



EDM Webinar 

Mastering BCBS 239: Enhancing Compliance with Data Lineage

A conversation with



Philip Dutton
Founder & CEO
Solidatus



Mehul Modha
Advisory Solutions
Engineer
Solidatus



Stuart Wallace
Director, Technology
Consulting, Data
and Analytics
EY



Stella Cabrera
Chairman of the board
RMA Toronto



Today's panel

Moderator



Jim Halcomb

Global Head of Research
and Development
EDM Council



Philip Dutton

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Advisory Solutions Engineer
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Stuart Wallace

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Sustaining the value of data lineage

February 2025



The better the question. The better the answer. The better the world works.



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7 areas of concerns in ECB's May 2024 guide

Data lineage is a critical enabler for meeting BCBS 239 requirements, supporting accurate, complete and timely risk data aggregation and risk reporting (RDARR). A particular emphasis has been placed on attribute-level data lineage by European Central Bank (ECB) in its May 2024 guide on effective RDARR as part of the 7 areas of concern identified in the guide. However, the industry is finding the implementation of such data lineage challenging, costly and of limited value.

ECB's 7 areas of concern

- 1 Management Responsibilities
- 2 Sufficient Scope of Application
- 3 Effective Data Governance Framework
- 4 Integrated Data Architecture
- 5 Data Quality Management and Standards
- 6 Timeliness of Risk Reporting
- 7 Effective Implementation Programs



“

To ensure the quality of the data used for risk, supervisory and financial reporting, an integrated data architecture should be implemented and documented at the group level...

The management of data taxonomies should entail:

...complete and up-to-date data lineages on data attribute level (starting from data capture and including extraction, transformation and loading) for the risk indicators and their critical data elements, identified as being within the scope of the application.

Implementation choices should be fit for purpose, well-documented and focussed on providing the necessary information for steering the institution and managing its risks

ECB RDARR Guide, 2024

Lineage considerations

- High cost and a “limited” perceived value by banks of attribute-level data lineage
- Increased expectation for data lineage to be documented at data attribute level
- Importance of lineage of risks **across business lines and functions**
- Model lineage, consistency and reconciliation
- Building lineage in a **sustainable** way is critical

Industry state of play on data lineage

Organizations recognize the potential benefits of the ECB's granular lineage requirements.

Enhanced data accuracy and integrity

Attribute-level lineage provides a highly granular view of data as it flows from source systems to final reporting, reducing the risk of errors in transformation, aggregation and reporting. This accuracy improves decision-making.

Transparency and traceability

Detailed lineage allows regulators, auditors, and stakeholders to trace specific data attributes back to their origin, verifying data integrity and building trust in the organisation's risk reporting framework.

Improved root cause analysis and issue resolution

When data quality issues arise, attribute-level lineage helps pinpoint exactly where errors or inconsistencies originated. This granularity allows for faster identification and correction of issues, reducing downtime.

Operational efficiency and automation potential

By implementing attribute-level lineage, organisations are better positioned to automate data lineage tracking and monitoring, reducing the manual effort involved in compliance.

However, the implementation is challenging...

Complexity of data ecosystems

- Most banks have complex data architectures with a mix of legacy systems with modern platforms.
- Tracing data lineage across this heterogenous environment is challenging.

High implementation costs and complexity

- Attribute-level data lineage implementation is costly and complex, requiring investment in technology, tools, and skills.

Regulatory requirements and data criticality

- Data attribute level lineage.
- Data lineage traced back to data capture and including Extract Transform Load (ETL).
- Explicit identification of Critical Data Elements underling KRIs.

Scalability and maintenance

- Tracking lineage at attribute level, can quickly become unmanageable.
- Maintaining detailed lineage over time in a dynamic data environment is resource-intensive and complex.

Dynamic data flows

- Increasingly agile practices result in data flows not remaining static, making traditional lineage tracking methods (manual, periodic) insufficient.
- Lineages are often "dead on arrival".

Detail overload

- Users can become overwhelmed by complex lineage information.
- This can reduce the practical usability of lineage documentation for business users who need to interpret data for risk reporting.

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Fireside Chat with Stuart and Philip



BCBS239: The Devil's In the Detail

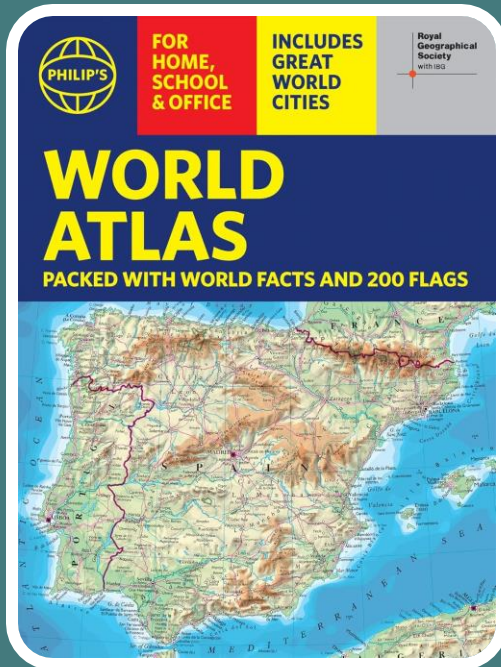
Mehul Modha
Advisory Solutions Engineer, Solidatus

Evolution of Mapping

Manual Maps

Digital Maps

Intelligent Maps



Static Book Maps

What is it?

Traditional printed maps used to plan routes manually.

Challenges

Static, hard to update, no real-time information.

Summary

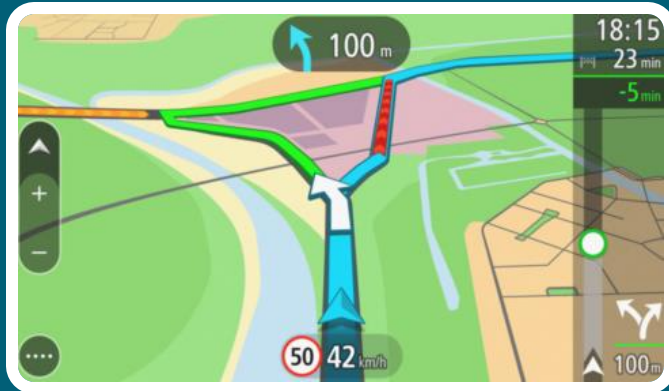
Useful in their time but lack adaptability or dynamic input for changes like road closures or traffic.

Evolution of Mapping

Manual Maps

Digital Maps

Intelligent Maps



TOMTOM & Garmin

What is it?

Early GPS devices offering real-time navigation with preloaded maps.

Improvements

Turn-by-turn directions, improved accessibility over printed maps. Periodic updates but **often manual**

Summary

Improvements in the right direction by lacked dynamic intelligence to support various scenarios of navigation

Evolution of Mapping

Manual Maps

Digital Maps

Intelligent Maps



Apple/Google Maps (Smart Navigation):

What is it?

Real-time navigation apps powered by cloud-based data

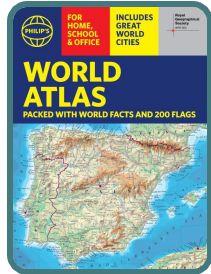
Improvements

Real time traffic updates and dynamic rerouting, integration with various modes of transport, automatic updates, global scalability, personalized features

Summary

Accessible on any smartphone, connected to a broader ecosystem of apps and services, offering a holistic travel experience.

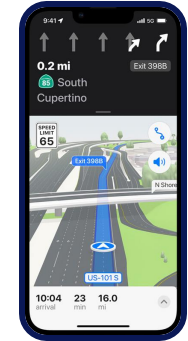
How Does this Relate to Lineage?



Manual Maps



Digital Maps



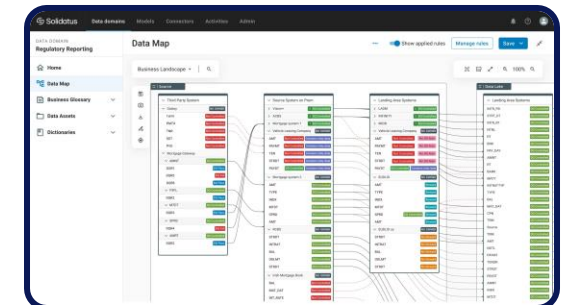
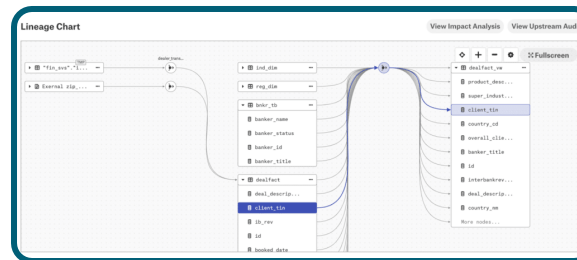
Intelligent Maps

Manual Lineage

Basic Lineage

Advanced Lineage

	A	B	C	D	E
1	Source System	Source Table	Source Column	Transformation Rules	Target System
2	CRM System	Customer	Customer_ID	Direct Mapping	Data Warehouse
3	CRM System	Customer	Full_Name	Concatenation of First and Last Name	Data Warehouse
4	ERP System	Orders	Order_Date	Date Format Change (YYYY-MM-DD to MM/DD/YYYY)	Data Warehouse
5	ERP System	Orders	Order_Amount	Currency Conversion (EUR to USD)	Data Warehouse
6	Marketing System	Campaigns	Campaign_Name	Uppercase Conversion	Data Warehouse
7	HR System	Employees	Employee_ID	Direct Mapping	Data Warehouse
8	HR System	Employees	Salary	Anonymization (Hashing)	Data Warehouse
9	Finance System	Payments	Payment_Amount	Currency Conversion (GBP to USD)	Data Warehouse
10	Finance System	Payments	Payment_Date	Date Format Change (YYYYMMDD to MM/DD/YYYY)	Data Warehouse
11	Inventory System	Stock	Product_ID	Direct Mapping	Data Warehouse
12	Inventory System	Stock	Stock_Quantity	Summation per Warehouse	Data Warehouse
13	E-commerce System	Transactions	Transaction_ID	Direct Mapping	Data Warehouse
14	E-commerce System	Transactions	Transaction_Date	Timezone Conversion (UTC to EST)	Data Warehouse
15	Support System	Tickets	Ticket_ID	Direct Mapping	Data Warehouse



BCBS 239

BCBS 239 - The Principles for effective data aggregation and risk reporting (the Principles) of BCBS 239 were issued by the Basel Committee



Regulatory pressures are requiring financial institutions to put robust systems and processes in to meet regulatory expectations of increased quality and quantity of reports.



Risk, finance and reporting managers are challenged to aggregate results quickly and accurately, and swiftly turn around financial reporting when reacting to internal and external requests for information in response to unforeseen market conditions.



Demonstration

Test Flights



UPCOMING WEBINARS

PICK YOUR DATE AND REGISTER 2025 11am ET / 4pm GMT



Solidatus Test Flight: Hands-On Workshop

- February 27
- March 27
- April 24

With
Mehul Modha
Advisory Solutions Engineer

Register Now

<https://www.solidatus.com/resource/take-off-with-solidatus-hands-on-workshop/>

“A **test flight** is a trial flight conducted to evaluate the performance, functionality, and safety of an aircraft or its components before it is approved for regular operation.”



“A **test flight** is a trial of Solidatus where we allow you to understand how the functionality of the software can assist with supporting business functions self service on a prebuilt environment



Questions?



EDM Webinar 

EDM Council BCBS 239 Working Group

Objective:

To improve banks' ability to assess and communicate risk exposures to regulators accurately, thereby promoting financial stability. This project by EDM Council will review and revise as appropriate the current mapping BCBS 239 to DCAM.



JOIN US !!

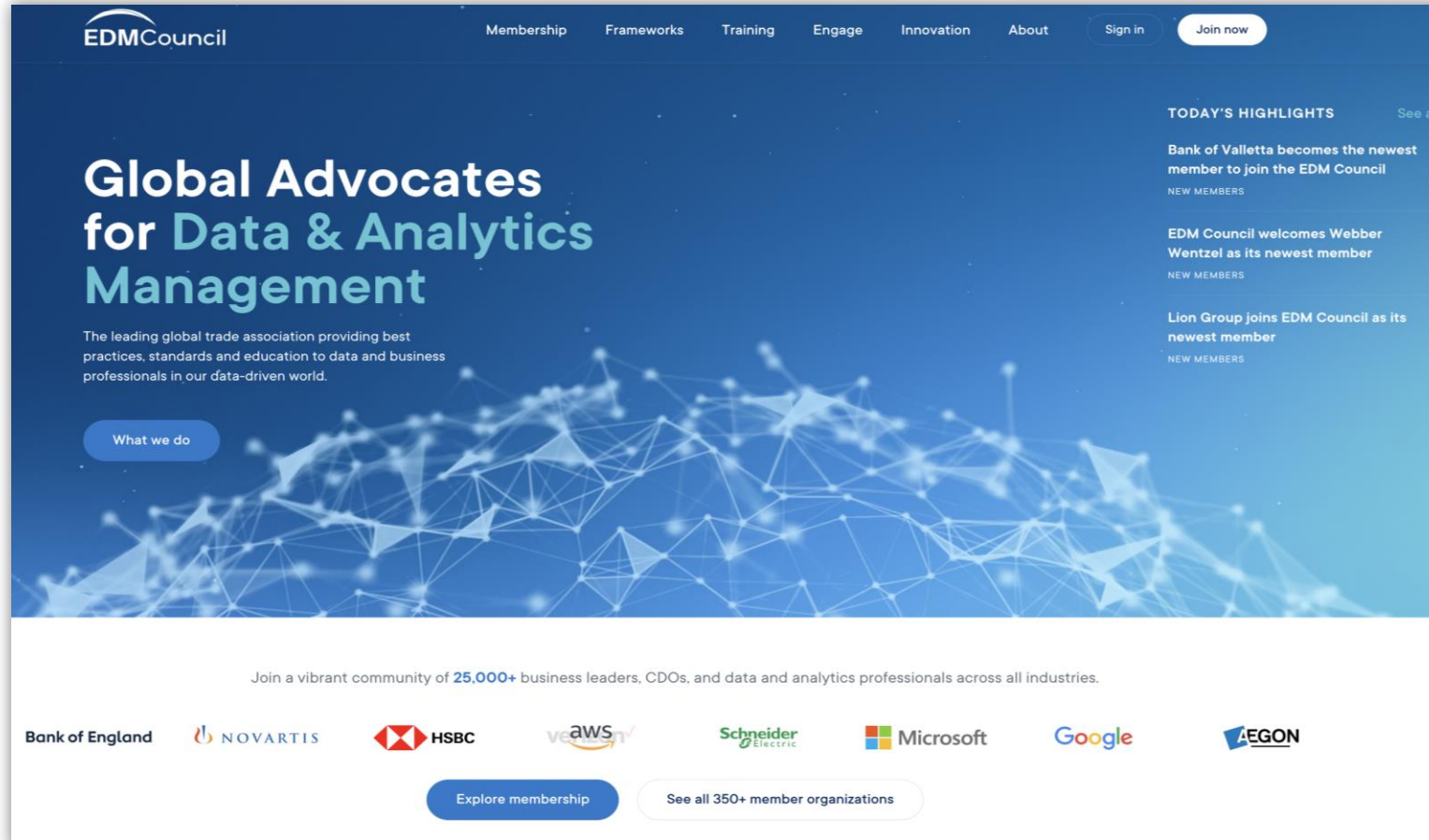


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EDMWebinar 

Thank you!

FOR MORE INFORMATION:

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Thank you.