

Proposal for FINOS RegTech Council

Delivering open-source RegTech to
the point of adoption



1 August 2023



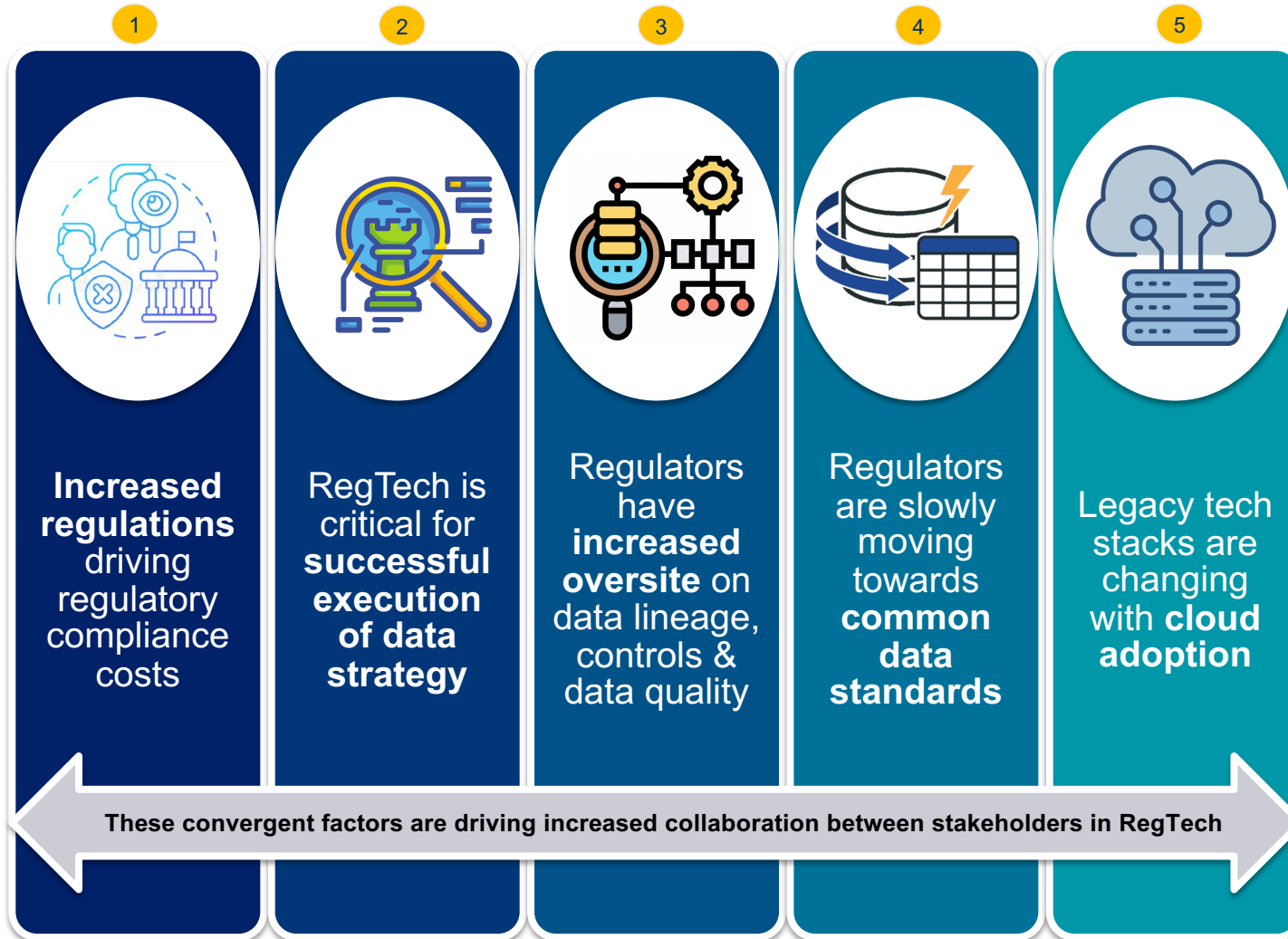
Executive Summary

- ▶ The unrelenting breadth and depth of **regulatory transparency** is fueling **RegTech collaboration demand**
- ▶ FINOS now has a full toolbox to **engineer new services** for Cloud adoption in a **better, faster, safer and lower-cost manner**. CLAs give members an immense opportunity to **mutualize development**
- ▶ We are launching a **RegTech Council** to **deliver** these RegTech services in a coordinated manner via open-source **working groups**
- ▶ Project priorities have been established and firms are **committing resources now** in anticipation of a **1 November launch**
- ▶ We need your crowdfunding commitment now to agree **business cases, resource commitments, plans and milestones** for 1H24

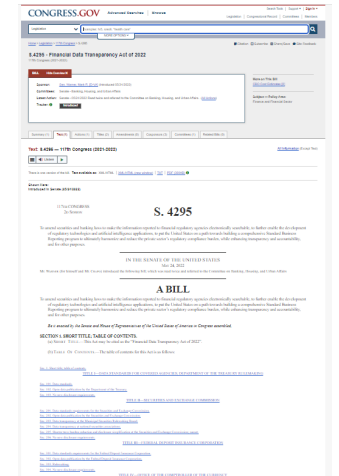
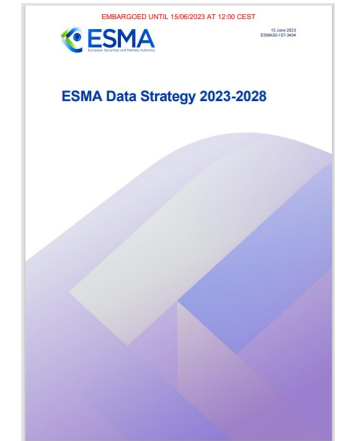
RegTech demand | Business Case

Unrelenting regulatory Demand

Cryptoasset
 Taxonomy duty DP23
 management
 AML TCFD
 HMTT+1
 regulation III IV
 GRI AMLA ESG
 Consumer
 EBA
 Asset post CSRD
 SFDR ECP2
 SASB MAR Digital
 trade 430C
 MiCA MLR
 Surveillance
 Basel CTP assets
 MiFID

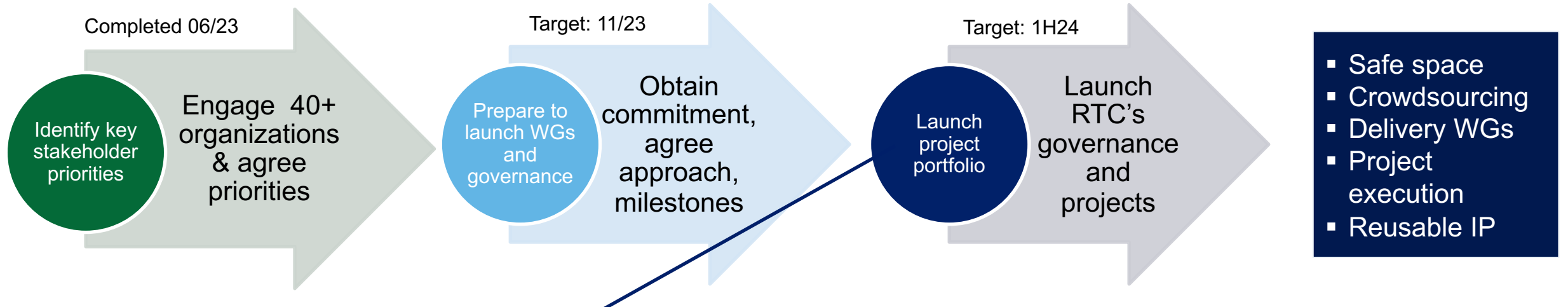


Regulatory Structural reform of data



FINOS | Crowdfunding the RegTech Council to support the projects

The **FINOS Regulation Innovation Special Interest Group (SIG)** & **Financial Objects Special Interest Group (SIG)** will work through opensource solutions for regulatory and compliance issues in financial services. This group meets regularly and has a road map to increase collaboration between all stakeholders to showcase the “*art of the possible*”



The **FINOS Regulation Innovation Special Interest Group (SIG)** & **Financial Objects Special Interest Group (SIG)** recommendations are driving the formation Of **REGTECH Council**

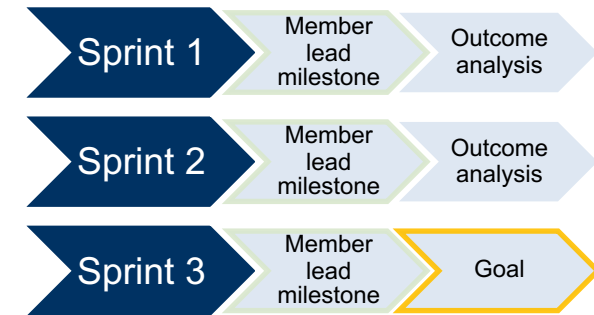
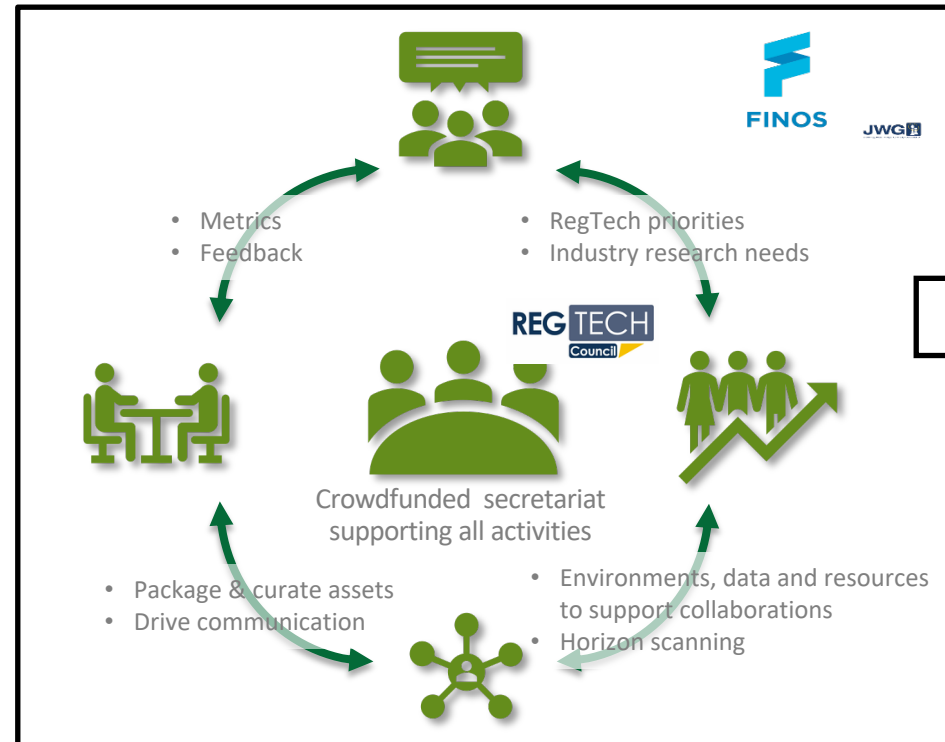


The FINOS RegTech Council (RTC) enables Members to *accelerate international RegTech adoption* through working groups that deliver proven opensource results. It oversees a portfolio of projects with the support of a funded programme office.

FINOS | RegTech Council Operating Model and Governance

Below is the Operating Model for Reg Tech Council. We are developing a Crowd Sourcing & Crowd Funding model

Buy Side Trade Organizations
Sell Side Regulators



RegTech Opensource: reusable assets

- Will collaborate on creation of core technology, data architectures to support and validate results as well as develop resources to deliver projects through members

The Reg Tech Council: direction and engagement

- Provide a public/private 'safe space' for RegTech priorities and provide direct research and collaboration. The council will help mobilise resources, including non-council members

WG projects

- Objectives, plan agreed by Council
- Context and business cases for senior management
- WG Projects agreed and resourced by Members
- Results qualified by Membership

Members are helping to mobilise the projects and agree governance now

FINOS | RTC Priority projects identified in the London Conference/Workshop

Summary FINOS RegTech SIG Opportunities – Pre-1 November targets

	Opportunity	Pithy Description	Deliverables	08/23 Programme Update
Mutualize RegTech Delivery	CFTC.R/EMIR.R+ global extension to all asset classes	Extending DRR to global coverage of day 1 regimes in North America, Europe and Asia. Includes code performance, accessibility, language compatibility and interpretation audit trail and change control.	<ul style="list-style-type: none"> Stakeholder outreach Day 2 ToM Plan/ milestones Development roadmap 	<ul style="list-style-type: none"> ISDA clarification of DRR objectives in progress Target operating model clarification required FIA objective alignment required
	SFTR / US securities lending & bilateral repo	Align US/ EU reports via 'CDEs' and mutualise interpretation, messages and testing via CDM	<ul style="list-style-type: none"> Regulatory outreach Agreed US/EU/UK SFTR approach Business case Plan/ Milestones 	<ul style="list-style-type: none"> Outreach to US associations in progress Follow-up with ISLA/ICMA in progress Align stakeholder objectives Outreach to US associations Agree business case Agree programme description (PID) & ToR
	US/UK T+1/ CSDR	€ Multi-billion opportunity to align CCP formats	<ul style="list-style-type: none"> TBD 	<ul style="list-style-type: none"> UKF recommendations to Accelerated Settlement Task force in progress – Q424 target
	Market Surveillance CDM	Common data framework for pre-trade market surveillance with event definitions and dictionaries in CDM	<ul style="list-style-type: none"> Fixed Income pre-trade open-source data standards 	<ul style="list-style-type: none"> FINOS/JWG NY roundtable 22 Aug Align stakeholder objectives / targets Agree business case Agree programme description (PID) & ToR
Global reg data standards	ESG data validation	Develop data standards in Legend which align to transactional and position data. Enable ESG information that is required to flow a) outside of the organization up through to investors as well b) out to customers.	<ul style="list-style-type: none"> ESG open-source data model Open-source Carbon trading data 	<ul style="list-style-type: none"> Potential for alignment with OS climate Carbon trading – Message/CDM alignment SFDR/ CSRD – Legend meeting in progress Align stakeholder objectives / targets / bus case Agree programme description (PID) & ToR
	US/EU/UK common data dictionary	Development common view of data reporting processes, data dictionary and quality measures	<ul style="list-style-type: none"> Dictionary standards method Quality metric approach Target operating model Transition principles 	<ul style="list-style-type: none"> JWG/FINOS outreach w/c 21 August in DC Call for comment Q4 23 Align stakeholder objectives Agree FINOS' role in TA engagement Agree programme description (PID) & ToR

Note: Red indicates tasks which require funding to progress in advance of 1 November Launch target

There are two themes that are emerging based on the conversations we have had so far

1 Mutualize RegTech Delivery

- A common understanding of Regulatory rules
- Further develop the toolbox of Open-Source components within FINOS for a scalable Reference Architecture for Regulatory Reporting
 - Support Cloud & On Premise end to end working solution/MVP templates according to popular identified patterns
- Develop Common Data Assets / Product Model for Regulatory Reporting
 - Leverage the Common Domain Model (CDM)
 - Consistent Data Architecture includes a view on Common Data Models/Dictionaries, Mappings, A consistent approach to identifying Critical Data Elements (CDE's) and Data Control Framework

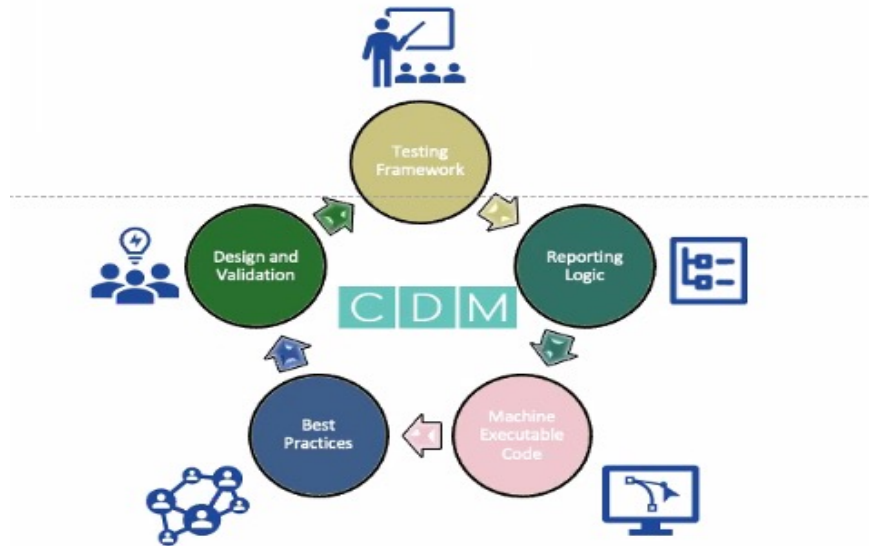
2 Engage regulators on Data Dictionary

Influence the Future common data dictionary for regulatory reporting data standards with clear advocacy goals on Data Formats & Common Data Dictionary For Regulators

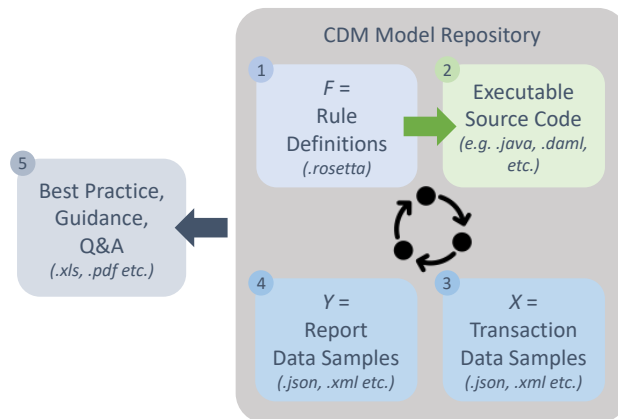
- US Financial Data Act 2022 ([law](#))
- UK BoE/FCA transforming data collection ([TDC](#))
- ESMA 2028 Data [Strategy](#) (published 06/23)
- EBA Data strategy & CRR [430C](#)
- ECB Integrated Reporting [Framework](#) (IReF)
- APRA review of data collection [roadmap](#) (0723)

Benefits: Cost Avoidance & Reduced Operational Risks

Global-DRR Program Methodology



The approach yields 5 internally consistent deliverables, which are tied by the equation: $Y = F(X)$



These deliverable components specify the full reporting implementation, i.e.:

- rules,
- best practices,
- test data and
- example reports

for market participants to use to comply with the regulation

Reporting rules are defined as a set of **logical instructions** (i.e. *functions*) applied to CDM data objects in a **human readable and machine executable form**. Each instruction is associated to regulatory *references*, rules, other guidance, or best practices etc.

```

reporting rule SpreadLeg1 <"SpreadLeg1">
  [regulatoryReference CFTC DoddFrank Part45 appendix "1" item "73" field "Spread-Leg1"
  provision "For each leg of the transaction, where applicable: for OTC derivative
  transactions with periodic payments (e.g., interest rate fixed/float swaps, interest
  rate basis swaps, commodity swaps), spread on the individual floating leg(s) index
  reference price, in the case where there is a spread on a floating leg(s). For example,
  USD-LIBOR-BBA plus .03 or WTI minus USD 14.65; or difference between the reference
  prices of the two floating leg indexes. For example, the 9.00 USD Spread for a WCS vs.
  WTI basis swap where WCS is priced at 43 USD and WTI is priced at 52 USD."]
  ContractForEvent then
    extract Trade -> tradableProduct -> product -> contractualProduct -> economicTerms ->
    payout -> interestRatePayout
    then CDESpread_InterestRate
      then extract SpreadSchedule -> initialValue -> amount
    as "73 Spread-Leg 1"
  
```

1 Regulatory reference

2 Functional rule logic

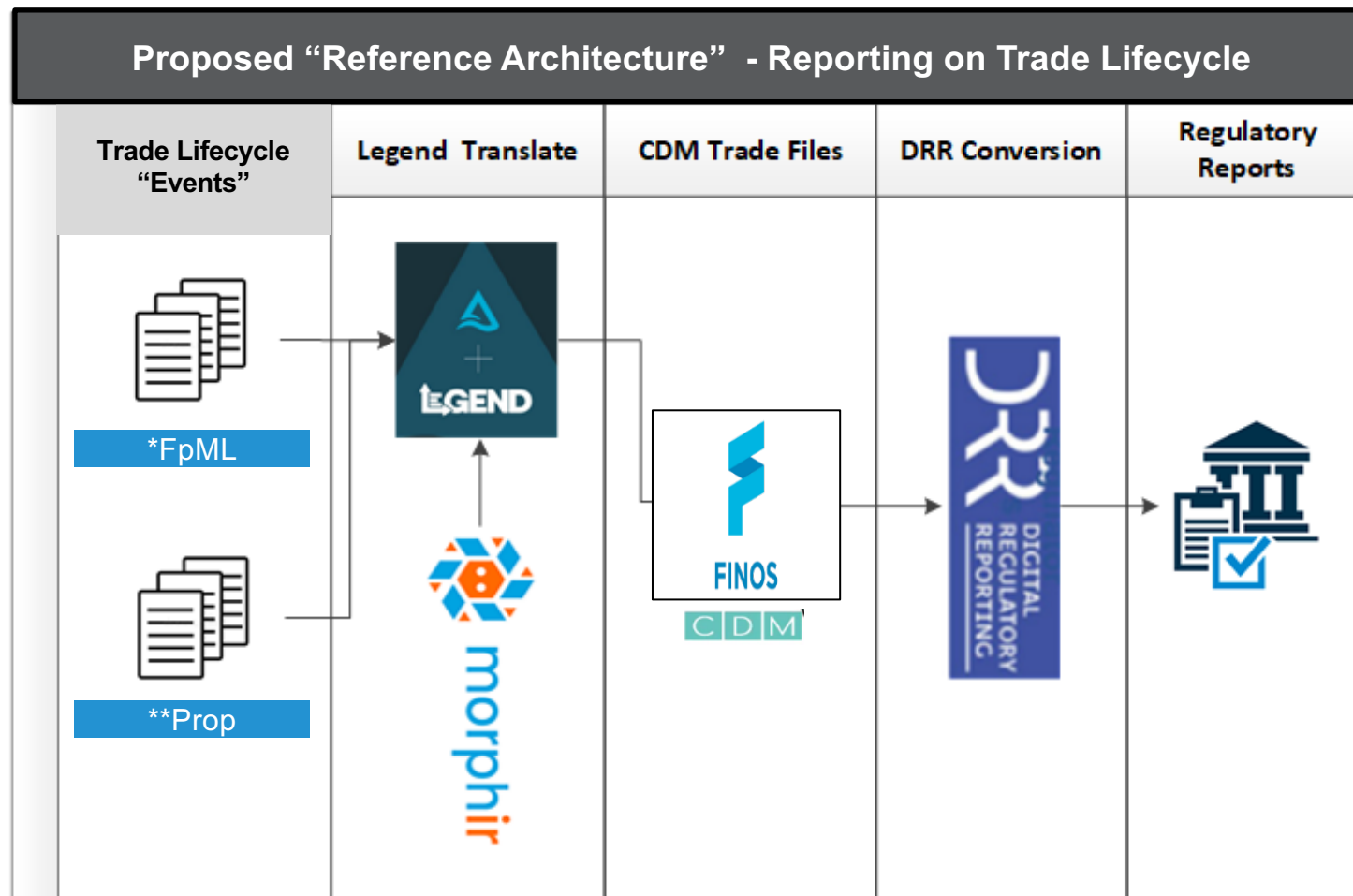
The CDM reporting logic formulated in machine readable form is used to generate *executable* code, which can be tested in real-time on relevant *test scenarios*, i.e. sets of test trade data

Input = test scenario

Output = Transaction report

USE CASE	1.4 COUNTERPARTY 1 (REPORTING COUNTERPARTY)	2.10 CONTRACT TYPE	2.11 ASSET CLASS	2.34 MASTER AGREEMENT TYPE
FX Forward_ex01	GGDZP1UYGU9STUHRDP48	FORW	CURR	ISDA
FX Forward_ex02	GGDZP1UYGU9STUHRDP48	FORW	CURR	ISDA
FX Forward_ex03	W22LROWP2IHZNBB6K528	FORW	CURR	
FX Forward_ex04 Party1 pays EUR	W22LROWP2IHZNBB6K528	FORW	CURR	
FX Forward_ex05 Party1 pays USD	W22LROWP2IHZNBB6K528	FORW	CURR	

Translate Projection Validation Visualisation API Export Reports



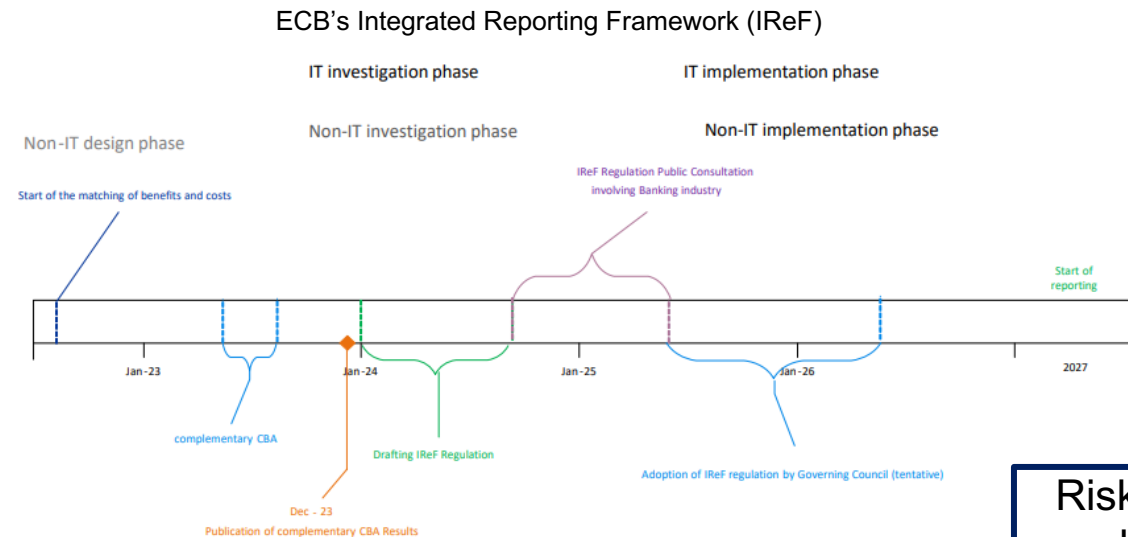
Process Steps (Regulations: CFTC Rewrite, EMIR Refit etc.)

- Trade Lifecycle “Events” are available in a trade repository/Provisioning Point in a standardized or proprietary data formats
- Morphir stores data driven rules such as information on product types, trading books, legal entities etc. and integrates with Legend
- Legend accesses reporting rules from Morphir and performs ETL (FpML & FIX to CDM) with mappings stored within Legend
- DRR contains Regulatory Reporting rules and provides transformations into ISO 20022 based Reports that are shared with the Regulators

This toolbox is available within open-source and this architecture can be enhanced with new services/data pipelines being adopted as part of Cloud adoption

Common data dictionary for regulatory reporting, data formats, with global regulators:

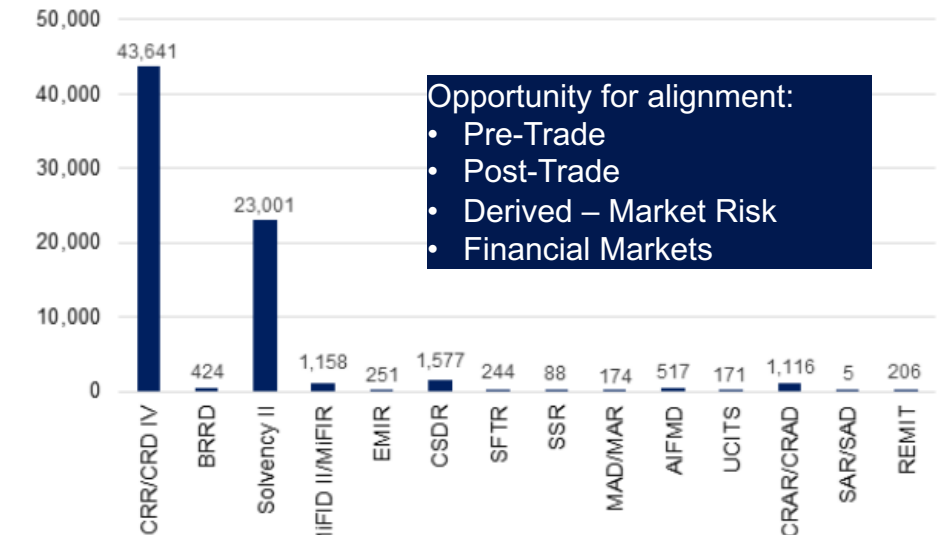
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Source: European Commission Bank update on Integrated Reporting Framework (IReF) 06/23 [here](#)

European Commission's Strategy on supervisory data collection in EU financial services [here](#)

Chart 5.3: Total number of data points per supervisory reporting framework



Source: Data mapping conducted by BR-AG on behalf of the European Commission.

Source: European Commission fitness check of supervisory reporting requirements 11/19 [here](#)

Risk: If we don't advocate for fast-moving regulatory efforts that are not coordinated, we will end up with new regulatory reporting languages / Data Dictionaries and unprecedented mapping costs

1

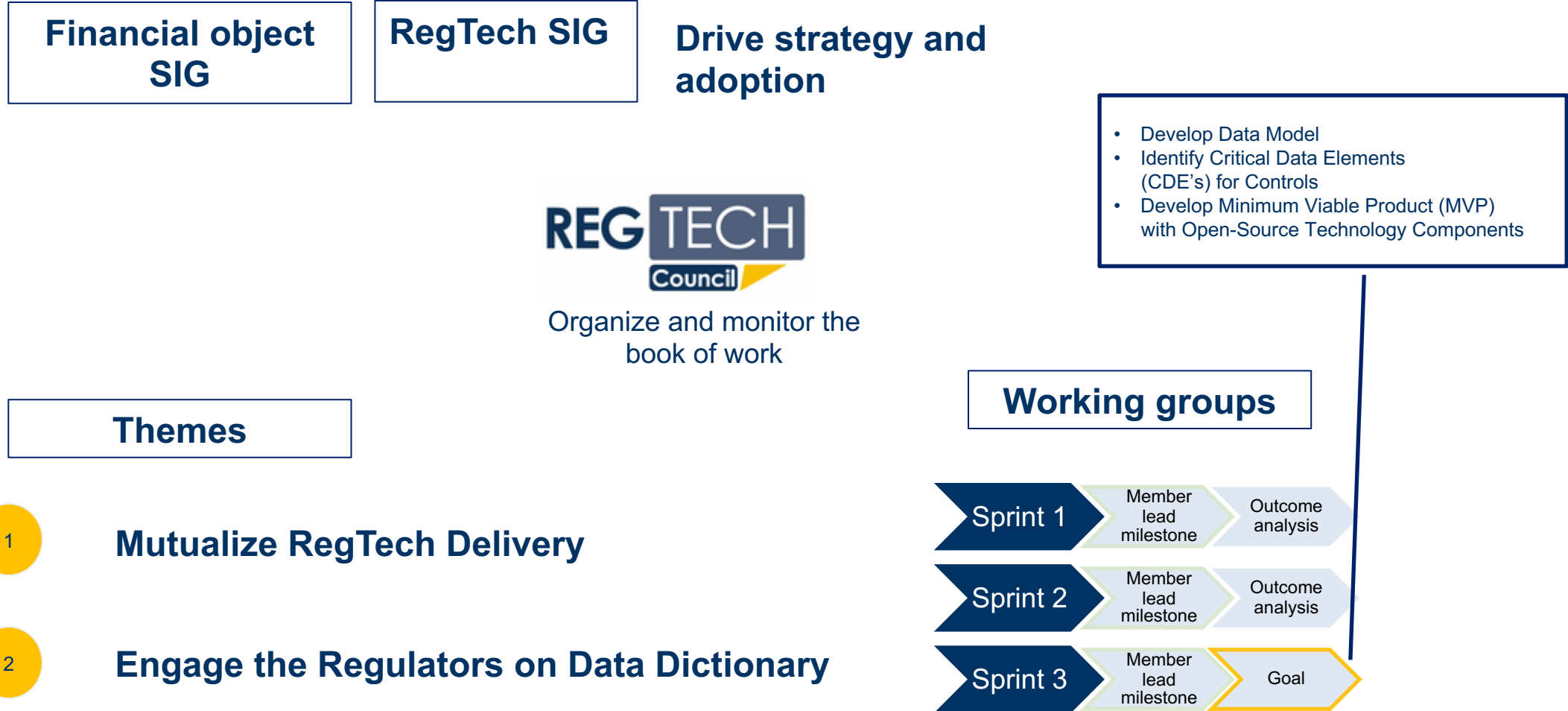
Mutualize RegTech Delivery

- Clearly outline commercial business case with Cost Avoidance benefits for FINOS Member institutions for Data Strategy initiatives
- Reference Technology & Data Architecture validated (Legend, Morphir, DRR, CDM)
 - Cloud integration patterns
 - On premise
- Working group established with regular cadence and delivery milestones tracked centrally
 - Rules Collection (Business, Legal & Data Strategy)
 - Data Standards of Care
 - Data Models
 - Critical Data Elements identification
 - Data Quality & Controls
 - Data Lineage
 - Technology Development (QA, Data Testing, Regulatory Acceptance)

2

Engage regulators on Data Dictionary

- Clearly articulated global advocacy position for all key regulatory data stakeholders
- Represent a common methodology/ approach to standards across asset classes
- Working group established with regular cadence and delivery milestones tracked centrally
 - Outreach
 - Data collection
 - Consultation responses
 - Standards engagement
 - Vendor engagement
 - Trade association / asset class



FINOS Members

- **Chose** projects
- **Nominate SMEs** to join RegTech projects
- Provide input to **business case, PID and ToR** (e.g., objectives, adoption strategies, milestones, deliverables)
- **Align with project stakeholders on success criteria, risks and resource** requirements
- **Commit crowdfunding**

FINOS

- 1 page **overview** for Member business proposal
- Agree project **participation requirements**
- Member **outreach** and communications for **1 Nov NY Member meeting**

JWG SIG/project management and governance

- Regulator/ Trade association/ Standards **outreach** - July
- 1:1 Member **interviews** and project **steering meetings** – August/ Sept
- **Draft project documentation** and **agree** PIDs and ToRs – Sept/ Oct
- Propose **governance structure** / define **secretariat** responsibilities – End October
- Support FINOS RegTech **communications** July – 3 November (including NY meeting)

Priority programme office actions

- Direct recruitment of project participants
- 1:1 interviews with key firm stakeholders
- 1:1 interviews with regulators, associations, supply chain
- Outreach to adjacent project efforts
- Draft business cases (PID) and ToRs
- Schedule 2-3 September workshops

Priority programme office actions

- Internal announcement of RegTech Council sprint 1
- 1 Nov press release plan
- Align with other projects (e.g., Cloud, FO SIG)
- Establish review meetings / update schedule

Priority programme office actions

- Establish member material repositories
- Align member database procedures
- Align meeting procedures/ scheduling
- Align communications (LinkedIn, Websites)

Thank you – for more information

Contact:

- ▶ FINOS Project Leadership rtc@lists.finos.org
- ▶ Github: <https://github.com/finos/open-regtech-sig/discussions>
- ▶ PJ Di Giammarino, JWG Programme Manager, +44 7811430503 pj@jwg-it.eu [LinkedIn](#)