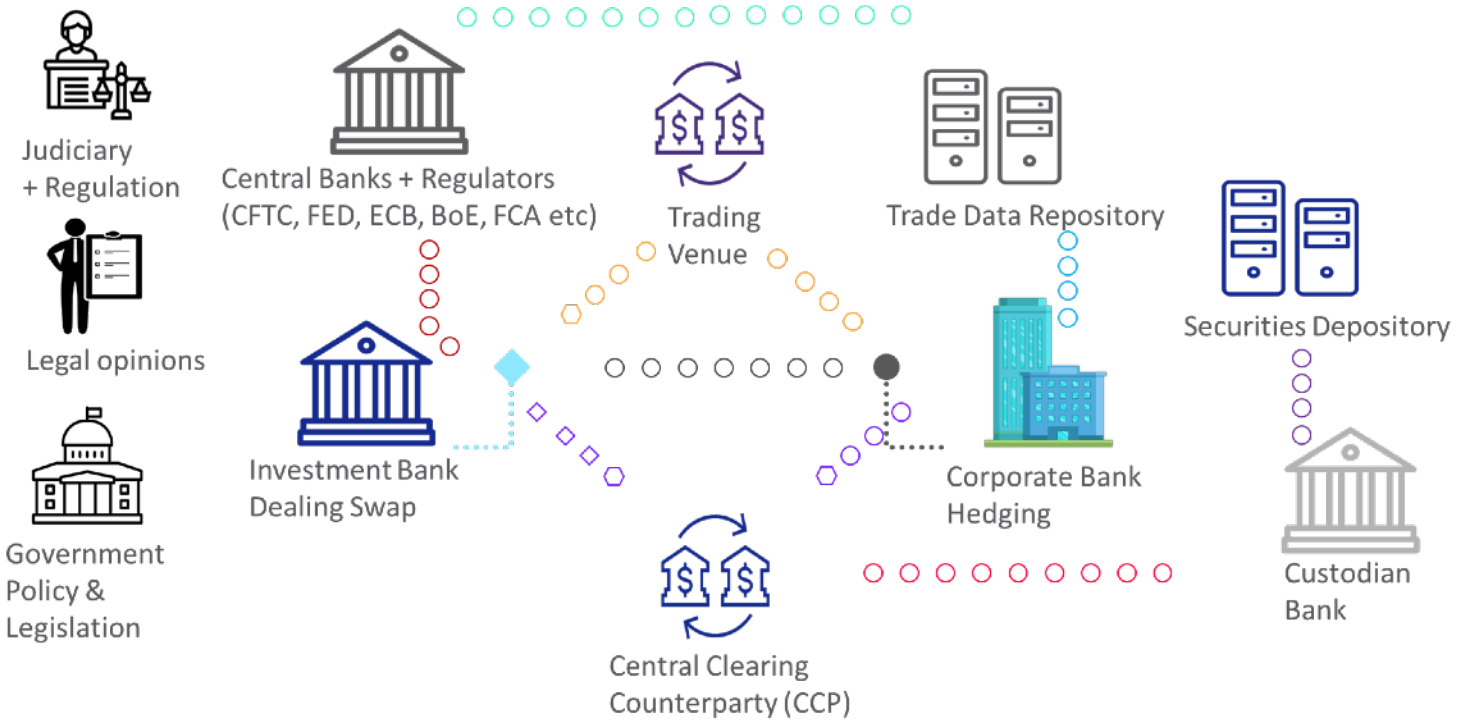
Common Domain Model- An Overview
October 2023

Catalyst for Change- Current Market Structure Challenges

CDM
COMMON DOMAIN MODEL

All parties store trade data in different formats & make lifecycle changes to these records inconsistently



What is the true "truth" at any point in time?

Differences in booking models lead to real world events in those models producing different outcomes:

- Reconciliation breaks
- Valuation differences
- Collateral disputes
- Reporting mismatches
- Operational inefficiency
- Settlement failures
- Barriers to automation

What is the CDM?

CDM
COMMON DOMAIN MODEL

The Common Domain Model (CDM) is a standardised, machine-readable and machine-executable blueprint for how financial products are traded and managed across the transaction lifecycle.

Dimensions of the CDM:

Product	Definitions of tradeable products qualified by their economic terms
Event	Data structures to represent the lifecycle events of financial transactions
Legal Agreement	Digital representation of the legal agreements that govern transactions
Process	Translates the technical standards that support those industry processes into a standardised machine-readable and machine-executable format
Reference Data	Reference data components that are specifically needed to model the other dimensions
Mapping	Mapped to a set of alternative data representations including FIX, FpML, ISO20022

The CDM is **NOT** an application in and of itself, but can be implemented within one

Composability allows for re-use of components for efficiency

CDM vs. FpML

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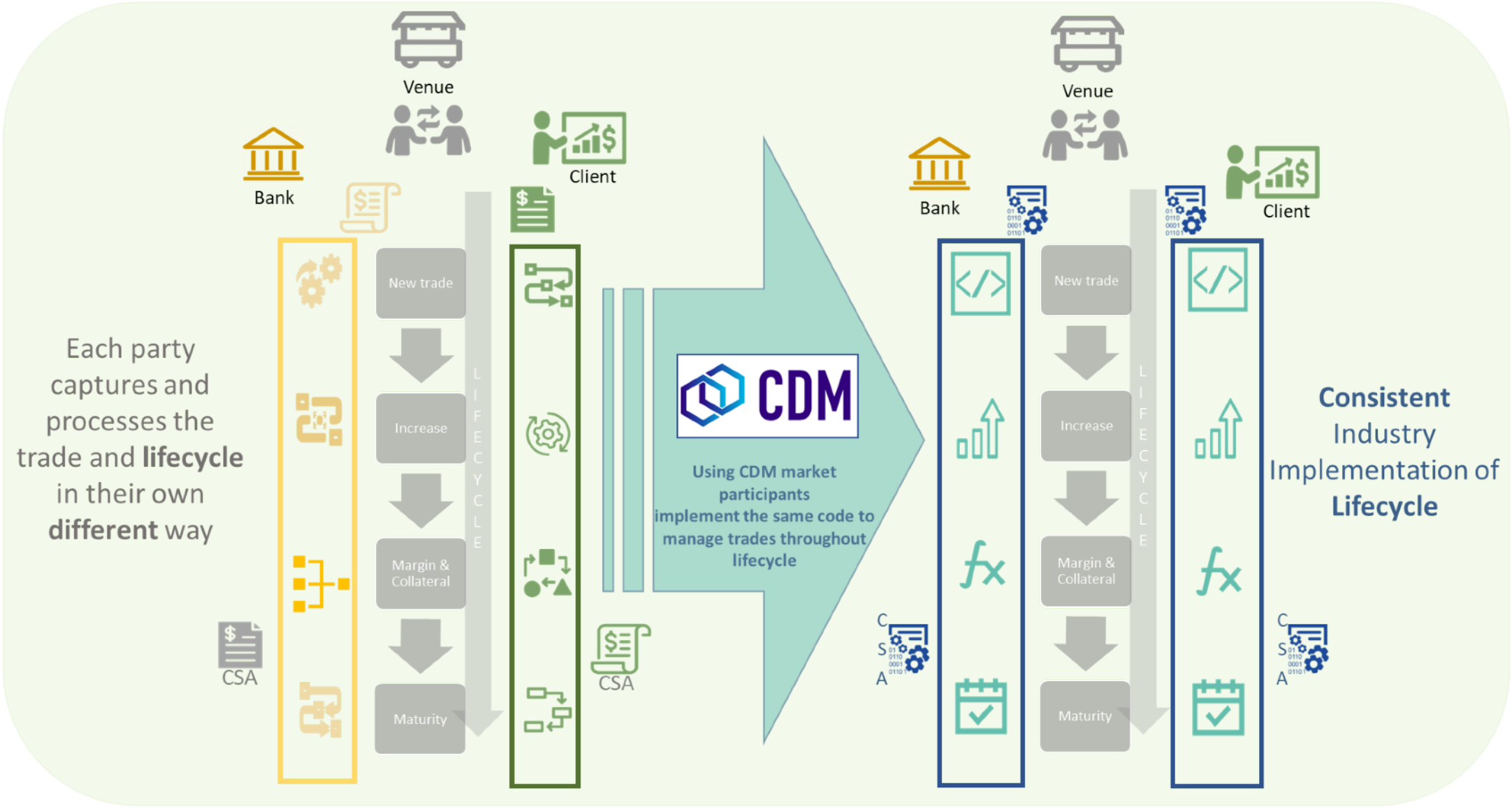
While both CDM & FpML are standards, they can and will co-exist

- CDM is not a data format for messaging or storage, it is a logical model describing relationships between pieces of data
- CDM can be expressed in various forms including XML, JSON and other standard formats such as FpML, FIX & ISO20022 for exchange and storage of information
- FpML does not define standards for event and workflow processing, CDM prescribes the validation logic to express these more specifically

Benefits- Consistency of representation



Core Benefits

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Efficiency	Transparency	Accelerated Innovation
Enhance interoperability, reduce reconciliations and promote straight-through processing	**Promote transparency and alignment between regulators and market participants**	**Create an environment for innovation in financial markets**

- A **mutualised free open-source standardised digital blueprint** on how to represent financial transactions, performance and business events.
- **Extensible** to compose financial instruments by assembling reusable components. Already covers robustly derivative and securities financial transactions.
- **Scalable** as event-driven model that encapsulates primitive components that will de facto make the fabric of complex business and operational processes.
- **Operational and functional** to codify the contract mechanics and business logic of legal agreements.
- **Unambiguous** in digitising functionally complex business and regulatory logic into code.
- **Directly approachable** as published in both **human readable and machine executable languages.**
- **Implementable across several strategic uses cases** in capital markets for better automation and greater consistency e.g. Trade management systems, clearing, digital documentation, collateral managements, regulatory reporting.

History of the CDM

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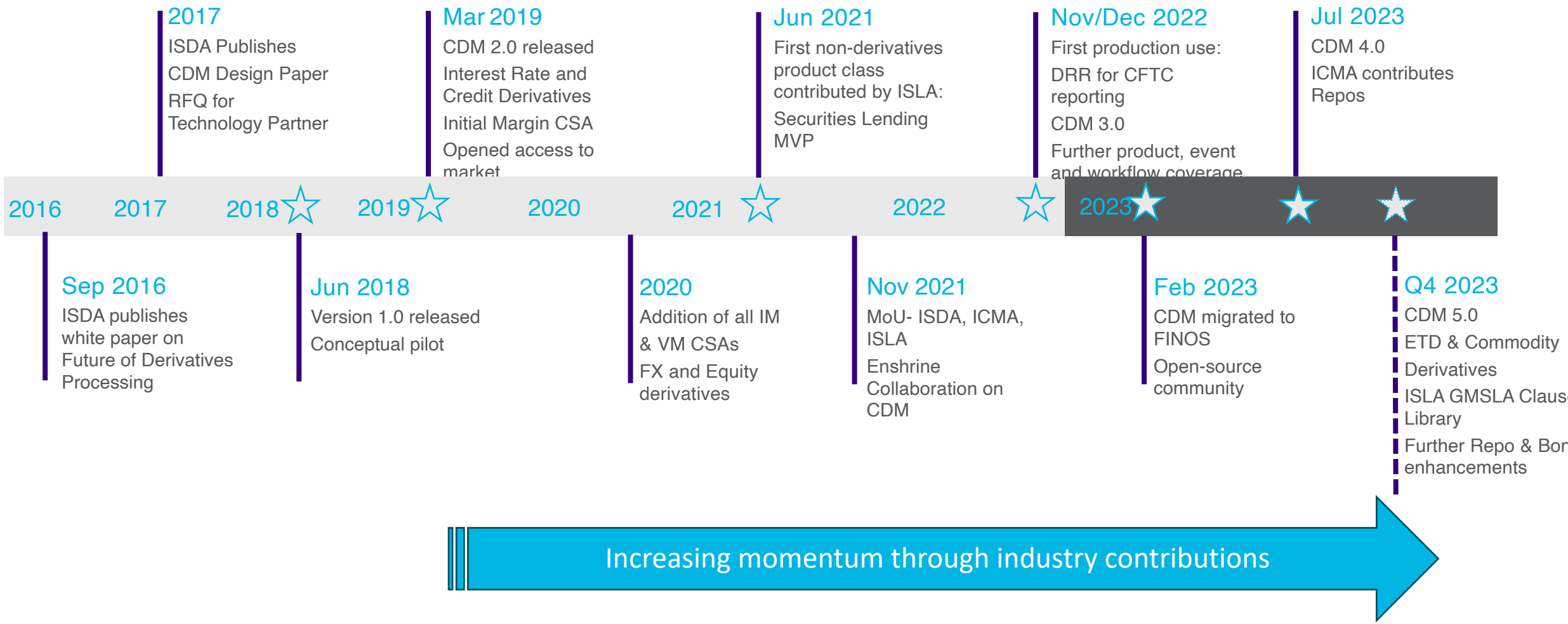
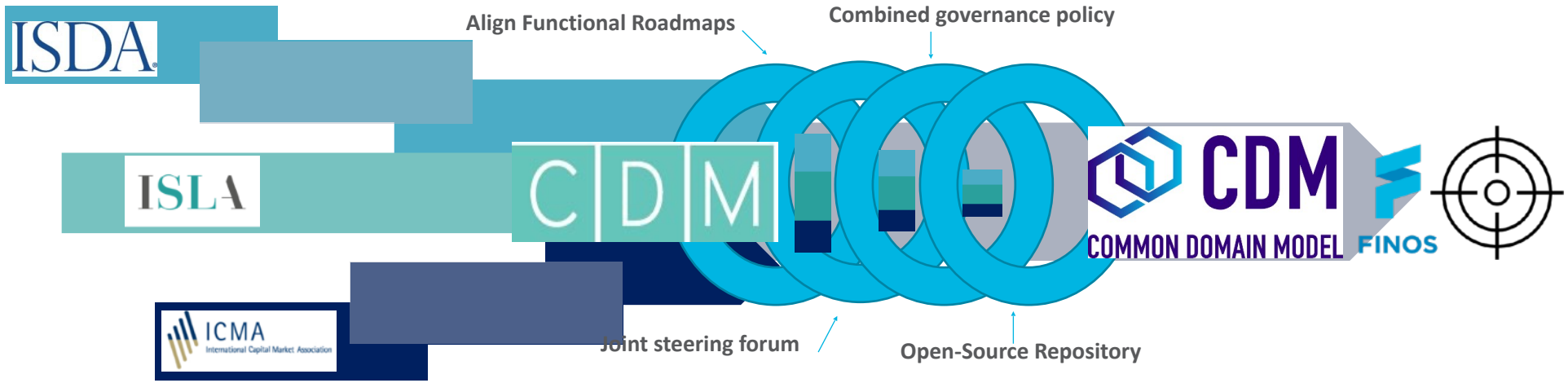


Trade Association Collaboration



- Best-practice led Governance
- Open-Source Community of Members

Associations are collaborating towards the same future goal, to benefit the whole industry

- An open-source model mutualises cost of development between TAs and contributing firms while retaining best practice governance
- MoU in 2021 enshrined collaboration publicly
- Working groups were opened to each others' members
- TAs appointed FINOS to provide a repository with a view to fostering the growth of an open-source community for the CDM, with migration completed early 2023

Product Coverage

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The scope of contractual products in the current model are summarized below:

- **Interest rate derivatives**:
  - Interest Rate Swaps (incl. cross-currency swaps, non-deliverable swaps, basis swaps, swaps with non-regular periods, ...)
  - Swaptions
  - Caps/floors
  - FRAs
  - OTC Options on Bonds
- **Credit derivatives**:
  - Credit Default Swaps (incl. baskets, tranche, swaps with mortgage and loans underliers, ...)
  - Options on Credit Default Swaps
- **Equity derivatives**:
  - Equity Swaps (TRS, PRS, single name/index/basket, VarSwap, VolSwap, Dispersion, Correlation, Dividend Swap)
  - Options & Forwards
- **Foreign Exchange derivatives:**
  - FX Swap, Forward, NDF, Options
- **Commodity derivatives**:
  - Swaps, options, swaptions

The use of common elements allow for representation of multiple types of products and events in the trade workflow with minimal incremental work. Thus, this coverage list does not represent an exhaustive list of all possible combinations of elements or events

Product & Event Coverage

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The scope of contractual products and events in the current model are summarized below:

- **Securities Lending**:
  - Single underlier, cash collateralised, open/term security loan
- **Repurchase Agreements**:
  - Open Term, Fixed Term, Fixed Rate, Floating Rate
- **Events**:
  - Allocation, Re-allocation
  - Cash, Security transfers, DVP settlement
  - Clearing events
  - Compression
  - Increase and decreases/returns
  - Novations- full, partial
  - Terminations- full, partial
  - Renegotiation
  - Reset
  - Execution
  - Stock Split
  - Index Transition
  - Determination of corporate action and credit events

The use of common elements allow for representation of multiple types of products and events in the trade workflow with minimal incremental work. Thus, this coverage list does not represent an exhaustive list of all possible combinations of elements or events

Legal Document Coverage

CDM
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ISDA Documentation	CDM	ISDACreate	ISDACreate/ CDM Compatible
INITIAL MARGIN			
2016 ISDA IM CSD (English Law)	✓	✓	x
2016 ISDA IM CSA (NY Law)	✓	✓	✓
2016 ISDA IM CSA (Japanese Law)	✓	✓	x
2018 ISDA IM CSA (NY Law)	✓	✓	✓
2018 ISDA IM CSD (Eng Law)	✓	✓	✓
2019 ISDA Bank Custodian CTA	✓	✓	✓
2019 ISDA Bank Custodian SA (NY Law)	✓	✓	✓
2019 ISDA Bank Custodian SA (Eng Law)	✓	✓	✓
2019 ISDA Bank Custodian SA Luxembourg Law	✓	✓	x
2020 ISDA Bank Custodian SA Belgium Law	✓	✓	x
2016 Euroclear SA (Bel Law)	✓	✓	x
2017 Euroclear CTA (NY Law)	✓	✓	x
2017 Euroclear CTA (Eng Law)	✓	✓	x
2018 Euroclear CTA (Eng Law)	✓	✓	x
2018 Euroclear CTA (NY Law)	✓	✓	x
2018 Euroclear SA (Bel Law)	✓	✓	x
2019 Euroclear CTA	✓	✓	✓
2019 Euroclear SA (Bel Law)	✓	✓	x
2016 Clearstream CTA (Eng Law)	✓	✓	x
2016 Clearstream CTA (NY Law)	✓	✓	x
2017 Clearstream SA (Lux Law)	✓	✓	x
2016 Clearstream SA (Lux Law)	✓	✓	x
2019 Clearstream CTA	✓	✓	✓
2019 Clearstream SA (Security-provider) (Lux Law)	✓	✓	✓
2019 Clearstream SA (Security-taker) (Lux Law)	✓	✓	✓
	✓	✓	x

ISDA Documentation	CDM	ISDACreate	ISDACreate/ CDM Compatible
VARIATION MARGIN			
2016 ISDA CSA (VM) (Loan - Japanese Law)	✓	x	x
2016 ISDA CSA (VM) (Security Interest - New York Law)	✓	✓	x
2016 ISDA CSA (VM) (Title Transfer - English Law)	✓	✓	x
2016 ISDA CSA (VM) (Title Transfer - French law)	✓	x	x
2016 ISDA CSA (VM) (Title Transfer - Irish law)	✓	x	x
1994 ISDA Credit Support Annex VM (Security Interest - New York Law)	x	Due Q4 2023?	x
1995 ISDA Credit Support Annex VM (Title Transfer - English Law)	x	Due Q4 2023?	x
1995 ISDA Credit Support Annex (Security Interest - Japanese Law)	x	Due Q4 2023?	x
1995 ISDA Credit Support Deed (Security Interest - English Law)	x	Due Q4 2023?	x
ISDA MASTER AGREEMENT			
1992 ISDA Master Agreement	See below	?	x
2002 ISDA Master Agreement	See below	✓	CP details only
Automatic Early Termination ("AET")	✓	TBC	x
Address for Notices	✓	TBC	x
Dated as of Date	✓	TBC	x
Credit Support Provider	✓	TBC	x
Credit Support Document	✓	TBC	x
Governing Law	✓	TBC	x
Specified Entity	✓	TBC	x
Termination Currency	✓	TBC	x

ISLA have also contributed their Clause Library and Taxonomy for the GMSLA 2010/2018

Roadmap & Ongoing Initiatives

CDM
COMMON DOMAIN MODEL

Derivatives:

DRR driven items- Q4 2023**:**

- ETD & Commodity derivatives including position reporting
- Trade Valuation report
- Margin reporting

Collateral driven items- Q1 2024

- Enhancements to collateral models
- Additions of earlier CSAs to Legal document model

Securities Finance:

Enhancements for partial and failed settlements- 2024
Locate process for securities lending- Q4 2023
Clearing workflows for Repo
SFTR and US OFR Repo reporting
Incorporation of ICMA Bond Data Taxonomy

Technical Implementation:

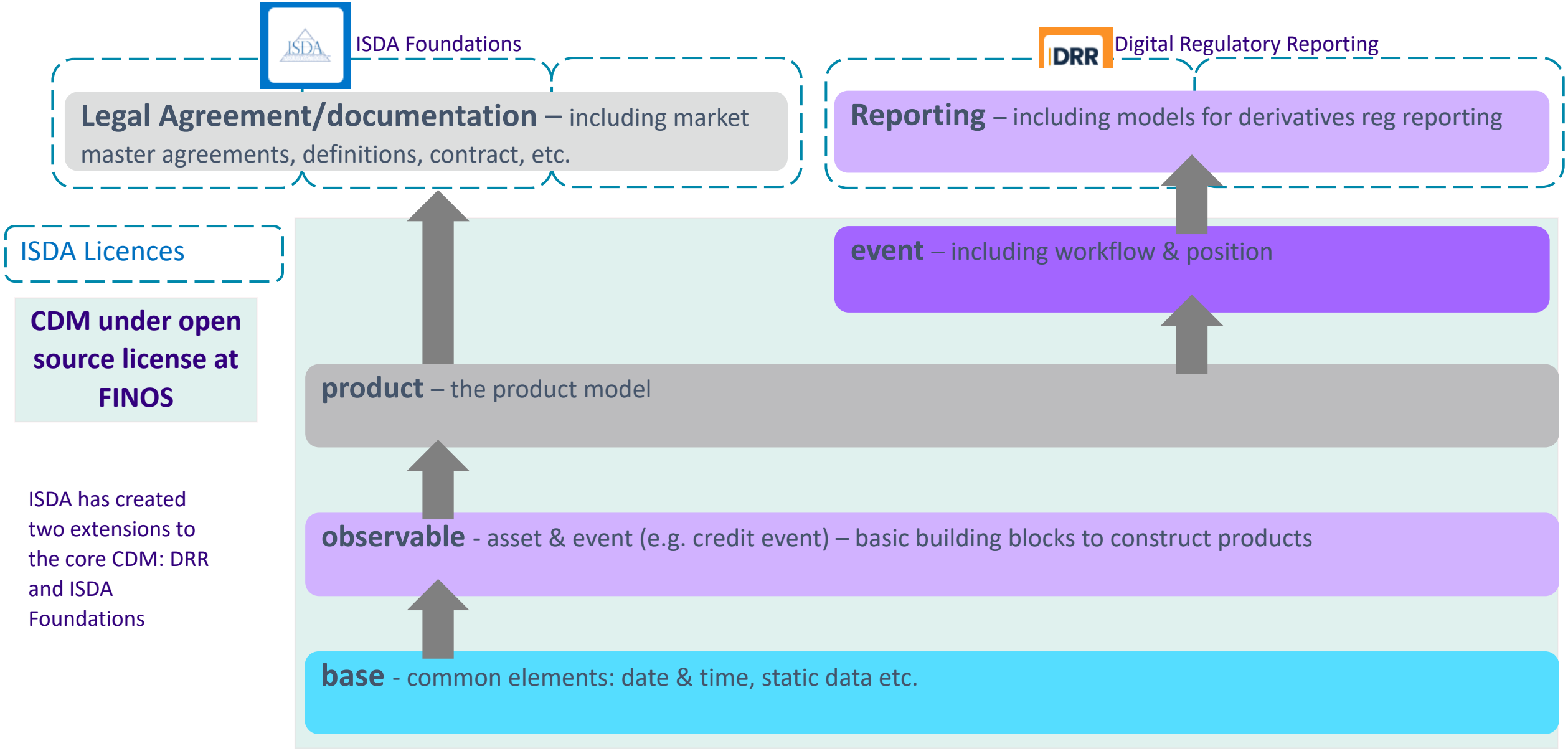
Working groups are looking at:

- Standardising Serialisation
- Improving interaction with Reference Data lists
- Formalising Release process and governance

As at Oct 2023

ISDA Extensions to CDM

CDM
COMMON DOMAIN MODEL



ISDA has created two extensions to the core CDM: DRR and ISDA Foundations

Use Cases

Collateral - Today's Challenge

CDM
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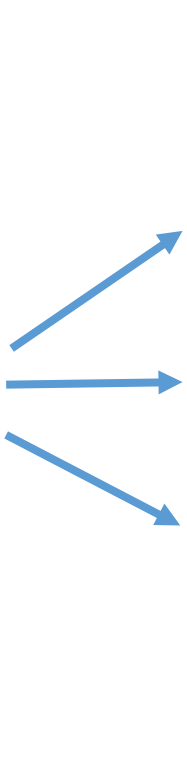
Guidelines outlined under BCBS/IOSCO and Basel III were translated by each regulatory regime spearheading collateral management as a key function in capital markets for both bilateral and cleared OTC. Compliance has increased processing volumes significantly and will continue to do so, the need for automation in collateral management processing. The industry is faced with many challenges which has led to fragmented implementations and operational inefficiencies.

Calculation Dependencies
Margin Monitoring
Margin Allocation
Documentation
Collateral Segregation
Establishing Custody Accounts
Eligibility Schedules
Risk Control
Optimisation
Regulatory Compliance
Reconciliation
Dispute Management
Efficient Settlement



INDUSTRY PARTICIPANTS

- Lack of industry standards - Every industry participant left to implement their own version
- Loss of inter-operability between solutions
- Pervasive reconciliation issues and other operational inefficiencies

Collateral- Documentation Model Representation 2020/2021

CDM
COMMON DOMAIN MODEL

ISDA COMMON DOMAIN MODEL (CDM)
COLLATERAL DOCUMENTATION SUPPORTED

Q1/Q2 2020 Modelling of all IM including New Generation documents and elections found to negotiate in ISDA Create.
Request an ISDA Create Demo

Q3 2020 Additional Variation Margin(VM) Documentation

Now CDM offers digital representation of 30 Collateral documents covering over100 unique election structures

Access to the ISDA CDM portal

INITIAL MARGIN DOCUMENTS
Published 2016 – 2019

ISDA X 10
ISDA Clearstream X 7
ISDA Euroclear X 8

- 2016 ISDA IM CSD (English Law)
- 2016 ISDA IM ISDA CSA (NY Law)
- 2016 ISDA IM CSA (Japanese Law)
- 2018 ISDA IM CSA (NY Law)
- 2018 ISDA IM CSD (Eng Law)
- 2019 Euroclear CTA
- 2019 Euroclear SA (Bel Law)
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- 2016 Clearstream SA (Lux Law)
- 2017 Euroclear CTA (NY Law)
- 2017 Euroclear CTA (Eng Law)
- 2016 Euroclear SA (Bel Law)

VARIATION MARGIN DOCUMENTS
Published 2016
ISDA Publications X 5

- 2016 ISDA CSA for (VM) (Loan - Japanese Law)
- 2016 ISDA CSA for VM) (Security Interest - New YorkLaw)
- 2016 ISDA CSA for (VM) (Title Transfer - English Law)
- 2016 ISDA CSA for (VM) (Title Transfer - French law)
- 2016 ISDA CSA for (VM) (Title Transfer - Irishlaw)

Collateral- Benefits of CDM Standard Documentation

CDM
COMMON DOMAIN MODEL

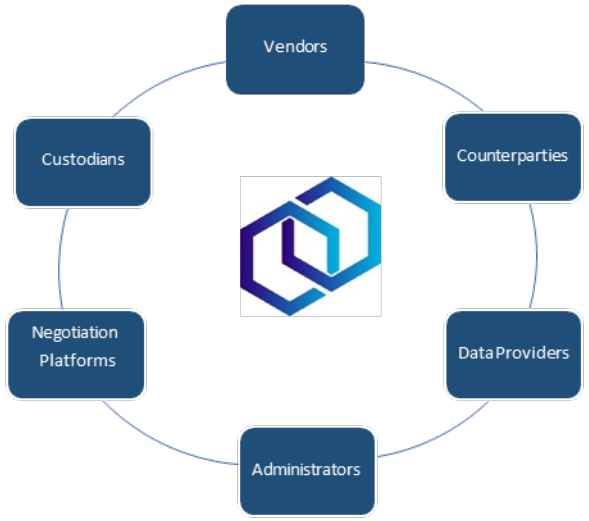
ISDA create

IM CSA Negotiated between parties

Standard CSA data ouput via ISDACreateAPI


```
{
  "agreementDate": {
    "day": 16,
    "month": 7,
    "year": 2020
  },
  "agreementType": {
    "governingLaw": "USNY",
    "name": "CREDIT_SUPPORT_ANNEX",
    "publisher": "ISDA",
    "vintage": 2018
  },
  "contractualParty": [
    {
      "value": {
        "meta": {
          "externalKey": "partyA",
          "globalKey": "65781808"
        },
        "name": {
```


Standard Representation Promotes Interoperability, Transfer of Clean Data and STP



Institutions can exchange CDM Standard for Documents including Eligibility Data to drive Collateral Processes

Use Cases and Benefits

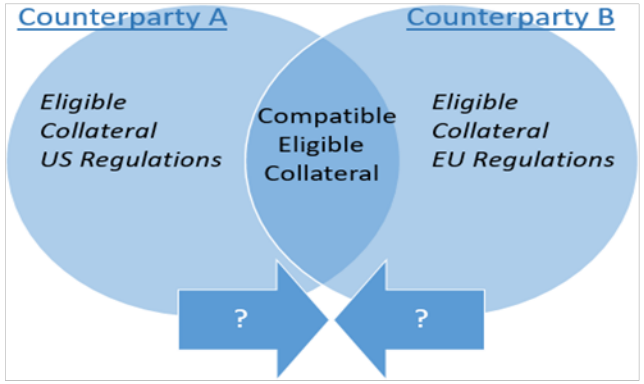
- Fewer Reconciliations, Translations
- Shorter Processes
- Reduced Negotiation Timeframes
- Improved Onboarding
- Decreased Settlement Risks
- Cost Effective
- Secure transfer of information
- Mitigates Margin Disputes
- STP from Negotiation to Settlement
- Produces Clean Auditable data
- Facilitates Digitizing Legacy Data
- Matching counterparty
- Standards for Eligibility Data
- Advance Optimization Processing
- Improved Custodian Services and Interoperability
- Advanced processing of Contract Amendments

Collateral- ECS Challenges – No Standard Data Format

CDM
COMMON DOMAIN MODEL

Challenges are observed today with constructing, negotiating and expressing ECS, many of these originate from lack of common data standards and the inability to connect process events.

- Observation of different regulations, agreeing on compatible eligible assets
- Challenges of collateral identity and categorization
- Understanding Asset economic identity to apply regulatory haircuts and confirm eligibility
- No common standards in place for representation of key features
- Currently no data standard used within documentation to describe the elements for eligible collateral – **many versions observed:**



	Items of Eligible Collateral (IM) and Eligible Currencies	[In respect of Party A's posting obligation]	[In respect of Party B's posting obligation]	[Valuation Percentage]
(A)	[ ]	[ ]	[ ]	[ ]%
(B)	[ ]	[ ]	[ ]	[ ]%
(C)	[ ]	[ ]	[ ]	[ ]%
(D)	[ ]	[ ]	[ ]	[ ]%
[FX Haircut Percentage]		[In respect of Party A's posting obligation: [8]% [, unless the Eligible Collateral (IM) is denominated in the Termination Currency specified with respect to Party B under the Agreement (including, without limitation, pursuant to this Annex), in which case, 0%.]		
		[In respect of Party B's posting obligation: [8]% [, unless the Eligible Collateral (IM) is denominated in the Termination Currency specified with respect to Party A under the Agreement (including, without limitation, pursuant to this Annex), in which case, 0%.]		
[Termination Currency][10]		With respect to Party A: [ ].		
		With respect to Party B: [ ].		
		In relation to a calculation pursuant to Section 6(e)(ii)(2) in respect of an Early Termination Date resulting from a Termination Event where there are two Affected Parties: [ ].		

(ii) **Eligible Collateral.**

The following items: (i) will qualify as "Eligible Collateral" for Party A and Party B; and (ii) are identified by the appropriate ICAD codes, as defined in the Collateral Asset Definitions. Percentage shown is the Valuation Percentage applicable to the indicated combination of ICAD and Remaining Maturity.

	Remaining Maturity			
ICAD Code	One (1) year or under	More than one (1) year up to and including five (5) years	More than five (5) years up to and including ten (10) years	More than ten (10) years
GA-CA-GOV				
CA-TBILL	98%	N/A	N/A	N/A
CA-BOND	97%	97%	95%	93%
CA-RRB	98%	96%	94%	92%
GA-US-GOV				
US-TBILL	98%	N/A	N/A	N/A
US-TNOTE	98%	97%	95%	93%
US-TBOND	98%	97%	95%	93%

Eligibility criteria

Order	Field	Oper	Value	Outcome
1	Security Types	=	Bond, Equity	Accepted
2	Counterparty Own Issue	=	Yes	Not eligible
3	Asset Types	=	Cash	Not eligible
4	Bond Risk Profiles	=	Sovereign, Agency, Structured, Corporate, Convertible bond	Accepted
5	IM asset class. EU IM asset class. US	= =	C, D, E, F, G, H, I, J, K, L, N, Q-NFI, Q-FI 2, 3, 4, 5-a, 5-b, 6, 7, 8-a, 8-b	Eligible
	Final outcome		If none of the above criteria have been met	Not eligible

Haircut criteria

Group	Order	Field	Oper	Value	Outcome
1	1	Security Currency	Not in	EUR	8 %
2	1	IM asset class. EU Time To Maturity Security Applied Rating	= <= =	C, D, E, H, I, J, K 12 Months AAA LT, AA+ LT, AA LT, AA- LT	0.5 %
2	2	IM asset class. EU Time To Maturity Security Time To Maturity Security Applied Rating	= > <= =	C, D, E, H, I, J, K 12 Months 60 Months AAA LT, AA+ LT, AA LT, AA- LT	2 %
2	3	IM asset class. EU Time To Maturity Security Applied Rating	= > =	C, D, E, H, I, J, K 60 Months AAA LT, AA+ LT, AA LT, AA- LT	4 %
2	4	IM asset class. EU Applied Rating Time To Maturity Security	= = <=	C, D, E, H, I, J, K A+ LT, A LT, A- LT, BBB+ LT, BBB LT, BBB- LT 12 Months	1 %

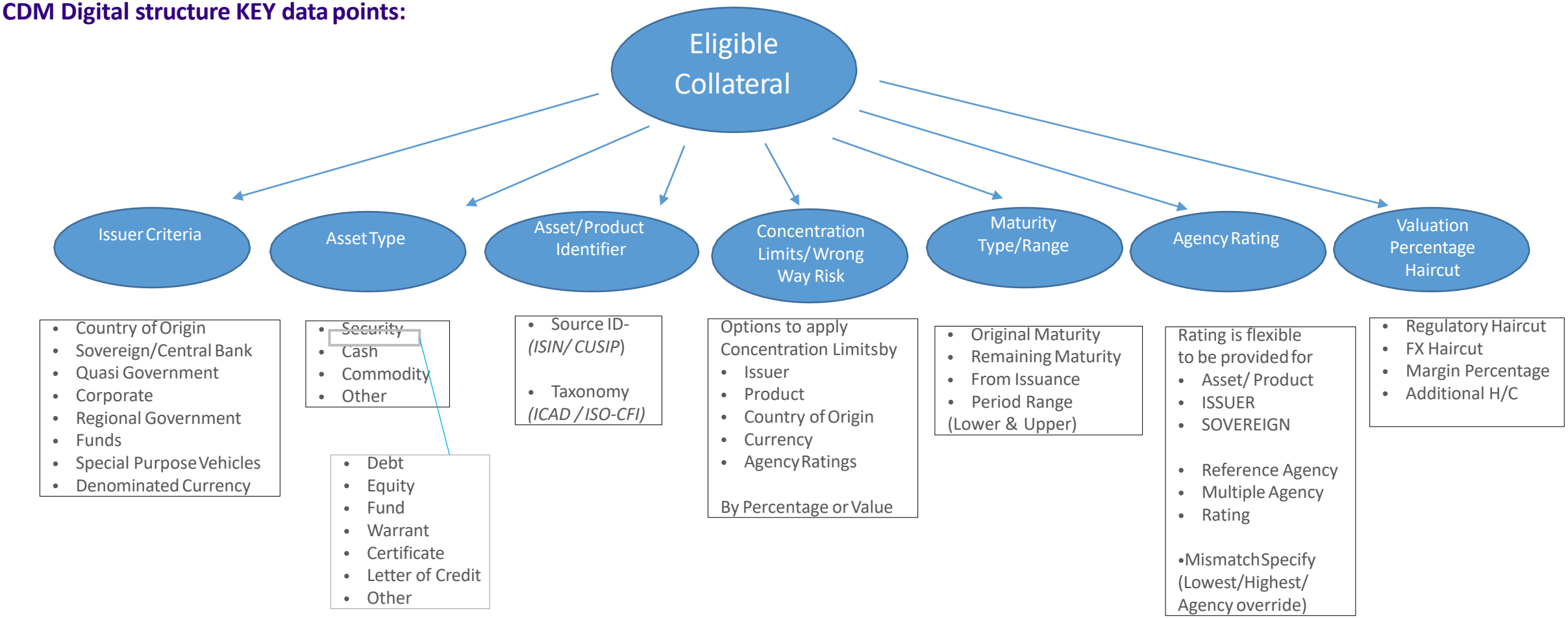
Concentration limits

Limit Type	Limit	Granularity	Field	Oper	Value	Basis
Max	15.00 % 10,000,000.00 EUR	Per UPI	IM asset class. EU	=	F, G, L, N, Q-NFI	Contract Collateral Basis

Collateral- Eligible Collateral Schedules

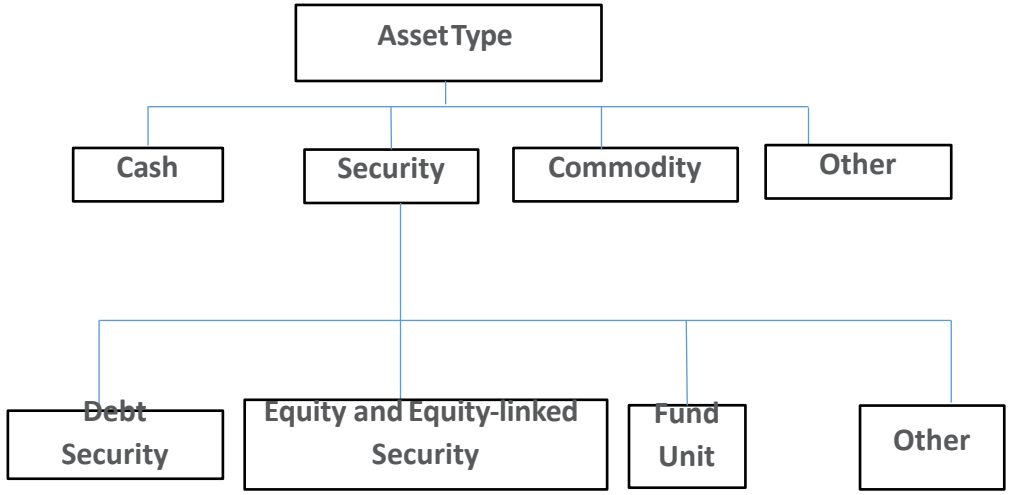
CDM
COMMON DOMAIN MODEL

CDM Digital structure KEY data points:

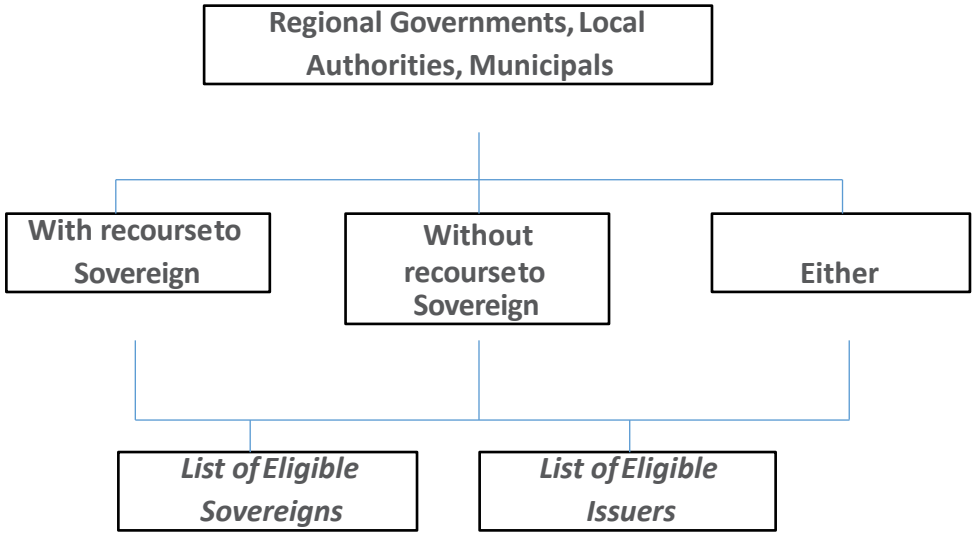


Collateral- Structure to define Asset Types and Identify Issuers

ISDA CDM will offer the flexibility to identify collateral asset types, with particular focus on securities, as most common form found in collateral schedules. However, this can be extended to cover many otherassets.



With the functional flexibility to capture detail of its identity including specific issuer name and use of common identifiers



Other issuer types include:

- Sovereign Central Banks
- Corporate
- Supranational Debt
- SPV and Funds

Collateral- CDM Eligibility Schedules Representation

CDM
COMMON DOMAIN MODEL

CDM offers standard data references points required for many industry forms of ECS. The structure enables consistent expression of data with the ability to apply various include/exclude rules and complex concentration limits. ISDA has demonstrated translation of several ECS provided by members into digital output

CDM Digital Data Representation:

- Collateral Issue Information
- Collateral Asset Type
- Collateral Maturity Range
- Agency Rating
- Valuation Percentage
- Include/ Exclude Rules
- Concentration Limits

CSA Free Format Eligible Collateral Schedule

	Items of Eligible Collateral (IM) and Eligible Currencies	[In respect of Party A's posting obligation]	[In respect of Party B's posting obligation]	[Valuation Percentage]
(A)	[ ]	[ ]	[ ]	[ ]%
(B)	[ ]	[ ]	[ ]	[ ]%
(C)	[ ]	[ ]	[ ]	[ ]%
(D)	[ ]	[ ]	[ ]	[ ]%
[FX Haircut Percentage]		[In respect of Party A's posting obligation: [8]% [, unless the Eligible Collateral (IM) is denominated in the Termination Currency specified with respect to Party B under the Agreement (including, without limitation, pursuant to this Annex), in which case, 0%.]		
		[In respect of Party B's posting obligation: [8]% [, unless the Eligible Collateral (IM) is denominated in the Termination Currency specified with respect to Party A under the Agreement (including, without limitation, pursuant to this Annex), in which case, 0%.]		
[Termination Currency][10]		With respect to Party A: [ ].		
		With respect to Party B: [ ].		
		In relation to a calculation pursuant to Section 6(e)(ii)(2) in respect of an Early Termination Date resulting from a Termination Event where there are two Affected Parties: [ ].		

CDM Digital Data Representation


```
"product" : [ {
  "collateralProductType" : [ {
    "productType" : "CASH"
  } ],
  "denominatedCurrency" : [ {
    "value" : "USD"
  } ]
} ],
"valuationPercentage" : {
  "valuationPercentage" : 1
}
, {
"product" : [ {
  "maturityRange" : {
    "lowerBound" : {
      "inclusive" : true,
      "period" : {
        "period" : "Y",
        "periodMultiplier" : 1
      }
    }
  },
  "maturityType" : "REMAINING_MATURITY",
  "productIdentifier" : [ {
    "productTaxonomy" : [ {
      "taxonomySource" : "ICAD",
      "taxonomyValue" : "US-TBILL"
    } ]
  } ]
} ],
"valuationPercentage" : {
  "valuationPercentage" : 0.995
}
```

Collateral- Eligible Collateral Schedules

CDM
COMMON DOMAIN MODEL

An Eligible Collateral Schedule is represented in the CDM through the specification of criteria that can be used to "filter" whether a piece of collateral is eligible or not.

Asset Type – is used to specify criteria related to the nature of the asset, such as its type (cash, equity, debt, etc), country of origin or denominated currency

Issuer Type – is used to specify criteria related to the issuer of the asset, such the type of issuer (government, corporate, etc), specific issuer name, or agency rating

Treatment – is used to specify the valuation percentage, any concentration limits and whether the criteria specify inclusion or exclusion conditions

The combination of these terms allows a wide variety of eligible collateral types to be represented and can be applied across industry use cases for OTC, Securities Lending, Repo, Cleared and ETD. s

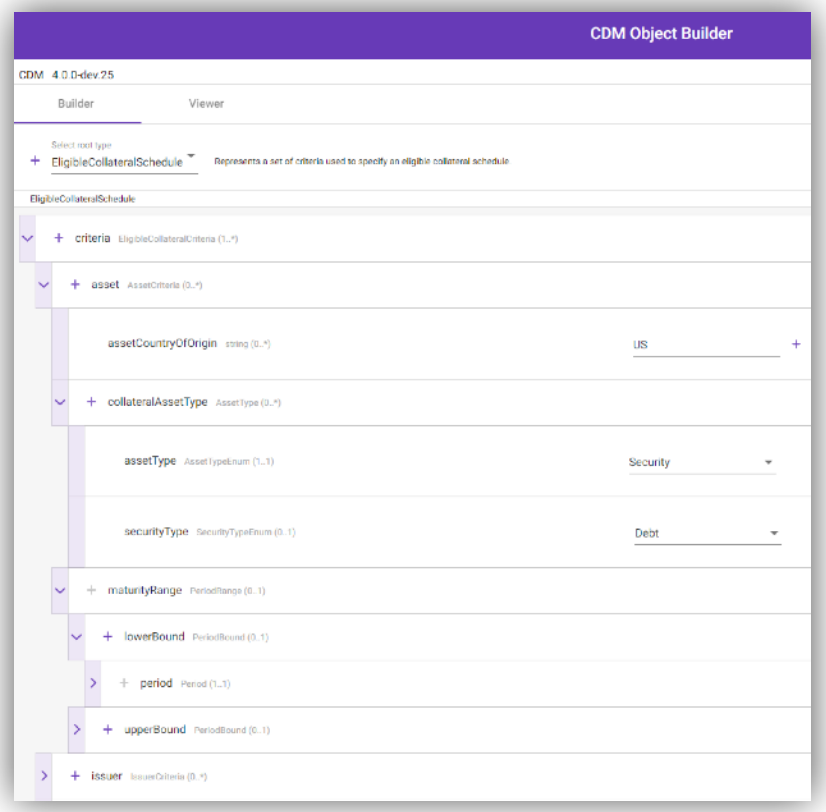
Solving problems for Global Banks, Custodians, Data Providers, Vendors and connecting solutions.

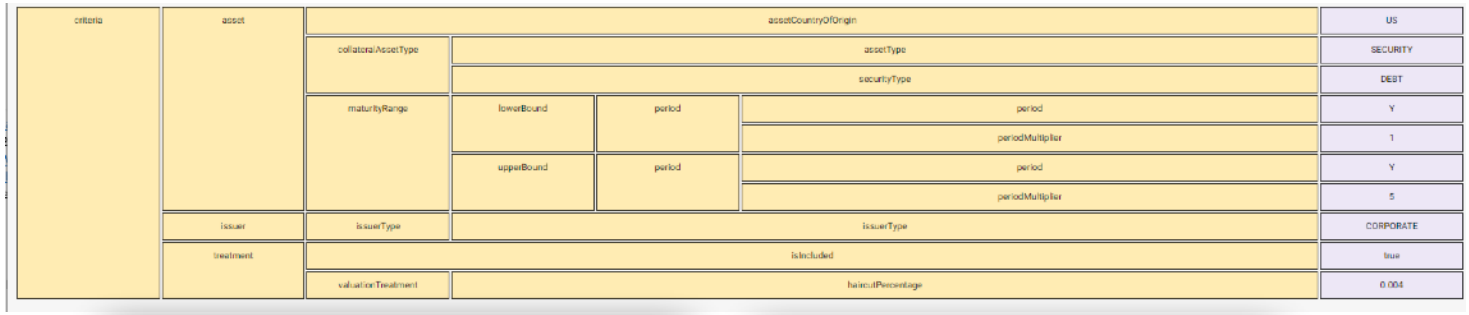
Standard data for Eligible Collateral information facilitates DLT, Smart Contract and technology to be built to add further efficiencies to processes

Collateral- CDM Object Builder

CDM
COMMON DOMAIN MODEL

REGnosys on behalf of ISDA have developed a user interface (UI) this allows you to create CDM Eligible Collateral schedule information using drop down functions. The user can create, import, share or inspect in CDM JSON and view in a tabular format. The Object Builder will be contributed to FINOS in 2023





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    {
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            {
              "value": "US"
            }
          ],
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              ],
              "securityType": [
                "DEBT"
              ]
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          ],
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                ],
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              }
            },
```

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          }
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            {
              "issuerType": [
                "CORPORATE"
              ]
            }
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          "haircutPercentage": 0.004
        }
      }
    }
  ]
}
```

The UI can be used for predefined common eligibility profiles to import and edit and producing industry compatible consumable data output. The current UI gives the user the ability to also validate and construct many version of eligible collateral as CDM data and has the scope to be development further and built into services for use cases beyond collateral

Collateral- Commitment to CDM Integration

CDM
COMMON DOMAIN MODEL

ISDA create

2021/22 Technical Integration work with ISDA Create completed. CDM standard format IM documentation available via Create API.

acadia

2019- 2023 – Continued support and input on CDM Collateral related representations
Focus - Eligible Collateral, VM & IM CSA, CSD and IM CTA, ISDA Master
Q4 2023 – Analysis phase
Q1 2024 – Mapping to enable CDM compliant format to feed downstream systems/platforms. Dependent on connecting firms to support CDM

VERMEG

2021/2- Workshops to assess compatibility, first stage mapping and analysis for IM CSA completed. VM CSA in scope.
H2 2023 –Development in COBRA for CDM IM CSA ingestion to COLLINE. Expect to release to clients in Q4 2023

clearstream | DEUTSCHE BÖRSE GROUP

2021/2- Phase1 ECS representation mapping analysis completed
2022 – Stage 2 technical mapping started into application import/export functionality Contributions to model
2023/24 Development and Launch. Dependent on connecting firms to support CDM

BNY MELLON

2022 Continued support, input to workshops and contribution to CDM Eligible Collateral terms/conditions
H2 2023 Analysis for integration and model mapping of collateral eligibility terms. Pilot test with connecting client for POC.
2024 Progress with full CDM implementation, upon internal approval

Adenza

2022 - Mapping to CDM IM CSA representation completed. Validated using ISDACreate output test data
2023 - Testing Import/export using data uploader tool. Version 1 to be competed Q3 2023
Next Steps - Extend document coverage to VM and add Eligible Collateral

CLOUDMARGIN

Focus – To ingest CDM data for Eligible Collateral and multiple CSA versions. Then to produce CDM output from CloudMargin data
H2 2023 / 2024 – Continue analysis and mapping to prepare for ingestion status. Potential to connect to service providers able to support CDM.

Logical Construct

Focus - CDM for representing IM, VM ,Legacy CSA and Master Agreement data
Q4 2022 – Investigation into ability to round trip CDM data between Lyncs and ISDA Create.
2023 - Build out CDM capability in collaboration with vendors / clients interested in using CDM

MUREX

Q1 2023 – Mapping for skeleton of CSA mandatory fields & input into MX.3 platform completed.
Q3 2023 - Extension of CDM CSA coverage and further mapping to deliver integration into Murex (CDM vs MX.3)
2024 - Extension for Eligible Collateral and representation of Legacy CSAs once delivered to CDM

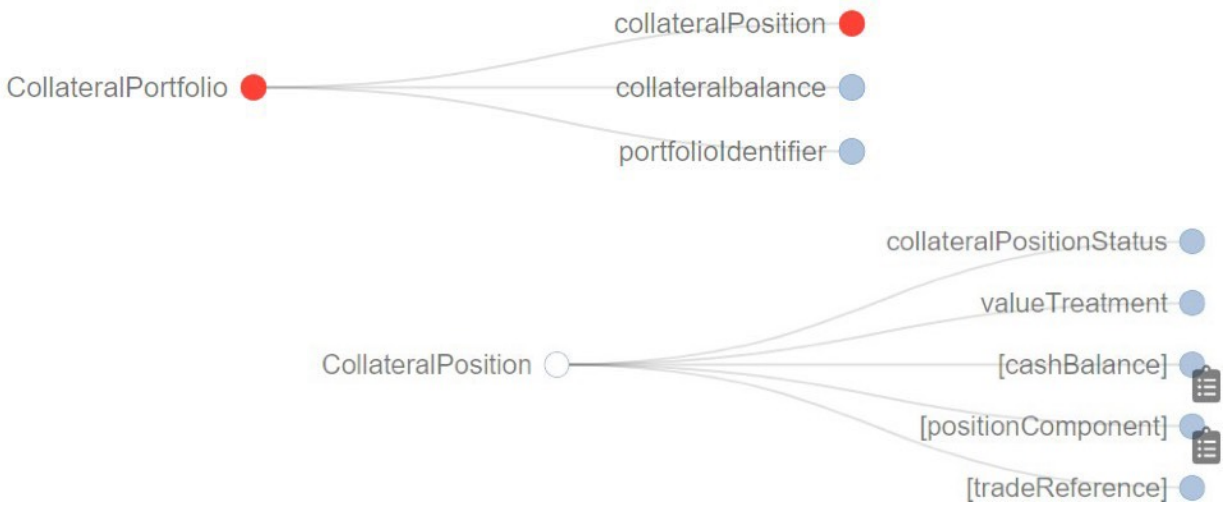
For more question on CDM and Collateral related initiatives, please reach out to: valdensmith@isda.org

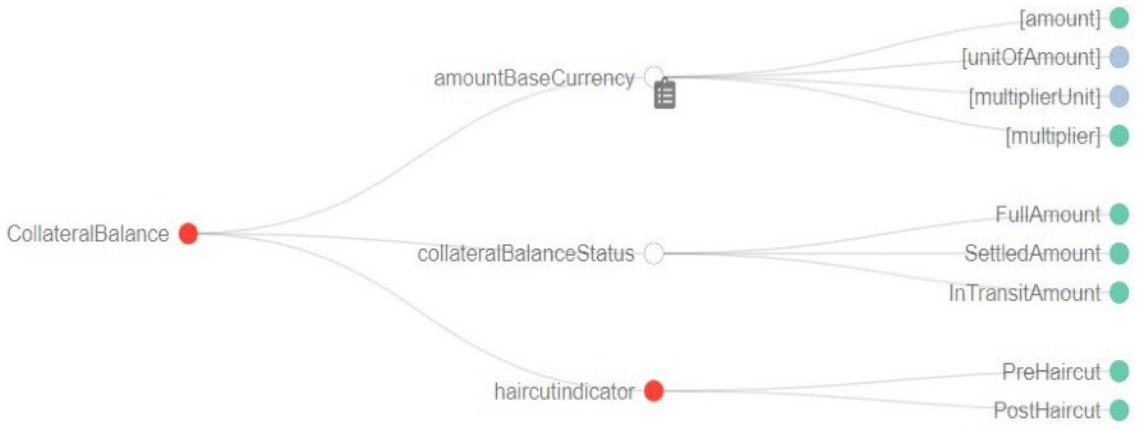
Collateral- CDM Margin Call / Positions / Balances and Exposure

Data to support the Collateral Margin Call process and its related components for Collateral Balance , Collateral Positions and Exposure are now represented in the CDM.

A foundational structure to support the data required for the margin call process including:

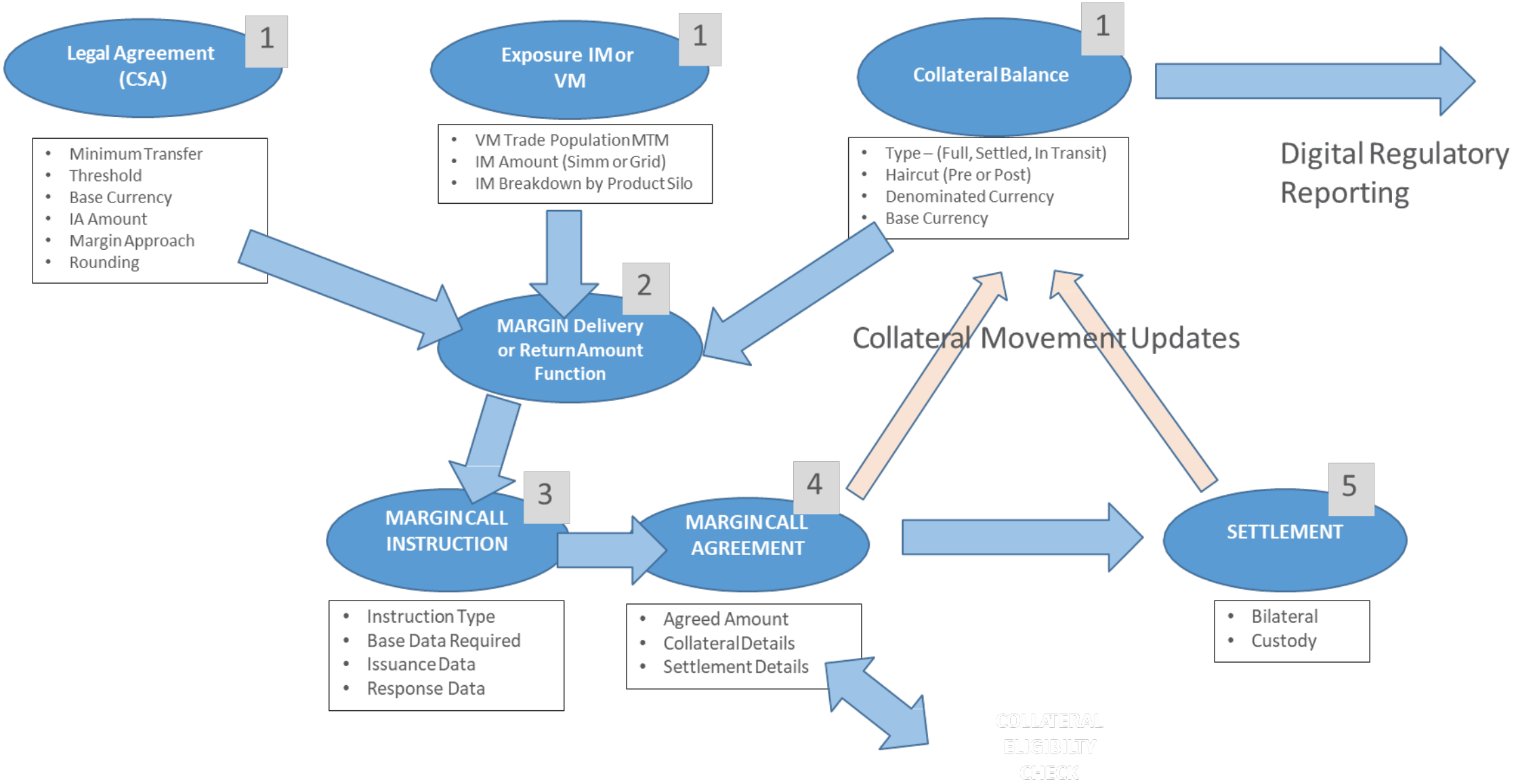
- **Standard margin call action labels**
- **Base details for margin call data types and attributes to support unique features for issuance and response**
- **Collateral positions and ability to list collateral assets for responding to margin demands and for information purposes**
- **Collateral balance data requirements and aggregate values for margin call data and reporting**





Collateral- Margin Call connection to other CDM components

CDM
COMMON DOMAIN MODEL



Collateral- Processing Standards in CDM- What next?

CDM
COMMON DOMAIN MODEL

2023/2024 - CDM Collateral Initiatives

Objectives:

Documentation Extensions:

1995 VM CSA

ISDA Master Agreement

Amendment Agreements

Support Adoption of CDM Documentation and ECS into Production Environments of External Platforms

Validate CDM Data Structure for Margin Call Issuance and Response Standards

Engage with Members for Support and Adoption

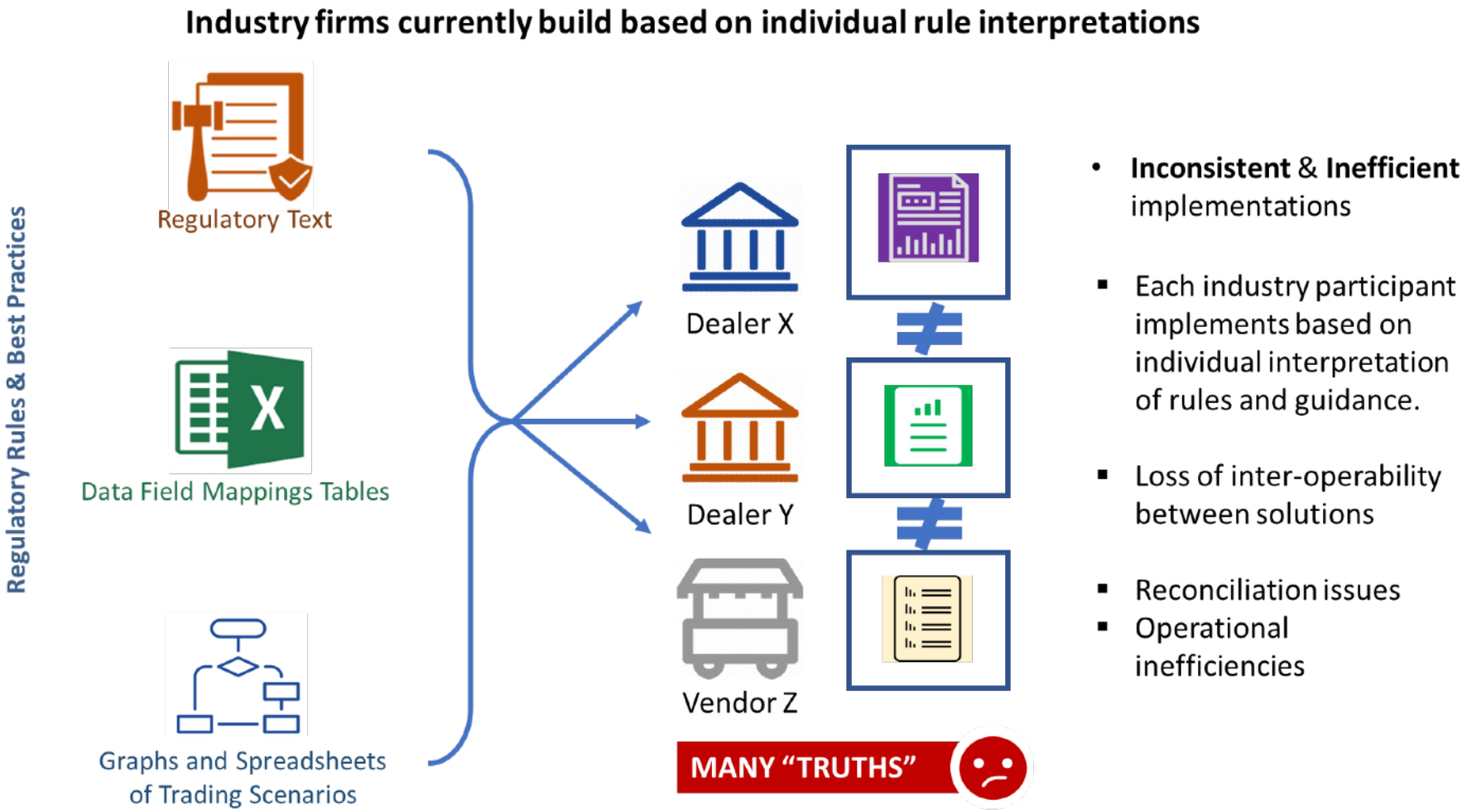
Collaboration with other Trade Associations to extend CDM

Repo and Securities Lending Collateral Process

Digital Regulatory Reporting

CDM
COMMON DOMAIN MODEL

Trade Reporting Rule Implementation Today



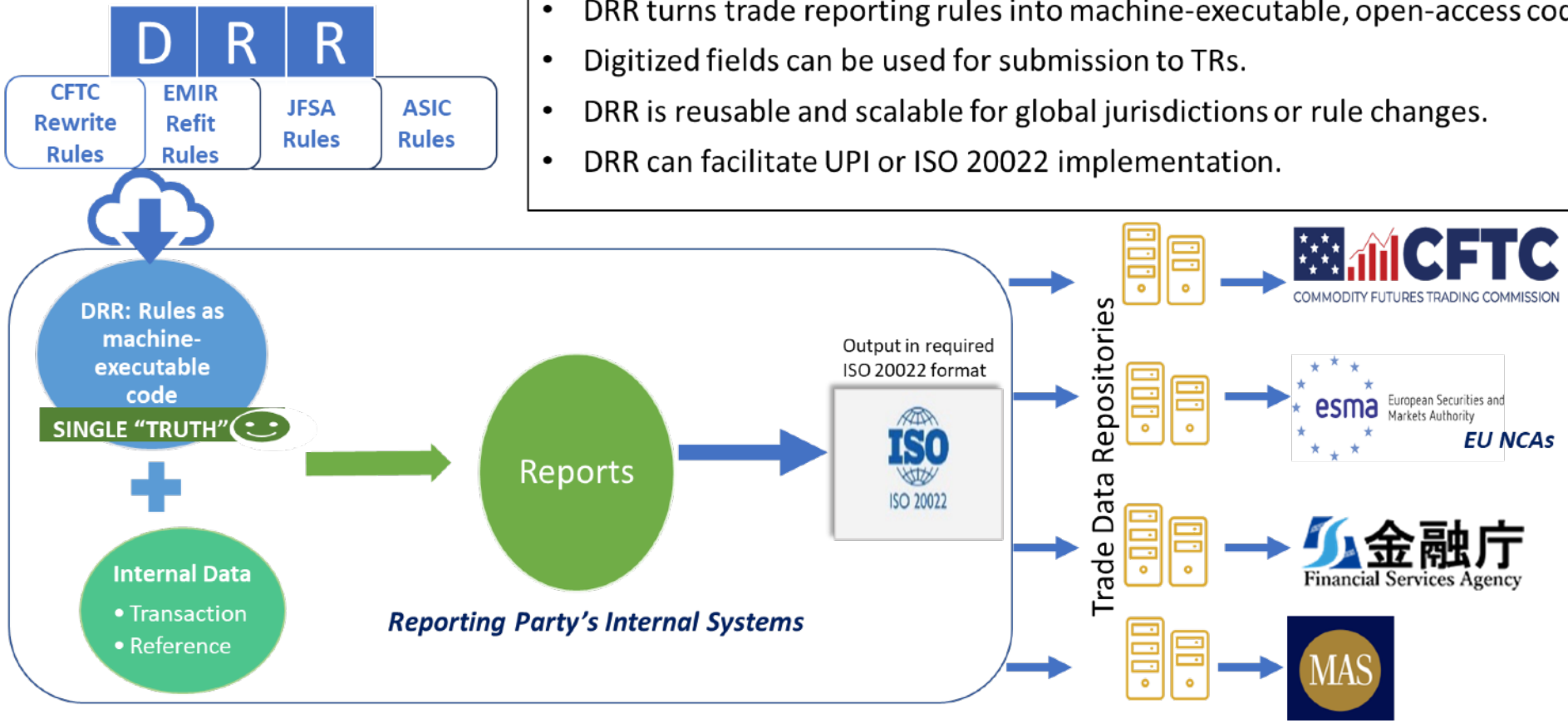
- **Inconsistent** & **Inefficient** implementations
  - Each industry participant implements based on individual interpretation of rules and guidance.
  - Loss of inter-operability between solutions
  - Reconciliation issues
  - Operational inefficiencies

Digital Regulatory Reporting

CDM
COMMON DOMAIN MODEL

Trade Reporting Rule Implementation Using the DRR

- A digitized representation of trade reporting rules and industry practices based on a mutualized industry interpretation.
- DRR turns trade reporting rules into machine-executable, open-access code.
- Digitized fields can be used for submission to TRs.
- DRR is reusable and scalable for global jurisdictions or rule changes.
- DRR can facilitate UPI or ISO 20022 implementation.



Digital Regulatory Reporting

CDM
COMMON DOMAIN MODEL

Trade Reporting Rule Implementation Using the DRR

Mutualize regulatory reporting compliance effort

- Rule interpretations and compliance effort is spread across the industry

Gives you an unambiguous rule interpretation

- Reflects rules, guidance and industry best practices in an unambiguous way within the DRR model

DRR is open-access and increases transparency

- The DRR will be accessible to regulators and market participants

Defines core regulatory reporting ruleset only once

- Thereafter, only incremental efforts are required to extend the DRR model to other jurisdictions and future changes to reporting rules
- And such updates will be delivered through centralized DRR model changes

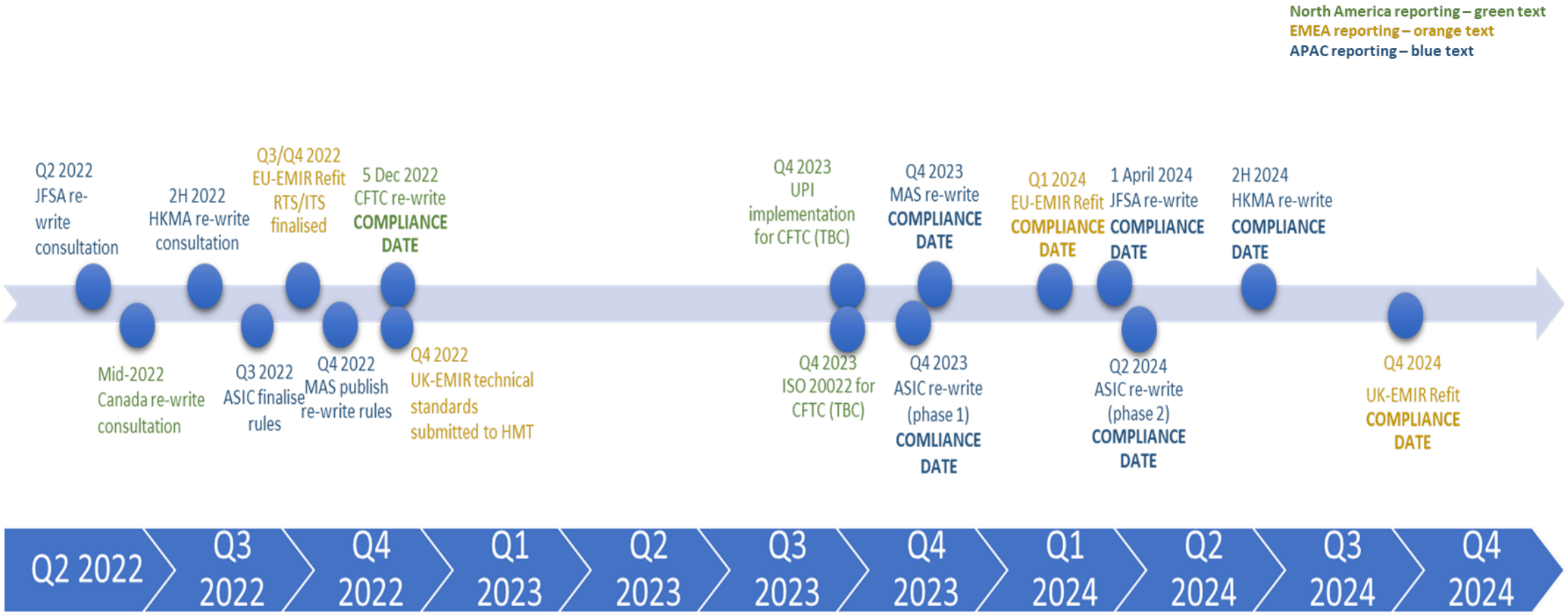
Significant resource and cost savings

- Through the mutualized effort, firms leveraging DRR using the CDM will reap significant compliance, reporting and implementation project savings

Digital Regulatory Reporting

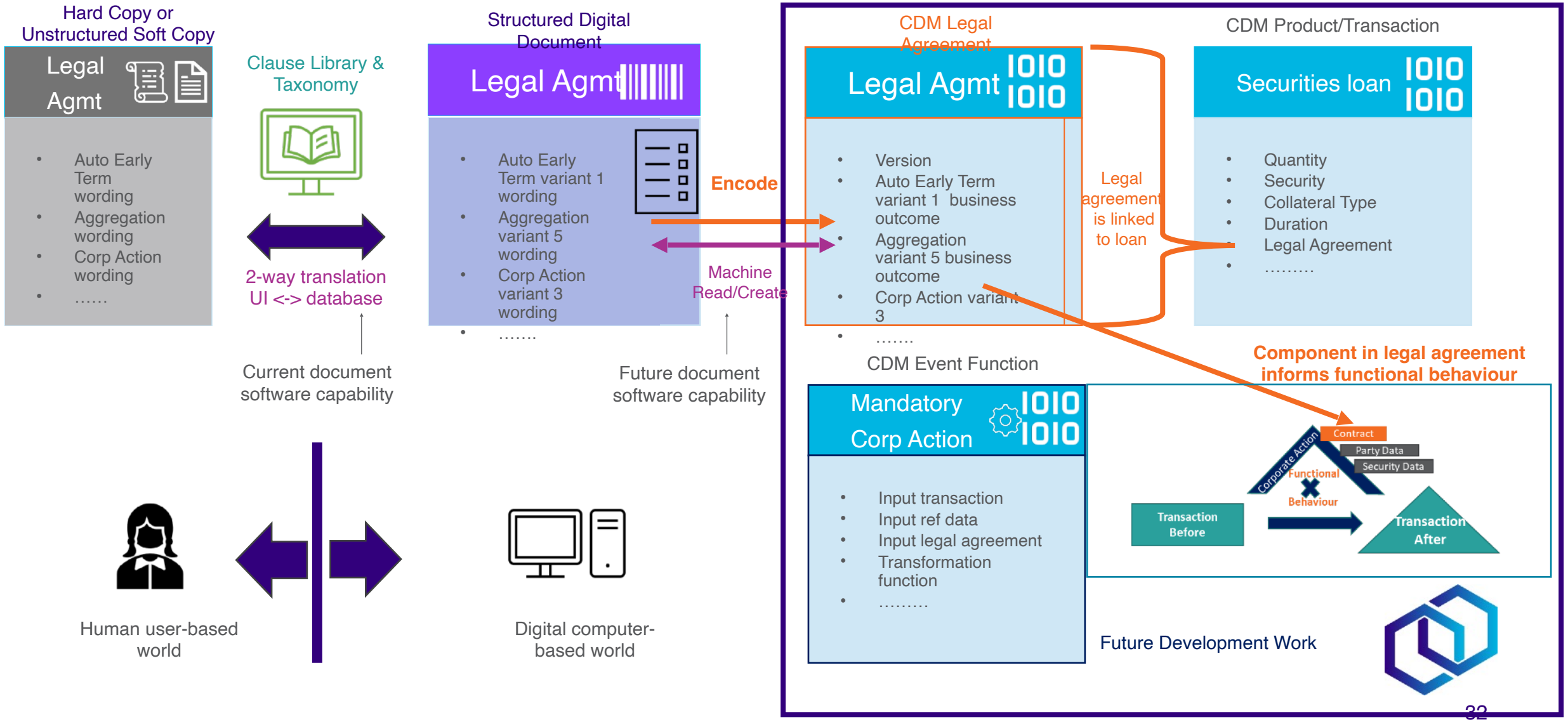
CDM
COMMON DOMAIN MODEL

DRR Roadmap



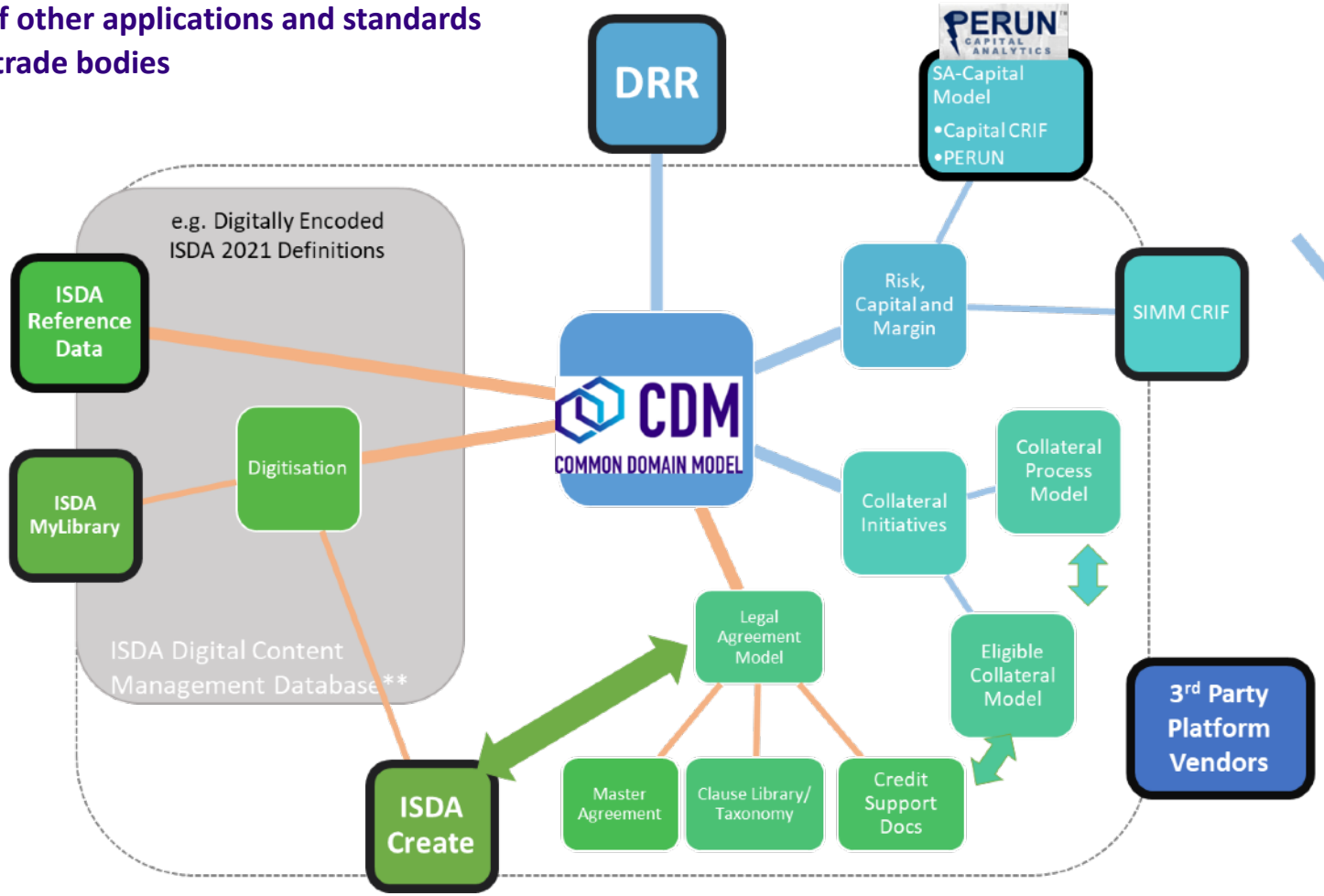
Integrating CDM and Legal Agreements

CDM
COMMON DOMAIN MODEL



Further Use Cases: Ecosystem

CDM presents opportunities to interact with entire eco system of other applications and standards provided by trade bodies

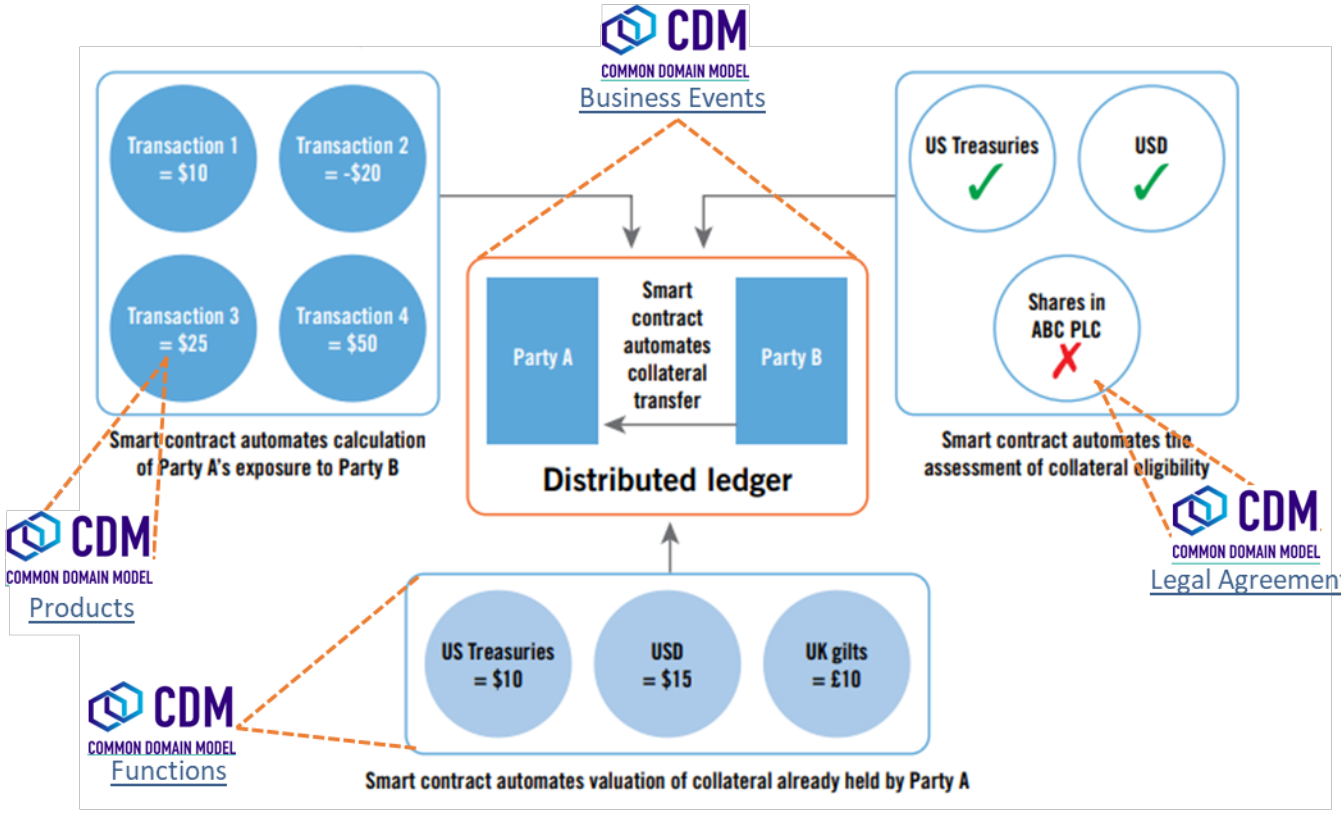


CDM provides framework to model data + processes and delivers standards as code for implementation

CDM provides framework for content and data model for standard representation

Further Use Cases: Smart contract technology support

Use case: Aid the consistent and robust implementation of smart derivatives contracts applications and related upcoming technologies



- Many collateral processes such as:
  - The valuation of exposure and margin requirements;
  - Assessing collateral eligibility;
  - Exchange and return of collateral assets,
  - use conditional logic and could benefit from increased automation.

- This example provides an illustration of a potential smart derivatives contract construct that is designed to automate certain aspects of the collateral management process.

**Illustrative*

Further Use Cases

CDM
COMMON DOMAIN MODEL

Integration with CRIF standard for FRTB, SIMM, and SA-CVA reporting

Transcribe legally prescribed functional clauses from ISDA Def into machine readable and human readable codified functions

Facilitate more efficient re-use of data e.g. data template for large volume of increases of an Equity portfolio swap

Set a standard for the efficient digitalisation of collateral related margin process

Assert and mutualise the standardised encoding and capacity for implementation of legal clauses supporting the life cycle events of derivative transactions.

Express the CCP clearing handbook book that regulates the registration and clearing of a transaction into a machine readable and executable code that can be automatically generated.

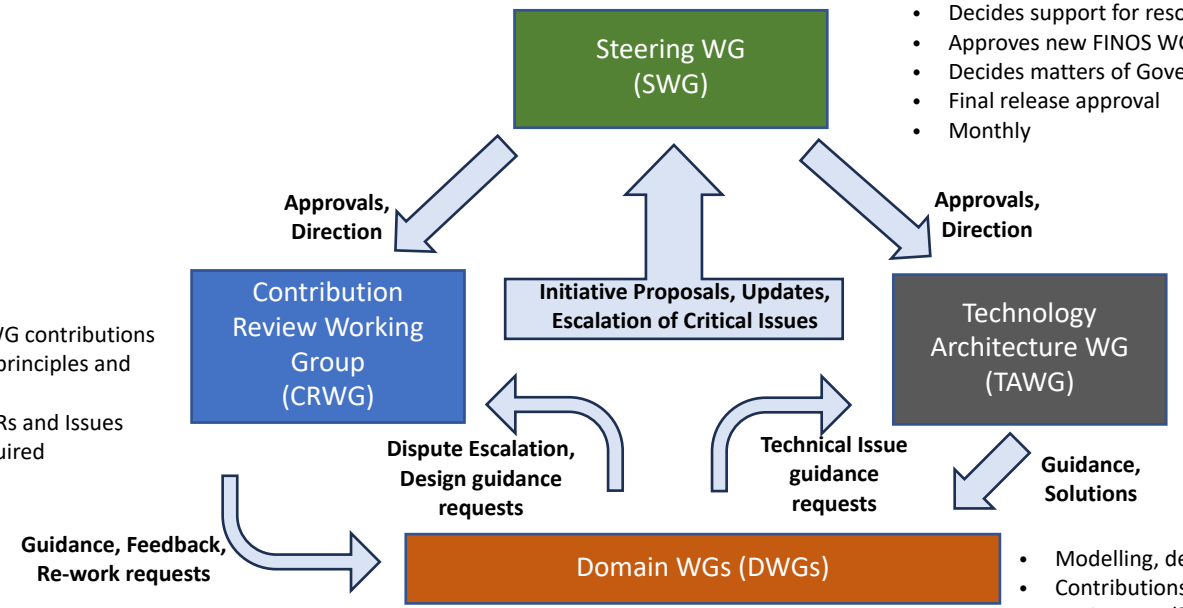
Support more consistent implementation of market infrastructures processes such as clearing in tally with upcoming new innovative technologies (DLT, Cloud, Smart Contract, etc)

Match and store consistent trade representations that feed in “real time” FO trading systems using DLT and detect inconsistencies if any.

Aid the standardized representation of SSIs

Get Involved

How to get involved- Community Structure



- Defines and monitors overall roadmap, setting annual priorities
- Decides support for resourcing initiatives proposed by TAWG, CRWG or DWGs
- Approves new FINOS WGs
- Decides matters of Governance & Operating Model for FINOS CDM WGs
- Final release approval
- Monthly

- Assembles releases
- Initial release proposal approval
- Arbitrates disputes arising from DWG contributions
- Guardians and enforcers of design principles and guidelines
- Triages and facilitates long-dated PRs and Issues
- Fortnightly, with sub-groups as required

- Defines and works on items related to technical aspects and architecture e.g. language distributions, packaging, libraries, serialization, reference data architecture, integration with other data standards
- Interacts with CRWG like a DWG
- Monthly, with sub-groups as required

- Modelling, design and execution of work items within their domain scope
- Contributions compliant with guidelines and consistency across CDM
- Updates on/feeds domain based work items and plans into overall roadmap set by steering
- Meets around every 2 weeks as needed

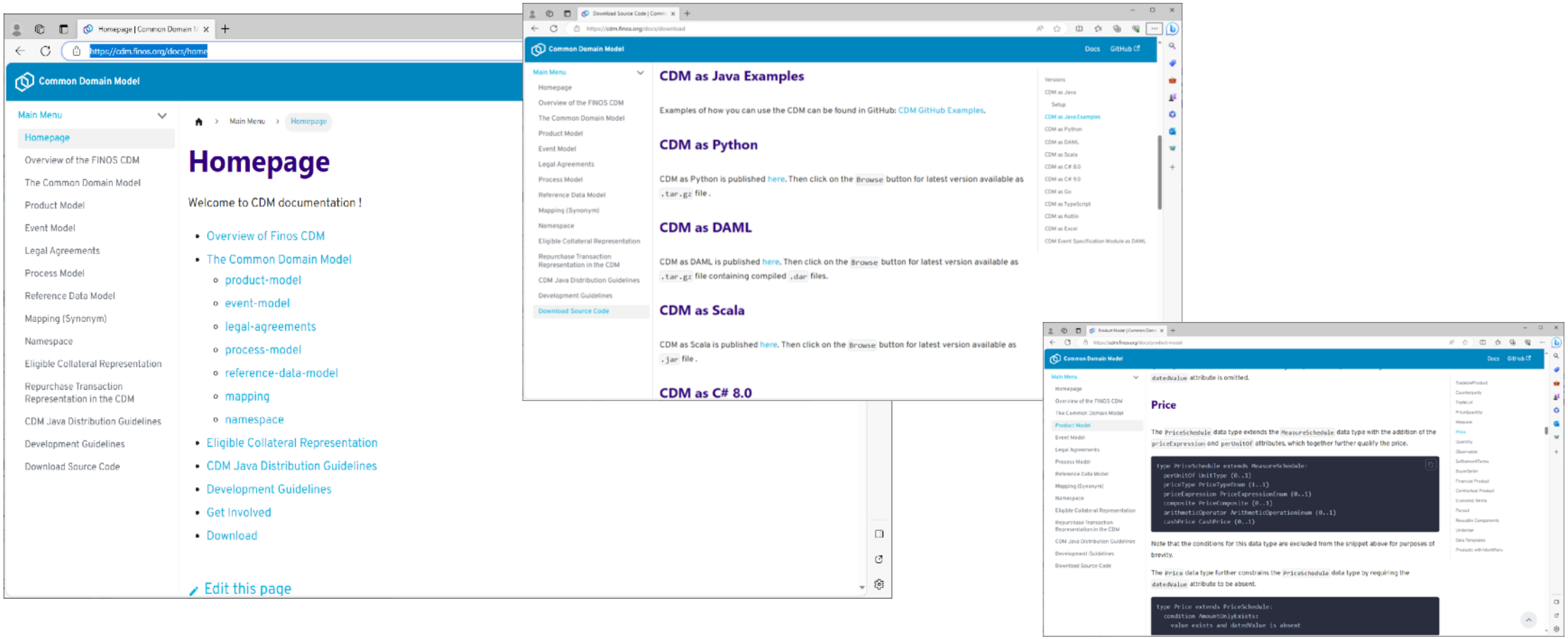
List of DWGs & their Scope as at Oct 23:

- Collateral- *Collateral schedules & processes*
- Repo & Bonds- *Repo & bond products*
- Securities Lending- *Securities Lending*
- Derivatives Products and Business Events (DBPE)- *Derivatives products of a non-structured/exotic nature*
- Structured Products- *Structured & Exotic Derivatives*
- DRR Peer Review- *Digital Regulatory Reporting (Derivatives regimes)*
- ISDA Legal Agreements- *ISDA Legal Agreement modelling*

FINOS groups
ISDA WGs
ISLA WGs
ICMA WGs

How to get involved

Info hub for FINOS including user documentation downloadable distributions: [Homepage | Common Domain Model (finos.org)]



COMMON DOMAIN MODEL

The Common Domain Model is brought to you by:

FINOS

ISDA Safe, Efficient Markets

ICMA International Capital Market Association

ISLA INTERNATIONAL SECURITIES LENDING ASSOCIATION