# Unleashing Innovation: Where Strong Partnerships Shapes Data Products

Collaboration for unique and first in kind AI and data products.

Lais Lima and Lloyd Xu

21 September 2023



# OpenDay 2023

DEUTSCHE BÖRSE GROUP

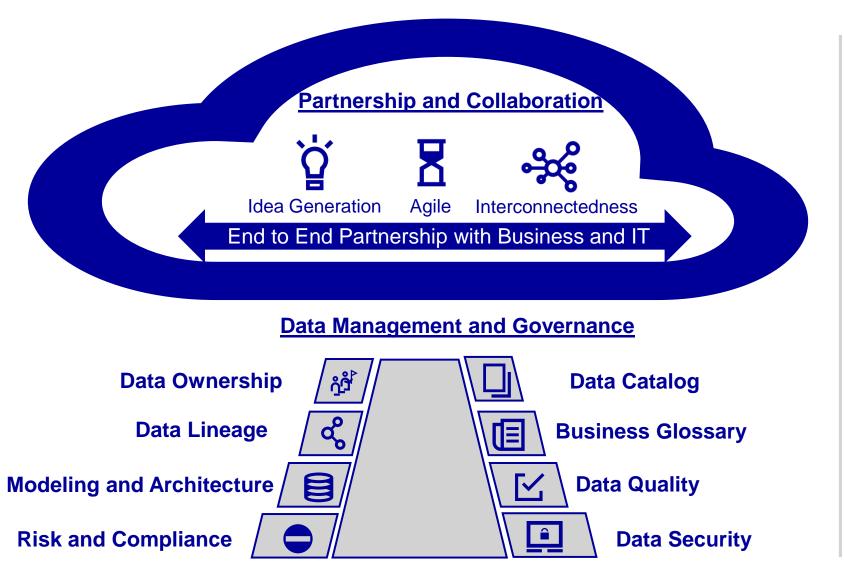
# Topics

1 Overview- Data as a Product **2** Data Ownership / Business Partnership **3** Data Management and Governance **4** Products and Capabilities **5** Future



**1** Overview- Data as a Product 2 Data Ownership / Business Partnership **3** Data Management and Governance 4 Products and Capabilities **5** Future

## **Overview- Data as a Product**



#### **Capabilities**



NLP Tool

Dashboard and Performance Tracker



Machine Learning Monitoring Tool





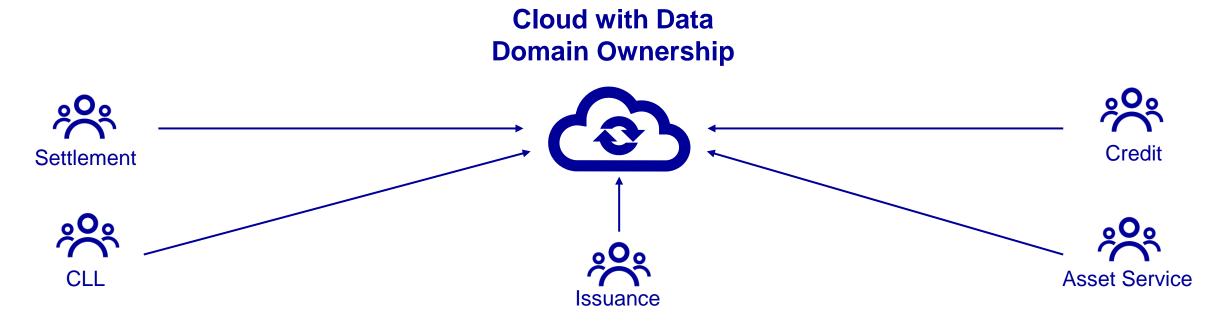
**1** Overview- Data as a Product **2** Data Ownership / Business Partnership 3 Data Management and Governance **4** Products and Capabilities **5** Future

2

## **Data Ownership / Business Partnership**

Data Domains are part of the Data Product Lifecycle, from Data Ingestion to Deployment.

Product is close to the data, which streamline Decision Making and Product Development.



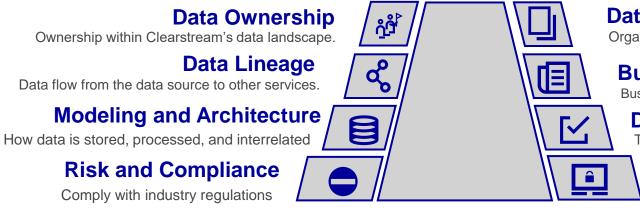


**1** Overview- Data as a Product **2** Data Ownership / Business Partnership **3** Data Management and Governance **4** Products and Capabilities **5** Future

3

# **Data Management and Governance**







Organized inventory of data assets in the organization

#### **Business Glossary**

Business names and the business description specific to each domain.

#### **Data Quality**

Trustworthy data suitable for the data products

#### **Data Security**

Data Access Management & Unauthorized access prevention





# **Predictive AI Tool**

#### **Settlement Prediction AI**

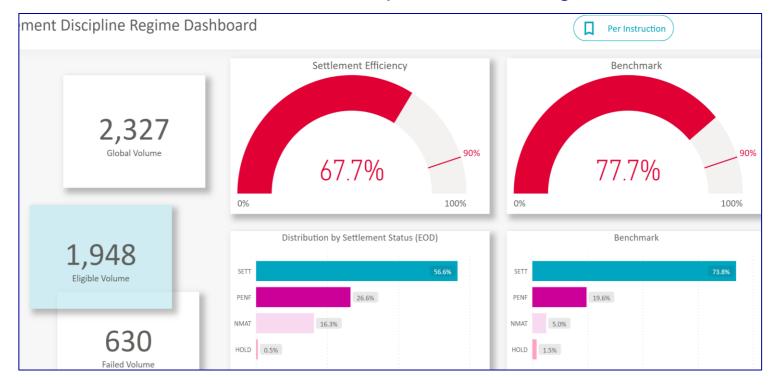
Al prediction tool that calculates the likelihood of a settlement instruction settling on time of the basis of the transaction specificities and historic data.

ransaction ID	Probability	Explanation	Req. sett. date	Movement	Payment	Quantity	Amount
	2.4%	You may lack securities.	14/10/2022	DELI	FREE	9,000,000.00	
	11.5%	You may lack securities.	18/10/2022	DELI	APMT	85,000.00	84,676.83
	11.5%	You may lack securities.	25/10/2022	DELI	FREE	1,620,000.00	
	11.5%	Your counterparty may lack securities.	25/10/2022	RECE	APMT	1,620,000.00	1,575,450.00
	13.2%	You may lack securities.	03/11/2022	DELI	FREE	9,710,000.00	
	14.7%	You may lack securities.	28/10/2022	DELI	APMT	200,000.00	200,963.28
	20.3%	You may lack securities.	07/11/2022	DELI	FREE	1,000,000.00	
	20.5%	Your counterparty may lack securities.	04/11/2022	RECE	APMT	1,600,000.00	1,423,665.33
	20.5%	You may lack securities.	02/11/2022	DELI	APMT	5,000,000.00	3,980,117.78
	26.4%		03/11/2022	DELI	APMT	11,852.00	3,127,093.30
	28.6%		07/11/2022	DELI	APMT	1,150.00	253,940.44
	35.2%		07/11/2022	DELI	APMT	650.00	143,531.56
	35.2%		08/11/2022	DELI	APMT	300,000.00	291,207.63
	54.2%		08/11/2022	DELI	APMT	3,325,000.00	2,798,449.31

## **Dashboard and Performance Tracker**

### **Settlement Dashboard (SDR Dashboard)**

Dynamic Xact Web Portal dashboard that presents detailed insights on your settlement activities and shows Benchmark of settlements performance vs general market



## **NLP Tools**

#### **QnA Questionnaire**

Using NLP to create an QnA platform to assist in responding to Client requests for quicker and more fitting answers.

d Qð	\$A				Displaye				
ethods:	Keywords	Statistical	Semantical	Informatio	on Retrieval				
section:	-	✓ DDQ: -	~	<ul> <li>Entity:</li> </ul>	-				
₽ [	Search the query								
DDQ		Question			An				
ustomer	Please provide inform	nation about Description of	of Custody Business	Coupons and redeemable securit					
andbook	Operations – Incom	in the context of	payment and the	e proceeds credite					
22-08-22	Additional information	n on services provided by	Clearstream Banking	payment date, a	fter deduction of a				
	and Custody Service	s and Custody Services (	excluding Money	under reserve of	f receipt of funds I				
	Transfer Services).			Coupons and re	deemable securit				
				payment and the	e proceeds credite				
				payment date, a	fter deduction of a				
				under reserve of	f receipt of funds I				
			The designated Depositories or						
				as appropriate, a	assist CBL in colle				
				applicable withh	olding taxes in co				
				designated Dep	ositories or Comn				
				appropriato aco	ist CRL in collecti				

# **Machine Learning Monitoring Tool**

#### **Collateral Concentration Tool**

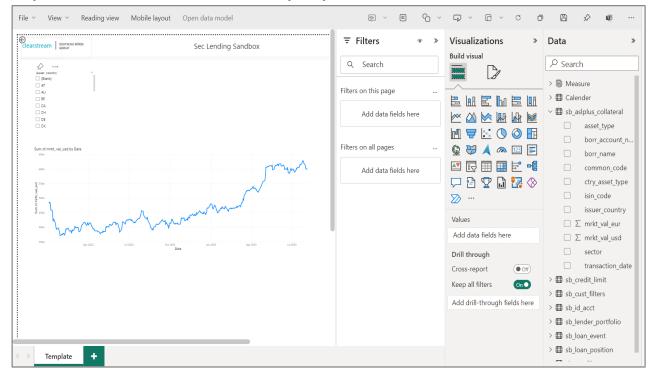
Usage of Machine Learning Model in order to assign coloured value to clients in the concentration limits. This is based on past behavior and decisions.

Summar	y View												c	learsh	eər		UTSCHE OUP	BÖR
Settings	Breaches		Breach Ev	0	Collateral Evo	Portfolio	Inst View	CSI	O Breaches	Su	mmary	Delta	Previous TL	Watchlist	0	verwrite T	L Subm	it TL
Report Date 15/05/2023	~ Ru	n ID	at49e011154	465758529	offaille and e Herne	567 1068 30180 45+00455 3045	C	Overrid			4551054554 54	dactae561aelicod15				•	S II K S	0 Ŧ
Group Subsidiary Instit	tution Name				Previous TL	New TL Institution Court	try Institution Iss Rating %	uer Group	houer Group Amount	Country Br	sach Country Amount	Breach WWR-loss Breach %	er WWR-Issuer Breach Amount	WWR Country Breach3s	WWR Cou Amount		Instrument Type Breach Si	Instru Amou
otal Institution Group Subsidi				nber R	Not available Bion Bion Bion Bion Bion Bion Bion Bion	CBF     IPrevious/Current	E D S AA C D D C	56.255 44.255 500.005 57.125 159.155	Yellow As	mber R	ed	71.11%	stass stass CBL IPrevious/Curren	nt – Blue G	reen M	<del>eliow</del> Am	veer Red	
	4	0	2	0	0	Not reported	0	0	0	0	0		Not reported	0	0	0	0 0	
	125	38	21	0	1	Blue	4	0	0	0	0		Blue	125	3	0	0 0	
Total	129	38	23	0	1	Green	0	0	0	0	0		Green	0	34	0	0 0	
						Yellow	0	0	2	0	0		Yellow	0	1	21	0 1	
						Amber	0	0	0	0	0		Amber	0	0	0	0 0	
Thorsten H	lenrich					Red	0	0	0	0	0		Red	0	0	0	0 0	

# **Self-Service Capability**

### **Internal Sandbox**

User friendly open environment to allow internal users to create their own dashboard without coding experience. Data sets are prepared in advanced.

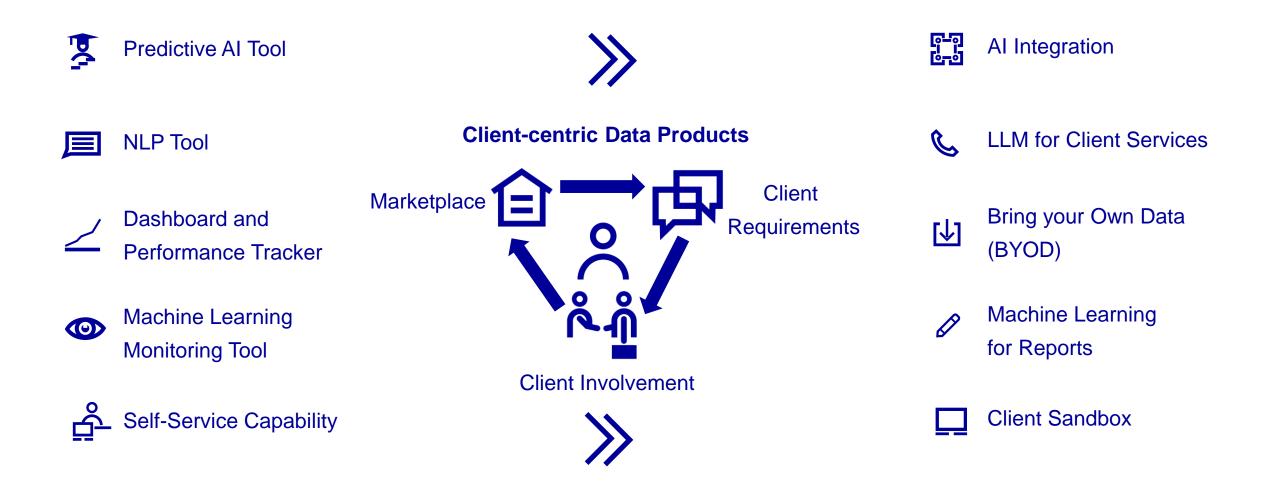


DEUTSCHE BÖRSE GROUP

**1** Overview- Data as a Product **2** Data Ownership / Business Partnership **3** Data Management and Governance 4 Products and Capabilities **5** Future

5

# **Future – Partnership with Clients**



## Disclaimer

#### © Deutsche Börse Group 2023

This publication is for informational purposes only. None of the information in this publication constitutes investment advice and does not constitute an offer to sell or a solicitation of an offer to purchase any contract, share or other financial instrument. This publication is not intended for solicitation purposes but only for use as general information. All descriptions, examples and calculations contained in this publication are for illustrative purposes only.

Deutsche Börse AG, Frankfurter Wertpapierbörse (FWB®, the Frankfurt Stock Exchange), Eurex Frankfurt AG, Eurex Deutschland and Eurex Clearing AG do not represent that the information in this publication is comprehensive, complete or accurate and exclude liability for any consequence resulting from acting upon the contents of this or another publication, in so far as no wilful violation of obligations took place or, as the case may be, no injury to life, health or body arises or claims resulting from the Product Liability Act are affected.

Securities traded on the Frankfurt Stock Exchange and Eurex derivatives (other than EURO STOXX 50® Index Futures contracts, EURO STOXX® Select Dividend 30 Index Futures contracts, STOXX® Europe 50 Index Futures contracts, STOXX® Europe 600 Index Futures contracts, STOXX® Europe 600 Index Futures contracts, EURO STOXX® Banks Sector Futures contracts, STOXX® Europe 600 Banks/Industrial Goods & Services/Insurance/Media/Personal & Household Goods/Travel & Leisure/Utilities Futures contracts, Dow Jones Global Titans 50 IndexSM Futures contracts, DAX® Futures contracts, MDAX® Futures contracts, TecDAX® Futures contracts, SMIM® Futures contracts, SLI Swiss Leader Index® Futures contracts, RDXxt® USD - RDX Extended Index Futures contracts, Eurex inflation/commodity/weather/property and interest rate derivatives) are currently not available for offer, sale or trading in the United States nor may they be offered, sold or traded by persons to whom US tax laws apply.The fund shares listed in XTF Exchange Traded Funds® are admitted for trading on the Frankfurt Stock Exchange. Users of this information service who legally reside outside Germany are herewith advised that sale of the fund shares listed in XTF Exchange Traded Funds may not be permitted in their country of residence. The user makes use of the information at their own risk.

#### Legal validity of this disclaimer

In the event that individual parts of or formulations contained in this text are not, or are no longer, legally valid (either in whole or in part), the content and validity of the remaining parts of the document are not affected.

#### Trademarks

The following names and designations are registered trademarks of Deutsche Börse AG or an affiliate of Deutsche Börse Group:

1585®; A7®; Buxl®; C7®; CDAX®; CEF®; CEF alpha®; CEF ultra®; CFF®; Classic All Share®; Clearstream®; CX®; D7®; DAX®; DAXglobal®; DAXplus®; DB1 Ventures®; DBIX Deutsche Börse India Index®, Deutsche Börse®; Deutsche Börse Capital Markets Partner®; Deutsche Börse Commodities®; Deutsche Börse Venture Network®; Deutsches Eigenkapitalforum®; DivDAX®; eb.rexX®; eb.rexX Jumbo Pfandbriefe®; ERS®; eTriParty®; Eurex®; Eurex Bonds®; Eurex Clearing Prisma®; Eurex Improve®; Eurex Repo®; Euro GC®; ExServes®; EXTF®; F7®; FDAX®; FWB®; GC Pooling®; GCPI®; GEX®; Global Emission Markets Access – GEMA®; HDAX®; iNAV®; L-DAX®; L-TecDAX®; M7®; MDAX®; N7®; ODAX®; ÖkoDAX®; PROPRIS®; REX®; RX REIT Index®; SCHATZ-FUTURE®; SDAX®; ShortDAX®; StatistiX®; T7®; TecDAX®; Technology All Share®; TRICE®; USD GC Pooling®; VDAX®; VDAX-NEW®; Vestima®; Xcreen®, Xemac®; Xentric®, Xetra®; Xetra-Gold®; Xpect®; Xpider®; XTF®; XTF Exchange Traded Funds®; We make markets work®

The names and trademarks listed above do not represent a complete list and, as well as all other trademarks and protected rights mentioned in this publication, are subject unreservedly to the applicable trademark law in each case and are not permitted to be used without the express permission of the registered owner. The simple fact that this publication mentions them does not imply that trademarks are not protected by the rights of third parties.

The STOXX® indices, the data included therein and the trademarks used in the index names are the intellectual property of STOXX Ltd., Zug, Switzerland and/or its licensors. Eurex' derivatives based on the STOXX indices are in no way sponsored, endorsed, sold or promoted by STOXX and its licensors and neither STOXX nor its licensors shall have any liability with respect thereto.

STOXX iSTUDIO® is a registered trademark of STOXX Ltd., Zug, Switzerland.

TRADEGATE® is a registered trademark of Tradegate AG Wertpapierhandelsbank.

EEX® is a registered trademark of European Energy Exchange AG.

Flexible is better.® is a registered trademark of Axioma, Inc.

# Thank you!

Lais Lima Data Scientist and Data Management and Governance Lead

Lloyd Xu Data Products Delivery Manager

Deutsche Börse AG Mergenthalerallee 61 65760 Eschborn

Phone +49 1573 5573508 (Lais); +49 69 21117382 (Lloyd) E-mail lais.lima@deutsche-boerse.com; lloyd.xu@clearstream.com

Fuel your brain! #OpenDay2023 @DeutscheBoerse



