

Feedback statement on responses to the public consultation on the ECB draft Guide on effective risk data aggregation and risk reporting

1 Introduction and summary of industry responses

1.1 Context

The ECB is publishing its Guide on effective risk data aggregation and risk reporting (RDARR) as a further step in its supervisory strategy, the aim being to facilitate substantial progress in achieving sound RDARR governance among supervised institutions.

Preceded by the 2016 Thematic Review on effective RDARR, as well as several on-site inspections (OSI), fire drill exercises and their findings, the Guide outlines a set of priority topics that are preconditions for effective RDARR. The aim is to assist banks in strengthening their capabilities, building on good practices observed in the industry. The Guide intends to specify and reinforce supervisory expectations in this field, taking into account the Basel Committee on Banking Supervision's principles for effective risk data aggregation and risk reporting (the BCBS 239 principles).

On 24 July 2023 the ECB launched a public consultation on the draft Guide and invited public comment on the proposed rules and guidelines. The following topics were addressed: (1) the responsibilities of the management body, (2) sufficient scope of application, (3) an effective data governance framework, (4) integrated data architecture, (5) group-wide data quality management and standards, (6) the timeliness of internal risk reporting, and (7) effective implementation programmes. During the 11 weeks of the public consultation phase any interested parties were given an opportunity to comment. The public consultation ran until 6 October 2023 and the ECB also informed the European Parliament of the public consultation.

To improve the level of understanding of the issues raised by those who commented and to facilitate the discussion with the industry, on 15 September 2023 the ECB held a stakeholders' meeting to address concerns and uncertainties. The online meeting attracted more than 300 attendees, demonstrating the high level of interest in the topic. The ECB gratefully acknowledges the efforts of those who responded to this consultation and their active participation during the stakeholders' meeting.

The questions raised by those attendees who attended the meeting are also covered in this feedback statement.

After carefully considering the comments submitted on the draft Guide, the ECB is publishing a revised version together with this feedback statement. As described in

greater detail below, the feedback statement details the comments received during the public consultation and provides the ECB's answers and clarifications.

1.2 Overview of the responses

The ECB received numerous written responses to the draft Guide from financial institutions and associations, both private and public, and other interested stakeholders. This amounted to a total of 308 comments. The responses addressed all seven sections of Chapter 3 of the draft Guide, as well as many other RDARR-related issues.

In substance, commenters asked for a number of clarifications on the terminology used in the draft Guide, the responsibilities expected of the management body, the allocation and delegation of responsibilities, the data governance framework and the scope of its application, the roles of the central data governance function and independent validation, the granularity of data lineage, the data architecture set-up and many others.

Amendments to the draft Guide have been made, where appropriate, following careful consideration and expert assessment of the comments received.

1.3 Structure of this feedback statement

This feedback statement presents the ECB's assessment of the comments received during the public consultation and aims to provide answers to all matters raised by the industry. In terms of structure, the feedback statement comprises both individual comments and a combined assessment of those comments which relate to the same – or similar – subject matter. With a view to greater clarity and ease of use, as well as ensuring the transparency of the public consultation process, the document also indicates the names of respondents when setting out the respective comments, enquiries and proposed amendments.

Part I of the feedback statement provides a brief overview of the document to familiarise the reader with its background and structure.

Part II of the feedback statement provides a broad description of the comments received and the ECB's answers, along with any amendments to the draft Guide. As stated above, the document lists the most relevant comments separately, along with a summary of grouped comments where multiple respondents sought clarification on the same or similar matters.

2 Consultation responses to the draft ECB Guide on effective risk data aggregation and risk reporting and ECB feedback

Comments on the draft Guide are addressed by chapter and section, following the structure and order of the document.

2.1 Table 1 – Comments on Chapter 1: Introduction

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Inclusion of climate-related data in the scope	<p>Reclaim Finance</p> <p>The respondent pointed out that European banks are expected to comply with ECB supervisory expectations on climate-related risks by 2024. Supervisors have repeatedly underlined the need to accelerate climate integration and to contribute to the broader transition (notably to reduce overall climate-related risks and economic impact). However, the Guide on effective risk data aggregation and risk management does not provide any recommendations that would contribute to this essential movement. Indeed, the Guide only mentions "climate" to underline that members of the management body should have an understanding of climate-related data (paragraph 7 of Section 3.1 of the draft Guide).</p> <p>The specificities of climate-related data – including data gaps and uncertainties and how to address them – are not considered in the Guide, despite the ECB and other supervisors regularly underlining them. On this specific point, it is worth noting that the Network for Greening the Financial System and the ECB have underlined in the past the need for financial institutions to act immediately on climate and climate-related risks using the data that are already available.</p> <p>In parallel:</p> <ol style="list-style-type: none"> 1. The good practices identified by the ECB on climate-related risk in its November 2022 report and the results of the first climate-stress tests have shown the need to identify and gather data on specific activities and sectors that are especially exposed to climate-related risks. 2. The inherent uncertainty tied to climate-related risks – notably because physical risks stem from the impact of climate change that are impossible to accurately predict and could result in tail risk – should also drive central banks and supervisors to target those assets and activities that contribute most to climate change to prevent risks from materialising. <p>Considering the above elements, the Guide should be amended to push banks to gather, aggregate and use available climate-related data, and especially data related to high-risk and high-impact sectors such as the fossil fuel sector. Free-to-use and publicly available databases like the Global Coal Exit List (GCEL) and the Global Oil and Gas Exit List (GOGEL) are essential tools that should be recommended. They are already used by many financial institutions worldwide and some supervisors, including the French Market Authority. The tools provide detailed</p>	<p>The Guide is relevant to all material risks and, therefore, also to material climate-related and environmental (C&E) risks. The ECB has identified climate-related and environmental risks as a supervisory priority for a number of years. The ECB's Guide on climate-related and environmental risks, November 2020, provides and explains a series of expectations on reporting related to C&E risks, based on the EBA Guidelines on internal governance (EBA/GL/2021/05). In this regard, institutions are expected, among other things, to systematically collect and aggregate the data they need to provide their management bodies with risk reports. Such reports assess the impact of climate-related and environmental risks on institutions' business models, strategies and risk profiles in a timely manner.</p> <p>The BCBS's Principles for the effective management and supervision of climate-related financial risks expect institutions' risk data aggregation capabilities and internal risk reporting practices to "account for climate-related financial risks. Banks should seek to ensure that their internal reporting systems are capable of monitoring material climate-related financial risks and producing timely information to ensure effective board and senior management decision-making" (Principle 7).</p> <p>Moreover, the BCBS has also published its Frequently asked questions on climate-related financial risks. The aim of these FAQs is to facilitate a globally consistent interpretation of existing Pillar 1 standards, given the unique features of climate-related financial risks, and should not be interpreted as making changes to the standards. The FAQs cover the calculation of risk-weighted assets for credit, operational and market risk as well as the liquidity coverage ratio.</p> <p>The ECB's Report on the results from the 2022 thematic review on climate-related and environmental risks – Chapter 5 on governance and risk appetite (pp.29-30) – gives an overview of the implementation of supervisory expectations at the time of the thematic review. The report highlights the fact that most banks have recognised the importance of collecting data related to climate risk, providing the management body with at least some climate-related risk information. However, it points out that the collection of granular data and efforts to overcome data gaps are still in their early stages. The ECB's Compendium of good practices on climate-related and environmental risk management includes, in Chapter 4.5 (pp.33-38), a number of examples of good practices for data governance and internal risk reporting,</p>	Yes

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		<p>information on the practices and characteristics of companies active in the coal, oil and gas sector, enabling financial institutions to formulate a clear view of their potential exposure to risks and the impact on climate.</p> <p>Additionally, the Guide should require banks to disclose precise information on the climate-related data, databases and providers they use and rely on and on their plans to increase the quality of the data and mitigate the data gaps identified.</p>	<p>based on the observations from the 2022 thematic review. These good practices cover the three main components of the approaches that institutions are devising to developing reporting frameworks for C&E risks: a data gap analysis, a data collection strategy (including data sources, client questionnaires and third-party providers) and a data management and reporting framework. Among others, the good practices compendium finds that institutions take the BCBS 239 principles as a benchmark for their C&E risk data approach and aim to align their C&E risk data strategy with these principles.</p> <p>In addition, the 2022 climate-risk stress test has provided an opportunity to conduct a stocktake of the practices of climate-relevant data handling and credit risk modelling approaches in the context of climate risk stress testing. It has provided a chance to gain a better insight into data gaps and limitations in banks' climate stress testing capabilities, as highlighted in the ECB's 2022 climate risk stress test report on this topic (Chapter 3.2: "Assessment of banks' current climate risk stress-testing capabilities", pp.21-25). The ECB focuses, in Chapter 3 of its Report on good practices for climate stress testing, on the best approaches developed by the banks to report aggregated risk data reflecting their exposures to climate-related and environmental risks. This report reviews the methods used to collect and approximate banks' financed emissions, pointing up the need for granular data and highlighting the fact that banks should collect data themselves as much as possible, rather than relying only on external data providers. They should also perform cross-checking, prefer actual data whenever they are available and beware of the high heterogeneity of the methodologies used to estimate data. Apart from the data-related aspects, the report also describes good practices for the integration of climate-related risk factors into banks' credit-risk and stress-test models.</p> <p>While it is not in the scope of the Guide to identify RDARR practices specifically for particular risk types, nor to summarise or repeat existing publications, references to the main documents have been included in its final version.</p>	
2	Generic question	Respondent(s) asked why the ECB is issuing this Guide now, in 2023.	Experience in the years following the 2016 Thematic Review and the letters sent to all significant institutions by European banking supervision in June 2019 have shown that there is still room for improvement in the area of risk data aggregation and reporting at institutions within European banking supervision. This has been proven by the Supervisory Review and Evaluation Process (SREP) as well as by part of the outcome of on-site inspections (OSIs), several of which were dedicated to assessing the implementation of BCBS 239 principles. The Guide is published to support the industry in making fast and measurable progress by underscoring and reinforcing the supervisory expectations and standards on selected, priority topics.	No
3	Introduction	KBC Group In the introduction to the Guide, it is stated that "the crucial nature of risk data aggregation was initially observed during the 2008 financial crisis and, more recently, has	The Guide does not seek to prescribe any prioritisation among risk reports, financial reports or supervisory reports. The intention is instead that the indicators and reports defined as material by institutions all adhere to a set of minimum preconditions for	No

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		been highlighted in the various data collection activities". A respondent argued that when significant institutions need to address their shortcomings and develop BCBS 239 roadmaps, it is imperative that their first priority and focus are on ensuring that financial risk and data aggregation processes are compliant first.	effective data aggregation. While the ECB acknowledges that to translate this into implementation programmes, further sequencing and prioritisation will be required, this should be decided by each institution. The ECB does not deem it possible to prescribe this in general in the Guide, as it depends on the specific situation of each institution.	
4	Introduction	KBC Group The respondent suggested it would be beneficial to add some examples of the most important shortcomings.	Examples were added.	Yes
5	Introduction	KBC Group The respondent asked for clarification of the reference group (e.g. 20 participants, of whom five are global systemically important banks (G-SIBS) and 15 domestic systemically important banks (D-SIBS)).	Within the 25 institutions subject to the thematic review, 11 institutions were G-SIBS.	Yes
6	Introduction	KBC Group The respondent asked for an explanation of the contents of the strategy, preferably situating milestones on a timeline.	A reference to the separate publication on European banking supervision priorities was included, containing detailed information on strategy, activities and timelines.	Yes
7	Introduction	KBC Group Respondent emphasised that it would be useful to clarify the focus of the restatement and shed light on the tangible results (e.g. an expectation that financial risk data aggregation and reporting processes are fully compliant by 2026).	The restatement of supervisory expectations focuses on the seven key areas discussed in the respective sections of Chapter 3. These supervisory expectations are "intended to be addressed within a reasonably short time frame" and provide transparency on the ECB's understanding of existing legal requirements, as well as regulatory and supervisory recommendations (general or specific to an institution).	No
8	Terminology	The European Association of Co-operative Banks (EACB), the European Banking Federation (EBF). Respondent(s) noted that the Guide refers, in various instances, to a "RDARR framework" or a "effective data risk aggregation framework" as well as to a "data governance framework". Are these frameworks synonymous, i.e. do they have the same scope of application? It should be clarified that if when data is mentioned, it can be assumed that risk data is always meant.	While the Guide refers to internal risk and financial and supervisory reporting as described in Section 3.2, the term "data governance framework" is used to describe a set of policies that can, at the institution's discretion, apply to a broader range of data. The term is intended to better match the terminology used in institutions in practice. The terms mentioned were used in the draft version as synonyms for "data governance frameworks as it applies to RDARR" and the Guide has been amended for consistent usage of this terminology.	Yes
9	Introduction	EACB, KBC Group Since the Guide enhances the focus on tangible results, the respondent(s) asked for further guidance on how banks could demonstrate tangible results, in addition to the action plan delivered. Some examples of deliverables are the control catalogue, the data quality report with data quality indicator, and the design of data architecture for each relevant risk data aggregation process. It should be clarified, however, whether such deliverables can be sufficient proof of results.	A bank can demonstrate the existence of effective data risk aggregation governance by providing the specific deliverables or the documentation for the arrangements described in Chapter 3. In OSIs and for ongoing supervision, the nature of the evidence requested is further clarified, if needed, on a case-by-case basis.	No
10	Introduction	European Savings and Retail Banking Group (ESBG) Stakeholders remarked that it would be beneficial for the banks to have more granular details on the priority areas. Except for the responsibilities of the management body, the six supervisory expectations identified as priority areas by ECB are appropriate and provide additional specifications for particular sub-topics to be considered in the future.	The draft Guide is indeed intended to further specify supervisory expectations while at the same time being concise, the aim being to keep the time frame banks should address a shortcoming manageable and realistic. Attempts to define expectations with a higher level of granularity may become overly prescriptive, not sufficiently taking the specific situation of each institution into account. More details on various aspects are available in the publications referenced and in applicable industry standards.	No

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11	Introduction	EBF Referring to the last sentence of the introduction to the Guide, which reads "intended to be addressed within a reasonably short time frame", stakeholder(s) asked for elaboration on what may be considered to be a "reasonably short time frame".	Remediation timelines continue to be assessed on a case-by-case basis, depending on the severity of the findings, the persistence of the deficiency and the specific situation and track record of the institution.	No
12	Generic question	EBF Respondent(s) asked whether it is anticipated that the Guide will drive an update to the original BCBS 239 guidance.	The Guide does not intend to replace or update the existing BCBS 239 principles. Instead, it intends to complement them and identify important aspects of their implementation from a banking supervision perspective.	No
13	Generic question	EBF Given the global nature of the BCBS 239 guidance, stakeholders emphasised that they would like to know how their peer global regulatory agencies are being engaged in the dialogue.	ECB Banking Supervision is in active dialogue and engagement with international supervisory authorities, as part of the BCBS and other fora, often complemented by bilateral or ad hoc engagements. The recently published BCBS progress report indicates coherent observations and related international supervisory expectations.	No
14	Consistency with BCBS 239	EBF Respondent(s) was(were) of the view that there is no clarity in the document as to what type of structure is followed in terms of RDARR governance and application in line with BCBS 239. Terms are used differently and this could lead to various interpretations of application and scope.	We intentionally use a structure which is different from the BCBS 239 principles and which we deem to be better suited to allowing targeted engagement by both supervisors and institutions. We have stated that the Guide does not completely cover all RDARR-related issues and have further clarified our understanding of the terms used. Nevertheless, for content and usage of terminology the Guide aims to be consistent with the BCBS 239 principles.	Yes
15	Consistency with BCBS 239	EBF Respondent(s) raised concerns that roles, as defined in BCBS 239 (for instance for senior management or data user), are not complete in the Guide.	The ambition of the draft Guide is not to provide a blueprint or all elements of data governance-related roles, but rather to focus on the most severe deficiencies observed in on-site and ongoing supervision. Institutions are expected to consider this Guide in conjunction with the BCBS 239 principles. Clarification will be provided in the final version of the Guide.	Yes
16	Consistency with BCBS 239	EBF Respondent(s) pointed out that the draft Guide does not have a proper structure (e.g. in terms of reporting). It covers only timeliness of reporting while it should cover all the elements of risk and finance reporting (accuracy, clarity and usefulness, distribution).	Specifically related to reporting, we focus on timeliness as it is among the most frequently observed deficiencies in on-site and ongoing supervision. Institutions are expected to consider this Guide in conjunction with the BCBS 239 principles. Clarification will be provided in the final version of the Guide.	Yes
17	Consistency with BCBS 239	EBF Respondent(s) argued that the governance part is also not clear in the Guide. It is a mix of data governance and other BCBS 239-related roles. These should be risk governance, reporting governance and data governance as all three contribute to RDARR governance. Some stakeholders commented that the name of the paper is "Guide on effective risk data aggregation and risk reporting" but it is not very consistently applied as in some chapters it refers only to the data governance framework. Paragraph 2 and beyond in Section 3.2 talks about data framework application rather than RDARR. This is not fully correct as when banks define the scope of application they also need to apply processes, controls and quality checks on the reports and the risk aggregation. Referring only to the data framework does not include the complete BCBS 239 framework.	We see data governance as a broader term than RDARR and use it in the sense of the data governance framework that applies to RDARR (and also possibly to other data at institutions' discretion). Hence, we see data quality and governance as a part of the overall risk management framework.	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
18	Scope of application	EBF Respondent(s) asked on what basis and requirements less significant institutions will be held accountable and to what extent they are subject to the contents of this Guide. They asked for a more precise definition of the scope of application of the Guide (e.g. whether it is applicable to G-SIBs/D-SIBs only or whether it could be applicable to other banks that are also subject to the SREP.	The Guide is relevant to all significant institutions. In essence it is correct that BCBS 239 is directed mainly at G-SIBs and D-SIBs. However, BCBS 239 also states that "national supervisors may nevertheless choose to apply the Principles to a wider range of banks, in a way that is proportionate to the size, nature and complexity of these banks' operations". European banking supervision sees a clear benefit for smaller significant institutions in following the BCBS 239 standards. They would have a clear scope and good governance of their risk data aggregation and reporting, providing a clear level playing field. The Guide will be considered in a proportionate manner to reflect the nature, scale and complexity of the credit institution's operations and risk profile.	No
19	Scope of application	EBF Respondent(s) noted that although the Guide often refers to scope as risk data, it also implies that, for example, regulatory reporting falls within scope. However, the scope in BCBS 239 (paragraph 18) refers only to risk data and states that "banks may also benefit from applying the Principles to other processes, such as financial and operational processes, as well as supervisory reporting". The word "may" in this paragraph seems to have been replaced by "must" in the current Guide. If this interpretation is correct, then this could be phrased more clearly. If this interpretation is incorrect, and the scope is in fact "risk data", could that be explicitly stated?	The scope is described in Section 3.2 and is threefold: (i) internal risk reports, financial reports and supervisory reports, (ii) key internal risk management models, and (iii) key risk indicators. Indeed, as communicated in the letter titled "Supervisory Expectations" and sent to all significant institutions in 2019, it is the ECB's expectation that regulatory and financial reporting are to be included within the scope of RDARR. It should be noted that it is up to each institution to define the exact scope based on materiality and the institution's specific situation.	Yes
20	Imposition of new requirements	EBF Respondent(s) raised concerns about the imposition of new requirements on the institutions once the Guide comes into force. They referred to the last paragraph of the Guide which suggests that it does not impose new requirements. However, in other sections some "minimum" requirements have been suggested or the word "prerequisites" has been used.	The supervisory expectations formulated in the draft Guide are intended to describe what is, in the ECB's understanding, necessary for effective RDARR under the applicable legal framework. This by no means excludes institutions from establishing more sophisticated approaches. Such best practices were a major focus area of the 2018 Report on the Thematic Review on RDARR. However, these expectations do not set new requirements. Rather, the Guide provides the ECB's understanding of the applicable law and existing supervisory practices already applied in day-to-day on-site and ongoing supervision. The expectations are meant to consolidate and clarify important priority topics. Therefore, the publication should not be taken by banks as an opportunity to reset the clock, but rather as further guidance to identify gaps and achieve observable progress in closing them.	Yes

2.2

Table 2 – Comments on Chapter 3, Section 3.1: Responsibilities of the management body

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Concept of management body	EBF, EACB, German Banking Industry Committee, DZ BANK AG, UniCredit Spa	The term "management body" refers to recital 56 and Article 3(1), paragraphs 7-8 of CRD IV and Title II of the EBA Guidelines on internal	Yes

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		<p>A number of respondents asked for a definition of the term "management body" as a lack of clarification may lead to interpretational issues for Joint Supervisory Teams and OSI teams. Some also raised concerns that a wide interpretation of the concept of management body could mean the management body in its supervisory function and/or its management function.</p> <p>Respondent(s) requested clarification as to which requirements relate to the management board and which to the supervisory board. Respondent(s) requested an explanation of how responsibilities are expected to be allocated in one-tier and two-tier systems.</p> <p>Some respondents asked for explicit clarification that the distribution of responsibilities between the management body in its supervisory and its management functions depends on the corporate structure and the internal governance of each bank, in the same way as set out in the guides on ICAAP and ILAAP: "The management body comprises a supervisory function and a management function that may be performed by a single body or two separate bodies. Which key elements of the ICAAP are approved by which function depends on the internal governance arrangements of the institution. This will be interpreted by the ECB in accordance with national regulations and in line with relevant Union law and EBA guidelines" (paragraph 16 of the ECB Guide on ICAAP).</p>	<p>governance (EBA/GL/2021/05). The Guide does not advocate for any particular governance structure and is intended to embrace all existing structures. The management body comprises a supervisory function and a management function that may be performed by either a single body or two separate bodies in accordance with the governance structures foreseen in national company law. Which key elements of RDARR are under the responsibility of which management body function depends on the national laws, internal governance arrangements and governance structure of an institution.</p> <p>Without prejudice to the responsibilities assigned under applicable national company law, we expect the management body to assume its overall responsibility for the data governance framework, meeting the minimum standards outlined in the Guide. In particular, the management body in its management function should be responsible for the definition and implementation of RDARR, while the management body in its supervisory function should oversee and monitor the effective implementation of RDARR. Clarification and further guidance will be included in the final version of the Guide.</p> <p>This will be assessed on a case-by-case basis by the ECB in accordance with national regulations and in line with relevant Union law and EBA guidelines.</p>	
2	Allocation of responsibilities	<p>EBF</p> <p>Respondent(s) asked whether the following responsibilities of the management body are under the remit of senior management:</p> <ul style="list-style-type: none"> - (a) "setting detailed requirements for data quality"; - (b) "overseeing, prioritising and monitoring key deliverables within the agreed timelines of the remediation programmes"; - (c) "setting clear roles and responsibilities for RDARR within the business organisation". 	<p>The responsibilities quoted should stay with the management body. Paragraph 19 of EBA/GL/2021/05 states: "In accordance with Article 88(1) of Directive 2013/36/EU, the management body must have ultimate and overall responsibility for the institution and defines, oversees and is accountable for the implementation of the governance arrangements within the institution that ensure effective and prudent management of the institution." We understand senior management as an executive function which is responsible and accountable to the management body, in accordance with Article 3(1)(9) CRD. The above-listed responsibilities are under the responsibility of the management body and not senior management. This view is in line with the responsibilities of the management body stipulated by EBA/GL/2021/05 on internal governance.</p> <p>(a) "setting detailed requirements for data quality": reference is made to paragraph 31 of BCBS 239: "[...] a bank's board is responsible for determining its own risk reporting requirements and should be aware of limitations that prevent full risk data aggregation in the reports it receives".</p> <p>(b) "overseeing, prioritising and monitoring key deliverables within the agreed timelines of the remediation programmes": reference is made to paragraph 31 of BCBS 239 "the board should also be aware of the bank's implementation of, and ongoing compliance with the Principles set out in this document" and paragraph 27 of EBA/GL/2021/05 "The management body should monitor, periodically review and address any weaknesses identified regarding the implementation of processes, strategies and policies related to the responsibilities listed in Paragraphs 22 and 23".</p>	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
3	Allocation of responsibilities	<p>ESBG</p> <p>Respondent(s) commented that details on best practices are not shared in significant detail.</p> <p>Respondent(s) asked to share best practices. Greater transparency on expectations is needed to execute the programmes in a cost-effective manner. There is a high need for discussion with the ECB and the industry of possibilities for sharing and exchanging views.</p>	<p>(c)"setting clear roles and responsibilities for RDARR within the business organisation": reference is made to paragraph 68 of EBA/GL/2021/05: "The management body of an institution should ensure a suitable and transparent organisational and operational structure for that institution and should have a written description of it" and paragraph 22(c) "The management body's responsibilities should include setting, approving and overseeing the implementation of: an adequate and effective internal governance and internal control framework, as defined in Title V, that includes a clear organisational structure".</p> <p>The supervisory expectations formulated in the draft Guide are intended to assist institutions in respect of preconditions for effective RDARR. The Guide does not provide best practices – these were a main focus area of the 2018 Report on the Thematic Review and have been covered in several BCBS progress reports. Rather, the Guide aims to explain how, in the ECB's view, the applicable framework sets a minimum for effective RDARR. Best practices and various other aspects related to RDARR are publicly available in multiple publications referenced and in applicable industry standards. In general, supervisors are aiming to complement – but cannot substitute – industry collaboration and knowledge exchange.</p>	No
4	Delegation	<p>ESBG, UniCredit Spa</p> <p>With reference to paragraph 3.1.3, respondent(s) sought further clarification on how the requirement should be implemented. For example, should one of the members "responsible for RDARR" have any formal entitlement and what is the expected frequency or rotation of duties? Some respondents asked whether institutions should identify a supervisory manager with similar duties to those of a RDARR manager. In addition, some respondents were concerned that asking "the management body to select at least one of its members to exercise this responsibility" unduly limits the self-organising capacity of credit institutions. This might lead to a lack of global vision, with unintended fragmentation.</p> <p>Respondent(s) asked to be allowed greater flexibility in determining the responsibility of members of the management body. This would allow it to adapt to the different models of corporate governance in Europe. In this regard, they suggested deleting the reference to the individual responsibility of individual members of the management body.</p> <p>Regarding the last paragraph of Section 3.7, respondent(s) indicated that selecting one or more members of the management body as responsible – considered individually – for adherence to the BCBS 239 principles and for the consideration of any potential limitations that might prevent full risk data aggregation in technical or legal terms would be to the detriment of management body responsibility as a whole. It does not seem appropriate as it would lack global vision, leading to unintended fragmentation, and would unduly limit the self-organising capacity of credit institutions.</p> <p>Greater flexibility should be introduced in determining the responsibility of the members of the management body. This would enable</p>	<p>Generally, BCBS 239 is a bank-wide topic that provides for collective management body accountability and responsibility. It has been observed that the selection of one or two specific member(s) of the management body in its management function for RDARR facilitates the implementation of the framework and ensures that sufficient attention is devoted to data governance at the management body level. Appointing the CRO – or the CRO together with the CFO – as responsible persons is seen as a pragmatic solution (if at the management body level). In those cases where it is not possible to appoint a member of the management body in its management function, one or two senior manager(s) may be appointed if they have a direct reporting line and access to the management body in its management function.</p> <p>To further enhance accountability, the Guide specifies that this accountability should be exercised by one or two persons.</p> <p>In those rare circumstances where the management body delegates the executive function to a single person, it is seen as adequate to appoint a senior manager as the head of the risk management function to exercise responsibility for implementing the data governance framework.</p> <p>Such delegation does not in any way discharge the management body from its collective responsibility. In line with general governance arrangements, the effectiveness of the institution's internal data governance framework should be periodically and independently assessed.</p>	Yes

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		<p>it to adapt to the different models of corporate governance in Europe.</p> <p>Respondent(s) therefore requested the deletion of the reference to the individual responsibility of individual members of the management body in this regard.</p> <p>Respondent(s) suggested including "at least one member of the management body (or a member of senior management)" instead of just "at least one member of the management body".</p>		
5	Delegation	<p>German Banking Industry Committee, Association for Financial Markets in Europe (AFME), EBF, ESBG</p> <p>Respondent(s) asked for clarification as to whether the expectation in paragraph 3.1.4 "setting clear roles and responsibilities for RDARR within the business organisation (including relevant committees), as well as particular roles and responsibilities described in Section 3.3", implies the existence of specific committees (focused on RDARR), or other committees (not specifically focused on RDARR), to address RDARR-relevant topics.</p> <p>Respondent(s) asked for clarification as to whether individual members or committees can fulfil the tasks and roles described. Some respondents stressed that the management body of large and complex institutions should be allowed to delegate the most operational and non-strategic tasks to other organisational functions.</p> <p>Stakeholder(s) also commented, in this regard, that delegated bodies already exist for some of the tasks and responsibilities mentioned. It is unclear whether such a practice may be considered compliant. In addition, it is unclear whether the aforementioned tasks can be performed by individual members of the governing bodies or whether this must be done by the entire governing body.</p>	<p>This question refers to aspects of general governance and is not specific to RDARR. Delegation is generally considered to be adequate. Board committees such as the risk committee should support and advise the management body in specific areas and should facilitate the development and implementation of sound internal governance and data governance frameworks. Institutions should ensure there is a clear allocation and distribution of duties and tasks between specialised board committees.</p> <p>In line with Title III of EBA/GL/2021/05, the management body of an institution should ensure that a suitable and transparent organisational and operational structure is in place. This structure should promote and demonstrate the sound and prudent management of an institution. The reporting lines and the allocation of responsibilities should be clear, well defined, coherent, enforceable and appropriately documented.</p> <p>The Guide is intended to embrace all existing internal governance structures. Therefore, the setting of roles and responsibilities cannot be assessed generally, but should be done case-by-case for a specific institution.</p> <p>It goes without saying that delegation to committees does not in any way release the management body, in its supervisory function, from collectively fulfilling its duties and responsibilities. In fact, BCBS 239 is a bank-wide topic which provides for collective management body accountability and responsibility.</p>	No
6	Delegation	<p>AFME</p> <p>Respondent(s) are of the view that the draft Guide requires the management board to deal with risk reporting at a very granular level of detail. The Guide should allow the management board to rely on subject matter experts in this regard. The required level of detail also seems to be a hindrance to enabling the management board to focus exclusively on crucial BCBS 239 matters.</p>	<p>A priori, and in line with EBA/GL 2021/05, the management body should devote sufficient time to risk matters and risk management issues. As risk reports should contribute to sound risk management and decision-making by the management body, it is imperative that the management body determines its own reporting requirements, including data quality requirements.</p>	No
7	Responsibilities of the management body	<p>EBF</p> <p>Respondent(s) referred to paragraph 3.1.2 of the Guide which imposes responsibility on the management body for setting detailed "key performance indicators for monitoring data quality". However, in the following section there is also a requirement to set "key (risk) indicators for data quality". In this respect, respondent(s) asked for clarification as to whether there is a difference between key performance indicators (KPIs) and key risk indicators (KRIs) in this guidance document.</p>	<p>The management body should be aware of any limitations that prevent full data aggregation in the reports it receives. This includes the setting of indicators to measure data quality which are called "key performance indicators" in this context. In addition, an institution should set KRIs in order to monitor data quality risks in relation to its risk appetite framework. However, this relates to general aspects of risk management and is not specific to RDARR.</p>	No
8	Terminology	<p>ESBG</p> <p>Stakeholder(s) asked for clear differentiation between "accountability" and "responsibility". Accountability, for these topics, certainly rests with board members but responsibilities need to be delegated top down.</p>	<p>Responsibility involves performing and managing a task, while accountability goes further: it involves owning the results and taking the initiative to ensure success. Therefore, a board member may be accountable for something (e.g. overseeing the bank data framework) even if the</p>	Yes

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			responsibility for implementing that framework lies with some other individuals at lower levels of the organisation. Of course, the management body is responsible for overseeing the strategy and controls of the bank and cannot delegate that responsibility.	
9	Adequacy of resources	<p>EBF</p> <p>Respondent(s) asked for clearer guidance on the management body's duty "to ensure that adequate resources are dedicated to RDARR". They asked for details of criteria, metrics and/or a specific ratio through which a bank can determine the adequacy of its resources.</p>	<p>RDARR requires not only human but also material and technical resources. However, institutions are responsible for determining and assessing their own governance arrangements. There is no one-size-fits-all approach – governance arrangements depend greatly on aspects such as the business model and the risk environment. Therefore, the ECB cannot provide a general statement on the adequacy and assessment of resources. It is the responsibility of the institution to perform an adequate analysis tailored to the needs and specificities of that institution, including the definition of the relevant KRIs and KPIs.</p> <p>For this reason, the Guide neither discusses nor prescribes the precise budget and investment needed. It focuses instead on the effectiveness of existing governance and recent and ongoing implementation programmes. Banks are expected to invest enough to effectively execute their ongoing implementation programmes and to remedy existing deficiencies. Budget amount depends on the complexity of the existing IT infrastructure and its level of maturity. The ECB will assess this on a case-by-case basis in day-to-day supervision (e.g. by using benchmarking as the basis for supervisors to compare the resources available).</p>	No
10	Responsibilities of the management body	<p>EBF, German Banking Industry Committee</p> <p>Respondent(s) challenged the data quality characteristics listed in paragraph 3.1.2, which reads "in terms of accuracy, completeness, timeliness and adaptability". While accuracy, completeness and timeliness are characteristics of the data and can be monitored as part of a data quality management process, adaptability is an overall characteristic of an institution's risk data aggregation capabilities and cannot be monitored as data quality.</p>	<p>The ECB agrees that adaptability is not a dimension of data quality and cannot be monitored in the same way as can, for example, completeness. Adaptability is therefore more a capability.</p>	Yes
11	Responsibilities of the management body	<p>Raiffeisen Bank International AG</p> <p>Respondent asked for an indication as to whether the requirement "ensuring the implementation of the policies and standards for RDARR at the group level" in paragraph 3.1.5 includes a central independent validation.</p>	<p>The management body should ensure the implementation of the policies and standards for RDARR at the group level. This implies a central coordination at the group level.</p>	No
12	Responsibilities of the management body	<p>ESBG, German Banking Industry Committee</p> <p>Respondent(s) raised doubts over the expectation outlined in paragraph 3.1.6 in relation to "confirming the report's meaningfulness". The concern was that, unlike internal risk reports, some supervisory and financial reports can have pre-defined structures and content, leaving limited room for any assessment of their meaningfulness and balance in terms of qualitative and quantitative information. This also applies to Pillar 3 disclosure. Furthermore, it was pointed out that supervisory reporting is not necessarily used for decision making, steering banks' business or risk appetite.</p>	<p>The final version of the Guide will be amended. Due to the pre-defined structure and content of some supervisory and financial reports, a management body assessment is not expected for all reports.</p>	Yes
13	Responsibilities of the management body	<p>UniCredit Spa</p> <p>With reference to paragraph 3.1.7, respondent(s) suggested amending the wording of the Guide as follows:</p>	<p>The supervisory expectations included in the current draft Guide neither replace nor change anything from the process and approach presented in the existing ECB Guide on fit and proper assessment. In this regard they apply to both functions of the</p>	No

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		<p>"the management body (specified in which function) of each significant institution is responsible for the following:</p> <p>"Ensuring that members of the management body and internal control functions, including the heads of risk management, compliance and audit, have a sufficient understanding of data management, IT and financial and non-financial risks as well as the related data and reporting requirements."</p> <p>In the respondents' view the Guide is not clear as to which of the two functions of the management body the document refers to. It is not clear in which of its two functions the management body should ensure its own members have sufficient knowledge.</p> <p>Moreover, this repetitive provision "the management body should ensure members have sufficient skills and experience in those same areas" also seems doubtful.</p>	<p>management body, taking role-specific and institution-specific factors into consideration.</p> <p>It does not seem appropriate to create an expectation that this is the competence specifically allocated to the management body in the management function or to the management body in the supervisory function.</p>	
14	Responsibilities of the management body	<p>UniCredit Spa</p> <p>Respondent(s) commented that paragraph 3.1.7 lacks sufficient detail for effective application. Who is in charge to review, on an ongoing basis, that the knowledge, skills and experience of the management body's members in relation to data management, IT and financial and non-financial risks, as well as the related data and reporting requirements, are when assessing the overall suitability of each member?</p>	<p>The institution is primarily responsible for ensuring an appropriate governance setting. Supervisory expectations set out in the Guide should be taken into account on an ongoing basis in the institution's internal governance arrangements.</p>	No
15	Responsibilities of the management body	<p>AFME</p> <p>Respondent(s) raised doubts about misinterpretation in the Guide of both the scope and the independence of internal audit. The task of internal audit is, among other things, to monitor the RDARR capabilities of the management board, not the other way around. Instead, the Guide implies that the management board should monitor internal audit. This cannot be reconciled with the "three lines of defence" model.</p>	<p>The expectation is that the internal audit function, as a third line of defence, assesses and provides independent reviews regarding the RDARR capabilities of the institution as implemented in management oversight.</p>	No
16	Suggested amendment	<p>KBC Group</p> <p>The respondent suggested amending Section 3.1 of the Guide on the management body responsibilities as follows:</p> <p>"[...]the management body must oversee the implementation of the institution's strategic objectives, risk and data strategy and internal governance".</p> <p>The draft Guide reads: "[...] the management body must oversee the implementation of the institution's strategic objectives, risk strategy and internal governance."</p>	<p>Oversight and monitoring are key responsibilities of the management body, according to EBA/GL/2021/05. This comment refers to general governance and is not specific to RDARR.</p>	No
17	Suggested amendment	<p>KBC Group</p> <p>The respondent suggested amending Section 3.1 of the Guide on the management body responsibilities as follows:</p> <p>"[...] as well as regularly assessing RDARR capabilities in relation to the best practices described in the BCBS 239 principles and Basel's publications on Progress in adopting the "principles for effective risk data aggregation and risk reporting."</p> <p>The draft Guide reads: "as well as regularly assessing RDARR capabilities in relation to the best practices described in the BCBS 239 principles."</p>	<p>Annex 1 refers to the BCBS' progress reports: "As such, the reports issued recommendations to institutions for continuing their implementation efforts, as well as recommendations to supervisors monitoring their progress."</p>	No
18	Suggested amendment	<p>KBC Group</p> <p>The respondent proposed amending the term "the management body" to "the executive management body" in order to help institutions interpret the text of the Guide.</p>	<p>The management body of an institution, irrespective of its internal governance arrangements, is assumed to be collectively responsible for RDARR. The term "management body" is defined in Article 3(1) CRD and comprises both a supervisory</p>	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			function and a management function in order to cover one-tier and two-tier systems. Responsibilities for BCBS 239 can therefore be allocated to the supervisory and/or the management function, depending on national company law.	
19	Suggested amendment	EBF Respondent(s) proposed amending paragraph 3.1.3 as follows: "The management body in its management function should select at least one of its members to exercise this responsibility or select a member of senior management to exercise this responsibility".	Clarification will be included in the final version of the Guide. In line with paragraph (9) of Article 3(1) CRD "senior management" means those natural persons who exercise executive functions within an institution and who are responsible and accountable to the management body. However, the management body in its management function should be responsible for the definition and the implementation of the data governance framework. A set of conditions under which senior management can exercise this responsibility are included in the Guide.	Yes
20	Suggested amendment	German Banking Industry Committee Respondent(s) noted that the same requirement "...establish the institution's own view of what it means to be adherent to the BCBS 239 principles" was repeated in paragraphs 3.1.3 and 3.1.2.	In the final version of the Guide this expectation remained in paragraph 3.1.3 and was subsequently deleted from paragraph 3.1.2.	Yes
21	Suggested amendment	EBF Respondent(s) proposed redrafting the sentence in paragraph 3.1.6 to include "monitoring" instead of "confirming".	"Confirming" is in line with paragraph 69 of Principle 9 of the BCBS principles.	No
22	Scope of application	Enterprise Data Management Council Respondent(s) asked for clarification as to the field of application of the assessment of the knowledge, experience and skills of members of the management body and, when the assessment is required by national law, key function holders. With regard to the requirement relating to "knowledge and skills in the field of data management" and "undertaking regular training" respondents recommended incorporating a mention in the text of training and certification within a well-recognised cross-industry data management framework.	According to the Joint European Securities and Markets Authority (ESMA) and EBA Guidelines on the assessment of suitability of members of the management body and key function holders, members of the management body should have an up-to-date understanding of the business of the institution and its risks, at a level commensurate with their responsibilities. This also includes an appropriate understanding of those areas for which an individual member is not directly responsible but is collectively accountable, together with the other members of the management body. Given the changing and developing market and social environment in which institutions operate today, more areas of knowledge and experience should be covered both individually and collectively by an institution's management body so that members can fulfil their duties prudently and efficiently.	No
23	Interplay with the ECB Guide on fit and proper assessments	EBF Respondent(s) asked the ECB to clarify the interplay between the current draft Guide and the ECB Guide on fit and proper assessments.	The supervisory expectations included in the current draft neither replace nor change anything from the process and approach presented in the existing ECB Guide on fit and proper assessments. Also, to ensure consistency between the ECB Guide on fit and proper assessments and the draft Guide on RDARR and to avoid duplications, the latter highlights the importance of members of the management body having sufficient knowledge, skills and experience both individually and collectively (e.g. knowledge of data management, information technology, and financial and non-financial risks, as well as of the related data and reporting requirements). The institution is primarily responsible for identifying gaps in collective suitability and ensuring that appropriate measures are taken to address such gaps in a timely and effective manner. There is, therefore, an expectation that institutions will take these requirements into account when performing a self-assessment of the collective suitability of management body members in the area of governance and information	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			technology, as stipulated in the ECB Guide on fit and proper assessments.	
24	Scope of application	<p>Respondent(s) asked for clarification as to (i) whether the supervisory expectations in the area of board suitability are addressed to the management body in its management function, to the management body in its supervisory function or both, (ii) does ECB expect banks to conduct a formal assessment of the members of the management body in both its management and its supervisory function, collectively and individually, and (iii) to whom expectations should be addressed with regard to ensuring that the knowledge, skills and experience of the members of the management body, relating to data management, IT and financial and non-financial risks, as well as the related data and reporting requirements, are taken into account when assessing the suitability of members of the management board.</p> <p>Respondent(s) asked for an illustration of how to implement this principle using the best-in-class banks as an example.</p>	<p>Institutions are primarily responsible for ensuring that the members of the management body are both individually and collectively able to perform their duties adequately and efficiently. In practice, this means that there should be a formal assessment process conducted by banks at different stages of members' selection and appointment.</p> <p>The supervisory expectations included in the Guide do not replace or change anything from the process and approach presented in the existing ECB Guide on fit and proper assessments. In this regard they are relevant to both functions of the management body, taking into consideration role-specific and institution-specific factors.</p>	No

2.3

Table 3 – Comments on Chapter 3, Section 3.2: Sufficient scope of application

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Scope of application	<p>German Banking Industry Committee</p> <p>Respondent(s) claimed that the title of the Guide is misleading as the document is called "Guide on effective risk data aggregation and risk reporting". However, the scope of application is extended to financial and supervisory reports.</p>	<p>The aim of the BCBS 239 principles is to strengthen risk data aggregation capabilities and internal risk reporting practices and, therefore, to enhance risk management and decision-making processes at the institutions. Furthermore, BCBS 239 considers that other processes, such as financial and supervisory reporting, could also benefit from applying these principles. In this regard, the ECB also uses the BCBS 239 principles as a benchmark of the best practices in its supervisory activities. Therefore, as the purpose of the Guide is to reinforce existing supervisory expectations for RDARR, the supervisory expectations of the data governance framework should cover data used for risk, supervisory and financial reporting.</p> <p>See also Table 1, question 19 above.</p>	No
2	Scope of application	<p>EBF</p> <p>Respondent(s) commented that although BCBS 239 is focused on risk data aggregation, the scope of application mentioned in Section 3.2 indicates going beyond this. For example, the scope of application for a "data governance framework" is specifically described. Respondent(s) asked whether this deliberately goes beyond risk data. Furthermore, they asked the ECB to confirm that no organisational change is expected to specifically cover data issues, since overlaps in the coverage of data-related risk would be likely.</p>	<p>BCBS 239 considers that other processes, such as financial and supervisory reporting, could also benefit from applying RDARR principles. In this regard, the ECB uses the BCBS 239 principles as a benchmark of the best practices in its supervisory activities. Therefore, as the purpose of the Guide is to reinforce existing supervisory expectations for RDARR, the scope of application of the data governance framework should cover data used for risk, supervisory and financial reporting. In this regard, it should be emphasised that this should be considered a proportionate way of reflecting the nature, scale and complexity of the institution and its risk profile, while also considering existing processes and control mechanisms to ensure</p>	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			the quality of data throughout the Group (e.g. data on financial reporting processes, among others). See also Table 1, question 19.	
3	Scope of application	<p>ESBG, German Banking Industry Committee</p> <p>Respondent(s) asked for clarification as to the interplay between BCBS 239 and the Guide, in particular as to how the requirements of Principles 8-11 should be applied to reports whose structures and contents are largely externally prescribed. This includes, for example, reports on supervisory stress tests, supervisory and financial reports and financial reporting (FINREP)/common reporting framework (COREP) templates, all of which are referred to as BCBS 239 relevant.</p> <p>The scope should go beyond risk data/reports, although some BCBS 239 assessments may not be fully applicable to reports already fully regulated by supervisory standards (in terms of time of production, level of details, templates etc.), which are very different from managerial report production.</p>	<p>According to paragraph 18 of BCBS 239, "Principles apply to a bank's group risk management processes, however, banks may also benefit from applying the Principles to other processes, such as financial and operational processes, as well as supervisory reporting."</p> <p>The ECB acknowledges that for regulatory and supervisory reports certain principles, such as frequency or clarity and usefulness, are not applicable because they are pre-defined by regulators and/or supervisors. However, the principles related to overarching governance and infrastructure and risk data aggregation capabilities are expected to be applied, not only to internal risk data but also to data used for financial and supervisory reporting.</p> <p>The ECB also considers that external reporting processes and systems could benefit from following BCBS 239 and makes use of the BCBS 239 principles as a benchmark of the best practices in its supervisory activities. For supervisory reporting we expect banks to take into account Principles 1 to 7 of the BCBS 239 as the Guide focuses on the main areas of governance, data architecture and risk data aggregation capabilities within the BCBS 239 principles. This approach reflects the most severe deficiencies observed in ongoing supervision and the current campaign of OSIs. It focuses on how banks are expected to enhance RDARR.</p> <p>See also Table 2, question 12 above.</p>	No
4	Scope of application	<p>EBF, ESBG</p> <p>Respondent(s) claimed that the scope enlargement is extensive and should therefore be done step by step. It should include proper strategic planning at the level of the banks and should also consider the as-is status of BCBS 239 implementation.</p> <p>A gradual approach would guarantee sound implementation over time, during which feedback loops could be considered. Scope enlargement at high speed entails further implementation risks because feedback-return effects cannot be considered. A mature system cannot be enforced at once in one implementation phase but needs to mature over time.</p>	<p>The purpose of the Guide is to describe the prerequisites which, in the ECB's view, the currently applicable law requires as a minimum from institutions with regard to RDARR. Therefore, the Guide does not impose any new supervisory expectations, including requirements.</p> <p>Furthermore, Section 3.7 of the Guide contains expectations as to how implementation programmes could be managed effectively. The aim is to assist institutions in strengthening their risk data aggregation capabilities and risk reporting practices.</p> <p>See also Table 1, question 20 above.</p>	No
5	Scope of application	<p>KBC Group</p> <p>Respondent claimed that there is a lack of clarity as to the exact scope of the targeted data. In the broadest interpretation this can mean all data. However, institutions need to make plans and set priorities. The goal is that the whole institution complies, so all data should comply in the most strict interpretation. Best is to leave no room for interpretation in case this is the ECB's stance.</p> <p>Respondent suggested clarifying whether data used for commercial decision making or data that are used for customer model predictions (such as an offer on a specific moment in the life of the customer) also fall within scope.</p>	<p>The exact scope of supervisory expectations is detailed in Section 3.2 of the Guide. It is up to institutions to define the scope of application in a proportionate manner, taking the nature, scale, complexity and risk profile of the institution into consideration. In this regard, the Guide contains supervisory expectations but scope should be defined on a case-by-case basis.</p> <p>The examples mentioned could be part of the scope if the same data are used for risk, supervisory or financial reporting purposes (as well) and the institution has identified the data as a key risk indicator or an underlying critical data element.</p>	No
6	Scope of application	EBF	Institutions that have existing processes and control mechanisms that manage data quality throughout the group (e.g. on financial and	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		Respondent(s) sought clarification as to whether reports and models are expected to be in the scope of a data governance framework or a dedicated risk reporting framework.	supervisory reporting processes) should ensure alignment with the data governance framework and integration within the institution's governance arrangements. In this regard the Guide does not prescribe how this should be implemented by institutions as it depends on the specificities, size, complexity and risk profile of each institution. See also Table 1, question 8.	
7	Scope of application	Respondent asked the ECB to share a list of minimum requirements for risk metrics, data pillars and/or supervisory reports that should be included within the scope of the BCBS 239 implementation programmes. This would ensure similar approaches across the industry.	The Guide does not seek to put in place a pre-defined list of prescriptive expectations. Instead, it aims to provide the ECB's view of the minimum requirements included in the existing legal framework. The Guide does not seek to move a supervised entity towards a specific approach to RDARR.	No
8	Scope of application	Respondent commented that the Guide does not foresee any connection to the risk profile of an individual bank. Throughout the whole Guide there is no mention that supervisors have to align their scope, especially with the risk profile of each individual bank.	The Guide states, in Section 2, that the principle of proportionality is applied. Institutions should therefore define their own data governance framework, taking the nature, scale, complexity and risk profile of the institution's operations into consideration. However, to provide more clarity in this regard, an additional paragraph stresses that this will be included in the final version of the Guide.	Yes
9	Scope of application	KBC Group The respondent suggested that the Guide should state clearly that the focus should be, first and foremost, on financial risk data aggregation and reporting.	The Guide does not intend to prescribe any prioritisation between risk reports, financial reports and supervisory reports, and between financial and non-financial risks.	No
10	Scope of application	EBF, AFME Stakeholder(s) asked for the clarity of expectations to be improved. Is the focus on the risk data aggregation report or a collection of key risk figures?	Institutions are responsible for defining the scope of application of the data governance framework both in terms of reports and in terms of risk indicators. This scope in terms of reports could include, beyond the minimum elements described in Section 3.2, point 1 of the Guide, any other reports deemed critical for risk management and steering purposes. Further clarification will be included in the final version of the Guide as to which expectations are relevant for reports and which expectations focus specifically on indicators. See also Table 3, question 18, Table 4, question 17 and Table 5, question 13.	Yes
11	Terminology	EACB, German Banking Industry Committee, DZ BANK AG Paragraph 2 of Section 3.2 reads: "the data governance framework of an institution should clearly define and document the scope of application and specify the reports, models, risk data and indicators that are included; the data and critical data elements should also be explicitly identified". Respondent(s) asked for the meaning of the terminology to be clarified. The difference between "risk data" in the first sentence and "the data" and "critical data elements" in this sentence is not entirely clear. Does the second sentence include any additional requirements?	The terminology used will be clarified in the final version of the Guide.	Yes
12	Terminology	DZ BANK AG Respondent asked for an explanation of the difference between a "RDARR framework", an "effective data risk aggregation framework" and a "data governance framework". Should these frameworks be considered identical? If not, where does the ECB see potential differences (e.g. in the scope of application)? For example, in Section 3.2. the scope of application for a "data governance framework" is specifically	An alignment of the terminology used will be included in the final version of the Guide. See also Table 1, question 8.	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		described. Does this deliberately go beyond risk data?		
13	Terminology	EBF Respondent(s) required further elaboration on the wording of Section 3.2 (second sentence), where the Guide reads "the data and critical data elements should also be explicitly identified." The concept of "a critical data element" is defined neither in BCBS 239 nor in the Guide.	The ECB's understanding of the term "critical data element" will be provided in the final version of the Guide.	Yes
14	Terminology	EBF Respondent(s) asked the ECB to clarify the difference between origination and capture in Section 3.2 (second sentence), which reads "a data governance framework should cover the entire lifecycle of the data, i.e. all processes from data origination, capture and aggregation to reporting". In Section 3.4 data capture is included in data lineage, but origination is not.	There is a distinction between capturing data and originating data. Capturing data refers to obtaining data, sometimes from external sources like market data, and storing it in the system. The data owner is normally in the function which is responsible for capturing the data in the front-end systems. Addressing data issues and making changes should be handled at the data owner level to minimise the number of manual interventions and ensure data integrity. Calculations performed in the system and then stored are not considered to be capturing data. Where data are recalculated and stored (so-called derived or transformed data) the function responsible for the calculation will be the owner of this newly stored information but not the underlying data used in the calculation. Handing over data ownership could lead to data corrections within the chain and not at source, which would require recurring manual interventions.	No
15	Terminology	EBF Stakeholders suggested deleting "data governance framework" in paragraph 2 of Section 3.2. Stakeholders suggested this should be "risk data aggregation and reporting framework", in line with the scope of the paper.	The Guide uses the term "data governance framework" which can, at the institution's discretion, have a broader meaning than "RDARR framework". See also Table 1, question 8.	No
16	Terminology	AFME Respondent(s) suggested that the Guide should be updated to reflect the separation of data governance and reporting governance framework requirements as good industry practice. Furthermore, a proposal was made to update the phrasing to reflect "banks' risk policies" rather than referring to a single "data" framework.	The term "data governance framework" mentions only data for the sake of brevity. The term "framework" allows a set of policies to be included, as long as these provide a coherent set of internal rules covering the scope of the Guide. In practice, institutions can have a separate reporting framework which refers to the data governance framework. In such situations it is important that the underlying data are subject to the data governance framework. The ultimate goal of the Guide is to assist institutions in strengthening their risk data aggregation capabilities and risk reporting practices. As such, the Guide contains supervisory expectations that are meant to be neither exhaustive nor prescriptive. Therefore, each institution should define its own data governance framework and how this is deployed throughout the institution through a concrete set of policies.	No
17	Proportionality principle	AFME Stakeholder(s) remarked that given the huge scope of application (i.e. Pillars I, II and III, reporting and financial statements), it is important to clarify whether a bank can define internally reasonable/intermediate consistency points which can guarantee the data quality of the upstream processes. This would ensure the widespread application of the framework is not pushed beyond necessary levels of materiality. In other words, a reasonable limit to data lineage can be envisaged.	It is up to institutions to define the scope of application in a proportionate manner, taking the nature, scale, complexity and risk profile of the institution into consideration. In this regard, the Guide contains supervisory expectations but scope should be defined on a case-by-case basis. Furthermore, Section 3.4 of the Guide provides that a complete end-to-end data lineage is expected for risk indicators and their critical data elements which have been identified as falling within the scope of application. See also Table 1, question 19	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		In this regard, the Guide could provide clearer guidance on how financial institutions should consider the term "proportionate" (from Article 74 CRD) in the context of their BCBS 239 compliance programmes.		
18	Proportionality principle	ESBG Respondent(s) emphasised that the topic of materiality should be considered as a key factor in incorporating subsidiaries into the governance framework, according to its importance and the criteria defined by the entity itself. However, they suggested expanding the criteria to include the relevant reports in order to prioritise and distinguish between them based on their materiality and impact. They remarked that according to their understanding it is essential that this is explicitly stated in their internal governance document.	The Guide explains which risk reports are expected, as a minimum, to be covered, namely: (i) internal risk reports used in decision-making and steering processes, (ii) financial reports published externally, and (iii) supervisory reports submitted to financial, supervisory or regulatory authorities. However, each institution should define which reports are included in the scope of application of the data governance framework in a proportionate manner which takes the nature, scale, complexity and risk profile of the institution into consideration.	No
19	Material legal entities	Raiffeisen Bank International AG, KBC Group Respondent(s) asked for some examples of the intended criteria, preferably an exhaustive definition of a material legal entity to be included in the scope of application.	Each institution should define its own data governance framework, including the criteria of "material legal entity", considering the nature, scale and complexity of the institution's operations, as well as its risk profile. Therefore, the Guide does not prescribe any general criteria as this should be done on a case-by-case basis.	No
20	External data	EBF With regard to Section 3.2 (second sentence), respondent(s) commented that there is a lack of clarity on external data. The sentence states that the data governance framework should cover the entire lifecycle of the data, including all processes from data origination. Could any additional clarity be provided as to how this applies to data that are purchased or retrieved from external sources?	The data governance framework should include agreed service level standards for both outsourced and in-house risk data-related processes, which includes external data purchased or retrieved from external sources. In this regard, please refer to paragraph 28 of the BCBS 239 principles.	No
21	External data	Respondent asked whether the requirement "the framework should cover the entire lifecycle of the data, i.e. all processes from data origination, capture and aggregation to reporting" means that sales units/sales organisations capturing data before they are entered into the systems containing the legal positions should be included in the framework, or is it sufficient to have a back-office unit check the data?	Please see question 14 above for the ECB's understanding of data capture, which should be the starting point for the data lineage. In the example provided, data capture by the sales unit/organisation should indeed be part of the framework (although we understand this capture should already be taking place in a system within the institution) for effective RDARR.	No
22	Reports	EBF With reference to paragraph 2 of Section 3.2, respondent(s) asked for clarification as to what is entailed by having reports within the scope of a data governance framework.	Reports within the scope of a data governance framework should follow all the provisions defined in the framework. These should be aligned with BCBS 239 principles. As an example, key risk indicators included within the scope of application should have a complete and end-to-end data lineage, as explained in Section 3.4. They should be included in the data quality management, as established in Section 3.5.	No
23	Internal risk reports	EACB A respondent argued that the term "internal risk report" in paragraph 3.2.1(a) should be further clarified. Core reports included in the data governance perimeter include the relevant regulatory reports for the main risk areas: credit, financial (market and liquidity), operational risk and supervisory reporting. It should be noted that "internal risk report" refers to these and not to an extension of the scope of application in terms of report type (e.g. both regulatory and managerial) or risk areas (e.g. AML reporting and compliance reporting).	In paragraph 1 of Section 3.2 the Guide explains which risk reports are expected, as a minimum, to be covered. In this regard, the term "internal risk reports" is intended to cover internal risk reports used for decision-making processes and for steering the bank (i.e. to allow managers to take informed decisions). The Guide does not include an expectation that all internal reports and/or risk indicators should fall within the scope. The scope should cover all material risk types and risk concentrations identified in the entity's risk identification process. Given these considerations, the Guide cannot prescribe an exhaustive list of risk reports – it can only provide some guiding principles. Each institution should define which reports	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			are included in the scope of application of the data governance framework in a proportionate manner, taking the nature, scale and complexity of the institution's operations into consideration, as well as its risk profile.	
24	Internal risk reports	EBF, AFME Stakeholder(s) also asked for the term "main overall risk reports" to be clarified, as used in paragraph 3.2.1(a).	Overall risk reports are those that usually contain risk data and indicators for all/some material risks identified by the institution in its risk identification process. They are presented to the management body on a regular basis.	No
25	Internal risk reports	UniCredit Spa Respondent asked for clarification of the requirement in paragraph 3.2.1(a), namely whether the compliance report falls into this category (i.e. besides the cross-section between risk reports and compliance area). Should this area also be included as a standalone area?	The data governance framework should be applied to all material risk types. In this regard, the definition of material risk types should be aligned with the institution's risk identification process and it is therefore up to the institution to define the scope of application and to specify the reports, models and risk indicators that are included.	No
26	Internal risk reports	EBF Respondent(s) asked for confirmation that the requirements refer solely to risk reports and that reports, templates and decision documents for areas such as validation results, efficiencies, cost development, technological trends and project progress are not referred to here. There was also a request to provide an example of the type of report that would not be considered in scope.	As the Guide provides guiding principles it cannot define generally what reports should be included or excluded for each individual institution. To ensure sound risk management and risk reporting, the data governance framework should cover all material risk reports used in decision-making and steering processes. It is up to each institution to define the scope of application of the data governance framework.	No
27	Internal risk reports	EBF Respondent(s) commented that the draft Guide defines the scope in paragraph 3.2.1(a) as "any reports that are part of the management information system and are therefore used in decision-making and steering processes". Potentially, then, every piece of information that is received by the management body could be subject to inclusion in the perimeter, as could, in principle, most of the data used in the bank.	The Guide may be considered to reflect, in a proportionate manner, the nature, scale, and complexity of the credit institution's operations and risk profile. Furthermore, in Section 3.2.3 the Guide explains which risk indicators from the reports and models are expected, as a minimum, to be covered by the scope of application. These include risk appetite indicators and other main risk metrics used for managing and steering the bank. Finally, the Guide also explains that critical data elements should be explicitly identified. In its final version, the Guide will also further clarify which expectations are relevant to reports, models and key risk indicators (including their critical data elements) and which are relevant only to data lineage (see also Table 4, question 17). The reference to the management information system was omitted to avoid an overly broad interpretation of the scope, which is not intended to include all data used in the bank.	Yes
28	Internal risk reports	EBF, AFME, EACB, German Banking Industry Committee, DZ BANK AG Respondent(s) asked for a definition of the term "management information system" and for clarification as to what "report" means in the context of a "management information system". In their view it is unclear whether this should include, for instance, all reports and templates that are provided to the management. It is also unclear whether it should only include reports with risk data or also those without any risk data, such as validation reports or progress reports on findings/measures and internal reports on strategies, performance and efficiency indicators. Respondent(s) asked for clarification as to whether institutions are free to set individual definitions of a management information system.	The reference is to the "management information system" commonly used by Basel standards, among others. The term "management information system" is not defined and in general refers to those reports that are used for managing and steering the bank. The term will be omitted in the final version of the Guide to avoid an overly broad interpretation of the scope. In this context we are referring to the internal risk reports used in decision-making and steering processes, including reports that provide information on risk appetite indicators, main overall risk reports or main risk reports per material risk type. This will be clarified in the final version of the Guide. Institutions should define which reports are included in the scope of application of the data governance framework.	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
29	Internal risk reports	<p>Furthermore, stakeholder(s) argued that the approach outlined in the draft Guide is too far reaching and that the scope should be more limited.</p> <p>Respondent asked for clarification on the specific fields of action for non-financial risks (i.e. environmental risks and operational risks, including physical risk)?</p> <p>Furthermore, respondent(s) requested confirmation that physical risk reports for Environmental, Social and Governance (ESG) risks are not in the scope of this Guide.</p>	<p>The Guide states that the scope of application of the data governance framework should include all material risks and risk concentrations from the institution's risk identification process. As long as non-financial risks are material for an institution, they should be included in the data governance framework. In this regard, institutions are solely responsible for the inclusion of non-financial risks in the risk appetite framework. The ECB expects institutions to develop an aggregated and consolidated risk appetite dashboard, comparing risk exposure and risk limits to the institution's appetite for both financial and non-financial risks.</p>	No
30	Financial reports	<p>EBF, AFME</p> <p>Respondent(s) asked for confirmation that "financial reports" means externally published reports such as annual financial statements and/or quarterly financial statements, and that internally used reports (such as those on costs or earnings development) are not what is referred to here.</p>	<p>Yes, this is the correct interpretation.</p>	Yes
31	Financial reports	<p>EBF, DZ BANK AG</p> <p>Respondent(s) asked for confirmation that the phrase "that are published on at least a quarterly basis" refers to reports with a quarterly or higher frequency and that this does not, therefore, include semi-annual financial statements.</p>	<p>The Guide contains supervisory expectations relating to the scope of application of the data governance framework. It is, however, up to each institution to define which externally published financial reports should be covered.</p> <p>In the final version of the Guide this expectation relating to the frequency of publication of financial reports will be amended.</p>	Yes
32	Financial reports	<p>EBF, EACB, German Banking Industry Committee, DZ BANK AG, UniCredit Spa.</p> <p>Respondent(s) raised concerns that inclusion of financial reports in the minimum scope seems to overrule existing arrangements for two main reasons:</p> <ol style="list-style-type: none"> 1. Many of the founding principles are already strictly applicable to the financial reporting process. There are numerous regulations, including at local level (e.g. Law 262/2005 in Italy or Regulation IDW PS 900 in Germany) that set high standards and clear responsibilities for both the management body and the top management of banks (C-level). Furthermore, financial statements/reports are subject to strict accounting standards and independent external auditing processes. What is the reason why this practice is now being challenged by expanding the scope of application to financial reports? The expectation appears to introduce a redundant layer. 2. Most of the BCBS principles are applicable to financial statements (e.g. accuracy, completeness, timeliness and comprehensiveness) even without this being explicitly mentioned in the Guide. Others (e.g. adaptability, usefulness and distribution) are not relevant for financial statements. 	<p>The application of BCBS 239 principles to financial reporting is recognised by the BCBS as an example of effective governance. Furthermore, the ECB also considers that external reporting processes and systems could benefit from the application of BCBS 239 principles (see the ECB's letter to significant institutions of 14 June 2019). In this regard, it should be highlighted that where other processes and control mechanisms are already in place to ensure the quality of financial reporting, institutions should fully integrate the data governance framework into the existing governance arrangements. Regulations apply to risk, financial and supervisory reporting, and the Guide expects the institution's internal data governance framework to take this into account. This is not seen as conflicting with existing standards, regulations or law.</p>	Yes
33	Financial reports	<p>EACB, DZ BANK AG</p> <p>Respondent(s) remarked that it is unclear whether the Guide refers only to risk data aggregation, as the title of BCBS 239 suggests. They asked whether the requirements relate to risk data within financial reporting or whether accounting data</p>	<p>The application of BCBS 239 principles to financial reporting is recognised by the BCBS as well as by the ECB as an example of effective governance, whereas accounting data are a significant basis for financial reporting. It should be borne in mind that</p>	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		are explicitly included. From their perspective, the BCBS 239 standard explicitly differentiates accounting data from risk data by requiring that "controls surrounding risk data should be as robust as those applicable to accounting data".	banks also use financial data for managing and steering the institution.	
34	Financial reports	EBF, AFME Respondent(s) stressed that reports alone can be large and cumbersome. Oftentimes, data in financial reports are the basis for additional calculations and analysis to better understand what is happening. Should banks be focused on the entire financial report or the key risk figures derived from the financial report?	Both the BCBS and the ECB (see the ECB's letter to significant institutions of 14 June 2019) consider that other processes (such as financial reporting) could benefit from the application of BCBS 239 principles. The Guide has a clear expectation that the scope of the data governance framework should cover financial reports. In terms of risk indicators, the scope of application should include, as a minimum, the risk appetite indicators as well as other key risk indicators contained in the reports in the scope. As an example, the normative perspective of the ICAAP is based on financial (and regulatory) data. It is therefore expected that the financial metrics needed to produce the ICAAP data will also be included in the scope. Institutions are expected to take this into account and to define which reports and which risk indicators are included in the scope of application of the data governance framework. Further clarification will be included in the final version of the Guide. This will explain which expectations are relevant to reports and which are relevant specifically to indicators. See also Table 3, question 18, Table 4, question 17 and Table 5, question 13.	Yes
35	Financial reports	EBF Stakeholder(s) claimed that banks should have the possibility to refer to or, alternatively, reuse existing data quality processes that are already part of the audit review of financial statements. For example, in Germany the audit of the consolidated financial statements prepared in accordance with the German commercial code as of 31 December is carried out in accordance with paragraph 317 of the Handelsgesetzbuch (HGB). For this purpose, banks in Germany receive a confirmation statement from the external auditor, which banks publish in their annual report.	Both the BCBS and the ECB consider that external reporting processes and systems could benefit from application of the BCBS 239 principles. In this regard, it should be emphasised that where other processes and control mechanisms are already in place to ensure the quality of financial reporting, institutions should fully integrate the data governance framework into existing governance arrangements. Existing controls can be used to the extent they are sufficient to ensure data quality. There is no need to duplicate controls as they are fit for purpose – the Guide will be amended to clarify this.	Yes
36	Supervisory reports	AFME, EBF With reference to paragraph 3.2.1(c) and considering the large volume of supervisory reports submitted, stakeholders asked the ECB to provide additional guidance on expectations. They also asked for clarification as to whether statistical reports (like AnaCredit) are included in the scope of application, considering their lower degree of complexity in terms of application of models or other calculations and their lower degree of relevance for bank steering purposes.	Given the non-prescriptive nature of this Guide, we do not provide an exhaustive list of supervisory reports that are expected to be included and each institution should define its own scope of application for the data governance framework in a proportionate manner. The nature, scale and complexity of the institution's operations and its risk profile should be considered. This depends on a case-by-case assessment by institutions of the relevance for steering purposes of the internal risk, financial and supervisory reports, above the minimum requirements, described in Section 3.2, point 1 of the Guide.	No
37	Supervisory reports	Raiffeisen Bank International AG With reference to paragraph 3.2.1(c), which reads: "supervisory reports that are submitted to financial supervisory or regulatory authorities; this includes, for instance, FINREP/COREP reporting templates, submissions to EBA/SSM stress test exercises and Pillar 3 disclosures", stakeholders asked whether does this need to comply from the first sending.	The ECB expects supervisory reporting to consider the expectations laid down in this Guide from the first sending to supervisory authorities.	

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
38	Supervisory reports	Stakeholder argued that regulatory reporting may involve a large number of reports at both the ECB level (e.g. FINREP/COREP) and the local level. The local level may relate to a large number of reports set up over the years. Inclusion of the local ones in scope, though understandably in principle also benefit from BCBS, they increase substantially the scope of application here. They should be considered in the Guide and include prioritization wise in the overall implementation programme (aiming to conclude in a reasonable timeframe).	Institutions should define which supervisory reports are included in the scope of application of the data governance framework. Each individual situation should be assessed on a case-by-case basis, and it is up to the institution to set priorities within the implementation program. The Guide expects the scope to comprise, at a minimum, FINREP/COREP reporting templates including the Short Term Exercise, submissions to EU-wide EBA stress tests and SREP stress tests and Pillar 3 disclosures.	No
39	Models	EBF, AFME Respondent(s) requested clarification as to the scope of models. Does the scope refer to models supporting the key risk figures applicable to the risk data aggregation reports identified? Does this also include data used by the model validation units? Regarding the scope of models specified in paragraph 3.2.2, some respondents suggested that a risk-based approach should be provided for to implement this requirement. In their view it should be up to the supervised institutions to decide which data reconciliation and which data completeness controls are in the scope. Furthermore, some respondents raised concerns that the present Guide does not account for any specific frameworks already in place to manage model risk, including those related to data. They sought clarification over whether the Guide implies any organisational change to cover specifically data issues.	The Guide underscores the expectation set out in BCBS 239 whereby sound RDARR practices should also be applied to key internal risk management models (Pillar 1, Pillar 2 and others key management models). In this regard, it should be highlighted that this should be applied in a proportionate manner to reflect the nature, scale and complexity of the institution and its risk profile. It should also consider the existing processes in place to comply with binding requirements on the quality of the main data used for the development and quantification of risk parameters (e.g. those required for data used for the internal ratings-based approach in the ECB's Guide to internal models). Institutions should define which models are included in the scope of application of the data governance framework.	Yes
40	Models	EBF Respondent(s) requested a clear distinction in terms of requirement/severity of regime between Pillar 1 reporting and Pillar 2 stress testing as they are in the scope of the current consultation paper. However, it is important that the workload for these (new) items is proportional/can be applied with lighter regimes (i.e. to reflect that these do not relate to CET1 ratio/P1 models).	The ECB cannot meet such a suggestion. To ensure sound risk management, the data governance framework should cover all material risks, their main risk reports and the risk metrics used in decision-making and steering processes, regardless of whether they contain Pillar 1 or Pillar 2 risk information. BCBS 239 (paragraphs 16 and 17) refers to both Pillar 1 and Pillar 2. Institutions should define which models are included in the scope of application of the data governance framework and how to apply proportionality in its application.	No
41	Models	German Banking Industry Committee Stakeholder(s) pointed out that the nature of data usage in model development is different from the nature of data usage in the productive application of the models, which requires clarification. As a result, the implementation of data lineage documentation, as well as the implementation of the monitoring and reporting of data quality, will be different.	The Guide underscores the expectation already set out in BCBS 239 that sound RDARR practices should also be applied to key internal risk management models (Pillar 1, Pillar 2 and others key management models), specifying that both the input data used as well as the resulting estimates (e.g. probability of default or loss-given-default) are included in the scope. In this regard, the Guide states in Section 3.4 that complete end-to-end data lineage is expected for the risk indicators and their critical data elements identified as being within the scope of application. Institutions should define which models and risk indicators are included in the scope of application of the data governance framework and how to apply proportionality in its application.	No
42	Risk indicators	EBF Respondent(s) stressed that risk metrics and indicators, as well as performance metrics and indicators, are not clearly distinguished. There should be a link to the risk appetite or risk profiles of individual institutions. They requested clarification as to the difference between "(risk) metrics" mentioned in	Both refer to indicators for measuring risks that are used for managing and steering the bank. Clarification will be included in the final version of the Guide.	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		paragraph 1(a) and paragraph 3 in Section 3.2 of the Guide.		
43	Risk indicators	<p>EBF</p> <p>Respondent(s) commented that the scope of application in terms of data and risk indicators applies not only for the risk appetite indicators but also for the financial reports and supervisory reports, as mentioned above, as well as for models.</p> <p>When the Guide defines applicability in the following sections it does not follow the scope as described in Section 3.2. In this case it mentions only the risk appetite indicators.</p>	We assume that key indicators from financial and supervisory reporting and results from the models are also included in internal risk reporting. Further clarification will be included in the final version of the Guide as to which expectations are relevant to reports, models and risk indicators and which are relevant to indicators only. See also Table 3, question 18, Table 4, question 17 and Table 5, questions 13.	Yes

2.4 Table 4 – Comments on Chapter 3, Section 3.3: Effective data governance framework

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Terminology	<p>EBF</p> <p>According to respondent(s), there is no consistency in applying terminology in the present section.</p> <p>The name of the section refers to the data governance framework while paragraph 3 refers to the RDARR process. It is not clear across the document whether it refers to the data governance framework and scope or Risk Data Aggregation and Reporting Framework.</p>	We see data governance as a broader term than RDARR and use it in the sense of the data governance framework that applies to RDARR (and possibly to other data, at the discretion of the institutions). An alignment of the terminology used will be included in the final version of the Guide.	Yes
2	Terminology	<p>EBF</p> <p>Stakeholder(s) remarked that in the Guide the roles of the management body are not defined clearly. The role of senior management is missing, as is the role of report owner. By contrast, in BCBS 239 the management body is responsible for setting requirements in terms of data.</p>	The roles and responsibilities of the management body are explained in detail in Section 3.1. It is not the intention of the Guide to provide a granular and complete blueprint of the data governance framework, but rather to highlight the main expected elements within the framework.	No
3	Terminology	<p>Nordea bank Abp</p> <p>Section 3.3 refers to "clear roles and responsibilities in the area of data quality: contributing to the definition of data controls and the classification of key risk data"; "remediating insufficient data quality".</p> <p>This may be compared with other Sections (e.g. 3.2 and 3.1): "In terms of risk data and indicators, the scope should at least include the institution's risk appetite indicators and the main risk metrics referred to in the internal risk reports described above."</p> <p>"Unfortunately, losses caused by poor data quality are rarely captured in a systematic manner, often leaving the potential negative effects unquantified as a result".</p> <p>Respondent(s) requested clear definitions for the highlighted items that are consistent with prior wording and clarification as to the difference between "contributing" and "managing/ensuring", "key risk data" and "risk data", and "poor data quality" and "insufficient data quality".</p>	<p>With reference to Section 3.2, see questions 11 and 12 below.</p> <p>Poor, insufficient, inaccurate or incomplete data are used as equivalents, and should be identified by the institutions, following the Guide.</p> <p>While "risk data" is used in the introduction in its general meaning, paragraph 3.2.3 expects institutions to identify the "key risk indicators" which are within the scope of its data governance framework and subject to the supervisory expectations defined in Chapter 3.</p> <p>The term "key risk data" will be omitted in the final version of the Guide.</p>	Yes
4	Terminology	ESBG	The ECB does not intend to define role concepts within the ECB Guide. Instead, it intends to describe only minimum elements	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		Respondent(s) commented that clear role concepts should be defined on an individual basis and should consider the business model. It is fine to define overall responsibilities but it is not appropriate to specify dedicated roles.	that are expected to be covered within specific data governance roles under the current legal framework.	
5	Group-wide data governance framework	A respondent sought clarification as to whether cascade approval mechanisms should be introduced for a group between the different management bodies of the individual legal subsidiaries.	The question refers to general governance arrangement, which is not specific to RDARR. Parent undertakings are expected to introduce standardised practices and policies applicable across the entire corporate group (i.e. group-wide implementation). Subsidiaries are expected to check, together with the parent undertaking, whether these practices and policies can be applied in that way in the subsidiary. Consideration should be given to national laws and regulations and adjustments may be required to align with local requirements. As separate legal entities, subsidiaries are expected to obtain approval from their management body for the implementation of group-wide practices and policies. In addition, it is important to understand that the management body's composition and structure may vary based on national regulations. An example of this is the one-tier or two-tier structures referred to in Section 3.1.	No
6	Group-wide data governance framework	KBC Group Respondent requested clarification as to how the framework is to be applied at the enterprise level, meaning across the whole organisation and not only for business entities that deliver data for reporting.	It is expected that the data governance framework will be implemented correctly. In the context of material legal entities, there might be the need for a risk inventory and a materiality assessment. If certain subsidiaries do not materially contribute to risk reporting, it may be acceptable to exclude them. However, this exclusion should be based on a thorough analysis and will be assessed on a case-by-case basis.	Yes
7	Responsibility of data owners	EBF Respondent(s) raised concerns about implementation difficulties arising from the extensive responsibilities of the data owner on a front-to-end basis, if the operational responsibilities cannot be delegated.	"Data owner" as understood by the Guide is the function responsible for capturing the information in the bank's IT system, while the data producer is the employee who creates the entry in the IT system. The data owner is normally in the function responsible for capturing the data in the front-end systems and should not be defined at too high a level. Data ownership remains at this level as errors should be corrected at the source system level to avoid the need for recurring manual interventions. Where data are recalculated and stored ("derived data") the function responsible for the calculation will be the owner of this newly stored information, but not the underlying data used in the calculation. Handing over data ownership could lead to data corrections within the chain and not at source, which would require recurring manual interventions. Regarding the implementation of data quality dimensions, the data owner is responsible for implementing the respective data quality controls. Critical data attributes, critical data elements and data quality dimensions should be defined in cooperation with the data users and their requirements. There should be service level agreements between different data owners as well as between data owners and data users. Such agreements would define data quality requirements to ensure that data quality is guaranteed throughout the complete aggregation process. In addition, banks should take a holistic view on data quality (e.g. through data quality indicators).	No
8	Responsibility of data owners	EBF, German Banking Industry Committee Respondent(s) believed that in most banks the data front-to-end process is way too long and complex to be properly mastered by data	It is correct that other roles in the process are using the data and need to contribute to managing data quality. However, the data owner should be the role responsible for the	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		owners only. From capturing the data, harmonising the content in the internal databases, transforming the data so they are fit for purpose for all internal and supervisory reporting, the data flow steps are mastered by different roles and banking specialists that must collaborate in order to effectively steward the data in all the steps of the risk data aggregation process. In their view the ECB should allow for greater discretion in the way each reporting agent organises responsibilities throughout the end-to-end data processing. This will make it possible to achieve the end goal of having an effective data governance framework.	quality of the data produced under their remit. Otherwise, it is not possible to ensure correction of data at the source level.	
9	Responsibility of data owners	EBF Clarification was sought as to whether paragraph 3.3.1 lists one of the suggested minimum elements required for an effective data governance framework as having data owners (or data stewards) who represent the first line of defence and are responsible for critical data elements throughout the complete aggregation process (front-to-end). Clarification was sought as to whether this could mean that, for example, the person in charge of calculating a final metric such as value at risk (VaR) is responsible for monitoring and ensuring data quality since transaction recording until VaR metric calculation? Or is there also a valid data ownership model where different data owners, each of them focused on a section of the chain, have their own responsibility for the data they capture or generate?	“Data owner” as understood in the Guide has the role to be responsible for capturing the information in the bank’s IT system, while the data producer is the employee who creates the entry in the IT system. Where data are recalculated and stored (“derived data”) the function responsible for the calculation will be the owner of this newly stored information, but not the underlying data used in the calculation. Handing over data ownership to roles which do not capture the information in the IT systems could lead to data corrections within the chain and not at source, which would require recurring manual interventions. Regarding the implementation of data quality dimensions, the data owner is responsible for implementing the respective data quality controls. Critical data elements should be identified and the corresponding data quality dimensions defined in cooperation with the data users and their requirements. There should be service level agreements between different data owners as well as between data owners and data users. Such agreements should define data quality requirements to ensure that data quality is guaranteed throughout the complete aggregation process. In addition, banks should take a holistic view on data quality (e.g. through data quality indicators). Therefore, it does not mean that the person in charge of calculating a final metric such as VaR, is responsible for monitoring and ensuring data quality from transaction recording to VaR metric calculation. Different data owners, each of them focused on a section of the chain, have their own responsibilities for the data they capture or generate. It is of primary importance in this context that service level agreements are in place between different data owners. Data quality requirements are defined in such agreements and, therefore, data quality is ensured throughout the complete aggregation process.	No
10	Responsibility of data owners	EBF, Austrian Federal Economic Chamber Respondent(s) raised concerns that data owners appear to be the most important individuals defining data controls and classifications. The Guide assigns responsibility for data controls and the classification of key risk data to the respective data owner/data steward. However, and especially for complex end-to-end processes such as regulatory or risk reporting, these staff members do not typically have all the subject-specific information needed to establish data controls on their own. However, data users (data requestors) typically have the subject-specific knowledge needed to establish data controls and classify risk data. Similarly, data users (data requestors) should also be involved in	Data owners are responsible for implementing and adhering to the data quality requirements relating to the data they generate and capture in IT systems. The requirements should be defined in cooperation with data users, according to their needs. See also question 8 above.	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		monitoring data quality and actively participate in identifying and remediating data quality issues. In general, effective data governance must foster collaboration between data owners/data stewards and data users (data requestors). Thus, the focus should be on a collaborative approach in which both parties work together to ensure data quality and regulatory compliance. In this regard, respondent(s) sought clarification on the role of data users.		
11	Responsibility of data owners	EBF Respondent(s) commented that putting the data owner in the driving seat for data classification does not seem logical, given the huge variety where data is used for in a large-scale bank. The data user should classify data based on the purpose of the data is used for. Governance on regulatory reporting deviates from analytics.	Regarding data classification, the Guide refers to a "contribution" from the data owner. This means that the data owner, as the main role responsible for the quality of the data, should be involved and aware. Indeed, there should also be a role, for example, for data users or the data governance unit – possibly an even greater role. When data classification takes place, data owners should therefore ensure alignment with other relevant stakeholders such as data users or report owners.	Yes
12	Responsibility of data owners	Although the concept of risk data classification is explored within the ECB consultation, stakeholder(s) requested a definition of how this classification is performed.	Data classification refers to the selection of data which is essential for the calculation of risk indicators and risk metrics. These are the data elements which need to be classified as key/critical.	No
13	Responsibility of data owners	UniCredit Spa Regarding the phrase "contributing to the definition of data controls and the classification of key risk data" in paragraph 3.3.1, a request was made to amend the text to use "risk data" in a broader sense (i.e. "key data" without the word "risk"). Looking at the scope, there may be data that are not strictly risk, but financial or other but falls inside the scope.	Financial data are also risk data in a broader sense. Risk data do not only comprise internal risk report information.	No
14	Responsibility of data owners	EBF With reference to paragraph 3.3.1, respondent(s) argued that this is mainly the role of data producers, who ensure data quality and remediations through their production and control processes. Data owners/stewards have other roles on data quality. They suggested mentioning "data producers" instead of "data owners" (or "data stewards") in the existing text to avoid any confusion. They also suggested adding the roles of the data owners (to provide the definition of the data, define usages of the data and determine the quality requirements for each usage of the data) and the roles of the data steward (to animate the whole process of the data quality on his perimeter). They suggested it should be stated that a first line of defence should be established for these topics, without mentioning exact roles and functions.	The data owner, as understood by the draft Guide, is the function responsible for capturing the information in the bank's IT system, while the data producer is the employee who creates the entry in the IT system. The data owner is normally in the function responsible for capturing the data in the front-to-end systems. The data owner is responsible for implementing the respective data quality controls. The ECB does not intend to define further roles and responsibilities in the Guide, therefore, the term "data steward" will be omitted in the final version. See also questions 2 and 4 above.	Yes
15	Responsibility of data owners	European Association of Co-operative Banks Respondent(s) suggested amending paragraph 3.3.1: "the data owner should contribute to support the data lineage and the data dictionary". They argued that the data owner should contribute to the definition and application of data quality controls (the execution of data quality processes including data remediation) but cannot manage the metadata and data lineage of relevant data on their own. Some respondents reported that, based on their experience, for this task to be effective it must fall within the remit of the data governance office and IT departments.	The data owner should ensure that the requirements set are adhered to. Implementation should be arranged according to the set-up in the respective institution and could require the involvement of other areas.	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
16	Responsibility of data owners	EBF Respondent(s) requested clarification as to how the data owner/steward should "manage metadata relating to the data lineage and data dictionary". They asked why this is "limited" to data lineage and the data dictionary and they wanted to know what metadata the Guide specifically refers to.	The Guide sets key expectations in order to achieve effective data governance. Therefore, not all possibilities are explicitly mentioned. The metadata to be covered is specific to the data architecture within the institutions and cannot be further specified.	No
17	Responsibility of data owners	EBF Respondent(s) pointed out that it is impossible for (larger) banks to achieve and maintain complete and up-to-date lineage for all data for the complete data chain, given the hundreds of sources, reports, critical data elements and N:M relations between data and reports, unless data lineage is kept at the high level of "architectural diagrams". Data lineage can be achieved via a layered approach. The overview of the data landscape should be clear and up to date at any time. It is always necessary to know what systems are in place, how these are connected and in what order data travels through the whole data chain. When, in the case of data quality issues, stress or for any other reason, the need arises to trace back critical data elements (i.e. how data are calculated and transformed), banks should be able to describe this based on the architectural diagrams. The processing in the relevant systems will be based on system documentation, the connections in interface descriptions, mapping tables or other change-related or build-related documents. In this way, an end-to-end data trace can be composed of the various pieces available. For new flows or for ongoing change or development initiatives, banks describe and maintain the systems and interfaces for maintenance purposes, so lineage will be available. For existing flows and flows crossing borders in the architectural landscape it is necessary to build an actual end-to-end lineage on request.	It should be noted that having an end-to-end data lineage is not expected for all data but only for the indicators covered in paragraph 3.2.3. According to this point, in terms of key risk indicators the scope should include at least the institution's risk appetite indicators as well as other key risk indicators referred to in the internal risk, financial and supervisory reports and models described above. Further clarification will be included in the final version of the Guide as to which expectations apply to reports and which apply specifically to indicators. See also Table 3, question 18 and Table 5, question 13. Creating the lineage on-demand is not sufficient as this consumes time and effort, especially in times of stress and crisis when faster data aggregation is key. We also disagree that this is impossible for larger banks as in that case the respective capabilities should be proportionate to the size of the institution and the complexity of the data architecture.	Yes
18	Responsibility of data owners	KBC Group Respondent requested more guidance on the extent (granularity) of data lineage the Guide is aiming to obtain (system level, attribute level, technical data level, very granular, table to table etc.) and for which data this is necessary.	This are several questions included in one remark. 1) Granularity of the data lineage. This depends on the internal set-up of the respective institution. The granularity should enable identification of the critical data elements which are needed to create (ad hoc) and impact reports, especially in times of stress and crisis and should include the minimum elements listed in Table 5, question 5. 2) For which data are lineage needed? Data lineage is needed for all critical data elements needed to calculate the key risk indicators used to steer the institution.	Yes
19	Responsibility of data owners	EBF Clarification was sought as to what is expected in terms of "ensuring the evaluation and monitoring of data quality", as mentioned in paragraph 3.3.2(iii).	The effectiveness of the data quality controls should be regularly evaluated and adherence to the group-wide data quality practices and policies should be regularly monitored and independently reviewed.	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
20	Responsibility of data owners	German Banking Industry Committee, EBF Although stakeholders acknowledged the need for an adequate risk governance framework involving the first to third lines of defences, they argued that the ECB expectations under points 1 and 2 in Section 3.3 appear (i) very prescriptive and (ii) to some extent potentially excessive. The responsibilities of the data owner appear very extensive on a front-to-end basis, which may lead to implementation difficulties if operational responsibility cannot be delegated (the data owner remaining accountable means that it is mainly the role of the data producers to ensure data quality).	"Data owner", as understood by the Guide is the function responsible for capturing the information in the bank's IT system. It is responsible for data quality and ensuring that data are corrected at source level. Data owners can be identified by implementing an end-to-end data lineage.	No
21	Central data governance function	ESBG Respondent(s) expressed concerns that the specific responsibilities of the central data governance function are partially out of alignment with banks' needs. Overarching responsibilities should be displayed for an organisation, but this should not be solely at the data governance unit level.	The responsibilities of the central data governance function listed in paragraph 3.3.2 are based on our observation of industry good practices. Also, the Guide does not stipulate that the responsibilities should fall solely within the remit of the central data governance function.	No
22	Central data governance function	German Banking Industry Committee, EBF Respondent(s) welcome the clarification of the responsibilities of the central data governance function, which is close to their observation of industry best practices. However, different effective solutions exist regarding the split of responsibilities between the central function and the decentralised data owners, or data stewards as described in Section 1. Regarding point (iv), some respondents remarked that it should be left to the discretion of the institution whether the central function participates directly in the relevant change management processes or whether the central function ensures that a member of the data governance organisation, such as a data steward responsible for the affected area and with more direct knowledge of the circumstances, participates in the process. Furthermore, respondent(s) argued that in many cases the knowledge and skills relating to data elements are better placed locally. Should the "central data governance function" referred to in paragraph 3.3.2 necessarily be in the head office function?	Since banks are expected to establish a group-wide data governance framework the central data governance function should be at the group level and should be responsible for the framework's implementation. This would not hinder the implementation of local data governance functions within the respective entities, although the central function has the overarching responsibility for overseeing these local functions to ensure the consistent implementation of the group-wide data governance framework at the local level. Additionally, the central data governance function should provide an impact analysis of any new initiatives on RDARR processes.	No
23	Central data governance framework	EBF Respondent(s) noted that in terms of data governance the Guide does not mention the roles of the management body, senior management and the report owners or the role of the data user. The governance roles are therefore incomplete.	The ECB does intend to define role concepts in the Guide, but only for the key elements expected to be covered within specific data governance roles.	No
24	Central data governance function	EBF Stakeholder(s) recalled that in the ECB's Report on Thematic Review on effective RDARR (May 2018), a central data governance function is foreseen as a second line of defence, while in the draft Guide this provision has been removed. Respondents requested clarification as to whether the data governance function is a part of the first or the second line of defence.	The Guide does not favour any specific organisational set-up for this function, which should be decided by the institution. For sound risk management practice, it is important to ensure that these tasks are properly performed, and that independent validation is fully secured.	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
25	Validation function	EBF Respondent(s) asked the following question: Often, business and operational processes already have related control frameworks in place as defined by the second line of defence. It can be viewed as appropriate that these control frameworks also embed the coverage of risk related to data for the same processes. In that case, it can be relevant that the existing second-line-of-defence function for these processes also manages the risk related to data. In such a case these second-line-of-defence functions are not only focused on validating RDARR. Under which condition(s), if any, could such a set-up be acknowledged as compliant with paragraph 3 "a validation function..." of Section 3.3: "Effective data governance framework?"	The function should be located in the second line of defence and appropriate segregation of duties should be ensured. The wording will be amended to further clarify this.	Yes
26	Validation function	Referring to the validation function under the second line of defence, a stakeholder asked whether this meant that risk reporting should be executed by the first line of defence and validated by the second line of defence.	No, it does not mean that the entire risk reporting should be executed by the first line of defence. For example, the risk management function performs risk reporting (EBA Guidelines on internal governance).	No
27	Validation function	EBF Respondent(s) asked for clarification as to whether other "risk management" functions within the second line of defence would also be deemed validation functions in this case, as such functions also perform regular assessments on RDARR processes or implementation programs, for instance.	The internal validation function is responsible for the overall validation framework and validation activities. Input from other second-line functions can serve as input for these activities. However, the independent validation function is expected to perform its own validation of RDARR processes. It should provide a holistic view of the effectiveness of an institution's RDARR, also taking into account the principles set out in BCBS 239.	No
28	Validation function	Austrian Federal Economic Chamber A stakeholder remarked that paragraph 3.3.3 introduces a validation function within the second line of defence to oversee RDARR processes. However, several of the activities and responsibilities envisioned for this function, such as periodic assessments, oversight of outsourced activities and IT change initiatives, are already addressed in Section 3.1, which defines the responsibilities of the governing body. In addition, paragraph 3.3.4 describes the role of internal audit, which includes an assessment of risk management processes and controls, including data aggregation and reporting. There is therefore an overlap between the intended validation function and internal audit/the governance body.	Independent validation activities should be performed in addition to the work performed by internal audit in line with the three lines of defence model. The responsibilities of the management body are defined in Section 3.1	No
29	Validation function	EBF Referring to the expectation that "a validation function within the second line of defence that is independent of the first line and ensures that an institution's RDARR processes are functioning as intended", respondent(s) asked for clarification as to what exactly "ensures" means. The sentence is prone to misinterpretation, they believed. As it stands, it may be understood as implying that the validation function ensures proper functioning, which is not likely to be the intended meaning (since that would be responsibility of the first line).	The independent validation function is expected to perform its own validation of RDARR processes and to provide a holistic view of the effectiveness of an institution's RDARR. It should also inform the management body of any existing deficiencies. It is also noted that the wording used is consistent with BCBS 239.	No
30	Validation function	EBF, EACB, German Banking Industry Committee Respondent(s) requested further explanation as to why the BCB 239 validation unit should itself be separated into two different functions, and how the responsibilities are expected to be separated.	The validation function does not need to be divided into two separate functions within the second line of defence. The management and, where relevant, mitigation of conflicts of interest within the second line of defence might require conflicting activities to be allocated to different persons or information barriers to be established (see paragraph 107 of the EBA Guidelines on internal governance)	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			(EBA/GL/2021/05)). The respective paragraph will be amended in the final version of the Guide.	
31	Validation function	<p>UniCredit Spa</p> <p>A respondent commented that the Guide reads as if the validation function "should perform regular assessments of the institution's RDARR capabilities for all material entities and risk types and cover all components of the RDARR processes". The extended scope of application indicated in the Guide comprises not only internal risk reports but also, for example, financial reports, subject to specific controls such as Bank of Italy Circ. 262 and independent external and internal audit. The requirement should be related to the assessment of an independent function to be defined by the bank, so that the bank can decide how to split the responsibilities between internal validation and internal audit.</p>	Independent validation activities should be conducted separately from internal audit work to ensure full adherence with the distinction between the second and third lines of defence within a bank's internal control system (see, for example, footnote 14 of BCBS 239).	No
32	Validation function	<p>Raiffeisen Bank International AG</p> <p>A respondent stated that there should be an independent validation function in every consolidated "material" unit (so that the local regulator requirement is taken into consideration as well). What is the difference between the independent validation function at the group level and the local internal audit function?</p> <p>The knowledge of local specifics is known in detail only by the experts in the local independent validation function, so the group level independent validation function cannot validate whether the local function's assessment is performed properly unless an on-site review is performed. However, we then see that reviews performed by local internal audit as a third line of defence are redundant.</p>	<p>The independent validation function is expected to be located in the second line of defence and to ensure that RDARR processes at the group level are functioning as intended. The internal validation function at the group level is responsible for the overall validation framework and validation activities. An internal audit function serves as the third line of defence.</p> <p>The EBA Guidelines on internal governance (EBA/GL/2021/05) provide, in accordance with Article 109(2) CRD, guidance on the organisational framework in a group context. The EBA Guidelines on outsourcing arrangements (EBA/GL/2019/02) provide further guidance on intragroup outsourcing, including the outsourcing of the operational tasks of internal control functions.</p>	No
33	Validation function	<p>EBF, AFME</p> <p>Stakeholder(s) commented that paragraph 3.3.3 states that second-level activities (data quality, data governance, BCBS 239 compliance and IT infrastructure) should all be performed by internal validation. In this regard it is important to clarify whether:</p> <ul style="list-style-type: none"> - the internal validation function should perform all data controls centrally, including specialised controls that are already currently performed by specialised second-level control functions, or - the internal validation function can delegate such specialised controls to specialised second-level control functions. <p>In the latter case (i.e. delegation is allowed), given the independence requirements that characterise the internal validation function, should the delegation include special safeguards/features (e.g. special checks that internal validation must perform on the activities of the delegated functions)?</p>	<p>The validation function is expected to be located within the second line of defence (e.g. the risk management function). Further specialised second-level control functions are not mentioned in the Guide.</p> <p>The validation function is not expected to perform all data controls centrally. The validation function is expected to validate existing data quality controls (based, for example, on a sample).</p>	No
34	Validation function	<p>EBF</p> <p>Respondent(s) argued that the Guide should allow for the possibility of delegating specific activities to the units that already perform them. This is because some activities that require extremely specialised skills are already carried out by units other than internal validation.</p>	Independent validation, as emphasised in the Guide, does indeed require specific skills and expertise. That is why, consistently with the BCBS 239 principles, a designated function is needed for independent validation (distinct from the internal audit function). Whether the independent validation function can rely on other units depends on the context and the meaning of the word "units". It is very clear that the first line of defence cannot serve as the independent validation function. In this context it is significant to note that self-assessments alone are not sufficient.	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			Independent validation is required for all activities.	
35	Validation function	<p>UniCredit Spa</p> <p>Respondent commented that in case the validation function already reports to the chief risk officer, independency is guaranteed since the report owners sit in different departments, either within Risk or outside Risk. What is the added value of having two distinct units within the validation function? Should reports owned by the validation function be in the scope, we would expect the third line of defence to be in charge for their assessment.</p>	<p>Institutions are not expected to have two distinct units within the validation function. The respective paragraph will be amended in the final version of the Guide.</p>	Yes
36	Validation function	<p>ESBG, AFME</p> <p>Respondent(s) emphasised that the third line of defence does not appear to have been considered by the Guide. The second line of defence is an independent function where operational risk and compliance test the first line of defence, the latter being responsible for quality assurance and quality control. They asked for details on the validation unit and more information on differences and value-added in comparison with the third line of defence.</p>	<p>All three lines of defence are mentioned in the Guide.</p>	Yes
37	Validation function	<p>EBF</p> <p>Respondent(s) challenged the prescriptiveness of the guidance as the Guide appears to mandate that there must be a validation function which is dedicated to RDARR and which must be within the second line of defence. This is narrower than the wording of the BCBS 239 principles.</p>	<p>The Guide does not set expectations which are stricter than the principles set out in BCBS 239. According to paragraph 29(a) of BCBS 239, a bank's risk data aggregation capabilities and risk reporting practices should be subject to high standards of validation. Under the same paragraph of BCBS 239, this validation should be "independent and review the bank's compliance with the Principles". Independent validation activities should be aligned and integrated with the other independent review activities within the bank's risk management programme, in particular the so-called "second line of defence" within the bank's internal control system.</p>	No
38	Suggested amendment	<p>EBF</p> <p>Stakeholders asserted that the concept of "materiality" could also be applied to the RDARR process. It was therefore suggested to amend the sentence as follows: "[...]for all material entities, types of risk, and components of RDARR processes".</p>	<p>The Guide is in line with the suggestion.</p>	Yes
39	Adequate segregation of duties	<p>Concerning the independent validation function the Guide states: "Such arrangements can include the following: (i) the separation of the validation function into two different units that each report to different members of senior management." It is not clearly stated, a respondent commented, which two units are meant and whether the independent validation function can be part of the designated central data governance function?</p>	<p>Institutions are not expected to have two distinct units within the validation function. The respective paragraph will be amended in the final version of the Guide.</p>	Yes
40	Adequate segregation of duties	<p>EBF</p> <p>In respondents' opinion the ECB should explain paragraph 3.3.3 where it refers to "the adequate segregation of duties" and specify which (separate) responsibilities are implied here. Respondents' interpret this section as requiring the establishment of two central key functions: (i) the data governance function and (ii) the validation function. Furthermore, the paragraph above formulates the requirement that the validation function should once again be divided into two independent units.</p>	<p>The expectation is indeed that the bank should define two functions which perform the tasks outlined under the data governance and validation functions. The validation function is expected to be located in the second line of defence. It is not expected that the validation function would be divided into two functions. If the validation function is located in another function responsible for RDARR (e.g. the risk management function), the adequate segregation of duties should be ensured.</p>	Yes
41	Internal audit function	<p>Respondents asked for clarification as to the new duties expected by internal audit</p>	<p>The Guide does not formulate any new requirements but takes up the supervisory</p>	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		functions (IAFs) and whether they are required to provide a periodic report on the BCBS initiatives.	expectations set out in EBA/GL/2021/05: "The IAF should [...] provide objective assurance of the compliance of all activities and units of an institution [...]". Thus, internal audit is expected to include RDARR in its risk-based audit plan.	

2.5

Table 5 – Comments on Chapter 3, Section 3.4: Integrated data architecture

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Generic question	AFME A respondent suggested forming an industry working group responsible for developing data architecture standards, based on BCBS principles, to ensure clarity and consistency of approach across peer firms. There is a number of benefits, in the respondent's opinion, of being able to trace and document lineages. From a supervisory perspective it would help provide peer firms with more certainty on scope, techniques and evidencing artefacts, among other things.	There are no plans by European banking supervision to create an industry working group responsible for developing data architecture standards. Institutions are free to use the data architecture of their choice as long as they can ensure effective RDARR, in line with the expectations set out in the Guide.	No
2	Implementation	EBF Respondent(s) asked for a transitional period and proportionate timelines for implementation. They argued that implementation of integrated data architecture requires a phased, multiple-year implementation plan.	The BCBS 239 principles have been known since 2013. In its 2019 letter the ECB clearly outlined its supervisory expectations, also referring to the BCBS 239 principles. As Section 1 of the Guide points out, no new requirements have been specified. Therefore, the building of an integrated data architecture was already anticipated. It is therefore not expected that any additional time for implementation would be considered when assessing the data infrastructure of the bank.	No
3	Single integrated data architecture	EBF Respondent(s) believe it is neither feasible nor desirable to have one single integrated data architecture in every subsidiary. More specifically, local (country-based or even line-of-business-based) data specificities for management information reporting and for fulfilling the requirements of third countries' national competent authorities are the key to success in most banks' data strategy. What is the motivation to aim having one single integrated data architecture?	An integrated data architecture ensures that ad hoc risk reports can be created – especially in stress and crisis situations – in a timely manner at the Group level. The creation of the report would otherwise largely depend on capabilities at the legal entities. With this in mind, an integrated data architecture ensures that the necessary data are aggregated accurately and completely. It should be clarified that the Guide is not pushing compulsorily for one single integrated data architecture for each subsidiary (or every subsidiary). A common data taxonomy is a key part of efficient data aggregation capabilities. The Guide duly places a lot of emphasis on this. Using different definitions in the data taxonomy could have negative effects on risk data	No

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			aggregation capabilities as it cannot be ensured that common named data attributes would contain the same information within a banking group. The common data architecture also supports the creation of the data lineage from front-to-end.	
4	Terminology	EACB, German Banking Industry Committee, DZ BANK AG Respondent(s) asked for an explanation of the "main business concepts" in the context of Section 3.4 and how it differs from the metadata repository.	The wording will be amended to "business definitions".	Yes
5	Terminology	ESBG, German Banking Industry Committee, DZ BANK AG Respondent(s) raised concerns about the clarity of the term "data taxonomies" used in Section 3.4 (second sentence). Potentially, it could be considered as a separate key area besides integrated data architecture. In addition, it would be beneficial for the institutions to be provided with more details of the expectations around data lineage requirements and the BCBS 239 assessment of new initiatives.	The integrated data architecture depends on the common data taxonomy used. This taxonomy ensures that data fields with the same content definition used in the reporting process are given the same name throughout the Group. This makes it unnecessary to create mapping tables and supports efficient reporting. It also means that, for example, subsidiaries and branches are connected to the Group system and use a common data taxonomy. The data lineage is key to identifying the (critical) data elements needed to aggregate the information and create reports. This data lineage documentation should entail: -the steps in the movement and/or transformation of data end to end, from data capture to reporting, including the presentation of the functional and technical data lineage with a granularity on the level of the data attribute used; -systems that deliver, store, aggregate and transform the data, including the end-user applications used; -any manual steps; -the data quality controls and data quality requirements at each step of the creation, acquisition, movement or transformation of the data; -business roles, responsibilities and ownership data at each step of the acquisition, movement or transformation of data, and technical ownership of the systems that store, move, aggregate and transform the data. For new initiatives it is necessary for the data taxonomy to be respected, the impact on the data architecture be assessed and the necessary links between systems be created. In the case of new products the data taxonomy should be amended to reflect these products. In the case of mergers the way the data taxonomy is implemented, the data lineage and any potential need to amend the data architecture in the new Group entity should be assessed during the consolidation process and any necessary changes made.	No
6	Suggested amendment	EBF, AFME Stakeholder(s) suggested amending Section 3.4 on data taxonomies as follows:	The suggested rewording covers a high-level overview of the data flow only, which should be available. However this is not sufficient to ensure efficient and effective lineage, as data	No

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		"The management of data taxonomies should entail key data journey points such as originating source systems, systems which data move through or are aggregated and transformed within, and systems which are the endpoints for the direct data sourcing of all risk indicators and metrics within the scope of the application."	lineage should be available at the data attribute level. (See also question 5 above).	
7	Metadata repository	KBC Group There was a request for an explanation of what type of data (as a minimum) should be in the metadata repository, as well as what the ECB considers to be essential information in the metadata repository.	The metadata needed as part of the data taxonomy depend on the data architecture. Therefore, no further specifications can be provided.	No
8	Data taxonomies	A respondent noted that while market risk and the subject of taxonomies are mentioned, no specific reference is made to market risk factors. For market risk/fundamental review of the trading book, a common risk factor taxonomy would, for example (a) allow more collaborative discussions during regulatory consultative process and (b) provide a common tool for the audit of many market risk-related regulations, including BCBS 239 and RDARR.	The banks themselves decide on the internally used data taxonomy. This Guide is not expected to streamline and harmonise data taxonomies across banks, but instead to set expectations for RDARR.	No
9	Management of data taxonomies	ESBG Respondent(s) asked for an explanation of the following phrase: "data capture for all risk indicators and metrics within the scope of application".	The wording on data lineage will be further clarified in the final version of the Guide. See also question 5 above and question 11 below.	Yes
10	Complete and up-to-date data lineages	EACB, German Banking Industry Committee, DZ BANK AG Respondent(s) welcomed the fact that the role of data lineage is now explicitly mentioned in the Guide, with a clear link to its focus in the last sentence of the section. This removes the ambiguities that were present in the original BCBS 239 paper. However, data lineage requirements should be met at a meaningful level of granularity. Respondent(s) asked the ECB to confirm that institutions can continue to document the data flow at a non-data field-level (system level).	Not only does a data lineage at the system level not fulfil the expectations set by the Guide, it does not fulfil the purposes described in the response to question 13 below. Data lineage should be defined at the data attribute level. This will be clarified further in the Guide.	Yes
11	Complete and up-to-date data lineages	EBF Referring to the phrase in Section 3.3. which reads: "data governance framework should cover the entire lifecycle of the data,	Data capture is the point at which the data are entered into the bank's system on the business side. Origination is a wider concept and includes, for example, market data, external data or even derived data which are combined	No

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		i.e. all processes from data origination, capture and aggregation to reporting"; stakeholders asked for clarification as to the difference between origination and capture. They noted that in Section 3.4 data capture is included in data lineage, but origination is not.	and recalculated in the risk process and stored as a new result (e.g. information which is automatically calculated and stored during the risk calculation and aggregation process).	
12	Complete and up-to-date data lineages	EBF Respondent(s) suggested removing from the text the phrase in paragraph 3.4.3 which reads: "complete and up-to-date data lineages (including data capture) for all risk indicators and metrics within the scope of application".	We deem this necessary as it stresses that the complete data lineage will be available. For that reason we will keep the phrase.	No
13	Complete and up-to-date data lineages	EBF Respondent(s) found the expectation "complete and up-to-date data lineages (including data capture) for all risk indicators and metrics within the scope of application" very ambitious at this stage. They asked for clarity on how the proportionality referred to in the next paragraph in the Guide can be applied to this expectation in practice (coherence between all and proportionate implementation choices). The paragraph reads: "Implementation choices should be proportionate, well documented and focused on providing the necessary information for steering the institution and managing its risks". A respondent commented that lineage on the level of data architecture should always be available. However, having all detailed lineages of all critical data elements up to date in place is not feasible and also not needed. It would be better to use an ad hoc request approach in place, based on the different types of input available.	The Guide does not expect the complete lineage for all data points included in the respective reports in scope but refers only to the risk indicators and critical data elements mentioned in paragraph 3.2.3, which covers the proportionality of implementation choices. We are considering making this clearer in the final Guide. Just creating data lineage on an ad hoc basis for critical data elements makes it more difficult to produce risk metrics quickly in times of stress and crisis. Furthermore, data corrections at the source level can be performed more easily and faster if the concrete data elements can be identified via the data lineage. Without a data lineage it is impossible to assess data quality effectively in the complex operational landscapes of large banks. It is necessary to: (i) understand whether data quality checks are sufficient and well placed in the data flow, (ii) identify interconnections between data definitions and taxonomies (so that if these change in one part of the lineage it will still be aligned with reporting requirements), (iii) ensure that when data fields are loaded or transformed across or within systems they are still in line with reporting requirements and definitions, (iv) support the identification of data points needed for specific ad hoc reporting needs, (v) be able, in the event of data quality incidents, to track back the source of the issue in a timely manner, and (vi) allow traceability in internal/external validations/assessments, such as those performed by the independent validation function (second line of defence) and internal audit (third line of defence).	Yes
14	Complete and up-to-date data lineages	There was a request to specify the ECB's data lineage expectations, especially from the perspective of technical application (e.g. logical versus physical).	Wording on data lineage will be further clarified in the final version of the Guide. See also question 5 above.	Yes

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
15	Implementation choices	EBF Respondent(s) asked for clarification as to expectations for implementation choices. It is not certain whether it is possible to define specific values or ranges of values in a relevant manner in all cases, except when this aligns with what is meant by "implementation choices should be proportionate", they remarked.	The values and validation rules need to be specified according to the data types used and the respective content of the data element. For example, a validation rule for a range of values could be that percentages should be between 0 and 100. Another possible validation rule could be that text cannot be entered into fields which should contain only numbers.	No
16	Implementation choices	EBF Respondent(s) asked for the confusion deriving from the term "proportionate" to be cleared up. Does "proportionate implementation" mean "implementation within the scope of application"? If it does, why introduce the notion of "proportionality"? If it does not, what exactly does the concept of "proportionality" mean?	The wording will be amended to reflect the fact that the implementation choices need to be fit for purpose. In addition, the reference will be corrected to read Section 3.2 and not Section 3.1.	Yes

2.6

Table 6 – Comments on Chapter 3, Section 3.5: Group-wide data quality management and standards

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Suggested amendment	A respondent suggested that this section could benefit from a distinction between the categories of risk data (and risk factor) that the new RDARR guidelines will cover. At a high level risk data are stored by risk factor which typically relate to either credit risk or market risk. Examples of risk data would help the audience understand the types of risk factor in scope for the regulation. For example, in linear securities portfolios the notional values of bonds and equities are typically aggregated. Whereas in derivatives and other portfolios where non-linear pricing risks exist, it is typically risk sensitivities such as interest rate (IR) Delta, IR Vega, foreign exchange (FX) Delta and FX Vega that are aggregated. The section could also benefit from a description of standard aggregation keys. For example, in trading portfolios risk data will be aggregated using one or more of the following aggregation keys: instrument identifier, book, desk, business, counterparty, issuer or segment.	The Guide applies to all the institution's material risks, in accordance with its internal identification process. It is not in the scope of the Guide to identify the specific risk data elements used for risk management, particularly because the use of risk factors, as well as the underlying data elements that may be selected for the purpose of risk management, may vary across institutions.	No
2	Terminology	EBF Respondent(s) emphasised that it would be useful for the scope of application to be explained as the Guide mentions "risk management framework or data governance framework". "RDARR framework" should be consistently used when referred to in general and "data governance framework" should be used when the context is data specific.	The terminology will be streamlined to make it clearer in this regard.	Yes

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
3	Terminology	<p>EBF</p> <p>Respondent(s) claimed that the Guide uses terminology inconsistently for risk data across the document (e.g. critical data, risk indicators).</p>	<p>"Critical data" refers to data needed to calculate the risk metrics referred to in paragraph 3 of Section 3.2: risk indicators are calculated indicators which are used to steer the risk of the bank (e.g. risk indicators included in the risk appetite statement). In the final version the terminology will be aligned.</p>	No
4	Terminology	<p>EBF</p> <p>Respondent(s) noted that the Guide does not say that checks are applied to risk data, or in line with the scope described in Section 3.2 (risk reports, financial reports and supervisory reports). The chapters do not refer to the full scope as described in the introduction, leading to confusion in terms of application. Also, for modelling the Guide states only "modelling data". "Risk and financial data" would be a more generic term.</p>	<p>Risk data need to be viewed holistically, as all data included in supervisory and financial reporting relate to risks in an institution. Terminology will be further clarified in the final version of the Guide. See also Table 4, question 3.</p>	Yes
5	Terminology	<p>Respondent sought clarification as to the meaning of "front office" for the purpose of the Guide. Does this mean the first line of defence (e.g. trading desk for market risk) or does it mean the front desk clerks at the bank's branches?</p>	<p>The term "front office" refers to all systems or individuals (staff, externals or outsourced personnel) that are part of the process of capturing or generating data from clients, counterparties or external data sources and inputting them into the data ecosystem of the bank. As such, the term includes desk employees in the branches.</p>	No
6	Implementation of data quality checks	<p>EBF</p> <p>Referring to paragraph 3.5.1, where the Guide reads "and with external trusted sources like credit bureaus, land or housing registries, national authorities' lists etc.", stakeholder(s) raised concerns about the trustworthiness of outside sources, as well as concerns about how to ensure a common format for data.</p>	<p>It is the bank's responsibility to assess the quality of external data sources as well as whether including such sources will entail improvements in risk management. Nonetheless, the examples in paragraph 3.5.1 will be omitted in the final version of the Guide, leaving institutions with sufficient room to achieve a proportionate implementation.</p>	Yes
7	Implementation of data quality checks	<p>AFME</p> <p>Respondent(s) asked the ECB about its intention to publish standards with a particular focus on industry-accepted trusted sources and definitions for consistent application in regulatory submissions. This could extend to things like counterparty classifications, approved ratings and product classifications, they suggested.</p> <p>Clear guidance on trusted sources for industry standard information with precise definitions for use by reporting processes integrated into reporting instructions or standards would improve consistency and accuracy, while lowering barriers to implementation and improving maintenance activities.</p>	<p>External sources should be identified by the respective institutions. A list of such sources will not be provided as part of the Guide.</p>	No
8	Implementation of data quality checks	<p>KBC Group</p> <p>Stakeholder(s) challenged the scope of periodical reconciliation outlined in paragraph 3.5.1. It was emphasised that this requirement (i.e. "periodical reconciliation with other sources and reports (i.e. in the areas of accounting, finance, and with external trusted sources like credit bureaus, land or housing registries, national authorities lists etc.)") is not stipulated in BCBS 239, nor is it proportionate for sound RDARR practices. However, in some contexts, such as the criticality of external data used in relation to specific risk monitoring (potential impact), it could make sense.</p>	<p>The examples in the passage in paragraph 3.5.1 alluded to above will be omitted from the final version of the Guide. This will leave institutions with sufficient room for proportionate implementation.</p> <p>Alternatives to external data acquisition/interfaces could be plausible where a bank can sufficiently justify why these are in line with the required (and adequate) risk management and data quality standards and appetite.</p> <p>Terminology will be further aligned in the final version of the Guide.</p> <p>See also question 6 above.</p>	Yes
9	Implementation of data quality checks	<p>IRION IT</p> <p>Respondent required more clarity on recommended reconciliation typologies and</p>	<p>In the case of data handovers that may include the filtering/transformation or amendments of data within the data lifecycle, data quality controls/checks</p>	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		<p>frequencies, to ensure compliance in case of on-site inspections. The following questions were raised: (i) Are there reconciliations of paramount importance that can be considered mandatory? Front office systems versus general ledger accounts, general ledger accounts versus balance sheet, or balance sheet versus FINREP?</p> <p>(ii) Is there a minimum frequency that can be deemed as sufficient? For instance, balance sheet versus FINREP may be performed quarterly, while front office systems versus general ledger should be daily?</p>	<p>and/or reconciliations could be one way to detect problematic cases that may need to be corrected or explained.</p> <p>Banks should decide on a documented and tailored approach at each stage of data processing so as to ensure data quality.</p> <p>Reconciliation frequencies should again be selected in line with the frequency of the data flows that may alter the value of data elements. For example, in a daily data flow in a data warehouse, when data are extracted and transformed (logically or technically, at representation level), data should be checked and/or reconciled for unwanted or unexpected values. The highest frequency of reconciliations and data quality controls can help detect errors sufficiently early, especially for data elements that are cumulative (e.g. year-to-date, accruals etc.).</p>	
10	Implementation of data quality checks	<p>AFME</p> <p>Respondent(s) asked for it to be made easier to implement the requirement in paragraph 3.5.1. There may be concerns about the accuracy and security of data from outside sources and it may be difficult and time-consuming to obtain common formats.</p>	<p>Institutions are also expected to ensure data quality for external data: the focus should be on critical data. See also question 6 and question 8 above.</p>	Yes
11	Implementation of data quality checks	<p>EBF</p> <p>Respondent(s) commented that it is not clear whether the Guide covers all data quality dimensions. The Guide sometimes mentions accuracy and there is a chapter on timeliness. Reporting accurate, complete and timely data are fundamental to effective risk management and identification. The data quality dimensions and requirements for each dimension should be included in Section 3.5.</p>	<p>The Guide covers all data quality dimensions and will be clarified accordingly.</p>	Yes
12	Implementation of data quality checks	<p>A respondent asked for more details on what is meant by critical data elements, given that all data elements for producing steering-relevant reports are critical by design.</p>	<p>Critical data elements are those data elements that are used to calculate key risk indicators and which have a direct or significant impact on the value of the indicator or technical routine of the calculation, as well as on reporting.</p>	Yes
13	Implementation of data quality checks	<p>German Banking Industry Committee</p> <p>Respondent(s) raised doubts about the scope of appropriate controls in place as the respective requirement is too broad and far reaching. They argued that it is simply unrealistic to expect all risk indicators and model development data to be in scope. Institutions should be allowed to apply a risk-based approach to ensure a reasonable cost-benefit ratio.</p>	<p>The focus of the Guide is on critical data elements for those key risk indicators, models and reports used in risk management and decision-making that institutions have decided to include in the scope of application of their data governance framework. The nature, frequency, depth and density of the controls should be decided by the institutions and may vary depending on, among other things, the data quality risks entailed by the levels of automation, rigour and complexity of the data flows (as long as institutions can document these controls and provide evidence that they guarantee adequate data quality).</p>	Yes
14	Implementation of data quality checks	<p>EBF, AFME</p> <p>Respondent(s) suggested that for quality indicators the Guide should take into account systemic data quality controls placed on user interfaces as data are captured and validated as well as inherent data quality controls in database and data transport technologies. 100% data quality would be ensured without the explicit definition and measurement of data quality indicators and tolerance levels.</p>	<p>Systemic data quality controls or data validations and user interface input should be programmed in the respective systems and should therefore be documented. In addition, their accuracy and effectiveness should be assessed and tested. The statement made by the respondent(s) does not contradict the expectations set in the Guide. The Guide does</p>	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			exclude such controls which would not, in any case, be sufficient to ensure accuracy when data are captured or transformed.	
15	Implementation of data quality checks	<p>EBF</p> <p>With regard to the word “additionally” in paragraph 3.5.1, stakeholder(s) asked for more details on what “additionally” means, considering that the first part of the paragraph already describes the main ways used to perform data quality assurance.</p> <p>Is this section referring to additional controls such as “four eyes” or “sample checks”?</p>	<p>Sample checks or the four-eyes principle could be plausible methods for some cases.</p> <p>The wording will be consolidated in the final version of the Guide.</p>	Yes
16	Implementation of data quality checks	<p>EACB</p> <p>The data quality procedures for end-user computing (EUC) are not applicable to structured solutions unless the data quality management is comparable with the concept of “industrialisation”.</p> <p>Stakeholder(s) suggested adjusting the paragraph requiring the whole mapping of EUC/end-user developed applications (EUDA) and full industrialisation. This would imply the application of structured data quality procedures in the management information systems.</p> <p>In addition, it should be specified that those EUCs that have no significant impact on data collection, data processing and data transformation within the BCBS 239 reporting routes can be excluded from consideration.</p> <p>Some stakeholders argued that, based on the concrete use case in existing processes, industrialisation is a prerequisite for the sustainability and traceability of EUCs / EUDA.</p> <p>Otherwise, data quality on EUCs could be exclusively the responsibility of the data owner, with poor traceability and monitoring for data governance structures.</p>	BCBS 239 makes explicit reference to the need to document manual workarounds used in the RDARR process. Unless these manual workarounds are documented, it will not be possible to assess their criticality and impact.	No
17	Data quality indicators	<p>AFME</p> <p>Respondent(s) raised doubts about how easy it would be to implement the requirement in paragraph 3.5.2. For globally operating banks, data quality indicators are difficult to implement at a legal entity level. Respondent(s) suggested amending the Guide to allow a threshold based on expert judgement and/or a risk-based approach. In addition, a broader, more flexible definition of “quantitative impacts” would be appreciated. Also, “end-user computing” is a very broad definition and it would be useful if it could be described further, and its scope limited.</p>	<p>The EBA Guidelines on outsourcing arrangements also include intragroup outsourcing. The respective service level agreements for data delivery in globally operating banks need to ensure that the data are delivered at the quality defined and the Group should ensure that these requirements are fulfilled.</p> <p>Thresholds could be defined but need to be appropriate for the data included. For example, a global threshold amount cannot be applied to a small subsidiary.</p> <p>The term “end user computing” is mentioned in Principle 3 of BCBS 239 in relation to the example of desktop applications.</p>	No
18	Overview of data quality issues	In paragraph 3.5.3. the Guide states: “(ii) a quantitative impact analysis of material/severe data errors on the risk and business areas affected”. A stakeholder asked whether the impact analysis must be performed for the impact on KRIs and reports or whether it would be sufficient to assess the impact on the relevant processing steps and subsequent data items.	Both would be expected as BCBS 239 refers to the fact that the management body should be informed of any limitations in the RDARR process. This is one such limitation.	No
19	Overview of data quality issues	<p>EBF</p> <p>Stakeholders were doubtful as to the feasibility of measuring the quantitative impact of data quality issues. They remarked that in most cases it is not possible to do so with an acceptable degree of reliability. Too many extremely vague assumptions are often required, leading to values which have no practical value.</p>	The Guide includes the expectation that a “quantitative impact analysis of material/severe data errors” should be performed. By “errors” we mean errors with a potential impact on key risk management or regulatory ratios or models, or which limit monitoring at a portfolio or an individual exposure level. Exact or precise measurement may not be possible in certain cases	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
			<p>(e.g. where data are missing). However, a sufficiently reliable estimate or informed analysis of potential impacts (e.g. a sensitivity or risk analysis based on other characteristics/behaviour, or the size or overall riskiness of the specific portfolio) is by definition required for the bank's management to be able to understand the severity of the potential impact, prioritise mitigation and take all other actions needed to cancel out the impact on risk management and/or risk-based decision-making (e.g. determining a prudent level of provisions, capital etc.).</p> <p>The impact could also be quantified through model performance (where applicable).</p>	
20	Overview of data quality issues	<p>EBF</p> <p>Respondent(s) were of the view that performing the same data quality checks in all parts of the data chain does not deliver any value in at least 95% of cases – in fact it has a negative impact on performance. It would be better to perform checks at the end of the chain, including the possibility of checking throughout the chain if something breaks, as done in the usual remediation process, or at least leave it open and avoid a one-size-fits-all approach.</p>	<p>There is no expectation in the Guide that exactly the same controls should be performed across the data chain. Nonetheless, data may be rendered in various forms to data consumers (business lines, applications and reporting systems) at the various stages of the data lifecycle/value chain, after they have undergone transformation. It is therefore necessary to ensure data quality standards at all such points and controls should ensure this (even if they are repeated from previous stages) or undergo appropriate reconciliation to ensure data quality standards. Furthermore, an error which is detected late (further down the chain) may be much more difficult and expensive to identify or correct, especially if not captured immediately. Designing, allocating and scheduling controls should alleviate performance issues. Detecting data quality issues at the beginning of the data chain increases efficiency as interim calculations will not then be based on potentially low-quality data which will need to be corrected after the application of data quality controls at the end of the reporting chain. In addition, checks at an aggregated level will not detect issues which might be levelled out during the aggregation (e.g. excessively low exposure versus excessively high exposure will not be seen in the aggregated figures).</p>	No
21	Overview of data quality issues	<p>EBF</p> <p>Respondent(s) suggested amending paragraph 3.5.3 and including the following:</p> <p>(i) the root cause analysis of the data quality issue;</p> <p>(ii) data quality issue resolution and evidencing.</p>	<p>Root cause analysis and issue resolution justification and evidencing were seen as an integral part of the issue remediation process but will be explicitly mentioned in the final version of the Guide.</p>	Yes
22	Full integration of EUC and EUDAs	<p>EBF, ESBG</p> <p>Respondent(s) asked to explain what the term "full integration", mentioned in paragraph 3.5.4, means.</p>	<p>Full integration refers to applying the same standards and expectations in terms of data quality (as well as related controls) from a functional/logical point of view.</p>	No
23	Full integration of EUC and EUDAs	<p>EBF</p> <p>Respondent(s) commented that the scope of integrating end-user developed applications (EUDAs) into the data framework is not clear. It should be the other way around if EUDA data and reporting framework should be controlled. The purpose of the controls surrounding the integration should be stated, as should the classifications of EUDA based on risk and</p>	<p>The integration refers to ensuring the same data quality controls (from a functional point of view) that would have been deployed if the EUDA had been a normal application.</p> <p>See also paragraph 3.5.5 which refers to manual workarounds.</p>	No

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		complexity. In addition, in cases of high complexity plans should exist to replace EUDAs with automated solutions.	<p>As long as an EUC application manages critical data, data quality standards should be ensured.</p> <p>The expectation in Chapter 3 of the Guide apply to the scope as defined by the institution in line with Section 3.2.</p> <p>A broader recommendation about the treatment of EUC is outside the scope of this Guide.</p>	
24	Full integration of EUC and EUDAs	<p>Raiffeisen Bank International AG</p> <p>Respondent commented that they consider EUC to be an important tool to foster innovation within the bank before sustainable solutions are implemented. They asked the ECB to confirm that a reduction of EUC will not be specifically enforced as long as the lifecycle is properly ensured.</p>	<p>In the context of RDARR, a reduction in the number of EUC applications is not expected, as per the text in this Guide.</p> <p>Nonetheless, even when working with innovative or new types of risk data, models, tools and technologies used in prototyping or research and development projects, data quality is still equally relevant. In that context, see also paragraphs 3.5.4 and 3.5.5.</p>	No
25	Full integration of EUC and EUDAs	<p>German Banking Industry Committee</p> <p>Stakeholder(s) asked whether a Group can exclude those EUC applications from consideration that have no significant impact on data collection, data processing and data transformation within the BCBS 239-related reporting processes. EUC applications are not per se data quality related but are often used to ease or shorten processes through automation.</p>	<p>As long as an EUC application performs the function of altering data or metadata (or allowing the manual alteration of data or metadata) that will then be used at a later stage to feed into other risk reporting or risk management processes within the scope of application of the data governance framework as defined by the institution in line with Section 3.2., data quality can still be affected and should be subject to data quality controls and reconciliations.</p> <p>In any case, the full integration into data quality controls mentioned in paragraph 3.5.4 does not mean that data quality controls should be identical for all EUCs or data interfaces. It is to be expected that the focus of data controls should be on the points that are at most risk of being affected, directly or indirectly (side effects), as a result of related technical and functional analysis and tests/experience.</p>	No
26	Arrangements for manual workarounds	<p>EACB, DZ BANK AG</p> <p>Respondent(s) asked for the removal of the inconsistency within paragraph 3.5.5 (the last sentence refers to workarounds with a material impact on data quality, the first sentence to any manual workarounds). In their opinion, a restriction to "manual workarounds with a material impact on data quality" would better fit the purpose and would match the wording in the paragraph.</p>	<p>The whole paragraph refers to manual workarounds.</p> <p>The last sentence refers to the steps in manual workarounds that may have a material impact on data quality and not to other workarounds. In that context, we see no contradiction.</p>	No
27	Adequate controls	<p>EBF</p> <p>Stakeholder(s) suggested including in the Guide the possibility of reusing other controls to avoid performing the same checks twice. For several controls in, for example, data quality, banks can rely on other control frameworks like the ones required by the Sarbanes-Oxley Act (SOX) and measures taken in the accounting environment. This would increase effectiveness and avoid duplication of work.</p>	<p>The Guide does not provide for the duplication of controls. Institutions can use existing control frameworks if these are fit for purpose. In general, we see no need to establish new controls as long as existing controls serve the purposes of BCBS 239. It should be noted that the Guide is neutral as to whether a control is new or existing, as long as it can be evidenced that it is adequate for the level it is meant for.</p> <p>A reference to the integration of existing controls will be included in the final version of the Guide.</p>	Yes
28	Consideration of data quality	<p>Nordea bank Abp</p> <p>Referring to paragraph 3.5.6, the respondent asked the ECB to cover this expectation more</p>	<p>Generally, it is the responsibility of the institution to decide how to address data quality risks most effectively in ICAAP/ILAAP. In principle, it may be</p>	No

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
	risks in ICAAP and ILAAP	generally through operational risk capital. It was argued that it would be very challenging to impose a margin of conservatism. A similar concept can be found in the model development programme for capital. This could ensure that the expectation and implementation are aligned.	acceptable to capture data quality risk in operational risk. However, this would not really meet the challenges of adequate quantification because even in that case quantification should not be an arbitrary figure. Quantification should instead be based, at the very least, on a thoroughly assessed estimation of the potential risk and such an estimate cannot be produced without looking into the different sources of data quality risk one by one. Hence, the choice between adding a margin of conservatism to the different risk figures versus making, in operational risk, an overall assessment of data quality risk is more a question of presentation than quantification.	
29	Consideration of data quality risks in ICAAP and ILAAP	ESBG Respondent(s) asked for clarification as to whether data quality should be considered as a separate risk in ICAAP and ILAAP or whether it should be seen as having an impact on other risks.	In general, both ways are possible. It depends on the risk taxonomy of the institution. Please also refer to the answer to the previous question.	No

2.7 Table 7 – Comments on Chapter 3, Section 3.6: Timeliness of internal risk reporting

Nº	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Terminology	EBF, AFME Respondent(s) noted that there is no definition of the concept of "regular reporting".	Regular reporting means periodic reporting in normal circumstances. The wording will be amended slightly to align the text with BCBS 239.	Yes
2	Scope	EBF Stakeholder(s) remarked that the Guide does not differentiate between "ad hoc reporting" and "reporting under stress". The understanding that "ad hoc reporting" equals "reporting under stress" is not in line with BCBS 239.	Indeed, "reporting under stress" means increased reporting frequency and timeliness in stress situations. Institutions are expected to define a stress or crisis situation and the respective reporting requirements. In addition, banks are expected to implement adequate ad hoc reporting procedures so they can report, for example, risk appetite limit breaches immediately. The wording will be slightly amended to align the text with BCBS 239.	Yes
3	Scope	EBF, ESBG Respondent(s) pointed out that in comparison with BCBS 239 requirements such as the distribution, clarity, usefulness and accuracy of reporting, the Guide provides only for timeliness. It was suggested that the Guide should be amended to replace timeliness of reporting with reporting practices which cover accuracy, distribution, clarity and usefulness. Considering that "timeliness of internal risk reporting" is the sixth of seven key areas of concern, more details on expectations would help to improve capabilities in terms of the timeliness of internal risk reporting.	The main goal of the draft Guide is to focus on the most severe deficiencies observed in on-site and ongoing supervision and clarify some aspects of BCBS 239. Furthermore, institutions are expected to consider this Guide in conjunction with the BCBS 239 principles. Clarification will be provided in the final version of the Guide.	Yes
4	Timeliness of risk reporting in normal circumstances	EBF, ESBG, AFME, German Banking Industry Committee Respondent(s) raised concerns that such a strict limit of 20 working days for all regular reports is unsuitable and unachievable. A	We see in practice that the production time for risk reports is in some cases too long to be of use in decision making and to enable timely reaction to existing or upcoming risks. As a result, business decisions are based on other	No

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		<p>production time of monthly or quarterly risk reports would strike a balance between the timeliness of report distribution and the comprehensiveness of the information included. This can be mitigated by providing the information needed to react to changes in flash reports or other more timely reports.</p> <p>Respondent(s) asked why the ECB considers that institutions will not be able to react to changes in a timely manner.</p>	<p>information sources and not on risk reports, which for us represents an area of concern. Generally, we expect institutions to speed up their data aggregation processes and reduce the number of time-consuming and error-prone manual workarounds. Regarding flash reports, we would like to highlight that we expect there to be a regular reconciliation of flash and final figures and measures in the case of material deviations.</p>	
5	Timeliness of risk reporting in normal circumstances	<p>AFME</p> <p>Respondent(s) raised concerns that for ICAAP, as an example, 20 business days are not achievable.</p>	<p>The 20 working-day period for producing internal reporting data mentioned in this Guide should be seen in conjunction with paragraph 29 of the ECB Guide to the ICAAP which clarifies that "the frequency of reporting of the ICAAP outcomes (such as how material risks, key indicators, etc. are evolving) to the management body is expected to be at least quarterly, but, depending on the size, complexity, business model and risk types of the institution, reporting might need to be more frequent to ensure timely management action". It should be noted that the objective of this paragraph is to enable the bank's management to receive the relevant information sufficiently quickly that they can react to developments in a timely manner. While regulatory capital ratios and underlying data should be available at lower frequencies, we believe that from a much more volatile economic perspective the period for producing key data (e.g. the evolution of material risks and key indicators) should be no longer than 20 working days. This will allow the bank's management to obtain the relevant information early enough to address observed developments by taking the necessary actions. It should be noted that the 20 day-period refers to the internal reporting of banks and NOT to the compilation of the ICAAP packages which banks are obliged to submit to the ECB by the end of March each year.</p>	No
6	Timeliness of risk reporting in times of stress	<p>EBF</p> <p>Respondent(s) asked the ECB to provide additional guidance on risk areas/metrics that require higher than usual risk data aggregation capabilities in times of stress.</p>	<p>In general, which risk data should be produced at a higher frequency in times of stress depends on the specific stress/crisis situation. Institutions are expected to define the stress/crisis situations that apply to them. For this reason a list of such risk areas/metrics cannot be provided. Some examples can be found in paragraph 46 of BCBS 239.</p>	No
7	Timeliness of risk reporting in normal circumstances	<p>Austrian Federal Economic Chamber</p> <p>Respondent asked for the text of the final version of the Guide to drop the requirement specifying a maximum of 20 working days for the preparation of risk reporting without taking into account the specifics or requirements of different forms of risk reporting.</p>	<p>The current wording makes it possible to take into account the specifics or requirements of different forms of risk reporting. It is generally understood that institutions will not be able to react to changes in a timely manner if a monthly or quarterly risk report takes more than 20 working days to produce. Depending on the potential volatility and materiality of the reported data, the actual production time is expected to be significantly shorter.</p>	No
8	Timeliness of risk reporting in normal circumstances	<p>UniCredit Spa</p> <p>With reference to Section 3.6, which sets a limit of 20 working days, a respondent commented that in practice, given the agendas/calendar of committee meetings, it may be the case that there is a few-day lag between actual readiness of the data and the report presentation. It should be already the case that as soon as data are available the assessment of, for example, risk appetite threshold breaches is done immediately and, if needed, the escalation process with mitigation actions is immediately activated. Hence, it is more crucial to specify that the 20-working-day period should be applied to data availability, not exactly risk report, as the</p>	<p>Procedures should be in place to allow for the rapid collection and analysis of risk data and the timely dissemination of reports to all appropriate recipients (see paragraph 72 of BCBS 239). The distribution of risk reports should be independent of the agendas/calendars of committee meetings. In addition, adequate ad hoc reporting procedures should be in place for issues such as risk appetite limit breaches.</p>	No

No	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
		<p>timeline for this can be affected by "formal" limitations like the exact days of committees/submissions.</p> <p>The following amendment to the final version of the Guide was suggested: "For regular reporting, it is generally understood that institutions will not be able to react to changes in a timely manner if a monthly or quarterly risk data needs more than 20 working days to be produced."</p>		
9	Trade-offs between different data quality dimensions	<p>EBF</p> <p>Respondent(s) suggested that the final version of the Guide should take into account the fact that there is a natural trade-off between timeliness and adaptability/flexibility/frequency. There is also a trade-off between data quality/completeness and timeliness. This also implies that for ad hoc risk reporting (e.g. stress situations and special inquiries), lower data quality is acceptable than would be the case under normal conditions. Different situations require different solutions.</p>	<p>Trade-offs between different data quality dimensions (accuracy, integrity, completeness and timeliness) may be acceptable in exceptional circumstances, such as urgent/ad hoc requests for information on new or unknown areas of risk. There should be no trade-offs that materially impact risk management decisions. Decision makers at banks should be aware of these trade-offs and the limitations or shortcomings associated with them (see paragraph 22 of BCBS 239). Institutions can define different tolerance levels for reporting in normal circumstances and reporting in times of stress.</p>	No

Table 8 – Comments on Chapter 3, Section 3.7: Effective implementation programs

№	Topic	Comment(s) received	ECB response and analysis	Amendment (yes/no)
1	Terminology	<p>EBF</p> <p>With reference to paragraph 2 of Section 3.7, which states “as specified in point three of the list in Section 3.1 (...)” stakeholder(s) asked for clarity over what “management body” refers to here and whether some delegations from management body can be authorised, given the fact that the number of programmes could be significant.</p>	<p>The Guide emphasises here the expectation set out in paragraph 31 of BCBS 239: “The board should also be aware of the bank’s implementation of, and ongoing compliance with the Principles set out in this document.”</p> <p>The definition of the term “management body” is clarified in Section 3.1. The management body comprises a supervisory function and a management function that may be performed by a single body or two separate bodies. We expect, in particular, the management body in its management function to be responsible for the execution of effective implementation programmes that are key elements in covering gaps and addressing weaknesses. An institution should be able to demonstrate that, as a result of its internal prioritisation and budgeting process, the necessary resources are available on a case-by-case basis. With regard to delegation, the ECB believes that board committees should support the supervisory function in specific areas. Institutions should ensure there is a clear allocation and distribution of duties and tasks between specialised board committees. However, delegating to committees does not release the management body in its supervisory function from collectively fulfilling its duties and responsibilities.</p>	No
2	Suggested amendment	<p>A respondent argued that the draft Guide lacks a uniform data glossary with clear and concise definitions, which is one of the key backbones of BCBS 239. The final version of the Guide would benefit from the inclusion of a list of definitions of key concepts included within the guidance (e.g. risk data, risk metrics, data owner, data steward, end-user computing and data lineage).</p>	<p>We do not include a glossary to avoid duplication of terminology from other sources. Some footnotes have been included throughout the Guide to clarify certain definitions.</p>	Yes
3	Suggested amendment	<p>Enterprise Data Management Council</p> <p>A respondent commented that it would be beneficial to include a footnote which references the data management capability assessment model as an example of a global cross-industry framework. Organisations may wish to use (for the purposes of conducting) their internal review of data management) data governance, data quality and data architecture capabilities that should be sufficiently developed and frequently measured (annually) to ensure effective RDARR.</p>	<p>It is not the intention of the Guide to refer to a specific framework.</p>	No
4	Suggested amendment	<p>EBF</p> <p>Respondent(s) suggested redrafting paragraph 2 in Section 3.7 to include “is responsible for” instead of “decides on”.</p>	<p>We agree with the suggested amendment.</p>	Yes

© European Central Bank, 2024

Postal address 60640 Frankfurt am Main, Germany

Telephone +49 69 1344 0

Website www.bankingsupervision.europa.eu

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For specific terminology please refer to the [SSM glossary](#) (available in English only).