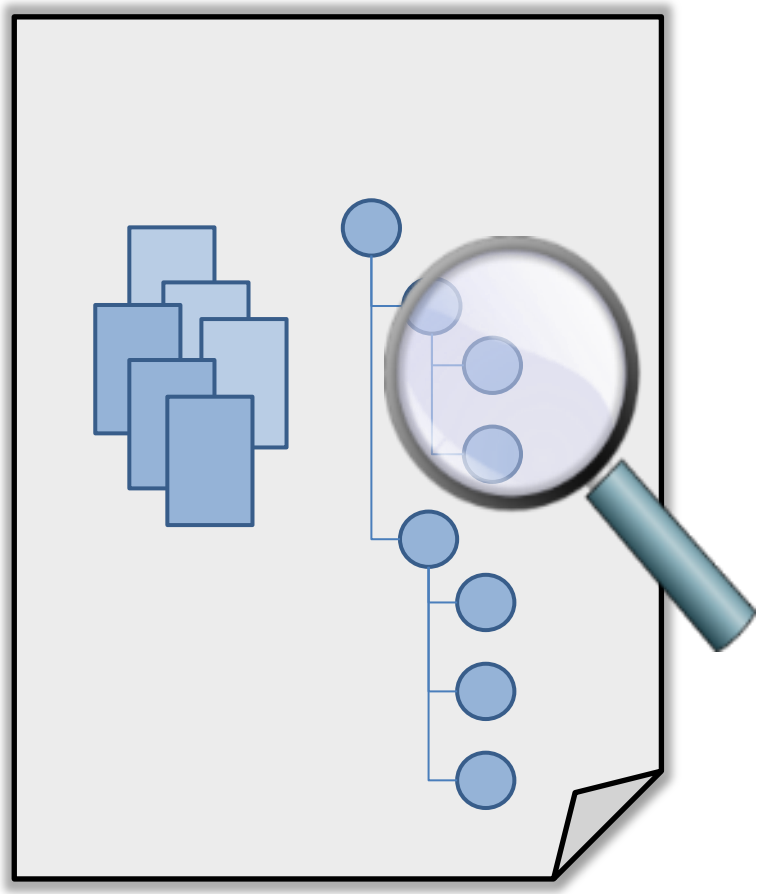
aim: coherency, stability, flexibility, simplicity and efficiency

aspects: implementation and maintenance (both at filer and supervisor sides)

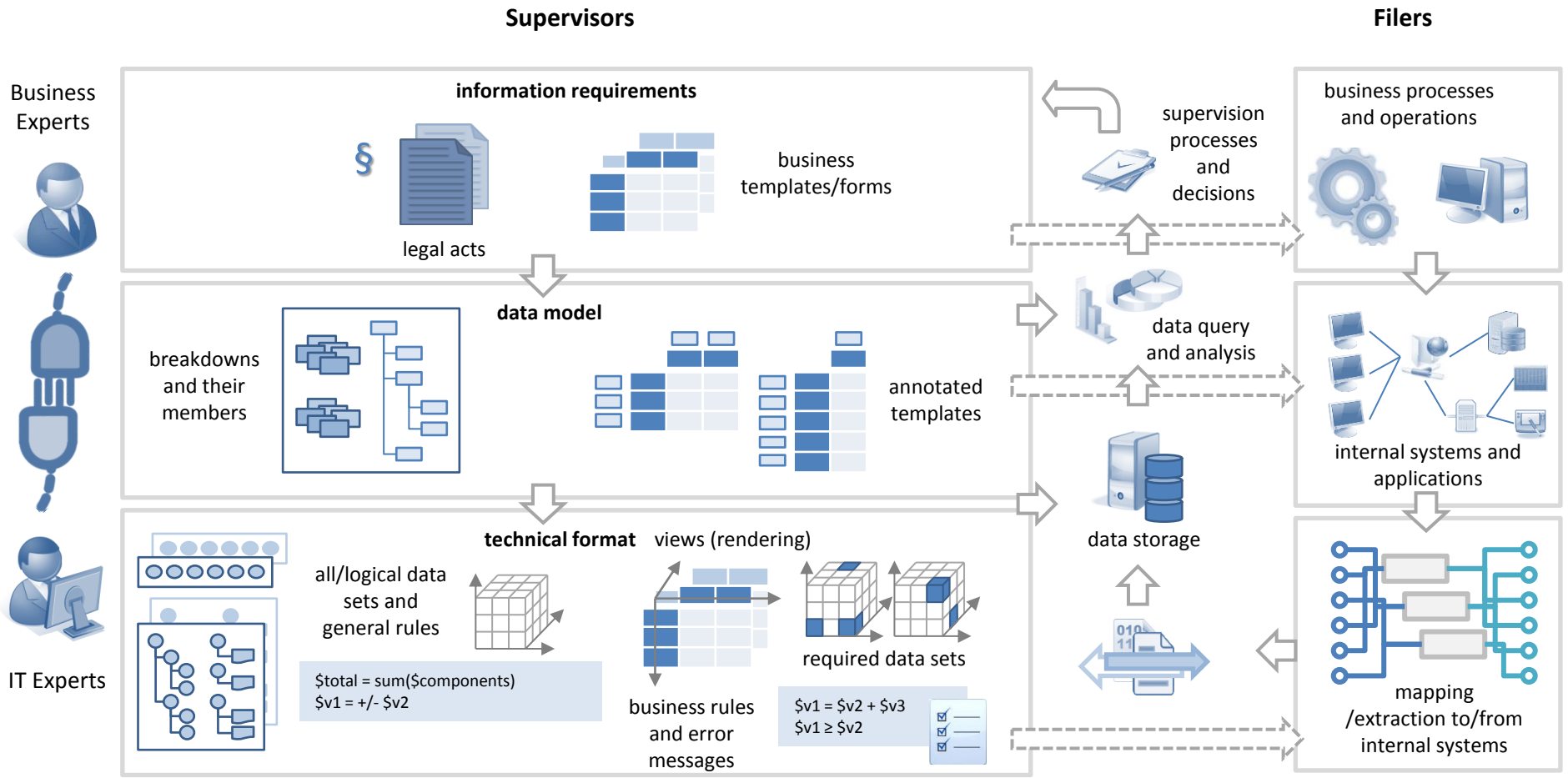
Browsing by folder and files



Let’s see how it looks.



Summary


Supervisors
Filers
Business Experts
IT Experts
information requirements
legal acts
business templates/forms
supervision processes and decisions
business processes and operations
data model
breakdowns and their members
annotated templates
data query and analysis
internal systems and applications
technical format
views (rendering)
all/logical data sets and general rules
$total = sum($components)
$v1 = +/- $v2
business rules and error messages
required data sets
$v1 = $v2 + $v3
$v1 ≥ $v2
data storage
mapping /extraction to/from internal systems

Questions?