

# Financial Data Standardisation RegTech Project

25<sup>th</sup> Eurofiling Workshop in Warsaw  
29 May 2018

Peter van den Hul  
DG FISMA - European Commission  
[peter.van-den-hul@ec.europa.eu](mailto:peter.van-den-hul@ec.europa.eu)



# Background

- REFIT Programme
- DG FISMA Call For Evidence 2016
- VP Dombrovskis Report: Call for Evidence in the area of supervisory reporting (COM(2017)736)
- Public Consultation on Supervisory Reporting 2018

3rd FDS project presentation for Eurofiling

Let's see how we progressed ... 2016 – 2017 – 2018

## Recap: objectives of the FDS project

- Share more efficiently financial data by enhancing interoperability of data standards
- Reduce compliance costs that arise in the context of legal reporting requirements by applying the "once for all" principle in data reporting
- Explore solutions improving the way data can be used by (or shared between) authorities
- Improve monitoring of the allocation and evolution of risk in the EU/global financial system

# The Regulatory Scene. The three parties.

## REGULATORS

### EUR-Lex



European Union with its governance bodies

*"We frequently adjust and increase legislation to stay aligned with the real world. We are regulating"*

## THE INDUSTRY



*"We report a multitude of Regulatory Reports to multiple Supervisors in different formats"*

nnn.000+ regulated legal entities in the European Financial Sector

DATA EXCHANGE

.xml .xlsx  
.csv .pdf .zip  
**.xbrl**  
.docx



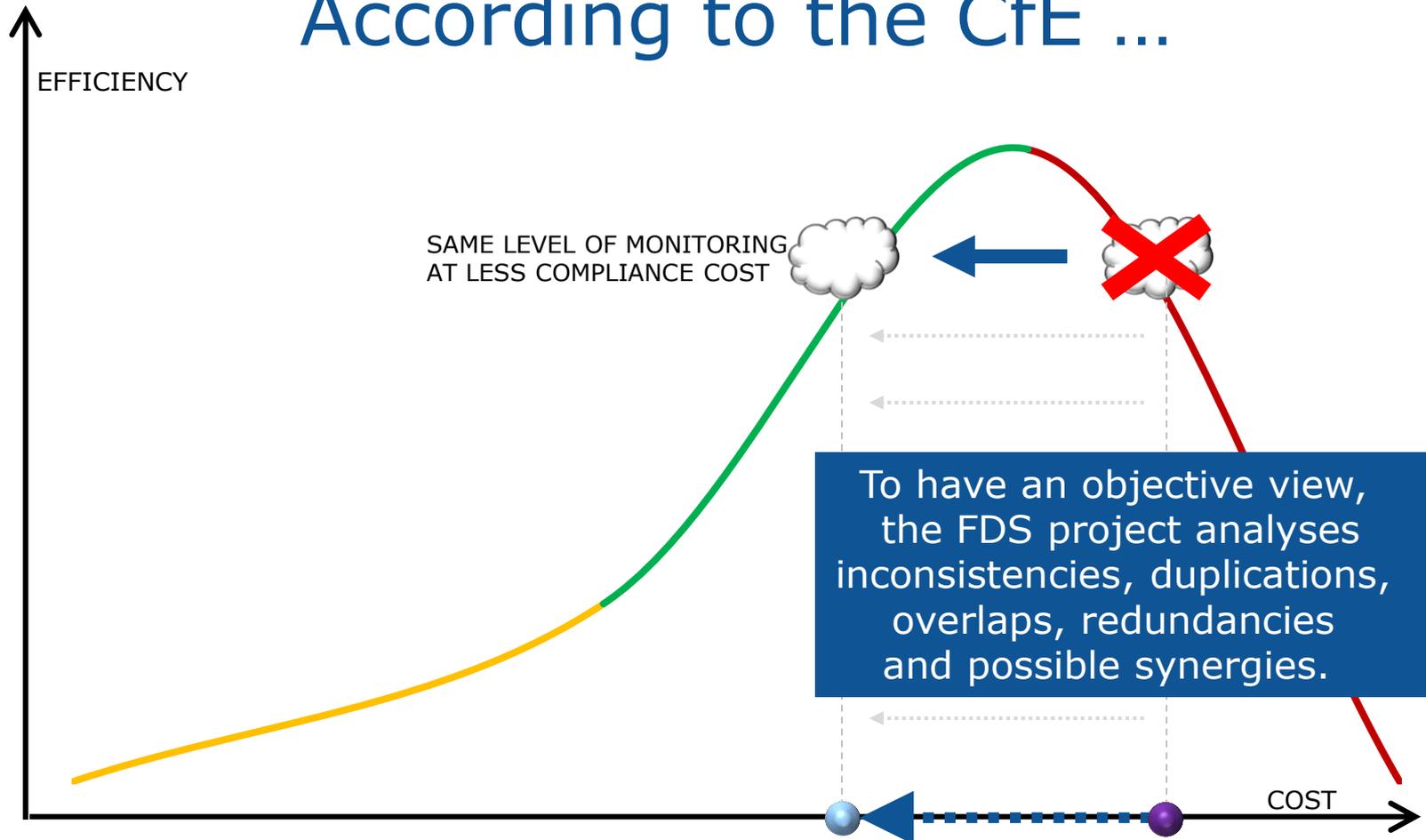
## SUPERVISORS



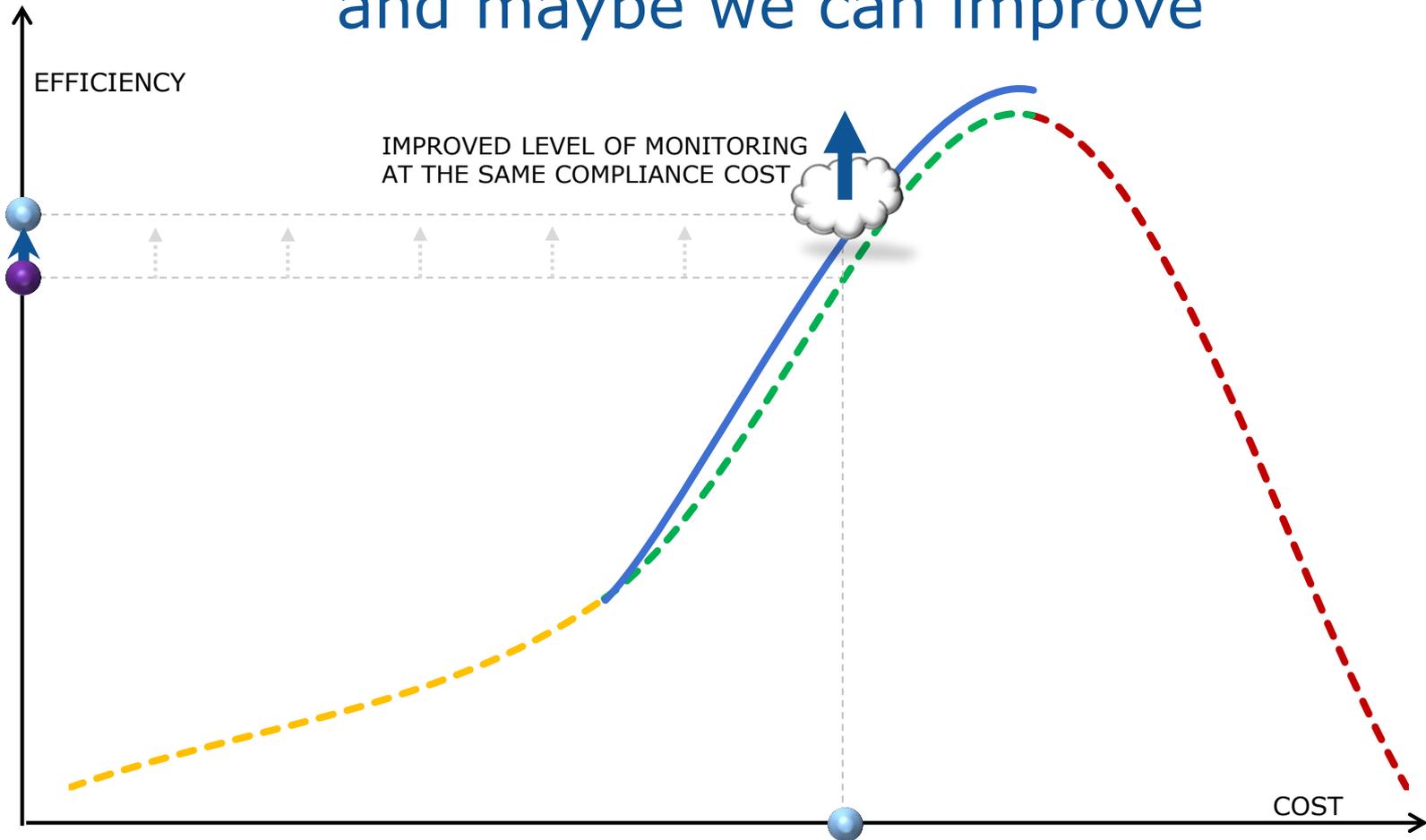
*"In our role as Supervisors, we receive and validate Regulatory Reports to oversee the Financial Sector"*

European Supervisors, ESA's, NCA's, ECB (SSM), ...

# According to the CfE ...



# and maybe we can improve





# Analysing the legislation

300+ legal acts on level 1 and level 2

## Relationships between these 300+ legal acts

- ❑ Acts which **complement** one another, i.e. are to be read together (e.g. CRR/CRD IV, MiFID II/MiFIR)
- ❑ Acts which either **repeal or recast** an earlier act (e.g. IMD/IDD, PSD/PSD 2, MiFID/MiFID II)
- ❑ Acts which **amend** an earlier act (e.g. DGS, UCITS, FICOD)
- ❑ Acts which **implement** certain elements of a broader framework set by another act (e.g. Accounting Directive/IFRS)



# Fiche example: AIFM (1/2)

Reporting framework		9 AIFMD	
Agenc(y)(ies) or Department(s) involved		ESMA	European Securities and Markets Authority, ESRB [ <a href="http://europa.eu/rapid/press-release_MEMO-10-572_en.htm?locale=en">http://europa.eu/rapid/press-release_MEMO-10-572_en.htm?locale=en</a> ]
Structured ?	Yes	<b>ACTIVE: YES</b>	AIFMD came into force on 21/07/2011, adoption and publishing by Member State by 22/07/2013 [ <a href="http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32011L0061">http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex:32011L0061</a> ] Status of national transposition: [ <a href="http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32011L0061&amp;qid=1487326272110">http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32011L0061&amp;qid=1487326272110</a> ]
Type of legal act		Directive	The Alternative Investment Fund Managers Directive is an <a href="#">EU law on the financial regulation of hedge funds, private equity, real estate funds, and other "Alternative Investment Fund Managers" (AIFMs) in the European Union. The Directive requires all covered AIFMs to obtain authorisation, and make various disclosures as a condition of operation.</a>
Level 1 Measures		9	(9) Directive 2011/61/EU on Alternative Investment Fund Managers (AIFMD)
Level 2 Measures		440, 485, 549, 552, 553	(440) (EU)694/2014 - Delegated Reg. (EU)694/2014 on types of alternative investment fund managers (485) (EU)231/2013 - Commission Delegated Regulation (EU) No 231/2013 of 19 December 2012 supplementing Directive 2011/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision (549) (EU)2015/514 - Delegated Regulation (EU)2015/514 on the information to be provided by competent authorities to ESMA pursuant to Article 67(3) (552) (EU)447/2013 - Commission Implementing Regulation (EU) No 447/2013 of 15 May 2013 establishing the procedure for AIFMs which choose to opt in under Directive 2011/61/EU of the European Parliament and of the Council (553) (EU)448/2013 - Implementing Reg. (EU)448/2013 on procedure for determining the MS of reference of a non-EU AIFM

## Ex. AIFM Framework fiche (2/2)

<b>Reporting granularity</b>		Aggregated	Article 7., 8., 22. and 24. of <a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF</a>
<b>Reporting scope</b>		Sector specific	Investment Funds, Alternative investment funds [Article 2., 3. <a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF</a> ]
<b>Market size</b>		449	Hedge funds in Europe in billions USD (2013) <a href="http://download.pwc.com/ie/pubs/2014-pwc-ireland-distribution-knowledge-12-05-2014-1.pdf">http://download.pwc.com/ie/pubs/2014-pwc-ireland-distribution-knowledge-12-05-2014-1.pdf</a> p.2
<b>Reporting population size</b>		2.200	Number of active AIFMs (2016) <a href="https://registers.esma.europa.eu/publication/searchAifm?fullCriteria=&amp;homeMemberStateId=-1&amp;hostMemberStateId=-1&amp;status=A&amp;officeType=&amp;fromAeModificationDate=&amp;toAeModificationDate=">https://registers.esma.europa.eu/publication/searchAifm?fullCriteria=&amp;homeMemberStateId=-1&amp;hostMemberStateId=-1&amp;status=A&amp;officeType=&amp;fromAeModificationDate=&amp;toAeModificationDate=</a>
<b>Maximum report size</b>	Number of reportable columns in open tables	46	Some fields that may be actually text blocks; <a href="http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0231&amp;from=EN">http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0231&amp;from=EN</a>
	Number of reportable cells in closed tables	525	
<b>Maximum reporting frequency</b>		Quarterly	Quarterly, Semi-annually or Annually basis [ <a href="https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-1339_final_report_on_esma_guidelines_on_aifmd_reporting_for_publication_revised.pdf">https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-1339_final_report_on_esma_guidelines_on_aifmd_reporting_for_publication_revised.pdf</a> p.19] and Ad Hoc if necessary [ <a href="http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF">http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:174:0001:0073:EN:PDF</a> Article 35.]
<b>Potential business discrepancies between national implementations</b>		No	AIFMs should report information under Articles 3 and 24 to their national competent authorities only once per reporting period covering all the reporting period. [ <a href="https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-869.pdf">https://www.esma.europa.eu/sites/default/files/library/2015/11/2014-869.pdf</a> ]

## Who is involved in these Reporting Frameworks?

A number of EU bodies is involved in the Reporting Frameworks or practically implementing them.

EU Bodies and roles in Reporting Frameworks	Implements	Involved
European Commission	1	26
Member States	15	10
European Securities and Markets Authority	18	4
European Banking Authority	7	12
European Insurance and Occupational Pensions Authority	5	4
European Central Bank	1	5
Single Resolution Board	2	
European Supervisory Authorities	2	
European Systemic Risk Board		1
European Payments Council		1
Committee of European Banking Supervisors		1
European System of Central Banks		1
International Accounting Standards Board		1
Committee of European Auditing Oversight Bodies		1
Council of Bureaux		1



Note: other reporting frameworks (eg. statistical) are under the control of ECB. For a full picture, the scope needs to be extended.

## Further refining : Structured Data Reporting

Many Reporting Frameworks result in periodical **data exchange** between Regulated Entities and Supervisors.

In many cases, the Regulator has imposed a data exchange format, or has explicitly described metadata.

Hence, we speak about "structured data".



EUR-Lex

European Union with its governance bodies

"We frequently adjust and increase regulation to stay aligned with the real world"



"We report a multitude of Regulatory Reports to multiple Supervisors in different formats"

xxx.000+ regulated legal entities in the Financial Sector across Europe

**DATA EXCHANGE**

.xml .xlsx  
.csv .pdf .xbrl  
.sdmx .zip



"In our role as Supervisors, we receive and validate Regulatory Reports to oversee the Financial Sector"

European Regulators & Supervisors  
ESA's, NCA's, ECB (SSM), ...

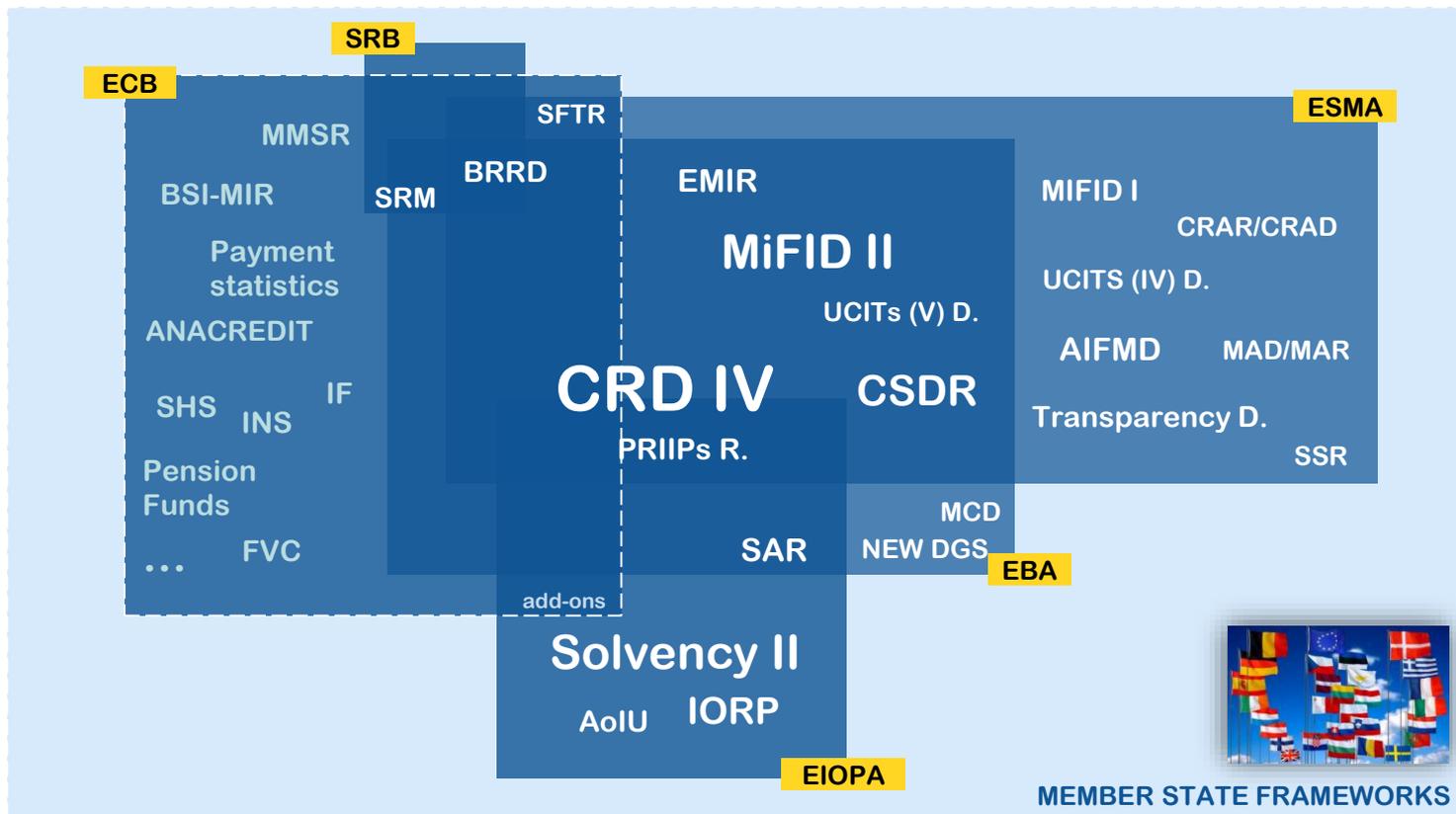
# Shortlist of 20+ “Structured Data” Reporting Frameworks

‘Structured Data’ Reporting Frameworks impose Regulatory Reporting in structured templates or predetermined formats. Some RFs belong to the same family.

Family	Reporting Framework	Structured data?	Active?	EC	EBA	Member States	EIOPA	ECB	ESMA	ESCB	CEAOB	SRB
1	CRR/CRD IV	Yes	Yes	X	P		X	X	X			
2	Solvency II	Yes	Yes	X			P					
3	MiFID II/MIFIR	Yes	No	X	X				P			
	MIFID I	Yes	Yes						P			
4	IORP	Yes	Yes				P					
5	EMIR	Yes	Yes		X				P			
6	AIFMD	Yes	Yes						P			
7	CSDR	Yes	Yes	X	X	X			P			
8	Transparency Directive	Yes	Partially						P			
9	Statutory Audit Regulation/Directive (SAR/SAD)	Yes	Yes	X	X	P	X				X	
10	SFTR	Yes	Partially						P	X		
11	AoIU	Yes	Yes				P					
12	EuVeCaR	Yes	Yes	X					P			
13	European Social Entrepreneurship Funds Regulation (EuSEFR)	Yes	Yes						P			
14	Packaged retail and insurance-based inv.products (PRIIPs) Reg.	Yes	Partially		X		P		X			
15	Short Selling Regulation (SSR)	Yes	Yes	X					P			
16	BRRD	Yes	Yes	X	P	X			X			P
17	UCITS (IV) Directive	Yes	Partially	X					P			
	UCITS (V) Directive	Yes	Partially	X	X				P			
18	Motor Insurance Directive	Yes	Yes			P						
19	MCD	Yes	Partially	X	P	X						
20	Credit Rating Agencies Regulation/Directive (CRAR/CRAD)	Yes	Yes	X					P			
21	DGS Directive, NEW	Yes	Yes	X	X	P						
22	Market Abuse Regulation/Directive (MAR/MAD)	Yes	Partially			X			P			
23	ELTIF	Yes	Yes	X					P			

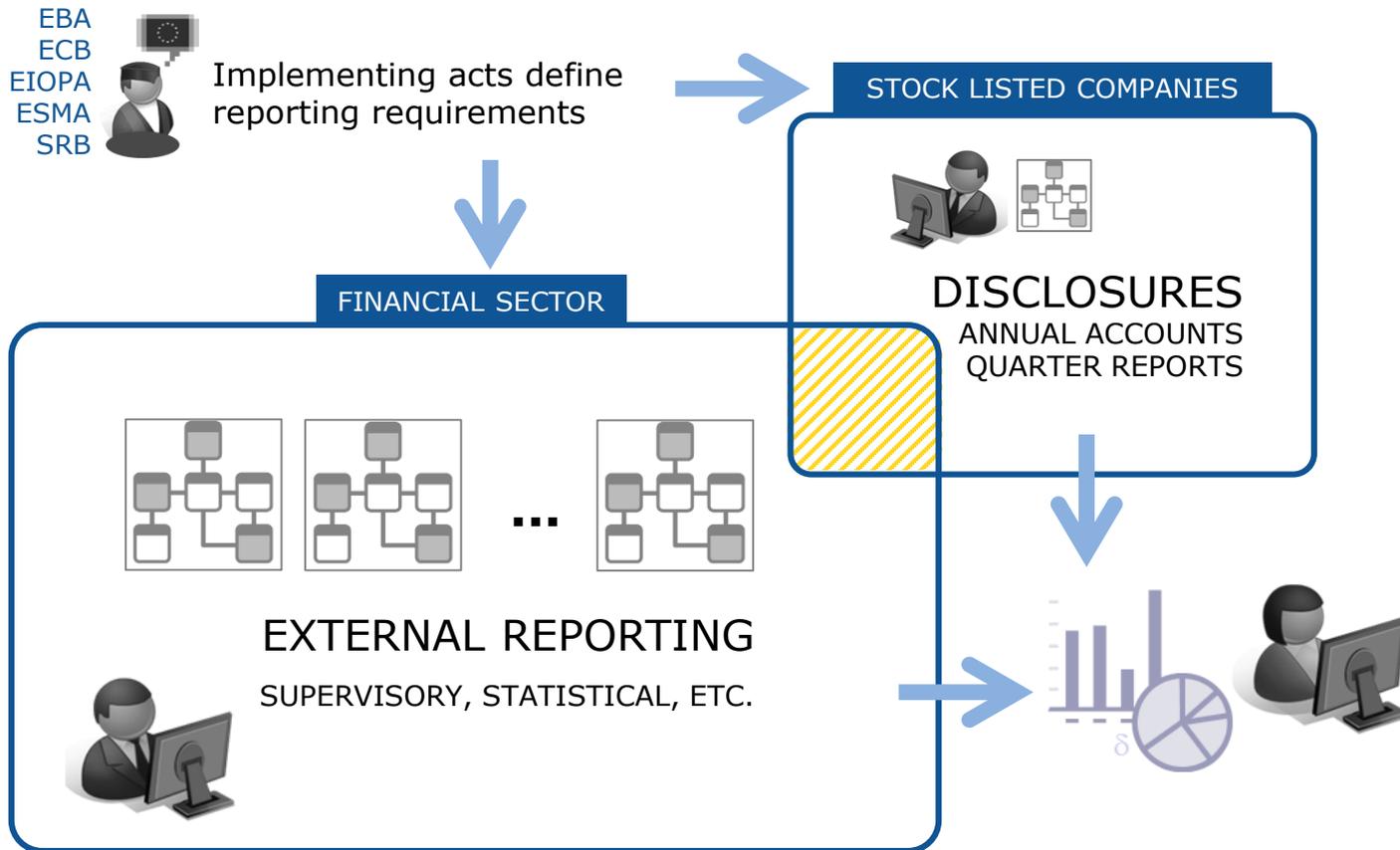
## Sectorial view, involved authorities

20+ 'Structured Data' Reporting Frameworks are being implemented by European authorities EBA, EIOPA, ESMA, SRB. During the FDS analysis, it becomes clear that ECB regulations and (Statistical) Reporting Frameworks need to be part of the picture.



# Sectorial view, types of reporting

On a more higher level, the 20+ Reporting Frameworks are one of two types.



# Standards used within these Reporting Frameworks

Id	Reporting Framework	structured? ↓	MODELLING			REPORTING										
			DPM	ISO 20022	SDMX	Interoperable Taxonomy Architecture	XBRL	Excel	PDF	XML	Electronic format	E-mail	eGate			
1	CRR/CRD IV	Yes														
2	Solvency II	Yes														
3	MiFID II/MIFIR	Yes														
4	MIFID I	Yes														
5	IORP	Yes														
6	EMIR	Yes														
7	AIFMD	Yes														
8	CSDR	Yes														
11	Transparency Directive	Yes														
12	Statutory Audit Regulation/Directive (SAR/SAD)	Yes														
15	SFTR	Yes														
16	AoIU	Yes														
18	EuVeCaR	Yes														
19	European Social Entrepreneurship Funds Regulation (EuSEFR)	Yes														
22	Packaged retail and insurance-based investment products (PRIIPs) Regulation	Yes														
28	Short Selling Regulation (SSR)	Yes														
30	BRRD	Yes														
31	UCITS (IV) Directive	Yes														
32	UCITS (V) Directive	Yes														
33	Motor Insurance Directive	Yes														
35	MCD	Yes														
36	Credit Rating Agencies Regulation/Directive (CRAR/CRAD)	Yes														
38	DGS Directive, NEW	Yes														
40	Market Abuse Regulation/Directive (MAR/MAD)	Yes														
48	ELTIF	Yes														

# ... applicable identifiers

Id	Reporting Framework	structured?
1	CRR/CRD IV	Yes
2	Solvency II	Yes
3	MiFID II/MIFIR	Yes
4	MIFID I	Yes
5	IORP	Yes
6	EMIR	Yes
7	AIFMD	Yes
8	CSDR	Yes
11	Transparency Directive	Yes
12	Statutory Audit Regulation/Directive (SAR/SAD)	Yes
15	SFTR	Yes
16	AoIU	Yes
18	EuVeCaR	Yes
19	European Social Entrepreneurship Funds Regulation (EuSEFR)	Yes
22	Packaged retail and insurance-based investment products (PRIIPs) Regulation	Yes
28	Short Selling Regulation (SSR)	Yes
30	BRRD	Yes
31	UCITS (IV) Directive	Yes
32	UCITs (V) Directive	Yes
33	Motor Insurance Directive	Yes
35	MCD	Yes
36	Credit Rating Agencies Regulation/Directive (CRAR/CRAD)	Yes
38	DGS Directive, NEW	Yes
40	Market Abuse Regulation/Directive (MAR/MAD)	Yes
48	ELTIF	Yes

REFERENCED POSSIBLE IDENTIFIERS

	AIF national identification code	AIFM national identification code	BBAN	BBGID	BIC	Bloomberg ticker	CFI	CIC	Common Code	CRA identifier	CUSIP	EIC (Energy Identification Code)	FIGI	FISIN	IBAN	IEI	Instrument unique identifier (ESMA standard)	Interim Entity Identifier	ISIN	LEI	local identifier	MIC	NUJS	OCANNA	pre-LEI ISIN	Reuters	Reuters RIC	RIAD MIFI code	SEDOL	UJI	UTI	VAT code	WKN			
1																																				
2																																				
3																																				
4																																				
5																																				
6																																				
7																																				
8																																				
11																																				
12																																				
15																																				
16																																				
18																																				
19																																				
22																																				
28																																				
30																																				
31																																				
32																																				
33																																				
35																																				
36																																				
38																																				
40																																				
48																																				

# The Challenge

*Can one team überhaupt solve this puzzle ?*

20+ REPORTING FRAMEWORKS

Burden ↑

Multiple deciders

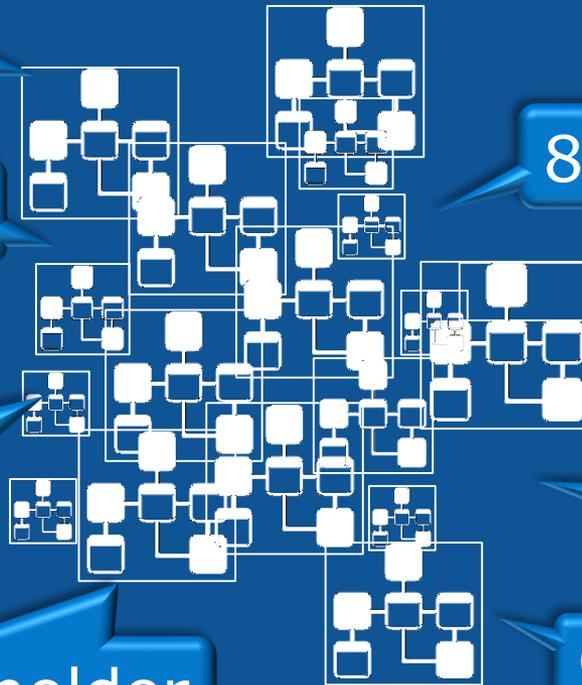
Changing

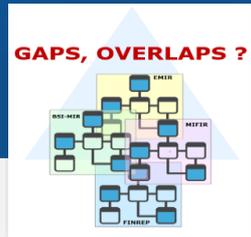
Multi-stakeholder

80.000+ concepts

Complexity

Completeness check

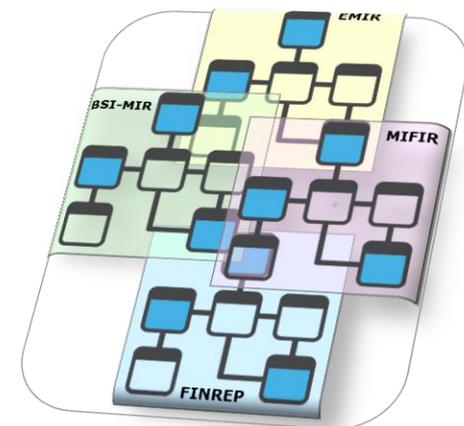


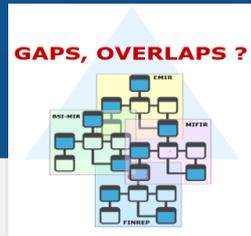


# Cross-Framework Analysis

FDS is studying overlaps and inconsistencies in structured Reporting Frameworks

Interestingly : limited number of 'strict' overlaps.





# Why then 'burden'?

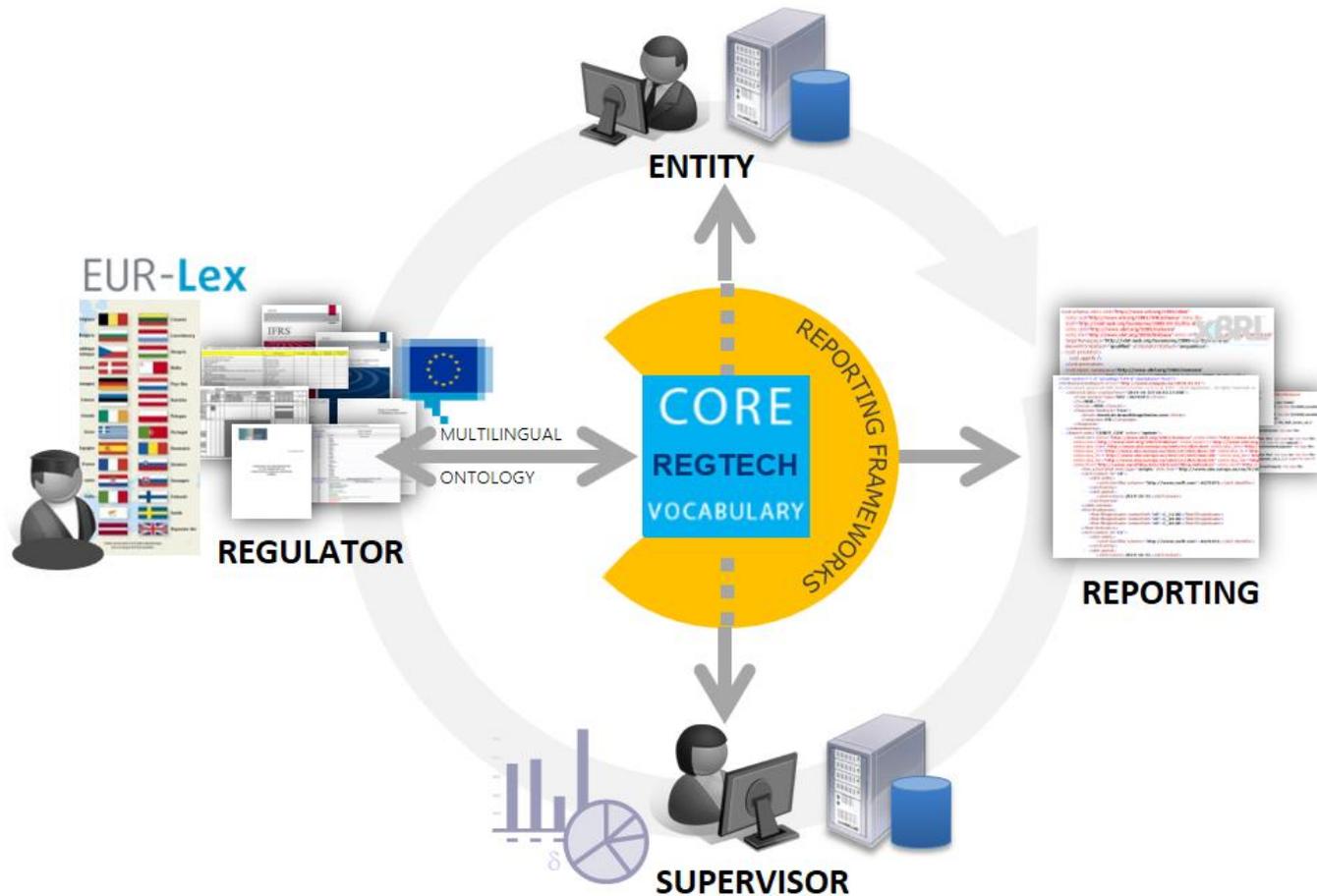
Often, definitions are slightly different between legal measures  
Eg. "Non-financial counterparty" = "Non-financial entity"

Naming in the legal act	Document name	Article	Paragraph
<b>Non-financial counterparty</b>	REGULATION (EU) No 648/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (consolidated version 03/01/2017)	2	9
<b>Non-financial entity</b>	DELEGATED REGULATION (EU) .../... on the application of position limits to commodity derivatives	8	1

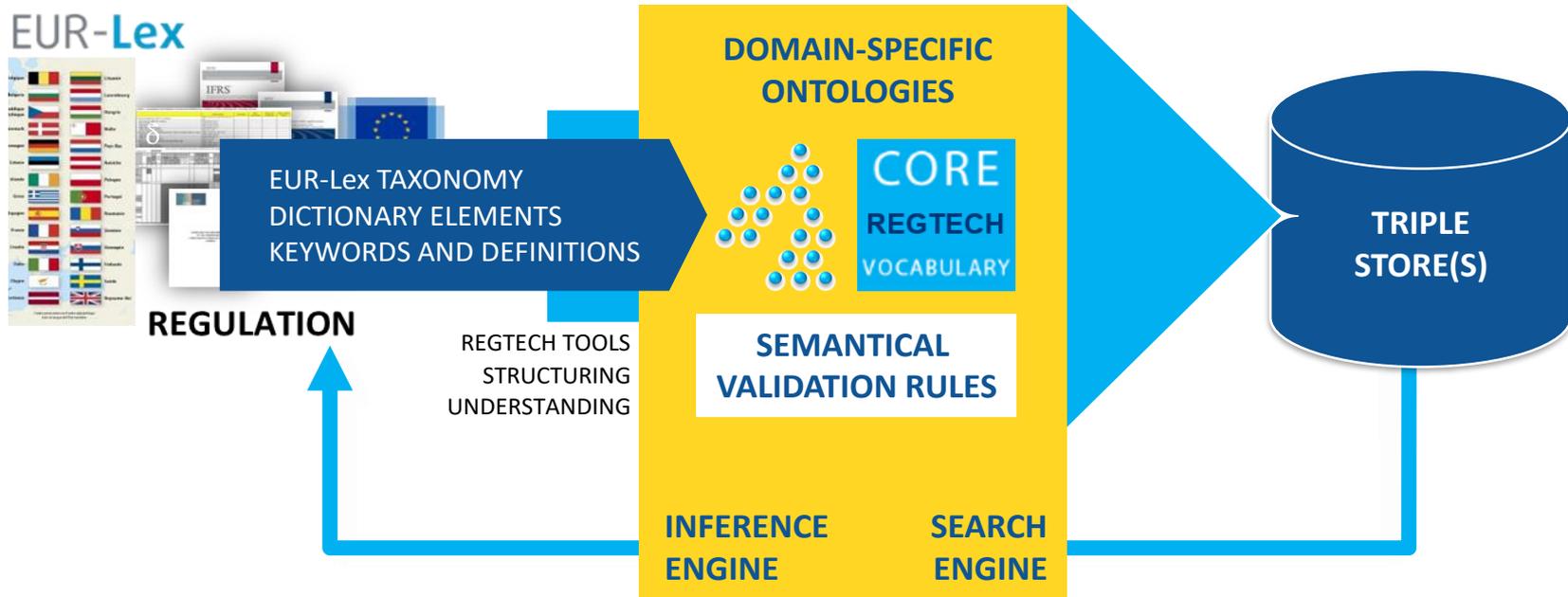
"If something is the same, how to know it is the same?"

 Define once?

# Is there a need for a “RegTech Data Dictionary”?



## Towards a RDD (Regtech Data Dictionary): Semantical level



A triple store contains **subject**-predicate-object "triple".  
eg. **Entity A** reports to Supervisor B



European Commission



# Open Linked Data

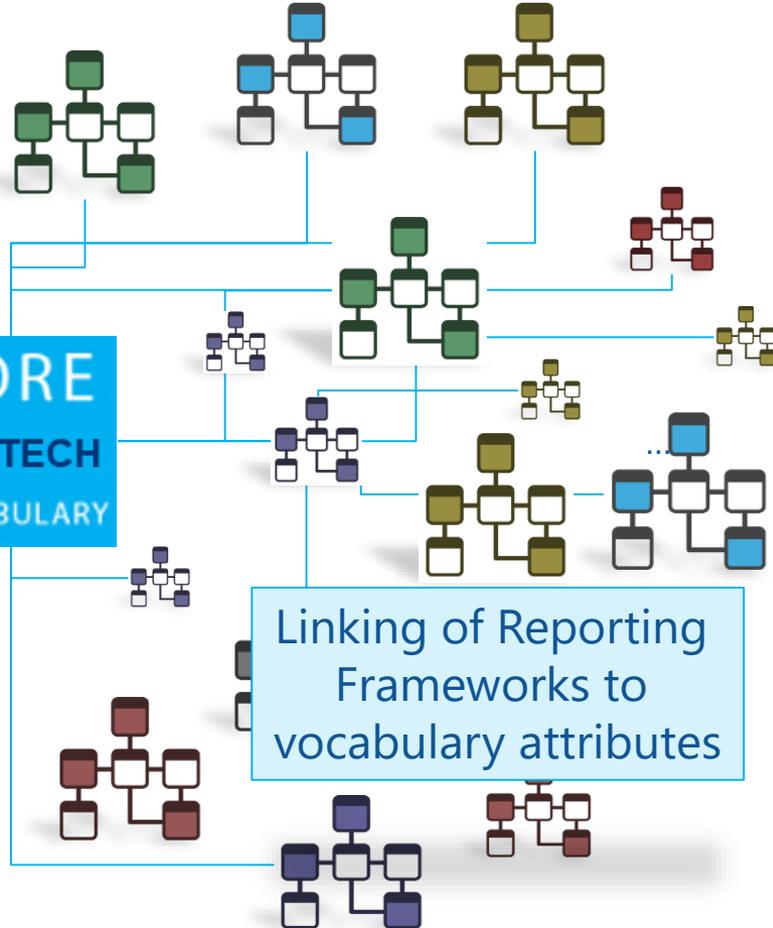
Linking of legislation and regulation to vocabulary attributes

EUR-Lex



REGULATION

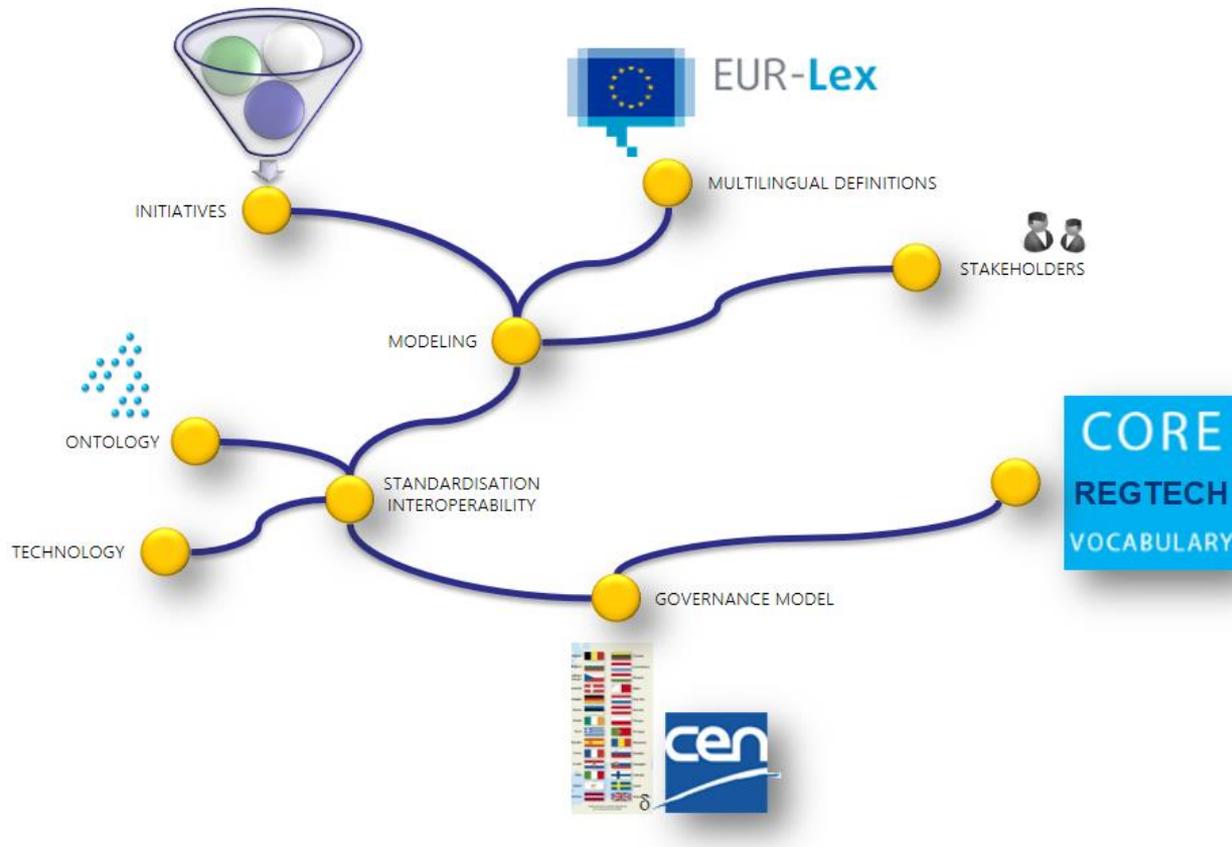
CORE  
REGTECH  
VOCABULARY



Linking of Reporting Frameworks to vocabulary attributes

# TOMORROW

# Vision for a Roadmap towards a RDD



## PHASE 1. STUDY (ongoing)

Analyse existing situation

How does legislation result in reporting frameworks?

Causes for overlaps, gaps, inconsistencies?

*The focus is first on "define once".*

## PHASE 2. ENABLE (started)

Create foundations for "define once"

Core Regtech Vocabularies

Strategy for Reference Data (eg. Identifiers)

Stakeholder Roundtable and Governance Model

Permanent Operational Structure

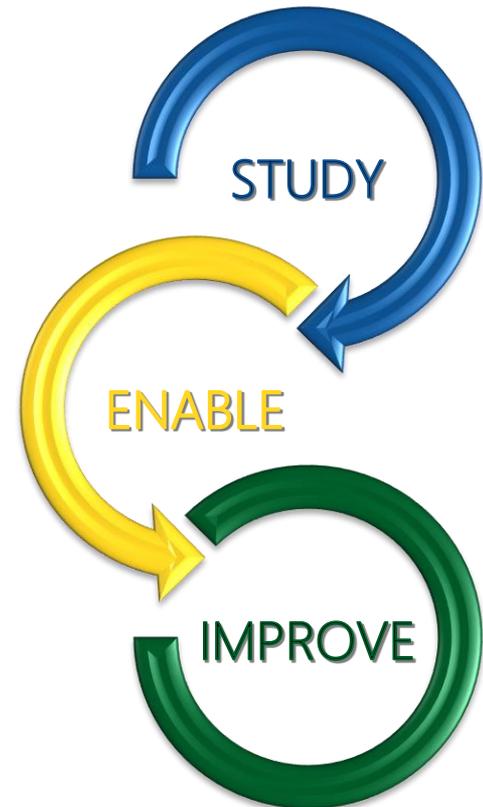
Technology for future lawmaking

## PHASE 3. IMPROVE (2020 - ...)

Gradual reengineering of regulation

Optimizing Reporting Frameworks

Self-Improving Mechanism



# Preparing Supervisory Reporting for the Digital Age

*Conference organised by DG FISMA in Brussels on 4 June 2018*

- *Conference will bring together the best in institutional knowledge, industry expertise, and academic research to look at the present challenges and future opportunities related to supervisory reporting*
- *Keynote speakers and panel discussions include **Valdis Dombrovskis**, European Commission Vice-President for the Euro and Social Dialogue, and **Steven Maijoor**, ESMA Chairman, while the morning panel includes **Luc Dufresne**, President of the Eurofiling Foundation, and other experts from industry and public authorities*
- *European Commission will present an update on ongoing Fitness Check on Supervisory Reporting, including results of Public Consultation*