



BCBS 239 benchmark survey

Ten years on from the publication of the principles,
and following the finalization of the ECB RDARR guide – how are banks
addressing the challenges?

2024

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Introduction

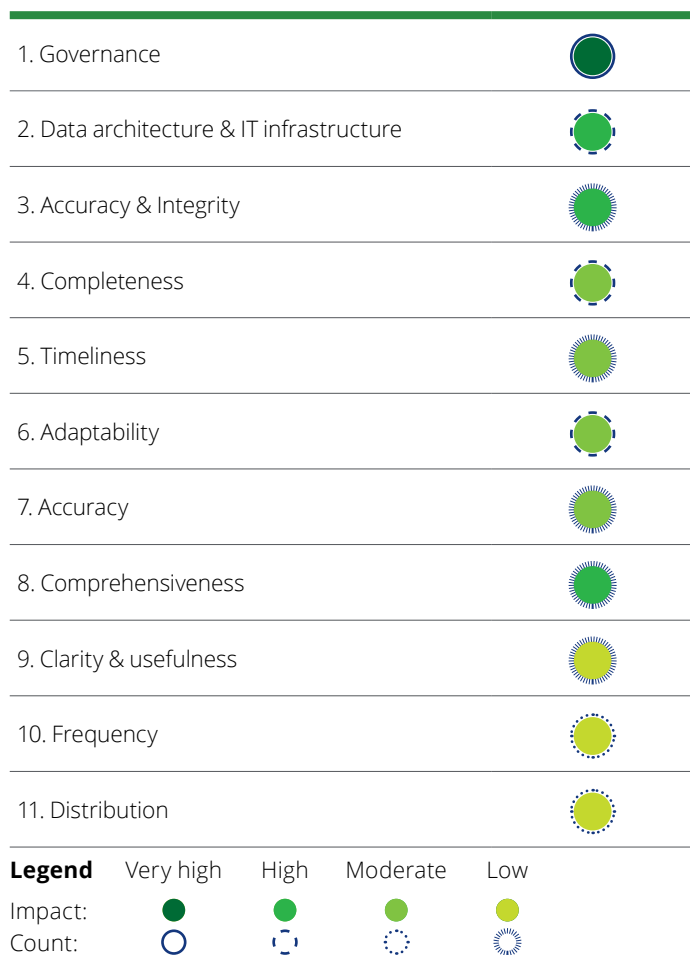
Current regulatory & market developments

Introduction

As an aftermath of the financial market crisis of 2008, BCBS 239 has come into effect in 2013. More than a decade of sustained exertion and uncertainty for banks affected by the standard, as well as ongoing supervisory dissatisfaction, it is now deemed to be the time to balance the books.

As part of our roundtable series, facilitating exchange between significant banks from all over Europe, Deloitte has conducted a comprehensive BCBS 239 benchmark survey, providing unparalleled insights into the current state of implementation, milestones achieved and challenges ahead.

Fig. 1 – Market dynamics and observations based on OSI observations



What got us here?

Based on our observations from numerous projects where we have supported clients all over Europe throughout their respective on-site inspections, the following heat map has been compiled. While many medium to high severity findings in areas such as data architecture or accuracy were to be expected, the supervisory focus on governance and in particular management body oversight, scope of application, and monitoring as well as validation of BCBS 239 compliance has caught out many banks. There is a good case to believe that high severity findings addressing insufficient board oversight result in the attention and awareness ECB wants board member to pay to this topic.

The first progress report was published, in late 2013, and many more have followed. Since its inception, the supervisory authorities have expressed their discontent with the state of affairs, pointing out that significant institutions do not allocate the necessary resources and senior management attention to risk data aggregation and reporting.

This has intensified since 2018 as evidenced by numerous “Dear CxO publications” letters¹, followed by a campaign of on-site inspections since 2021 that has covered a large portion of significant banks all over Europe and has culminated in the ECB guide which was published in draft in July 2023 and in its final version in May 2024.

¹ One example of the ‘Dear CxO publications’ is the publication entitled Supervisory expectations on risk data aggregation capabilities and risk reporting practices, published by ECB, 2019

ECB RDARR guide

In response to supervisory discontent, banks have often voiced the need for more guidance in order to interpret the principle-based standard and set the right priorities for implementation programmes. Following this ask, the ECB has published the **Guide on effective risk data aggregation and risk reporting²** (RDARR), which seeks to clarify requirements and help banks to address shortcomings.

The 7 areas of concern

#1 Responsibilities of the management body

The management body must oversee the implementation of strategic objectives, risk strategy and internal governance. The ECB sets out specific expectations of the management body: resourcing, approving the framework, overseeing delivery of the programme, challenging internal MI, and ensuring knowledge and skills are appropriate.

#2 Scope of application

Banks must have a RDARR framework that ensures they can identify, monitor, manage and report on risks appropriately. The RDARR framework should cover internal reports, external financial reporting and external regulatory reporting and should include all key internal risk models and be linked to entities' risk appetite.

#3 Effective data governance framework

The framework should set out clear roles and responsibilities, including data owners, a central data governance function, an independent validation function, and internal audit.

#4 Integrated data architecture

Banks should have a data architecture that has uniform data definitions, clear data validation rules, and complete and up-to-date data lineages.

#5 Group-wide data quality management and standards

Banks should be able to ensure that data quality controls are effective and complete, data quality issues are identified quickly and remediated promptly, any manual processes are subject to adequate controls, and the effect of known data issues on ICAAP/ILAAP etc. are understood.

#6 Timeliness of internal risk reporting

Risk reporting must be accurate, complete, and timely (T+20). The ECB sets out two components that it expects banks to address around timeliness: frequency of reporting, and time to produce reports. Further, effective ad hoc reporting capabilities are needed, in addition to the importance of robust regular reporting systems and processes.

#7 Effective implementation programmes

Banks that are not fully compliant with BCBS239 should have a remediation programme in place, addressing any weaknesses identified by internal or external reviews. The ECB sets out that a member of the Management Body should have responsibility for the execution of the programme.



² Guide on effective risk data aggregation and risk reporting published by ECB, May 2024

Participants

Distribution, region & size

Introduction

The survey findings have been produced based on the survey responses from bank representatives and roundtable participants, and the results are presented with context from our experiences gathered throughout numerous client projects and supervisory interactions. More than 20 banks from a multitude of jurisdictions and representing various business models have participated in the survey, providing deep insights into the challenges banks are facing with implementing BCBS 239.

The survey represents predominantly large, multi-national banking groups, almost 60% have total assets of more than 500 billion Euro, while only about 10% of participants are below 100 billion Euro. With regard to the geographical profile of respondents, around 60% of participating banks are headquartered in the European Union with the remainder comprising global banks from the US, the UK and Asia with significant European operations.

Fig. 2 - Size distribution of the banks that took part in the survey

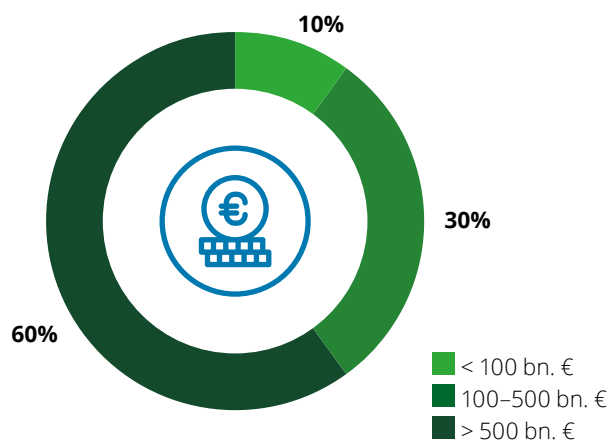


Fig. 3 - Business model distribution of the banks that took part in the survey

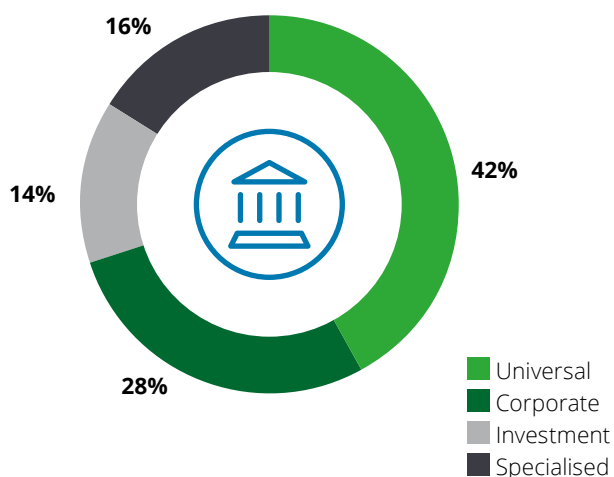
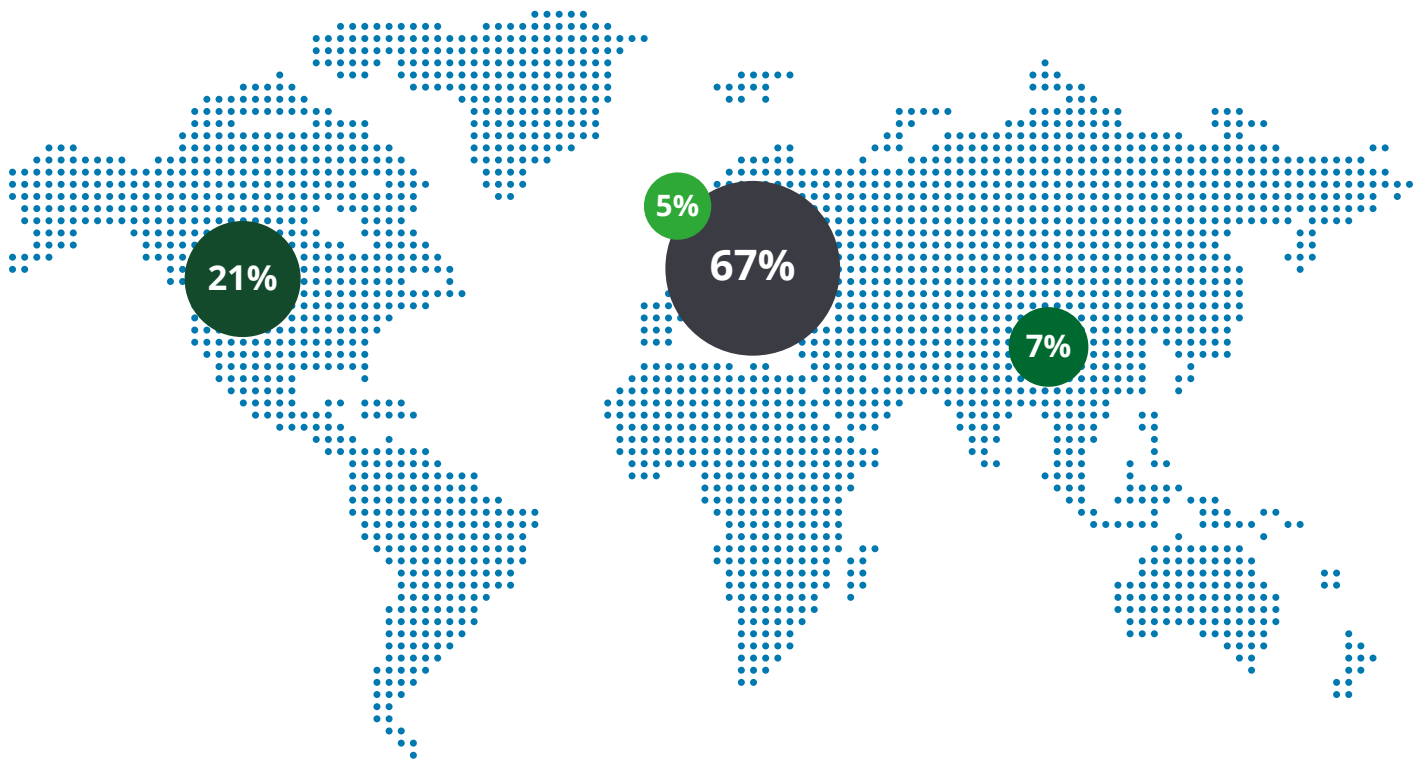
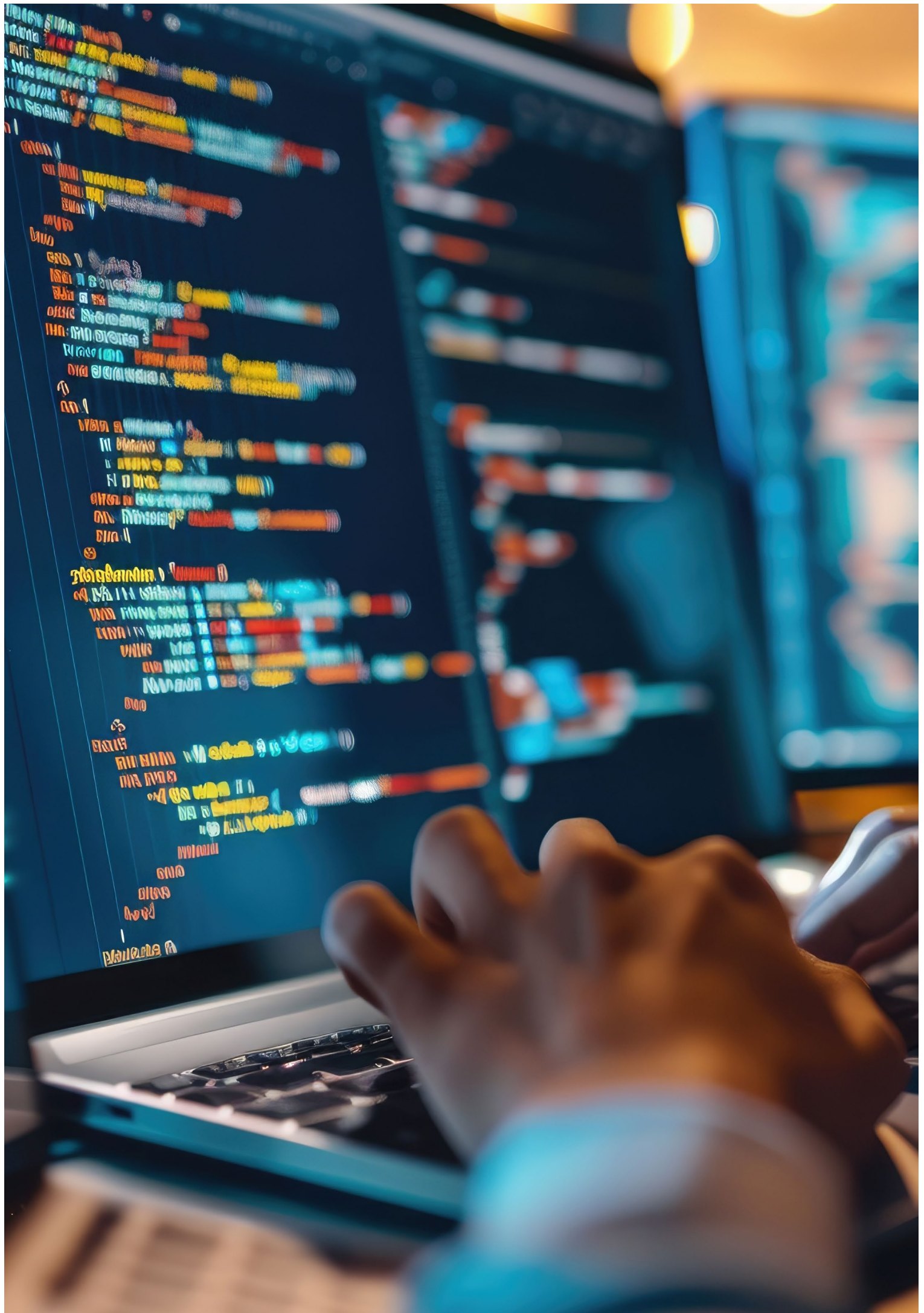


Fig. 4 – Country distribution of the banks that took part in the survey





Key results

Main topics & points of discussion



Scope of application

95% of the respondents already covered risk reporting, while 32% of banks still need to include FINREP/COREP



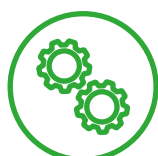
Integrated data architecture

75% of banks have less than 1.000 critical data elements



Implementation & remediation efforts

3 years is the average timeline for implementation and remediation projects



Implementation benefits

68% expect more effective steering of the business, but only 21% have achieved this so far



Data lineage

69% will implement data lineage from front office to reporting layer and 67% also plan to include subsidiaries



Data risk

72% of respondents have defined risk appetite for data quality, but only 17% have operationalised this so far

Scope of application

Current state & future intention

Market developments vs. regulatory expectations

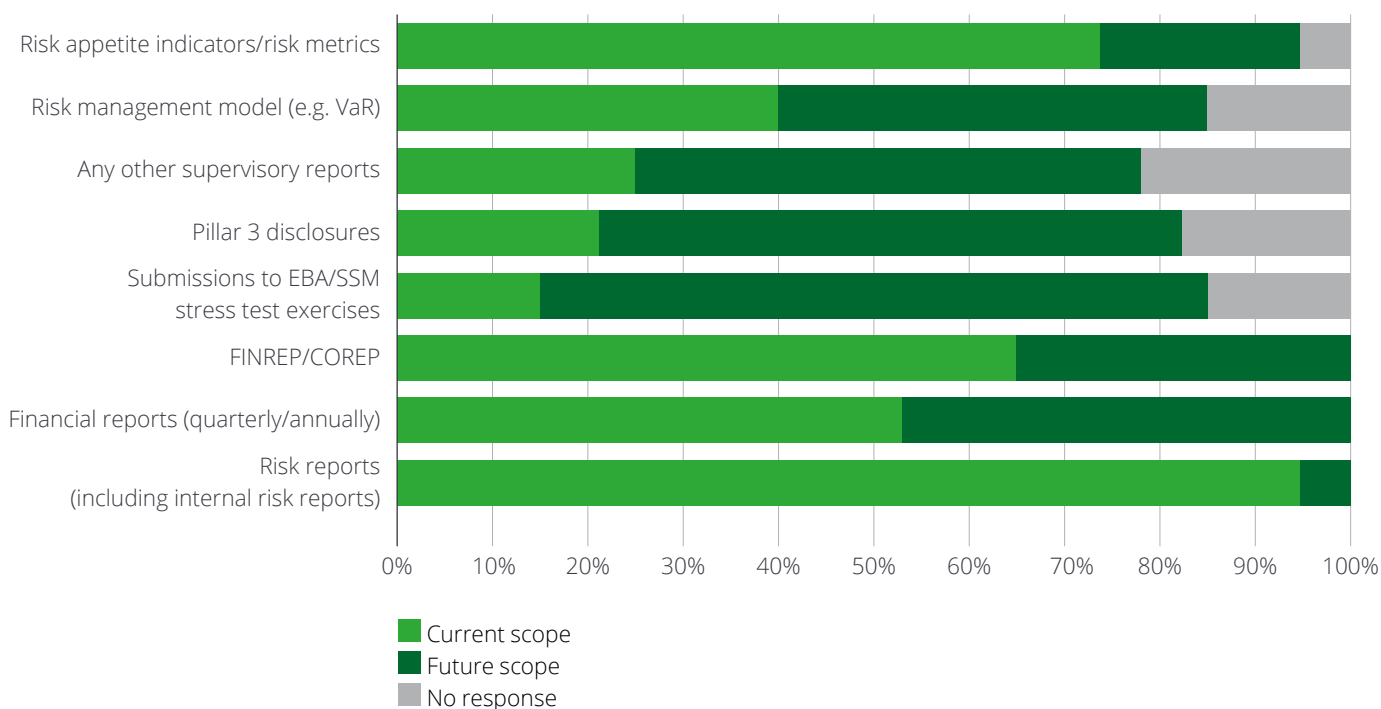
Given the significant implementation effort involved, banks in the past have often tried to narrow down the implementation scope as much as possible, applying the BCBS 239 principles only to internal risk reporting. This has not been met with supervisory approval, as the supervisory expectations on risk data aggregation capabilities and risk reporting practices have clearly stated already in 2019 that

“the application of BCBS 239 principles to regulatory and financial reporting is recognized by the BCBS as an example of effective governance”.³

What was set out as an example back in 2019 has become a more binding expectation with the RDARR guide. Even before the publication of the guide, often as a result of an on-site inspection, some banks have embarked on large extension and remediation programmes, which is reflected in the gaps between current and future scope in the diagram below.

Many uncertainties remain, particularly when it comes to the level of detail for new scope areas such as model data, stress tests and disclosures. Especially with regard to (historical) input data being used for model development trajectories as well as resulting (credit risk) model output (e.g. PD, LGD), many banks have not properly addressed the impact of BCBS239 in the model value chain, however considered crucial by the ECB for managing risks.

Fig. 5 – Survey on how the scope of application for risk, financial or regulatory reports is applied currently and planned in the future



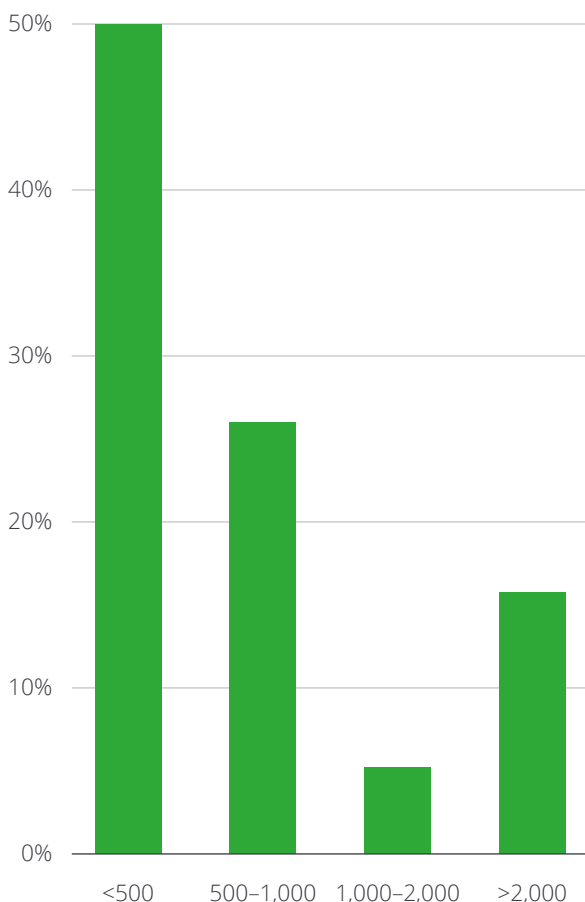
Integrated data architecture

Interpretation of criticality

Implementation of CDEs

Critical data elements (CDE) feature prominently in the RDARR guide and are mentioned no less than seven times. CDE are defined as “those data elements that are used to calculate the key risk indicators and have a direct or significant impact on the value of the indicator or technical routine of the calculation and the reporting.”

Fig. 6 – Number of critical data elements (CDE) under BCBS 239



While the supervisory intent with regard to CDE appears clear and understandable, interpretations in the market vary widely, the number of CDE for banks of similar size and business complexity may differ by one order of magnitude.

Some banks attempt to adhere to the letter of the guide, considering critical every data attribute “used to calculate the KRI” while others put more emphasis on “significant impact on the value of the indicator”. As CDEs not only need to be owned, but also come with significant efforts for data quality measurement and data lineage that is supposed to be “complete and up to date”, banks are currently trying to find interpretations that meet the supervisory expectation, and still can be implemented. Otherwise, meeting the requirements stipulated in the guide may equal to

“the quest for the holy grail”

or will result in

“death by data lineage”

as some chief data officers have put it. As solution approaches are emerging and good market practice needs to be consolidated, please expect a separate Deloitte point of view on critical data elements shortly.



Implementation & remediation efforts

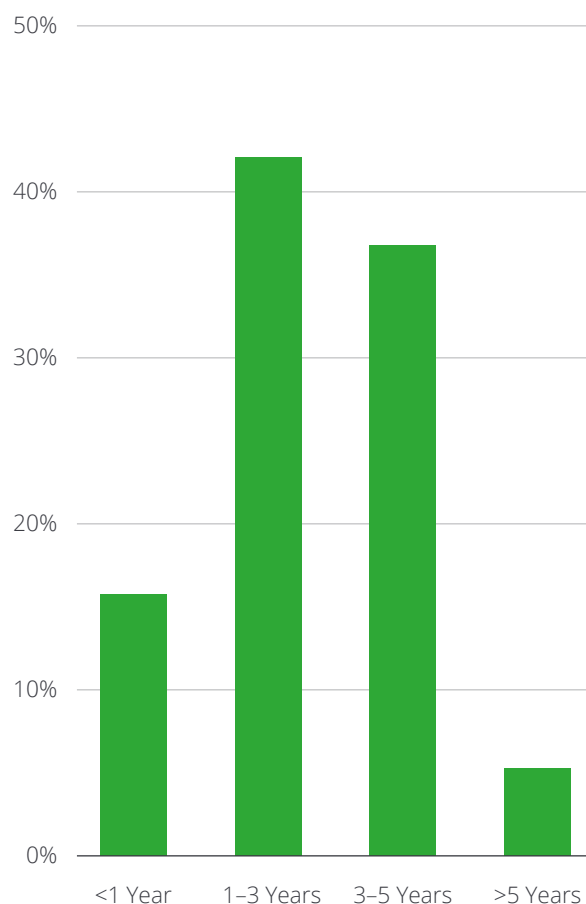
Completion time

“Ambitious yet feasible”⁴

is – among many other requirements the supervisory expectation for implementation programmes. Given the scale, complexity and length of such programmes, the supervisory ask for “adequate material, financial and human resources” and “clearly defined remedial actions, targets, milestones, roles, responsibilities” becomes more than understandable.

While larger banks have been working on the topic for more than a decade now, smaller banks often do not have such a long track record. Irrespective of the starting point, many of the banks surveyed are faced with high-severity findings from on-site inspections that necessitate large-scale and multi-year remediation projects. As these findings not only address governance shortcomings, but rather complex IT and data architecture aspects, it comes as no surprise that on average around three years are planned for remediation efforts. Given that such long-standing project have often derailed in the past, the supervisory demand for effective implementation programmes and the reference to good project management practices is understandable. What is also interesting in this respect is the change between draft and final guide from “one” to “one or two” members of the management body appointed with responsibilities for the execution, as many of our clients have found it hard to decide, whether the chief risk officer, the chief information officer or the chief financial officer should accept this role.

Fig. 7 - Average timelines for implementation or remediation projects



⁴ Guide on effective risk data aggregation and risk reporting published by ECB, May 2024

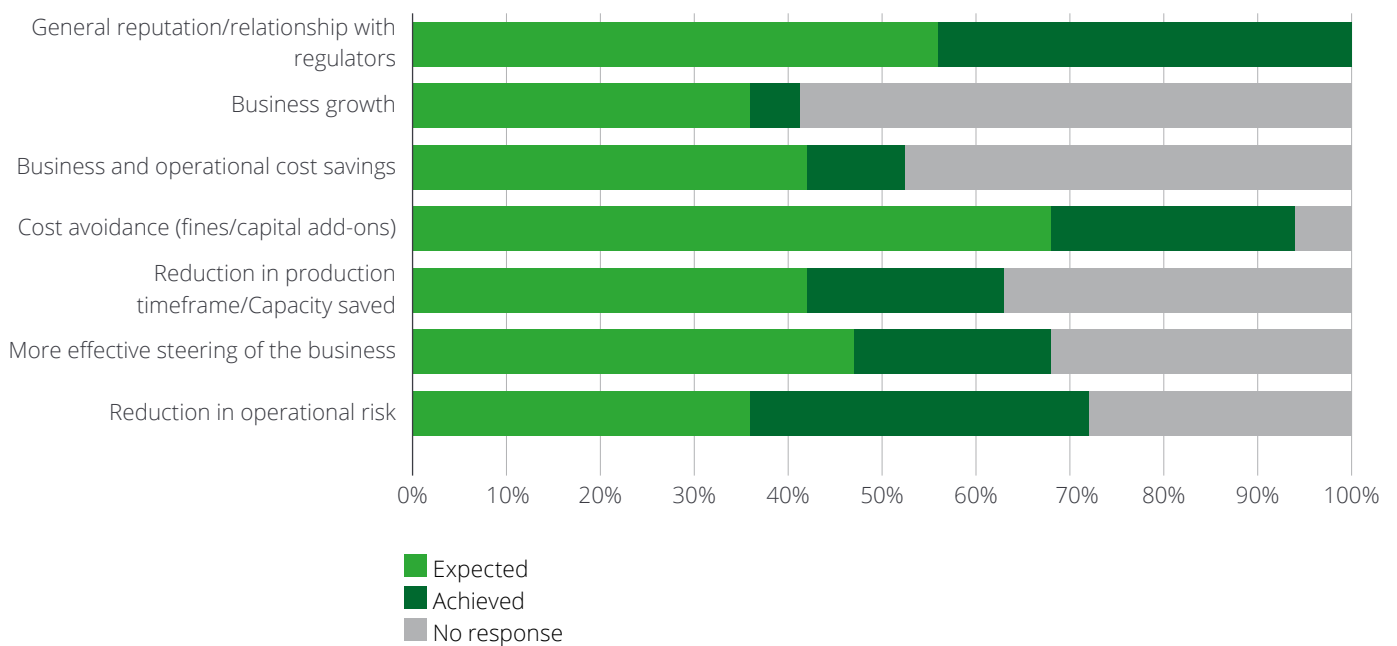
Implementation benefits

Expectations & reality

As the survey shows, almost all banks want to be in good standing with the regulator and avoid enforcement actions. However, more banks than in previous surveys expect more effective business steering (by more reliable report data) or operational cost savings (by more automated data aggregation and report production).

“Difficulties in terms of data accuracy, integrity, completeness, timeliness and adaptability are still widely encountered, suggesting that institutions are still focusing on the cost and implementation challenges of improving risk data aggregation and reporting, rather than the benefits of remediating long-standing deficiencies in this area.”⁵

Fig. 8 – Expected vs. achieved benefits resulting from BCBS 239



Benefits of BCBS 239

Already long before the ECB RDARR guide many banks and particularly C-level executives have raised the question

“is this only for compliance or can we actually benefit from all these investments?”

With the increased investments and commitments necessary, the topic has again risen in importance.

To express it in the words of the chairman of the supervisory board of one of our clients

“we need to invest more in our data capabilities over the next years, but better make sure that we also see a positive impact on the cost-income-ratio.”



Data lineage

Managing “end-to-end” application

Finding the right definition

As the ECB RDARR guide asks for data lineage “starting from data capture and including extraction, transformation and loading” and data quality controls “from front office systems (and other capture systems) to the reporting layer”, the questions of “what does end-to-end mean” has resurfaced with force.

In the past, many banks have decided to stop at either a group or business unit data warehouse or any other integration layer and have often shunned away from going back to the actual (golden) source systems. A position that has become increasingly unsustainable, as clearly shown by the survey, where most respondents have chosen “reporting layer to front office” as their interpretation. However, many questions and ambiguity remains, as data capture, to pick one client example, does not necessarily happen in the core banking system used in traditional branches, but also in the mobile app of external sales agents or online portals.

Inclusion of subsidiaries in data lineage

One special aspect of end-to-end is the inclusion of subsidiaries. While these subsidiaries often contribute significant business volumes and related risk that need to be reported, existing challenges are often exacerbated.

This is a particular concern to multinational banking groups that operate in numerous jurisdictions, where local data protection laws may limit granular data delivery for head office data aggregation. Materiality considerations are often influenced by the classification used for ICAAP purposes, but in general banks make more deliberate decisions which subsidiaries are being classified as material from a RDARR point of view.

Fig. 9 – Definition of “end-to-end” application

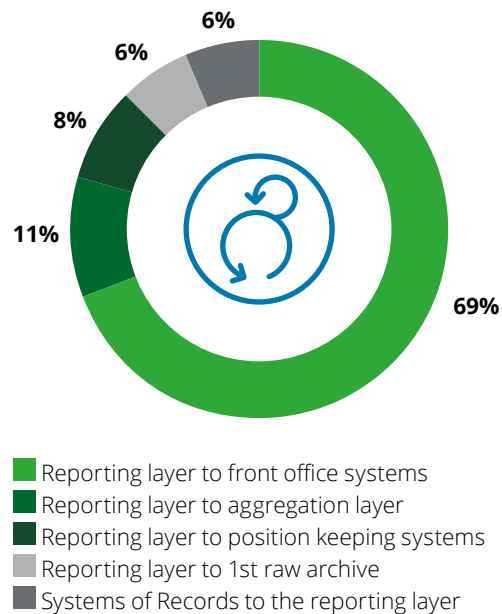
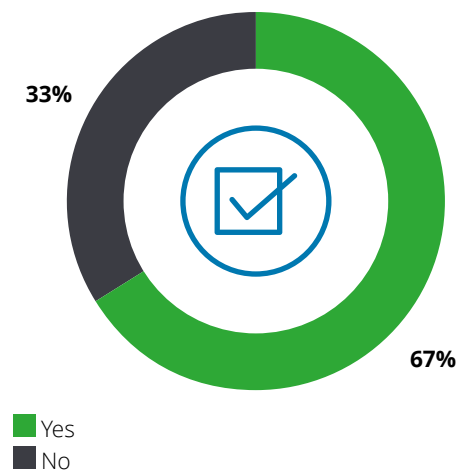


Fig. 10 – Subsidiaries included in the “end-to-end” application



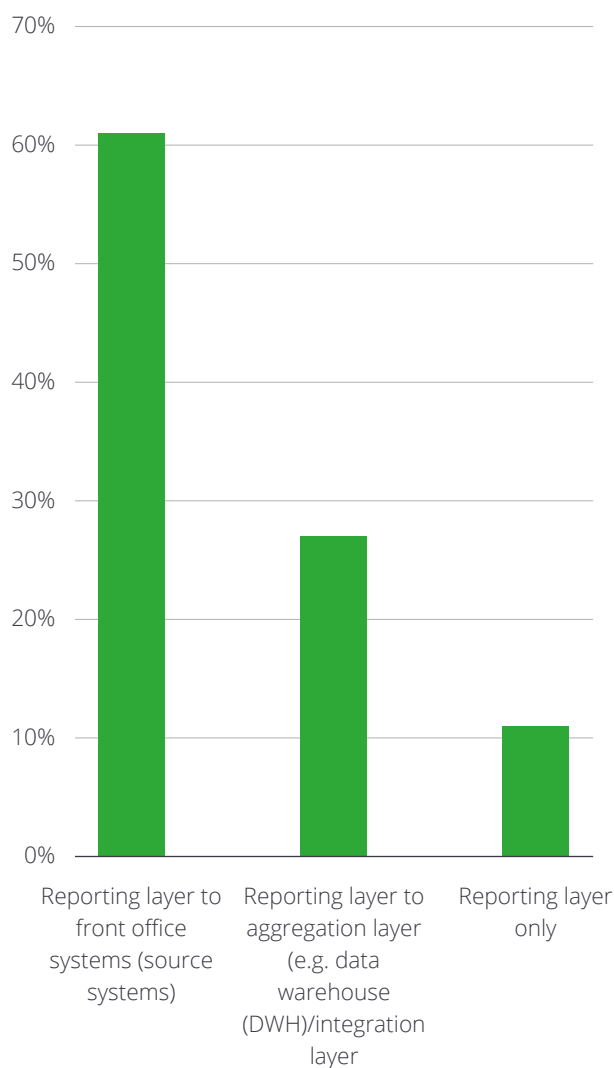
“Truth is Lineage, Lineage is Truth.”⁶

-behind this seemingly philosophical statement lies the rather pragmatic assumption that what we consider truth needs to be anchored in the lineage that traces its origins and validates its accuracy.

While it has been an important aspect of every implementation programme since the inception of the standard, it is notable that “data lineage” is not mentioned once in the original BCBS 239 paper.

The ECB RDARR guide removes any ambiguity, by clearly stating the requirement for “complete and up-to-date data lineages on attribute-level starting from data capture [...]” Around 2/3 of respondents cover or plan to cover lineage from front office to reporting layer, while a minority hold a different opinion. As alluded to earlier, many practical implementation questions, particularly pertaining to the maintainability of such a comprehensive lineage, remain.

Fig. 11 – Layers covered by data lineage by organisations



⁶ Truth is Lineage, Lineage is Truth published by Bryon Jacob on Medium, April 2024

Data risk

Risk appetite for data quality

Managing and mitigating data risk

In addition, as part of on-site inspections, some banks have been asked to produce a risk appetite statement for data quality risk.

More broadly, managing and mitigating data risk is rapidly becoming a key area of focus for banks, many of whom are formalising and uplifting their approach. We observe common challenges, with many banks starting from a position whereby they ...

... do not adequately consider data risk in their taxonomies for non-financial risks

... lack a comprehensive set of data controls in response to the risks; often being siloed due to the lack of a standardised framework across the organisation

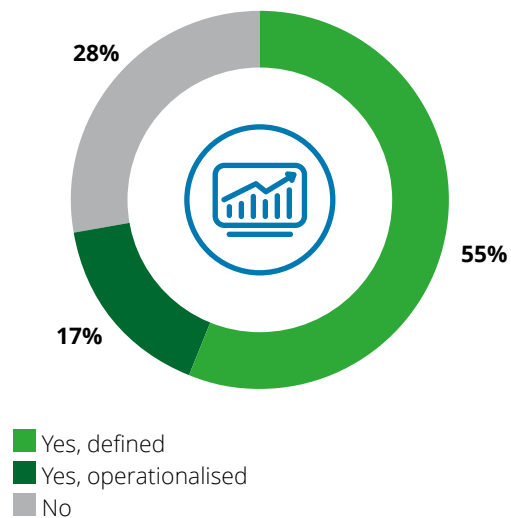
... have yet to define a data risk appetite statement and associated metrics

... are unable to report clearly on their data risk profile as their data is used across complex systems, processes and business functions

... struggle to oversee and properly govern data risk across the data lifecycle.

Whilst some banks have defined their data risk appetite statement (a broad description of the level of data related risk they are willing to accept to achieve their business objectives) less progress has been made around the ability to assess whether data risks are above or below acceptability threshold via set of quantitative metrics for data risk appetite. These metrics typically consider the 'design effectiveness' and 'operational effectiveness' of controls across the data lifecycle.

Fig. 12 – Definition of risk appetite for data quality



The number of DQ risk appetite metrics vary widely, from less than 3 to more than 50. This reflects on the one hand the wide array of size categories and business models of the respondents, but also bring to light that common market practices and a standardised set of metrics as used in other, more established risk types, is just emerging.

The breadth of metrics that survey respondents indicated form part of DQ risk appetite metrics goes beyond solely data quality specific measures, and reflects a recognition by many banks that a broader set of data usage controls is key to mitigating risk and to maintaining the integrity and accuracy of data and reporting.

Fig. 13 - Amount of defined DQ risk appetite metrics

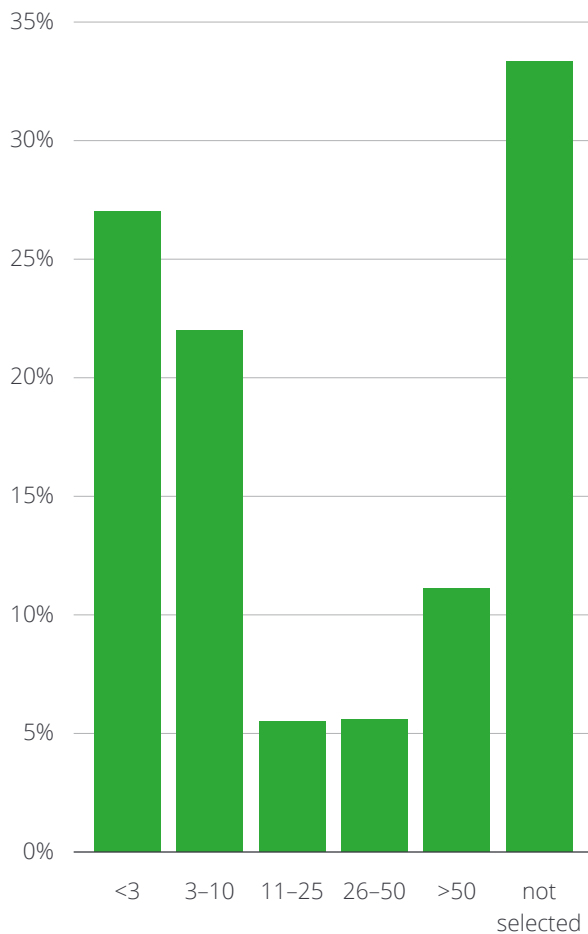
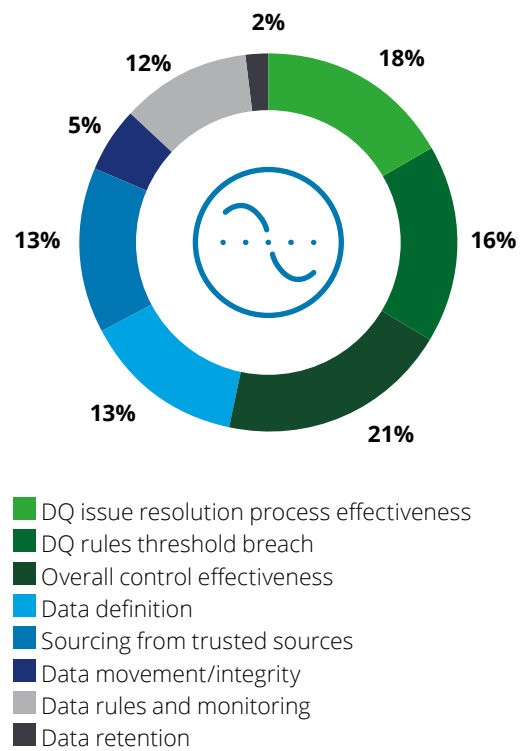


Fig. 14 - What do defined DQ risk appetite metrics cover?





Conclusion

Summary & outlook

To all intents and purposes, banks appreciate the guidance provided by the supervisor, even if the recent on-site inspections and the requirements clarified in the ECB guide have led to large-scale implementation and remediation projects.

Beyond just complying with the regulation, more and more banks have started to manage data as an asset, but also expect tangible returns from all the investments taken so far.

This has become evident as many banks realized that all the promising use cases around (Generative) AI will not deliver on the expectations placed on them without sound data management practices.

Certain areas are still hotly debated, be that certain aspects of the perimeter hitherto not covered by most banks, or coverage and granularity of data lineage for critical data elements. DQ risk management is still in a nascent stage but evolving rapidly.

Even if not at the pace desired by the supervisor, banks are getting closer to living up to the requirements and have also learned to live with BCBS 239.

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