EUROPEAN INSURANCE
AND OCCUPATIONAL PENSIONS AUTHORITY

Update on the XBRL Architecture, Taxonomies and DPM

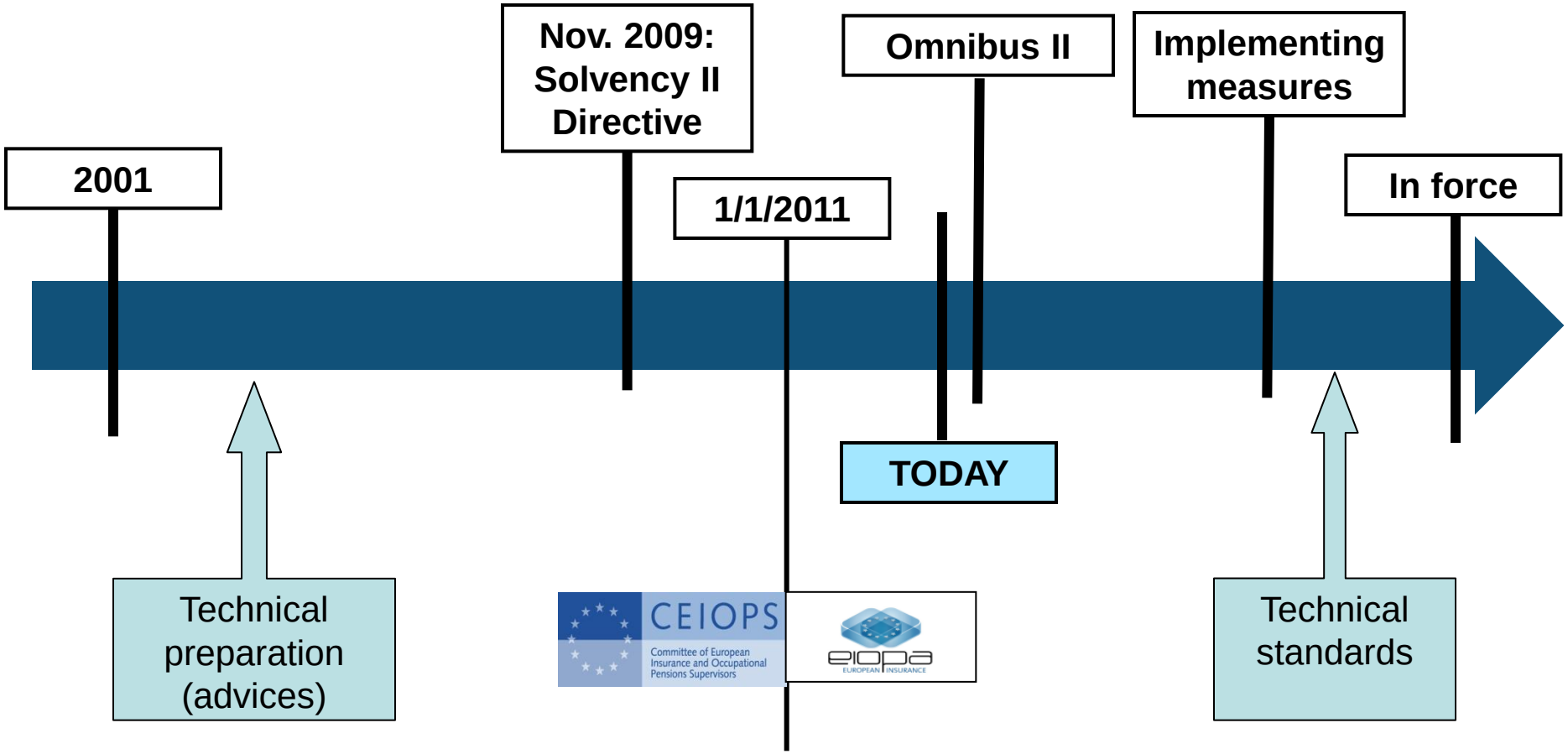
Eurofiling Conference

Frankfurt, 12 November 2012

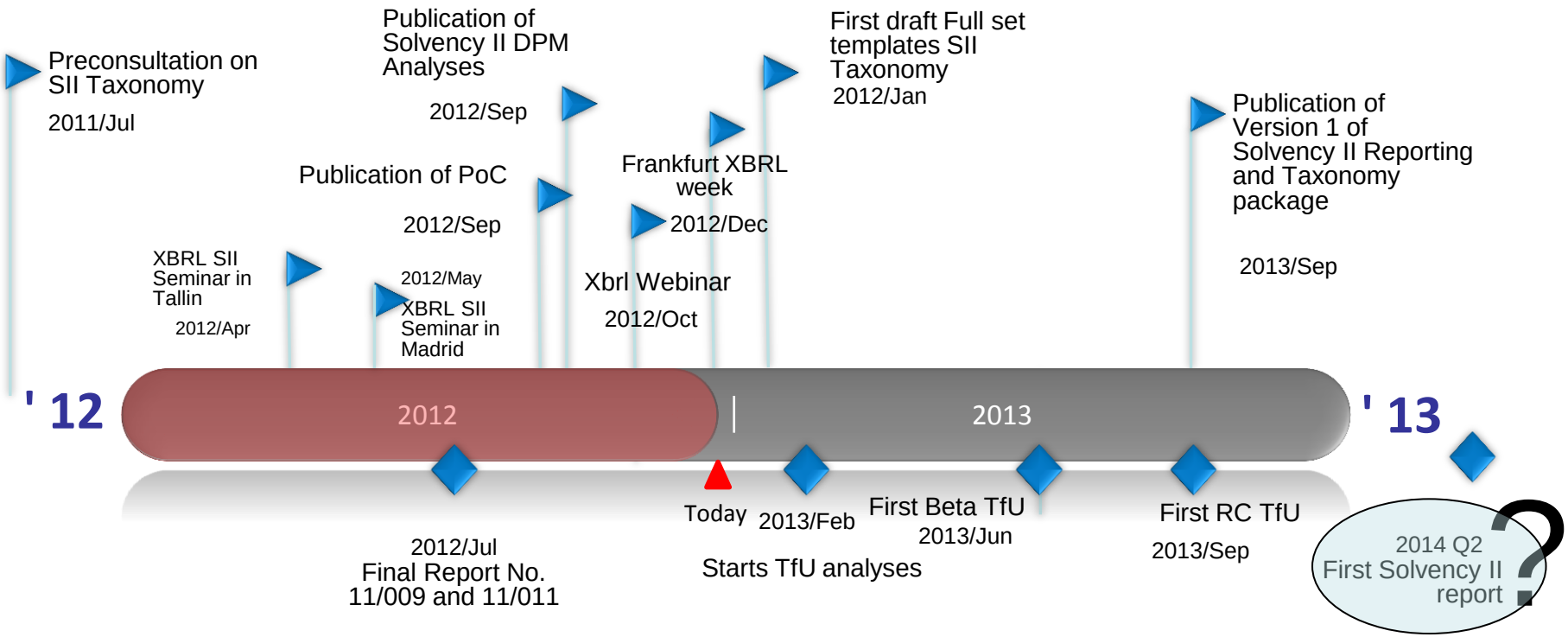
Agenda

- Introduction
- Proof-of-concept
  - DPM
  - taxonomy
- Draft full DPM and taxonomy (work in progress)
- Definition of business rules (Birelle)
- QA review

Solvency II timeline



Taxonomy timeline



Taxonomy delivery or event.

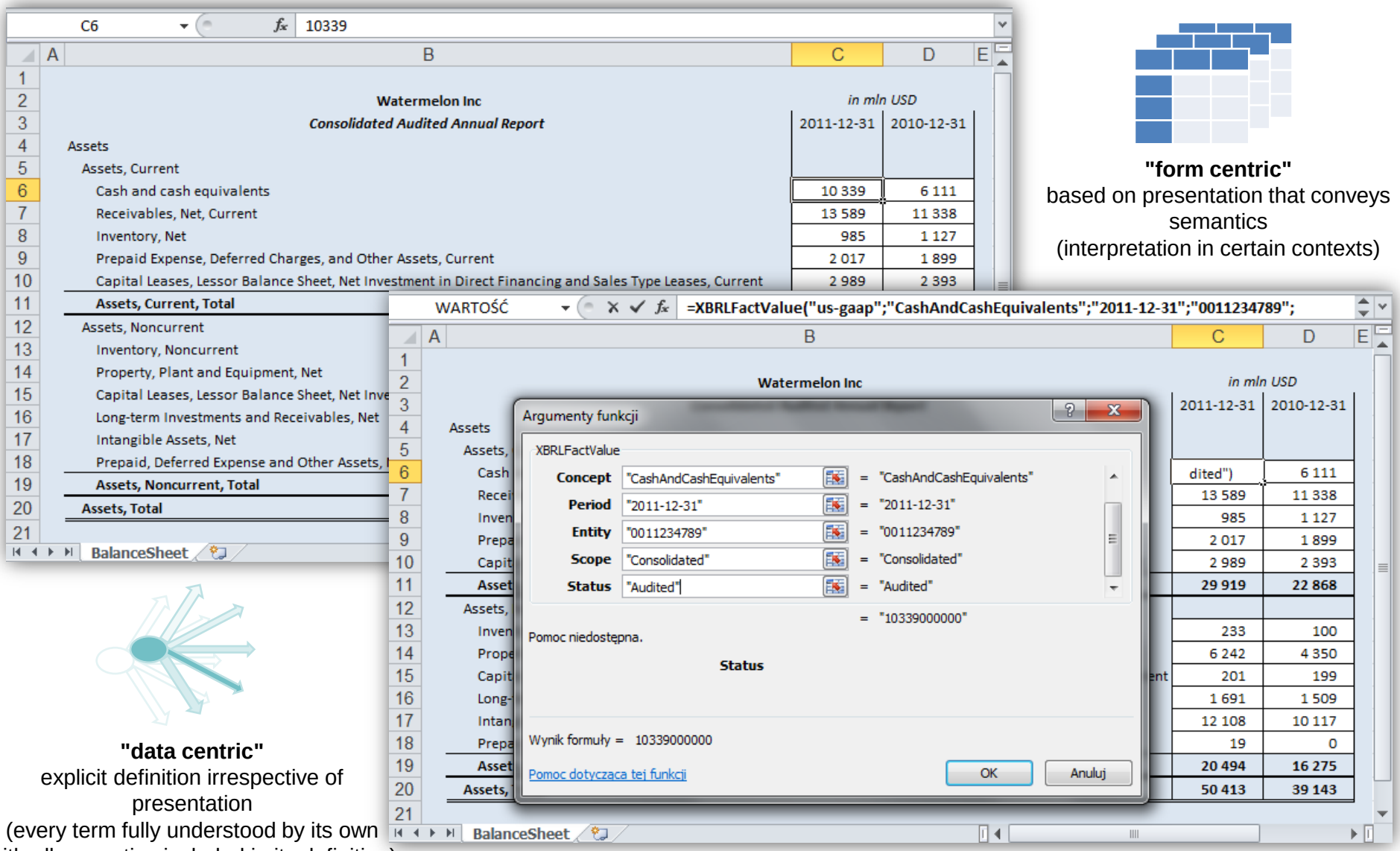
External income/dependency of the Taxonomy Project.

First taxonomy (short term)

- Aiming to be published in January 2013
- Covering the latest business requirements (July + Errata)
- Covering Solo, Group, Quarterly, Annual, Public disclosure
- Two layers approach with conversion mechanism
- Two rendering linkbases
- Will include only some formulas at this moment
- Implemented by BR-AG and ACP
- QA review by CoreFiling

Proof-of-concept DPM

Form centric vs. data centric approach



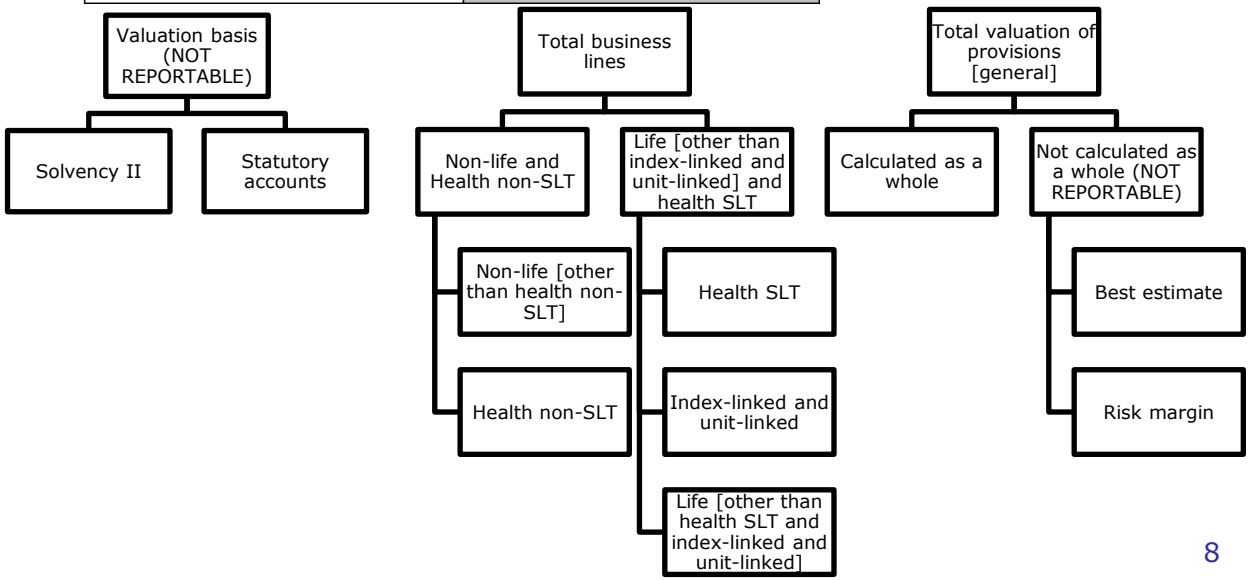
"form centric"
based on presentation that conveys semantics
(interpretation in certain contexts)

"data centric"
explicit definition irrespective of presentation
(every term fully understood by its own with all properties included in its definition)

What is data modeling?
Let's model a part of QRT

Liabilities	Solvency II value	Statutory accounts value
Technical provisions, Non-life		LS1A=LS1+LS4
Technical provisions – non-life (excluding health)	L1=L1A+L2+L3	LS1
TP calculated as a whole	L1A	
Best Estimate	L2	
Risk margin	L3	
Technical provisions - health (similar to non-life)	L4=L4A+L5+L6	LS4
TP calculated as a whole	L4A	
Best Estimate	L5	
Risk margin	L6	
Technical provisions, Life, Excluding index-linked and unit-linked		LS6F=LS6B+LS7
Technical provisions - health (similar to life)	L6B=L6C+L6D+L6E	LS6B
TP calculated as a whole	L6C	
Best Estimate	L6D	
Risk margin	L6E	
Technical provisions – life (excluding health and index-linked and unit-linked	L7=L7A+L8+L9	LS7
TP calculated as a whole	L7A	
Best Estimate	L8	
Risk margin	L9	
Technical provisions – index-linked and unit-linked	L10=L10A+L11+L12	LS10
TP calculated as a whole	L10A	
Best Estimate	L11	
Risk margin	L12	

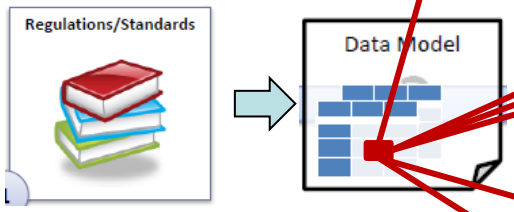
- modelling options:
  - each cell is a single item (no properties)
    primary items
  - 22 items and one property (Valuation basis) with values:: Solvency II and Statutory accounts
  - one item & three properties (DPM)
- what about additional/not explicit information: for example group vs. solo?



Benefits of DPM

VA C2C	Year N	Year N-1	Var
Liabilities			
TP calculated as a whole - Life	N1	O1	V1=N1-O1
Best Estimate - Life	N2	O2	V2=N2-O2
Risk margin - Life	N3	O3	V3=N3-O3
TP calculated as a whole - Non Life	N4	O4	V4=N4-O4
Best Estimate - Non Life	N5	O5	V5=N5-O5
Risk margin - Non Life	N6	O6	V6=N6-O6
Assets			
Assets held for index-linked and unit-linked funds	N7	O7	V7=N7-O7
Reinsurance recoverables - Life	N8	O8	V8=N8-O8
Reinsurance recoverables - Non Life	N9	O9	V9=N9-O9

Liabilities	Solvency II value	Statutory accounts value
Technical provisions, Non-life		LS1A=LS1+LS4
Technical provisions – non-life (excluding health)	L1=L1A+L2+L3	LS1
TP calculated as a whole	L1A	
Best Estimate	L2	
Risk margin	L3	
Technical provisions - health (similar to non-life)	L4=L4A+L5+L6	LS4
TP calculated as a whole	L4A	
Best Estimate	L5	
Risk margin	L6	
Technical provisions, Life, Excluding index-linked and unit-linked		LS6F=LS6B+LS7
Technical provisions - health (similar to life)	L6B=L6C+L6D+L6E	LS6B
TP calculated as a whole	L6C	
Best Estimate	L6D	
Risk margin	+	
Technical provisions – life (excluding health and index-linked and unit-linked)	L7=L7A+L8+L9	LS7
TP calculated as a whole	L7A	
Best Estimate	L8	
Risk margin	+	
Technical provisions – index-linked and unit-linked	L10=L10A+L11+L12	LS10
TP calculated as a whole	L10A	
Best Estimate	L11	
Risk margin	L12	



- DPM is template independent (data centric) - all information about data point is explicit
- It is easy to trace the difference between every two data points across entire reporting requirement
- DPM could be a guideline how to organize the data on reporting entity side (storage and BI systems)
- The quality of reporting requirements/templates is improving (consistent labeling, hierarchical structures)
- Model is very stable but possible to extend if required (reusing of concepts is priority, adding/extending of concepts/hierarchies is possible as long as it doesn't break the logic of model)

F1
Life and Health SLT Technical Provisions (Annual)

Cell not relevant	Cell used more than once in one single template	Cell reported in a different template	Formula

	Insurance with profit participation	Index-linked and unit-linked insurance		Other life insurance		Annuities stemming from non-life insurance contracts and relating to insurance obligation other than health insurance	Accepted reinsurance	Total (Life other than health insurance, incl. Unit-Linked)
		Contracts without options and guarantees	Contracts with options and guarantees	Contracts without options and guarantees	Contracts with options and guarantees			
Technical provisions calculated as a whole (Replicable portfolio)	A1	A3		A5		A6	7=A7A+A7B+A7	A9=A1+A3+A5+A6+A7

	Health insurance (direct business)		Annuities stemming from non-life insurance contracts and relating to health insurance obligations	Health reinsurance (reinsurance accepted)	Total (Health similar to life insurance)
	Contracts without options and guarantees	Contracts with options and guarantees			
Technical provisions calculated as a whole (Replicable portfolio)	A10	+	A12	A13	A14=A10+A12+A13

A data point: Net carrying amount of not yet unimpaired but already past due (over 180 days) 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 (local business).

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
0 days
< 180 days
≥ 180 days

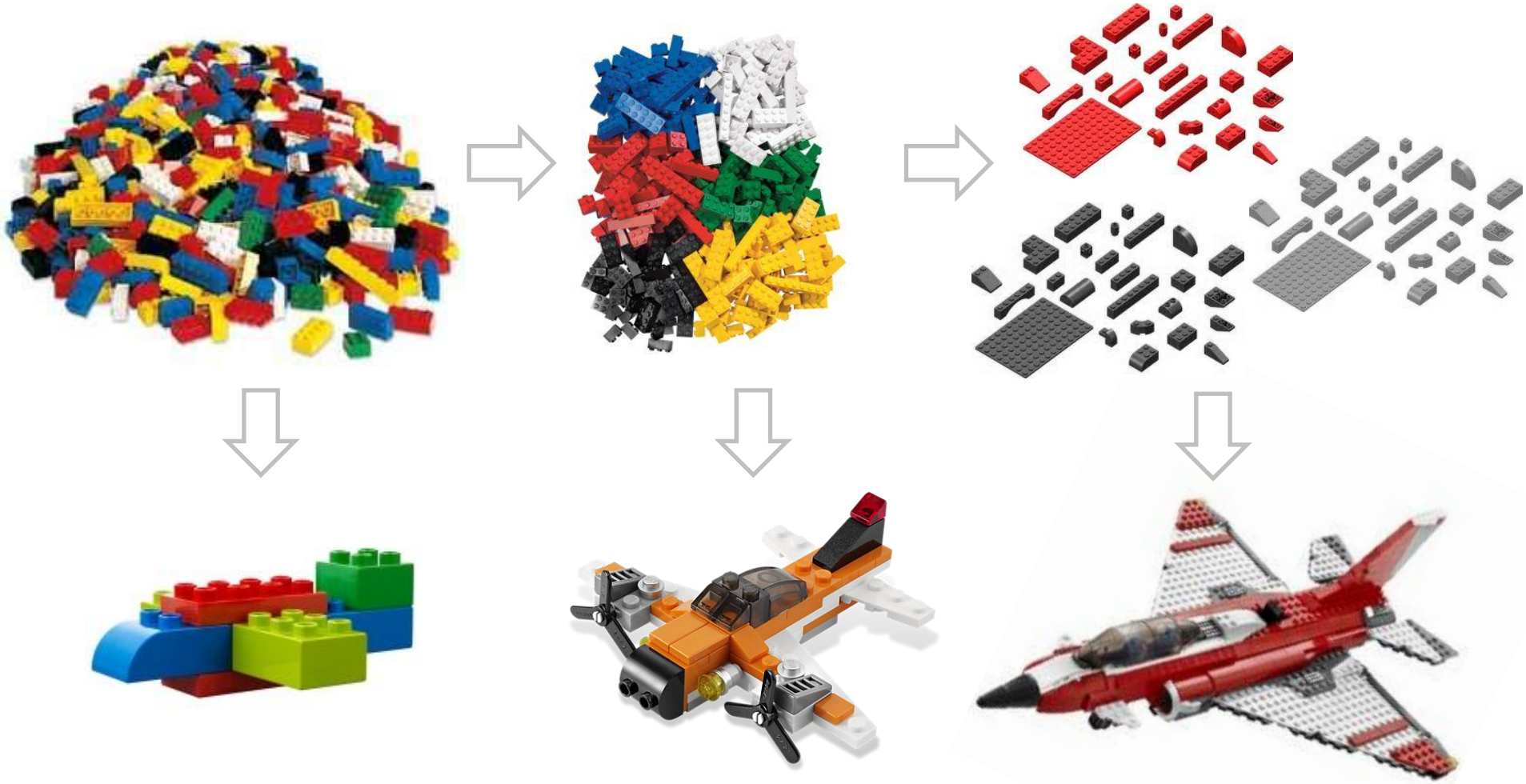
Original maturity:
All
< 1 year
≥ 1 year < 2 year
≥ 2 years

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 (…)

Building a plane from Lego blocks

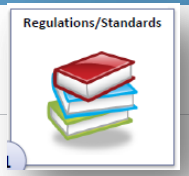


DPM development process

DPM artefacts

Templates analysis and review

EIOPA Business Experts



D1
Investments Data - Portfolio list (detailed list of investments)

Methodology used for group solvency calculation	A0

Cell not relevant	Cell used more than once in one single template	Cell reported in a different template	Formula

	Identification section													Categorisation section		Risk section			Data section						
	Legal name of the undertaking	Portfolio	Fund number	Asset held in unit linked and index linked funds (Y/N)	ID Code	ID Code type	Asset pledged as collateral	Security title	Issuer Name	Issuer Sector	Issuer Group (Code)	Issuer Country	Country of custody	Currency (ISO code)	CIC	External rating	Rating agency	Duration	Quantity	Unit SII price	Valuation method SII	Acquisition price	Total SII amount	Maturity date	Accrued interest
Cell Number	A50	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A15	A17	A18	A20	A22	A23	A24	A25	A26=A22*A23 +A30	A28	A30

DPM creation (DPM file)

EIOPA Business Experts

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Label	Name	Default	Owner	Count	Comment	Hierarchy	Name	Sign	Weight	Owner	Usable	Applicabl	Comment			
2	Total/NA	x0	yes		24		1: Insurance classes						CB				
3	[O] Other	x1			1		Total/NA	x0	=								
4	1. Accident and sickness	x2			2		Non-life	x79	=	+							
5	2. Motor	x3			2		1. Accident and sickness	x2		+							
6	3. Fire and other damage to property	x4			2		2. Motor	x3	=	+							
7	4. Aviation, marine and transport	x5			2		Motor vehicle liability insurance [except carrier's liability]	x78		+				Country - K1			
8	5. General liability	x6			2		Motor other than motor vehicle liability insurance [except carrier's liability]	x76		+				Country - K1			
9	6. Credit and suretyship	x7			2		3. Fire and other damage to property	x4		+							
10	7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship	x8			2		4. Aviation, marine and transport	x5		+							
11	ABS [asset backed securities]	x9			1		5. General liability	x6		+							
12	Annuities stemming from non-life insurance contracts	x10			1		6. Credit and suretyship	x7		+							
							7. Non-life other than accident and sickness, motor, fire										

Owners / Domains / Dimensions / met / BC / MC / AM / VM / DI / TR / TB / PU / SE / CG / LB / EL / CS / CM / CU / GA / PI / TS / LT / TD / NT / BR / PP / DC / CE / TI / RT / SC / PC / EX / AP / Typed domains / TypedDomains

Templates normalization (if required) and annotation

EIOPA Business Experts

D1
Investments Data - Portfolio list (detailed list of investments)

	ID Code	ID Code type	Fund number	Portfolio	Asset held in unit linked and index linked funds (Y/N)	Asset pledged as collateral	Country of custody	Quantity	Total par amount	Acquisition price	Total SII amount	Accrued interest
	A4	A5	A2	A1	A3	A6	A12					
	ID code (typed dimension)	ID code types (typed dimension)	Code of fund (typed dimension)	PU:PO/All members (Total/NA)	LB:BL/ All members (Total/NA)	CG:LW/All members	GA: CI/ All members (Total/NA)	A22	A22A	A25	A26=A22*A23 +A30	A30
Z Axis (Solo): CS:CS/Solo								Metric: Decimal	Metric: Monetary	Metric: Monetary BC: BC/ Assets	Metric: Monetary BC: BC/ Assets	Metric: Monetary BC: BC/ Assets
Z Axis (Group): CS:CS/All members (Group) Identification code of entity (typed dimension)								DC:DC/ Quantity	AM:TA/Notional amo	AM:TA/Acquisition price [per unit]	AM:VG/Solvency II	AM:VG/Accrued interests

	ID Code	ID Code type	CIC	External rating	Rating agency	Issuer Country	Currency (ISO code)	Issuer Sector	Participation	Valuation method SII	Item Title	Issuer Name	Issuer Group (Code)	Duration	Unit SII price	Percentage of par SII value	Maturity date
	A4	A5	A15	A17	A18	A11	A13	A9	A16	A24							
	ID code (typed dimension)	ID code types (typed dimension)	CIC code (typed dimension)	External rating (typed dimension)	Rating agency (typed dimension)	GA: CY/ All members (Total/NA)	CU: OC/ All members (Total/NA)	SE:IS/All members (Total/NA)	PU:IO/All members (Total/NA)	VM:VM/All members (Total/NA)	A7	A8	A10	A20	A23	A25A	A28
Z Axis (Solo): CS:CS/Solo											Metric: String	Metric: String	Metric: String	Metric: Decimal	Metric: Monetary BC: BC/ Assets	Metric: Percentage	Metric: Date
Z Axis (Group): CS:CS/All members (Group) Identification code of entity (typed dimension)											TS: TS/ Item title	TS:TS/Name of issuer	TS: TS/ Issuer group	DC:DC/Residual modified duration		PP:PP/Percentage of AM:VG/Solvency II w AM:TA/Unit price	TD: TD/ Maturity date AM:VG/Solvency II without accrued interests

Components of DPM file

DPM is a dictionary of business concepts and their properties used in tables (explicitly indicated in annotation) identifying the content of every data point and its relation to other data points

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Label	Name	Default	Owner	Count	Comment	Hierarchy	Name	Sign	Weight	Owner	Usable	Applicabl	Comment			
2	Total/NA	x0	yes		24		1: Insurance classes						CB				
3	[O] Other	x1			1		Total/NA	x0	=								
4	1. Accident and sickness	x2			2		Non-life	x79	=	+							
5	2. Motor	x3			2		1. Accident and sickness	x2		+							
6	3. Fire and other damage to property	x4			2		2. Motor	x3	=	+							
7	4. Aviation, marine and transport	x5			2		Motor vehicle liability insurance [except carrier's liability]	x78		+				Country - K1			
8	5. General liability	x6			2		Motor other than motor vehicle liability insurance [except carrier's liability]	x76		+				Country - K1			
9	6. Credit and suretyship	x7			2		3. Fire and other damage to property	x4		+							
10	7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship	x8			2		4. Aviation, marine and transport	x5		+							
11	ABS [asset backed securities]	x9			1		5. General liability	x6		+							
12	Annuities stemming from non-life insurance contracts	x10			1		6. Credit and suretyship	x7		+							
							7. Non-life other than accident and sickness, motor, fire										

Owners | Domains | Dimensions | met | BC | MC | AM | VM | DI | TR | TB | PU | SE | CG | LB | EL | CS | CM | CU | GA | PI | TS | LT | TD | NT | BR | PP | DC | CE | TI | RT | SC | PC | EX | AP | Typed domains | TypedDomains

Owner of the DPM and potentialy the XBRL taxonomy based on it

List od domains of information identified in the tables/data model (i.e. Currencies)

List of dimensions: perspectives for subdomains analysis (i.e. Original currency or Reporting currency)

List of Metrics used in the dictionary. Each represents different data type

List of basic concepts identifying the most generic information of every data point (i.e. Assets, Claims paid)

Explicit domain (from the domain list) identifying related dimensions, domain members and its hierarchical subdomains (see next slide)

Typed domains (and its data types) used in the model

Typed dimensions used in the model

Domains/dimensions in DPM dictionary

List of all members of domain

Information about hierarchy of members of subdomain

Dimension (perspective for subdomain analysis)

Label	Name	Default	Owner	Count	Comment
Total/NA	x0	yes		24	
[O] Other	x1			1	
1. Accident and sickness	x2			2	
2. Motor	x3			2	
3. Fire and other damage to property	x4			2	
4. Aviation, marine and transport	x5			2	
5. General liability	x6			2	
6. Credit and suretyship	x7			2	
7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship	x8			2	
ABS [asset backed securities]	x9			1	
Annuities stemming from non-life insurance contracts	x10			1	
Annuities stemming from non-life insurance contracts and relating to health insurance obligations	x11			8	
Annuities stemming from non-life insurance contracts and relating to insurance obligations other than health insurance obligations	x12			8	
Assistance [direct business and accepted proportional reinsurance]	x13			8	
Branch	x14			1	
Casualty [accepted non-proportional reinsurance]	x15			8	
CDO [collateralised debt obligations]	x16			1	
CDOp [credit default options]	x17			1	
CDS [credit default swaps]	x18			1	
CLN [credit linked notes and deposits]	x19			1	
CLO [collateralised loan obligations]	x20			1	
CMBS [commercial mortgage backed securities]	x21			1	
CMO [collateralised mortgage obligations]	x22			1	
CMS [constant maturity swaps]	x23			1	
Comercialized	x24			1	
Common to other products	x25			1	

Hierarchy	Name	Sign	Weight	Owner	Usable	Applicabl	Comment
1: Insurance classes						CB	
Total/NA	x0	=					
Non-life	x79	=	+				
1. Accident and sickness	x2		+				
2. Motor	x3	=	+				
Motor vehicle liability insurance [except carrier's liability]	x78		+				Country - K1
Motor other than motor vehicle liability insurance [except carrier's liability]	x76		+				Country - K1
3. Fire and other damage to property	x4		+				
4. Aviation, marine and transport	x5		+				
5. General liability	x6		+				
6. Credit and suretyship	x7		+				
7. Non-life other than accident and sickness, motor, fire and other damage to property, aviation, marine and transport, general liability, credit and suretyship	x8		+				
Life	x64	=	+				
I. The life insurance referred to in points [a][i], [ii] and [iii] of Article 2[3] excluding those referred to in II and III;	x52		+				
II. Marriage assurance, birth assurance;	x53		+				
III. The insurance referred to in points [a][i] and [ii] of Article 2[3], which are linked to investment funds;	x54		+				
IV. Permanent health insurance, referred to in point [a][iv] of Article 2[3];	x61		+				
V. Tontines, referred to in point [b][i] of Article 2[3];	x128		+				
VI. Capital redemption operations, referred to in point [b][ii] of Article 2[3];	x130		+				
VII. Management of group pension funds, referred to in point [b][iii] and [iv] of Article 2[3];	x131		+				
VIII. The operations referred to in point [b][v] of Article 2[3];	x132		+				
IX. The operations referred to in Article 2[3][c]	x62		+				
2: Insurance classes						CB	Country - K1
Total/NA	x0	=					
1. Accident and sickness	x2		+				
2. Motor	x3		+				

Information about arithmetical relations between members of domain

Templates annotation: Types of annotations

- metric
  - indication of a data type (type of expected value) to be reported for data point (every data point must have one and only one Metric)
  - annotation: „Metric: {metric name}", where {metric name} could be „String", „Decimal", „Monetary", etc.
- explicit dimension
  - breakdowns with predefined values (members); members are gathered in domains (lists of members) and subdomains (hierarchies of members)
  - annotation:
    - „{domain code}:{dimension code}/{member name}" – pairs of dimension members
    - „{domain code}:{dimension code}/All members ({name of starting member})"
      - information about sets of pairs of dimension-members
      - {name of starting member} is optional and identifies the top level domain member opening the list of domain members potentially to be used; subdomain to be applied is identified in the DPM file in column "Comment"; if {name of starting member} is missing then all domain members of a subdomain are applicable for a data point
- typed dimension
  - constraint of this breakdown is defined by a type, not by explicitly listing the applicable values, e.g. „non negative integer" could be a typed domain of a typed dimension
  - annotation: „{dimension code} (typed dimension)"

Templates annotation: Organization of annotation of open table

	Identification code	Group identification code	Currency used for reporting	Model used	Loss absorbing capacity of TP observable? (Y/N)	Loss absorbing capacity of deferred taxes observable? (Y/N)	Reference date	Reporting date	Accounting standard
	A1	A5	A6	A9	A17	A19			
	Identification code of entity (typed dimension)	Group identification code (typed dimension)	CU:RC/All members	AP:II/All members	AM:LT/All members	AM:LD/All members	A2	A3	A7
							Metric:Date	Metric:Date	Metric:String
Z Axis (Solo):							TD:TD/Reference date	TD:TD/Reporting date	TS:TS/Accounting standard
CS:CS/Solo									
Z Axis (Group):									
CS:CS/All members (Group)									
Group identification code (typed dimension)									

Legend:

- Data cell
- Metric
- Dropdown list (based on explicit dimension)
- Typed dimension
- Explicit dimension

- for open table the annotation is ordered as follows from the left hand side:
  - properties of data points
    - typed dimensions (must be at least one – otherwise the table would not be open)
    - „dropdown lists" based on explicit dimensions (may not appear in every open table)
  - data points: metrics with ordinary explicit dimensions (must be at least one, could be artificial boolean item in case of join tables)
  - in lower-left side there are attributes applicable to entire table
    - more than one sets of those attributes is possible (multiplying the number of occurrences of those tables)
    - attributes in each set could be (i) metrics, (ii) typed dimension (number of occurrences of table would become theoretically unlimited), (iii) explicit dimension or (iv) dropdown list (number of occurrences of table is limited to a number of members in the subdomain used)

Templates annotation: Organization of annotation of closed table

	Net solvency capital requirement (including the loss-absorbing capacity of technical provisions)	Gross solvency capital requirement (excluding the loss-absorbing capacity of technical			
Market risk	A1	B1	RT:RT/Market risk		AP:II/Standard formula
Counterparty default risk	A2	B2	RT:RT/Counterparty default risk		AP:II/Standard formula
Life underwriting risk	A3	B3	RT:RT/Life underwriting risk		AP:II/Standard formula
Health underwriting risk	A4	B4	RT:RT/Health underwriting risk		AP:II/Standard formula
Non-life underwriting risk	B5	B5	RT:RT/Non-life underwriting risk		AP:II/Standard formula
Diversification	A6	B6	RT:RT/Insurance risk	RT:DV/Diversification effect	AP:II/Standard formula
Intangible asset risk	B7	B7	RT:RT/Intangible asset risk		AP:II/Standard formula
Remaining part of the Solvency Capital Requirement calculated using partial internal model	A8	B8	RT:RT/Risks other than operational risk [standard approach]		AP:II/Partial internal model
Diversification (between Standard Formula and Partial Internal Model components)	A9	B9	RT:RT/Risks other than operational risk [standard approach]	RT:DV/Diversification effect	AP:II/Standard formula or partial internal model
Basic Solvency Capital Requirement	A10	B10	RT:RT/Risks other than operational risk [standard approach]		AP:II/Standard formula or partial internal model
	BC:BC/Solvency capital requirement [SCR] VM:EA/Including the loss-absorbing capacity of technical provisions	BC:BC/Solvency capital requirement [SCR] VM:EA/Excluding the loss-absorbing capacity of technical provisions			

Z axis:
CS:CS/Accounting consolidation-based method [method 1] and combination of methods 1 and 2
Metric: Monetary
AM:VG/Solvency II
SE:SO/Insurance/reinsurance sector

Legend:
Data cell
Metric
Dropdown list (based on explicit dimension)
Typed dimension
Explicit dimension

- explicit dimensions differentiating information:
  - across columns - identified below the table
  - across rows - identified to the right from the table
  - it can be only (i) Metrics, (ii) Explicit dimensions or (iii) Dropdown lists
- in lower-left hand side there are attributes applicable to the entire table
  - more than one sets of those attributes is possible (multiplying the number of occurrences of those tables)
  - attributes in each set could be (i) Metrics, (ii) Explicit dimension or (iii) Dropdown list (number of occurrences of table is limited to a number of members in Subdomain used), (iv) Typed dimension (number of occurrences of table would become theoretically unlimited)

Templates annotation: Annotating „similar” templates

Z-axis mechanizm

- difference could be identified using a dropdown list in the header of a table multiplying the views (e.g. scope of consolidation)

D5
Securities lending and repos

Portfolio	Fund number	Asset category	Counterparty ID	Collateral type	Asset held in unit linked and index linked funds (Y/N)	Type of repo / securities lending; Buyer or seller / Lender or borrower	Near leg amount	Far leg amount	Start date	Maturity date	SII Value
A1	A2	A4	A7	A8	A3	A5/A6					
PU:PO/All members (Total/NA)	Code of fund (typed dimension)	Limitted CIC code (typed dimension)	ID of counterparty [in repo/securities lending] (typed dimension)	CIC code of most significant collateral (typed dimension)	LB:BL/ All members (Total/NA)	TB:EZ/All members	A9	A10	A12	A13	A14
							Metric: Monetary BC:BC/Repo and securities lend AM:TA/Near leg	Metric: Monetary BC:BC/Repo and securities ler AM:TA/Far leg	Metric: Date TD:TD/Start date	Metric: Date TD:TD/End date	Metric: Monetary BC:BC/Repo and securities lending AM:VG/Solvency II

Z Axis (Solo):
CS:CS/Solo

Z Axis (Group):
CS:CS/All members (Group)
Identification code of entity (typed dimension)

Multiplication of tables/worksheets

- differences in number of rows/columns result in multiplication of tables

F1Q
Life and Health SLT Technical Provisions (Quarterly)

	Insurance with profit participation	Index-linked and unit-linked insurance			Other life insurance			Annuities stemming from non-life insurance contracts and relating to insurance obligation other than health insurance obligations	
			Contracts without options and guarantees	Contracts with options and guarantees		Contracts without options and guarantees	Contracts with options and guarantees		
Technical provisions calculated as a whole (Replicable portfolio)	A1	A3			A5			A6	A7
Technical provisions calculated as a sum of BE and RM (Non-Replicable portfolio)									
Best Estimate									
Gross	B1		B2	B3		B4	B5	B6	B7
Total Recoverables from reinsurance and SPV after the adjustment for expected losses due to counterparty default	C1		C2	C3		C4	C5	C6	C7
Risk Margin (to be further developed when L2 decided)	E1	E2			E4			E6	E7
	LB:BL/ Insurance with	LB:BL/ Unit-linked or ir	LB:BL/ Unit-link	LB:BL/ Unit-link	LB:BL/ Other lif	LB:BL/ Other life	LB:BL/ Other life	LB:BL/ Annuities stemming fror	LB:BL/ Life [oth
			LB:RZ/Contracts	LB:RZ/Contracts with options ar		LB:RZ/Contracts witho	LB:RZ/Contracts with options and guarantees		
Z Axis: CS:CS/Solo	LB:TB/Direct business	LB:TB/Direct business	LB:TB/Direct bu	LB:TB/Direct bu	LB:TB/Direct bu	LB:TB/Direct business	LB:TB/Direct bus	LB:TB/Direct business	LB:TB/Acceptec

TP - F1(ARS) TP - F1Q(QRS,ADS)

Benefits of two layers

Highly dimensional approach

Monetary

Types of assets
- Total
  - Debt instruments
  - Derivatives
  - …

Investment or own use
- Investment
- Own use

Linking
- Unit-linked or index-linked
- Not unit-linked, not index-linked

Line of business
- Total
  - Non-life, non SLT health
  - SLT health
  - Non-SLT health
  - Life

Country of custody
- Total
- …

Issuer or residence country
- Total
- …

Type of amount
- Carrying amount
- …

Original currency
- Total
- …

Solo or Group
- Solo
- Group

Periodicity
- Annually
- Quarterly
- Monthly
- Ad hoc

Valuation method
- Solvency II
  - Marked to market
  - Marked to model
- CRD
- Statutory

Moderate dimensional approach

Derivatives, Investments other than held for index-linked or unit-linked funds

BS_C1:A10A

Solo or Group
- Solo
- Group

Periodicity
- Annually
- Quarterly
- Monthly
- Ad hoc

Valuation method
- Solvency II
  - Marked to market
  - Marked to model
- CRD
- Statutory

Proof-of concept taxonomy

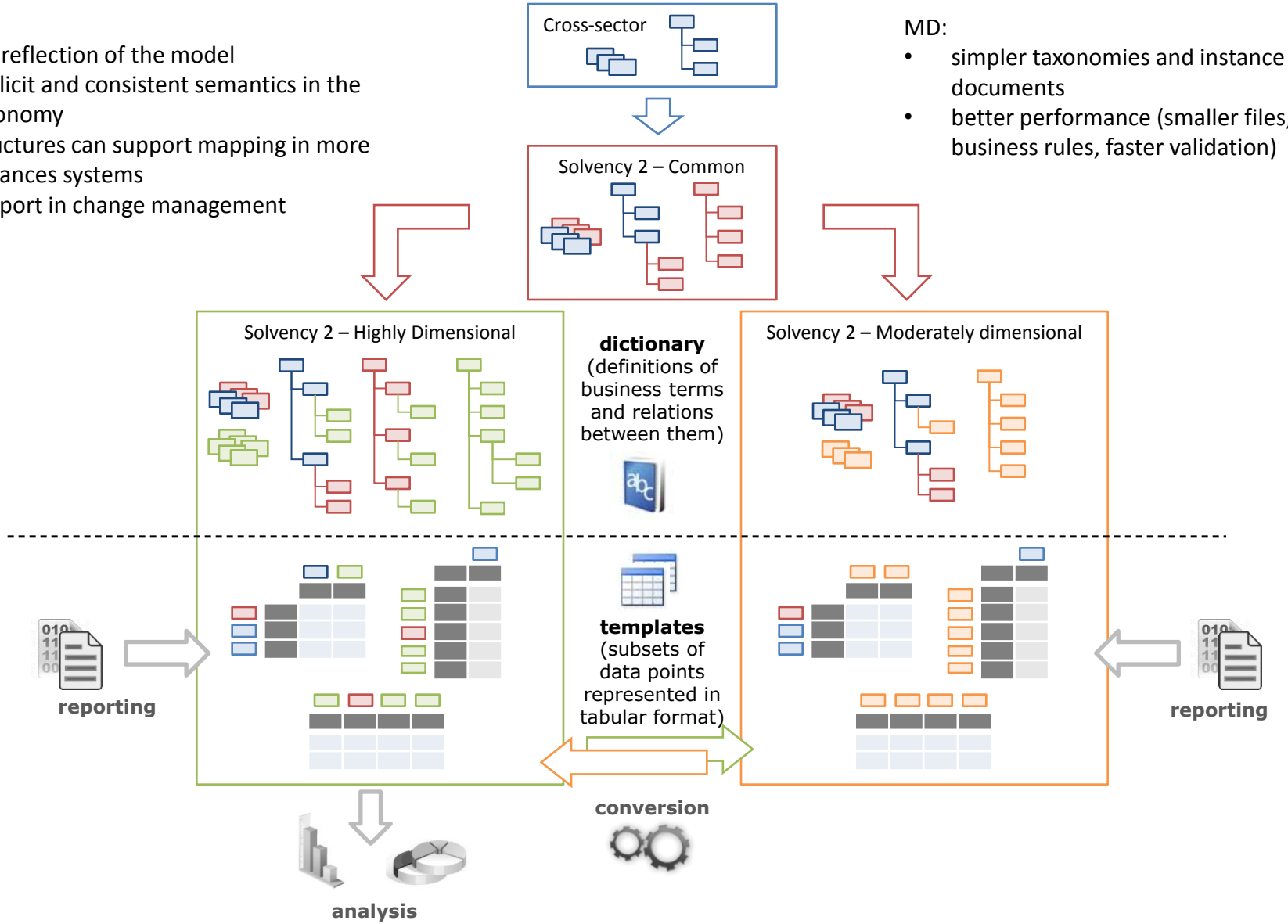
POC XBRL Taxonomy modularization

HD:

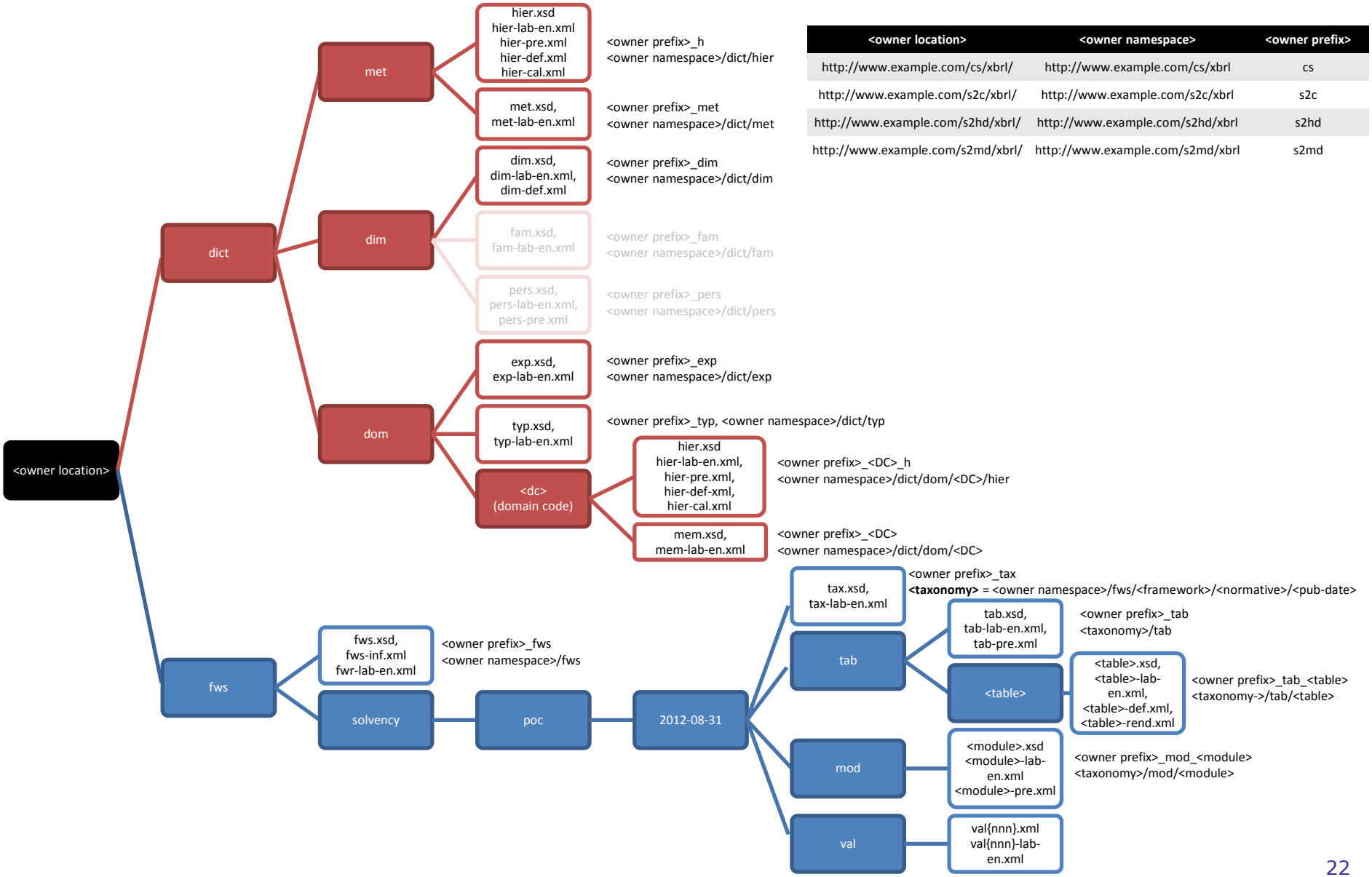
- 1:1 reflection of the model
- explicit and consistent semantics in the taxonomy
- structures can support mapping in more advances systems
- support in change management

MD:

- simpler taxonomies and instance documents
- better performance (smaller files, simpler business rules, faster validation)



POC Taxonomy Architecture and Content



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http://www.example.com/s2c/xbrl/	http://www.example.com/s2c/xbrl	s2c
http://www.example.com/s2hd/xbrl/	http://www.example.com/s2hd/xbrl	s2hd
http://www.example.com/s2md/xbrl/	http://www.example.com/s2md/xbrl	s2md

Rendering and data points in BS-C1
MD and HD approach

Annual Balance Sheet Template [BS-C1]

Automatic update | Refresh table | Export table | Z axes

			Solvency II value	Statutory accounts value
Assets	Goodwill			
	Deferred acquisition costs			
	Intangible assets			
	Deferred tax assets			
	Pension benefit surplus			
	Property, plant and equipment held for own use			
	Investments (other than assets held for index-linked and unit-linked funds)			
		Property (other than for own use)		
		Participations		
		Equities		
			Equities – listed	

Data dictionary | Frameworks | Table

- Annual Balance Sheet Template [BS-C1]
  - Column
    - Solvency II value
    - Statutory accounts value
  - Row
    - Assets
      - Goodwill
      - Deferred acquisition costs

Dimensional values

Metric	Participations, Investments [other than assets
Consolidation scope	Solo
Valuation general	Statutory accounts

Annual Balance Sheet Template [BS-C1]

Automatic update | Refresh table | Export table | Z axes

				Solvency II value	Statutory accounts value
Assets	Goodwill				
	Deferred acquisition costs				
	Intangible assets				
	Deferred tax assets				
	Pension benefit surplus				
	Property, plant and equipment held for own use				
	Investments (other than assets held for index-linked and unit-linked funds)				
		Property (other than for own use)			
		Participations			
		Equities			
			Equities - listed		
			Equities - unlisted		
		Bonds			
			Government Bonds		
			Corporate Bonds		
			Structured notes		
			Collateralised securities		
		Investment funds			

Dimensional values

Metric	Monetary
Basic concept	Assets
Basic own fund eligibility	Total/NA
Ceded/not ceded	Total/NA
Collateral/Guarantee	Total/NA
Consolidation scope	Solo
Counterparty	Corporate other than investment funds
Instant or duration	Instant
Insurance reinsurance business	Total/NA
Insurance/trade	Not insurance/reinsurance related [trade]
Investment/own use	Participations
Line of business [general]	Other than unit-linked or index-lined
Type of asset	Equity instruments
Type of liability	Total/NA
Valuation general	Statutory accounts
Valuation of provisions [general]	NA

Rendering and data points in BS-C1D
MD and HD approach

Annual Assets and Liabilities by Currency Template [BS-C1D]

Automatic update | Refresh table | Export table | Z axes

		Currencies		
		EUR	AED	AFN
Assets	Investments (other than assets he			
	Other assets within scope of Ass			
	Assets held for index-linked and u			
	Reinsurance recoverables, Assets			
	Deposits to cedants and insurance			
	Any other assets, Assets			
	Total assets			
Liabilities	Technical provisions [excluding in			
	Technical provisions – index-linked			

Data dictionary | Frameworks | Table

- Annual Assets and Liabilities by Currency Template [BS-C1D]
  - Column
    - Currencies
    - Total

Dimensional values

Metric	Reinsurance recoverables, Assets
Consolidation scope	Solo
Original currency	AED
Threshold for material currencies	> 90%
Valuation general	Solvency II

Annual Assets and Liabilities by Currency Template [BS-C1D]

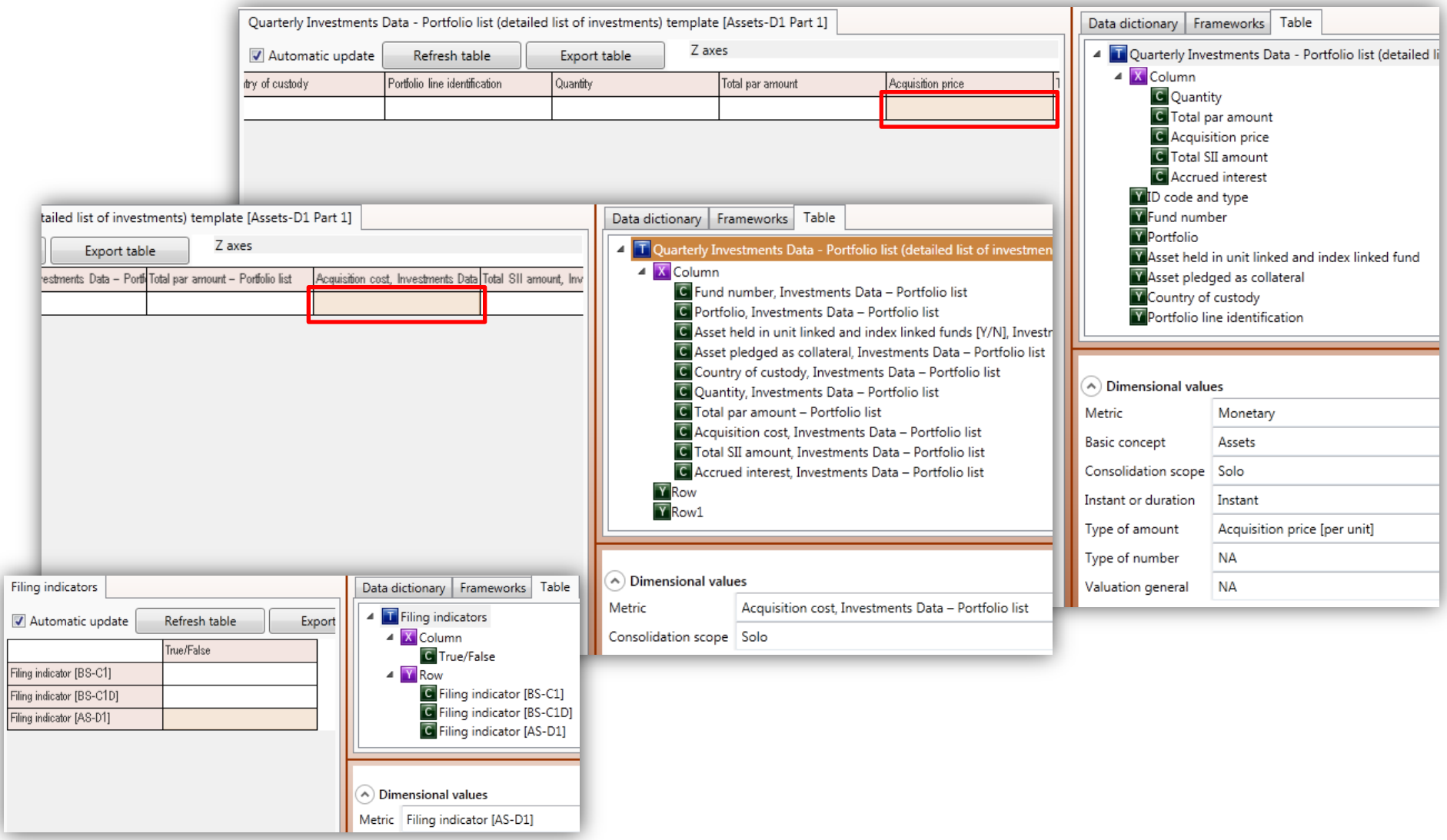
Automatic update | Refresh table | Export table | Z axes

		Currencies		
		EUR	AED	AFN
Assets	Investments (other than assets he			
	Other assets within scope of Ass			
	Assets held for index-linked and u			
	Reinsurance recoverables			
	Deposits to cedants and insurance			
	Any other assets			
	Total assets			
Liabilities	Technical provisions (excluding in			
	Technical provisions - index-linked			
	Deposits from reinsurers and insu			
	Derivatives			
	Financial liabilities			
	Contingent liabilities			
	Any other liabilities			
	Total liabilities			

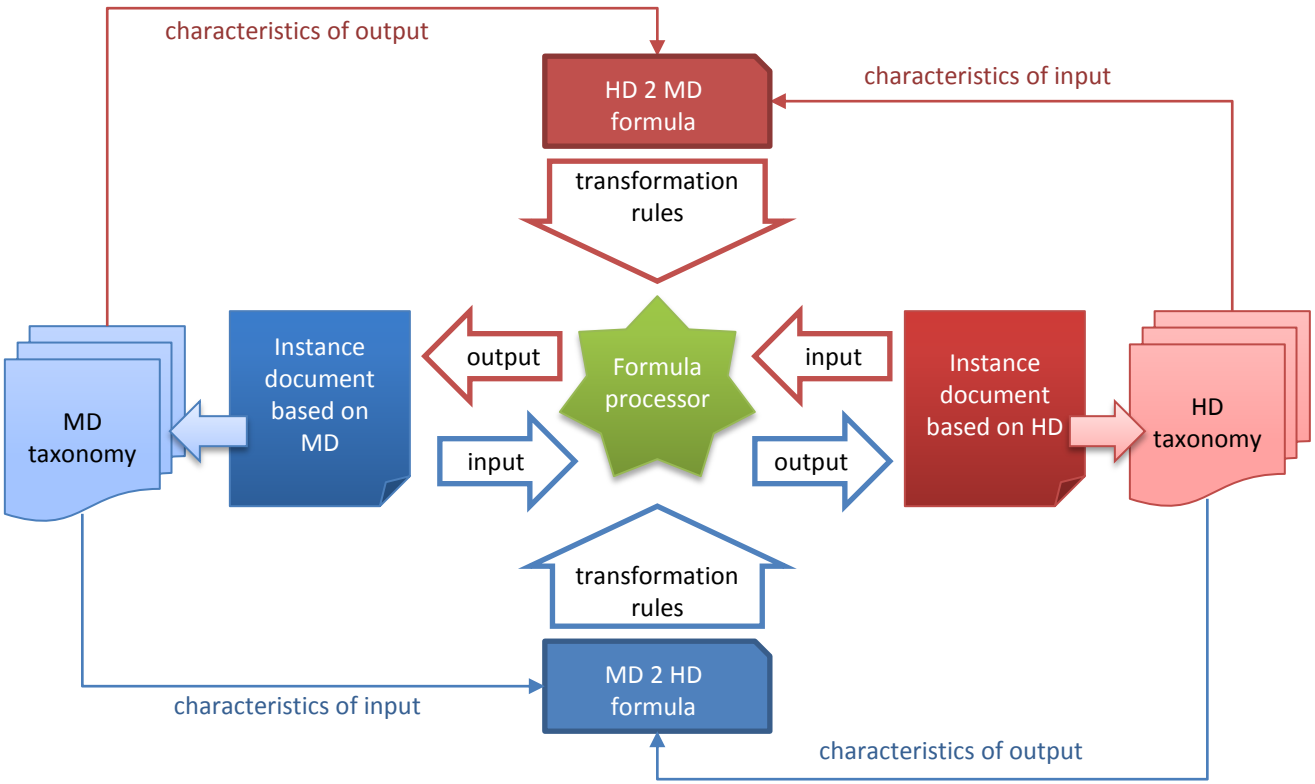
Dimensional values

Metric	Monetary
Basic concept	Assets
Consolidation scope	Solo
Counterparty	Insurance/reinsurance undertakings
Instant or duration	Instant
Insurance reinsurance business	Ceded
Insurance/trade	Insurance/reinsurance related
Investment/own use	Other than investment, own use, own instruments and cash and cash equivalents
Line of business [general]	Total/NA
Original currency	AED
Threshold for material currencies	> 90%
Type of asset	Recoverables
Type of liability	Total/NA
Valuation general	Solvency II

Rendering and data points in Assets-D1 + Filing Indicators MD and HD approach



HD 2 MD and vice versa formula conversion



Let’s play!

Draft full DPM and taxonomy (work in progress)

Content and scope

- complete DPM and full set of templates
- changes comparing to the PoC:
  - use of final (production version) namespaces and official location (as described in the PoC documentation)
  - all dimensions shared between HD and MD
  - metrics (primary items) reflect data type only but change to EBA approach considered for next releases
- other issues
  - discussion on reflection of tables in rendering
  - enumerations
  - additional classification of concepts (e.g. financial stability)

Let’s play!

Q/A

EUROPEAN INSURANCE
AND OCCUPATIONAL PENSIONS AUTHORITY

Thank you!