
Strategy on supervisory data in EU financial services

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1. CONTEXT

As digitalisation continues to increase\(^1\) and the EU progresses towards its digital targets for 2030\(^2\), new challenges and opportunities are arising that are shaping all areas of society and the economy, including the financial sector. Over the last few years, digital technologies have transformed the way financial market participants produce, communicate and use information – the lifeblood of finance – to make decisions. Data is at the centre of this transformation.

In its European data strategy\(^3\), the Commission highlighted the importance of data as a potential source of growth and innovation for the EU economy, and stressed the need for better access to data and data sharing through common European data spaces. One of the top priorities of the Commission’s digital finance strategy\(^4\) is the promotion of data-driven innovation in finance. This includes tools to facilitate reporting and supervision, and the establishment of a common financial data space, covering business-to-business data, publicly disclosed data and supervisory data.

Financial institutions and other entities active on financial markets are required to report a wide range of data on their financial condition and activities. EU and national supervisory authorities need the data to supervise financial institutions and markets. Data enable supervisors to monitor risks, ensure financial stability and market integrity, and protect investors and consumers of financial services in the EU.

The volume and granularity of data reported for supervisory purposes have grown substantially over the last decade. In aggregate, financial institutions in the EU are subject to more than 500 reporting obligations comprising more than 1000 tables with more than 70 000 individual data points.\(^5\) Stricter reporting obligations have helped address information gaps identified during the global financial crisis and reflect the increasing complexity and interconnectedness of the financial system. While this has significantly improved supervisory oversight, it has also placed an increasing burden on both the reporting entities and the supervisory authorities receiving and analysing the data.

Digital technologies can significantly reduce the reporting burden and allow supervisors to gain insights from the reported data more effectively and efficiently. To address the opportunities and challenges of data-driven supervision, regulators around the globe are

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2. COM/2021/118 final
3. COM(2020) 66 final
4. COM (2020) 591 final
working to modernise reporting in their jurisdictions. EU supervisory reporting and the manner in which authorities collect and use data need to keep pace with these developments.

The EU has already delivered improvements in a number of key areas and is taking a leading role in international discussions to foster financial data harmonisation and alignment at the global level. To ensure further progress in the effectiveness and efficiency of the EU supervisory reporting framework, more work will be required.

The EU needs an improved supervisory reporting system which allows supervisors to:

- follow developments across markets, instruments and sectors of the financial system with greater precision and speed;
- make better informed and faster decisions to safeguard financial stability, market integrity and consumer protection and to deliver on other objectives, such as monitoring the transposition of EU legislation and its effective enforcement;
- better coordinate among themselves and achieve supervisory convergence through more consistent and interoperable data sets;
- while at the same time minimising the compliance burden, in line with the Commission’s better regulation principles and the commitment to systematically and proactively seek ways to reduce burdens imposed by legislation.

Building on extensive discussions with stakeholders, the Commission is presenting this strategy, which outlines the approach to reach the objective of a modern supervisory reporting system in the EU. The strategy contributes to the objectives of the European data strategy and the digital finance strategy to promote digital innovation in Europe. By supporting supervisory convergence, it also contributes to the objectives of the Capital Markets Union (CMU).

2. BACKGROUND: CURRENT CHALLENGES

In a comprehensive fitness check of EU supervisory reporting requirements, the Commission concluded that the current reporting requirements in Union law are necessary and effective in providing supervisors with relevant data. However, inefficiencies were identified in the manner in which reporting requirements are defined and data are collected. This has adverse knock-on effects on the quality and usability of the reported data, reducing the ability of supervisors to perform their functions. Such inefficiencies also generate additional costs for reporting entities, which may amount to

6 Insights on policy implementation, No 29, BSI Financial Stability Institute.
7 For an overview, see also SWD (2019) 402 final, pp. 19-23.
8 Including for example international discussions at the Financial Stability Board (FSB), the Committee on Payments and Market Infrastructure / the International Organisation of Securities Commissions (CPMI-IOSCO) and the LEI Regulatory Oversight Committee (ROC).
9 COM(2021) 219 final
10 Supervisory data collection | European Commission (europa.eu)
11 SWD (2019) 402 final
as much as EUR 4 to 12 billion\textsuperscript{12} per year to comply with EU reporting requirements. Moreover, reporting frameworks do not make full use of modern IT tools.

The fitness check identified five main areas for improvement:

- **Consistency and harmonisation of reporting requirements**: Reporting requirements and the detailed data specifications are not sufficiently harmonised and contain some inconsistencies and ambiguities. There is an insufficient use of common data standards, formats, and identifiers.

- **Data sharing and uses**: Different authorities sometimes collect partially overlapping data or data that is very similar. Data are not efficiently shared and reused between authorities.

- **Legislative process and instruments**: Reporting requirements, including empowerments for the European Supervisory Authorities (ESAs) to develop technical standards, are not always consistent between reporting frameworks. Short implementation timelines and frequent changes to the rules add costs for both reporting entities and supervisors.

- **Governance**: Reporting requirements are often developed without considering what is already in place. There is scope for more coordination and cooperation between the relevant stakeholders, from the early design phase to data sharing between authorities.

- **Technology**: The current design of supervisory reporting requirements does not allow automated, straight-through data processing in all areas. Insufficiently standardised data also hinder the application of modern technologies by reporting entities and supervisory authorities.

Building on these findings, the Commission, together with the ESAs, has already delivered targeted improvements to supervisory reporting in different sectoral legislation. However, some of the identified issues apply across financial services sectors and therefore should be addressed as part of a broader, cross-sectoral approach to supervisory data.

### 3. **OUR OBJECTIVE**

The Commission’s long-term objective is to modernise EU supervisory reporting and put in place a system that delivers accurate, consistent, and timely data to supervisory authorities at EU and national level, while minimising the aggregate reporting burden for all relevant parties.

Achieving this goal requires modifications to current supervisory reporting frameworks and the methods for collecting and processing financial data. Drawing on the lessons learned from the fitness check and further discussions with stakeholders, the Commission concluded that such a reporting system should include the following main building blocks:

1. **Consistent and standardised data**: Data standardisation and a common understanding of the data collected under different reporting frameworks will make it easier to use digital technologies and simplify the transmission,

\textsuperscript{12} ‘Study on the costs of compliance for the financial sector’, ICF and CEPS, 2019, p.164. Incremental costs of EU reporting requirements are estimated to represent approximately 0.5% of operating costs.
validation, and analysis of the data. Data specifications should rely on clear and common terminology, as well as on common standards, formats and rules for the use of unique identifiers. This will avoid ambiguity in their interpretation and make compliance easier.

(2) **Data sharing and reuse:** Facilitating the sharing and reuse of reported data among national and EU supervisors will reduce the burden on reporting entities by avoiding duplicative data requests. It will also allow supervisors to overcome legal and technical barriers to using data held by another supervisor. Improved data sharing and reuse will require a dedicated regulatory framework and a secure IT environment to streamline data flows, validation and exchange mechanisms. It will also rely on the common specification and standardisation of data sets.

(3) **Improved design of reporting requirements:** Well-designed and drafted legislation is essential for implementing an effective and efficient reporting system. An improved process for the design of reporting requirements should be based on, and further extend, current best practices in applying Better Regulation\(^\text{13}\) principles to supervisory reporting, both in the legislation and in the specification of technical standards. It should also ensure that these principles are applied consistently and systematically across reporting frameworks, from the development of the initial requirements to subsequent reviews.

(4) **Joint governance:** Designing, implementing and maintaining a modern and improved supervisory reporting system will require sufficiently robust governance arrangements. These will improve coordination and foster greater cooperation between different supervisory authorities and other relevant stakeholders, allowing them to share their expertise and exchange information.

Delivering these essential building blocks will enable a more effective and efficient use of modern technologies, including RegTech and SupTech\(^\text{14}\). The use of such solutions will further reduce the compliance burden for reporting entities and increase the accuracy and timeliness of the data received by supervisors and improve their capacity to analyse it.

4. **TRANSFORMING SUPERVISORY REPORTING**

The development of a modern and more integrated supervisory reporting system is an ambitious, complex, and long-term undertaking. The current reporting frameworks and their objectives differ significantly across the different financial services sectors and between national and EU levels. The exchange of data often involves multiple independent authorities. The transition to a common system needs to consider the different starting points and objectives of the various EU and national legislative frameworks, and will require the commitment and coordination of both the financial services industry and the supervisors. It will necessitate redesigning some reporting and data collection processes and replacing legacy technical solutions.

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\(^{14}\) RegTech includes technologies that help to fulfill regulatory requirements more efficiently and effectively than existing capabilities. SupTech uses innovative technology to support supervision and helps supervisory authorities to digitise reporting and regulatory processes. See Section 4.5.
While modernising and improving supervisory reporting is expected to bring significant long-term benefits and cost savings, it also inevitably implies an investment of resources during the transition. Therefore, the modernisation of supervisory reporting in the EU will require a **gradual approach** to reduce implementation risks and costs. The approach consists of both targeted amendments to sectoral measures as well as more far-reaching, longer term cross-sectoral improvements.

Specifically, the Commission will use the regular review process to introduce **targeted improvements** in individual pieces of legislation. Such improvements include: (i) removing identified overlaps or inconsistencies within a legislative act or across multiple acts; (ii) removing redundant or outdated reporting requirements; (iii) providing or clarifying specific definitions; (iv) streamlining data flows between supervisory authorities; and (v) where appropriate, strengthening the proportionality of the reporting requirements.

In parallel, drawing on their technical expertise, the Commission will mandate the ESAs to assess and take the necessary steps to further integrate reporting and improve consistency and data standardisation within their sectors.

In a subsequent stage, building on the progress within the sectors, the Commission will seek to **complete the implementation of the building blocks** and undertake any additional measures required to achieve an integrated EU supervisory reporting system across all financial sectors. In 2023, the Commission will prepare a report on the progress made in implementing the strategy and the lessons learned.

**4.1. Consistent and standardised data**

To improve consistency in the reporting requirements, the Commission has already introduced targeted improvements in a number of legislative frameworks and will introduce others as part of the regular legislative reviews. However, the Commission will primarily rely on mandates to the ESAs to ensure consistency within the different sectors.

In the banking sector, the European Banking Authority (EBA) has already received a mandate in the Capital Requirements Regulation (CRR)\(^\text{15}\) to assess the feasibility of integrating the collection of prudential, statistical and resolution data. Although focused on the banking sector, the work covers data consistency and standardisation as well as other key elements of the strategy, such as data sharing and governance. The banking sector is large and complex from the reporting perspective, so best practices developed there can be used as a pilot. Considering the results and recommendations of the EBA, the Commission will, where necessary, propose adaptations to the legal framework to achieve consistency, standardisation and integration\(^\text{16}\).

In the insurance sector, the recent Commission proposal for the review of the Solvency II Directive\(^\text{17}\) includes a mandate to the European Insurance and Occupational Pensions Authority (EIOPA) to work, in cooperation with other ESAs and the European Central Bank (ECB), on increasing consistency between reporting frameworks and on data

\(^{15}\) Regulation (EU) 2019/876, Article 430c

\(^{16}\) The EBA ‘Discussion paper’ on a feasibility study of an integrated reporting system under Article 430 CRR was published in March 2021. The final feasibility study is due for publication at the end of December 2021.

\(^{17}\) COM (2021) 581 final
standardisation. EIOPA should prioritise the areas of collective investment undertakings data and derivatives reporting, where overlaps are most prominent. EIOPA will also aim to identify and address any areas of duplication or inconsistencies with other sectoral frameworks. The Solvency II review also introduces targeted simplifications and enhanced proportionality in reporting.

For the investment funds sector, in the proposal for the review of the Alternative Investment Fund Managers Directive (AIFMD)\textsuperscript{18} adopted in the CMU package in November 2021\textsuperscript{19}, the Commission proposes to empower the European Securities and Markets Authority (ESMA) to improve data collection from alternative investment fund managers and to harmonise data reporting requirements for undertakings for collective investments in transferable securities (UCITS). Before amending or developing new reporting templates, ESMA is required to carry out a technical assessment, working with the ECB and EIOPA. The purpose of the assessment is to ensure consistency with other reporting requirements for investment funds, including in particular the data already collected for statistical purposes by the European System of Central Banks (ESCB).

In terms of reporting in financial markets, some inconsistencies between frameworks have already been resolved in the European Market Infrastructure Regulation (EMIR) Refit\textsuperscript{20}, and ESMA is delivering further improvements at technical level. In the proposal for the review of the Markets in Financial Instruments Regulation (MiFIR)\textsuperscript{21} adopted in the CMU package, the Commission proposes to align the empowerments for ESMA to adopt technical standards and ensure greater consistency in transaction reporting between these frameworks. In addition, ESMA is tasked with assessing options for further integration of reporting and streamlining the data flows. The MiFIR review also advances the creation of a consolidated tape for equities and bonds. The aim is to ensure consistency with data already reported and to develop the transparency standards for the tape as a subset of the reporting requirements. This will improve data quality and avoid unnecessary additional costs for the industry.

Building on these sectoral initiatives, the Commission will coordinate the development of a common data dictionary to ensure consistency and standardisation across the financial sectors. Having common standards to define the format of the data will also make it easier to share and reuse data for different purposes. In addition, the data dictionary will contribute to other longer-term goals such as making reporting requirements machine-readable and executable.

The dictionary will contain a description of the content and format of all data collected under various reporting frameworks in a structured, comprehensive, consistent and unambiguous manner, using terms anchored in legislation to establish a clear link between collected data items and the relevant legislative requirements\textsuperscript{22}. The relevant authorities will implement the technical elements of the dictionary. The Commission will develop the rules for its use and governance.

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\textsuperscript{18} COM(2021) 721 final  
\textsuperscript{19} COM/2021/720 final  
\textsuperscript{20} Regulation (EU) 2019/834  
\textsuperscript{21} COM(2021) 727 final  
\textsuperscript{22} The data dictionary will be a repository of information on the data to be reported. It will define the data in legal and business terms and include other information needed to use the data, such as: allowed values, format, access restrictions, relation to other data items (e.g. is part of or sum of other data items). For examples, see CPMI/IOSCO ‘Harmonisation of critical OTC derivative data elements’ and the Bank Integrated Reporting Dictionary (BIRD) developed by the ESCB and the banking industry.
Recognising the complexity of the task, the Commission will draw on the technical expertise of the ESAs and the ECB, who already have experience in building sectoral data dictionaries. ESMA has recently started work on a data dictionary in its domain. EIOPA and EBA share the same data description methodology and are working on achieving closer alignment of their respective data dictionaries. The ESCB, under the direction of the ECB, has established and continues to expand its single data dictionary for statistical reporting in the banking sector under its integrated reporting framework (IReF)\textsuperscript{23}. The Commission has already mapped existing reporting requirements and carried out a pilot project\textsuperscript{24}, using machine learning methodologies, to build a glossary of concepts. The glossary will list the terms used in legislation and their definitions. It will help clarify and streamline the set of legal concepts that will be used in the common data dictionary, which will describe the individual data fields to be reported. The aim is to have the sectoral data dictionaries based on the underlying concept glossary in place by 2024.

A key element for ensuring data consistency is the full use of internationally accepted common identifiers, such as the unique product identifier (UPI), the unique transaction identifier (UTI) and the legal entity identifier (LEI). The LEI, which allows unique and unambiguous identification of entities and is the most widely used global entity identifier in the financial sector, is particularly helpful in linking individual data sets, thereby facilitating supervision. The Commission will therefore further expand and promote a more consistent use of the LEI in the financial sector by closing a number of key gaps and introducing requirements for its use in relevant legislation\textsuperscript{25}. Following a recommendation by the European Systemic Risk Board (ESRB),\textsuperscript{26} the Commission will by 2023 report on whether or not to make the LEI mandatory for a wider range of legal entities across the EU. Finally, the Commission will pursue efforts in international fora to promote the uptake of the LEI and other common identifiers in the financial sector globally.

\textbf{Action 1. To increase consistency and standardisation of reported data, the Commission will:}
\begin{itemize}
  \item[a)] give mandates and, where necessary, propose to strengthen the empowerments to the ESAs in key pieces of legislation to further integrate reporting within their areas of competence;
  \item[b)] update the mapping of reporting requirements in the financial sector and create a comprehensive glossary to clarify and streamline the set of legal concepts used;
  \item[c)] work with the ESAs and the ECB to develop and promote the use of a common data dictionary, starting with establishing sectoral dictionaries by 2024;
  \item[d)] propose amendments in relevant reporting frameworks to systematically require reporting of the LEI by entities that have it and, by 2023, report on whether or not to make the LEI mandatory for a wider range of legal entities.
\end{itemize}

\textsuperscript{23} See \href{https://www.eurosystem.europa.eu/iref}{IReF initiative of the Eurosystem}, Implementation is planned for 2024-2027.
\textsuperscript{25} For example, the Commission proposes greater use of the LEI in payments and as part of the legislative package on anti-money laundering.
\textsuperscript{26} \href{https://ec.europa.eu/commission/2020/12}{ESRB/2020/12}
4.2. Enhancing the sharing and reuse of data

Data should be reported only once and then shared and reused as needed by the different authorities overseeing the financial system in the EU. The Commission therefore intends to put in place a system where reporting entities provide high quality data and authorities share the data they collect as much and as efficiently as possible, while safeguarding data security and professional secrecy.

To this effect, in the AIFMD review proposal, the Commission proposes to amend the relevant provisions to ensure a more efficient data sharing process between authorities. In addition, in the ongoing review of the Central Securities Depositories (CSD) Regulation, currently envisaged for adoption in Q1 2022, the Commission explores ways to facilitate the cross-border provision of CSD services and establish formalised and standardised procedures for the cooperation of supervisors, including the sharing of data. In 2022, the Commission will also assess data sharing provisions in the review required under article 46 of the Money Market Fund Regulation.

The Commission is supporting the ongoing technical work by the ESAs to enhance the sharing and reuse of reported data in their respective sectors. ESMA aims to become the data hub for EU securities markets and improve the availability of information at EU level for other authorities, investors and market participants. Under its integrated reporting mandate, EBA is assessing the feasibility of a reporting system with a central data register, i.e. a single point of contact for the competent authorities, providing them with additional support and coordination for the transmission of data queries and the exchange of information. The EBA EUCLID data hub already includes all supervisory and resolution data of the EU banking sector, and EBA will continue to build on this hub in the implementation phase of its integrated reporting project. Finally, EIOPA is continuing to develop its data framework to securely collect, manage, analyse, distribute and publish data. At its core is a central repository which EIOPA will maintain while implementing technical improvements.

The Commission, working with the ESAs, the ECB and other authorities, will by 2023 review the relevant legislation to identify other legal obstacles to sharing of supervisory, statistical and resolution data and stands ready to address them where necessary. This work will build on provisions in relevant Union legislation which already provide for data sharing between authorities at both EU and national level under strict conditions. Together with a common data dictionary, this will lay the foundations for a supervisory data space where data can be accessed, shared and reused by all relevant authorities while protecting data confidentiality and security.

The Commission will propose a set of rules for determining data access rights and allocating responsibility for assessing data quality, as well as procedures to be followed by various authorities before adding, modifying and discontinuing reporting requests. The Commission will also aim for further standardisation of data sets through the use of

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29 See EBA/DC/2020/335
30 Data spaces were introduced in the wider European data strategy to mean concrete arrangements for data sharing and data pooling. See COM(2020) 66 final.
the common data dictionary and support the development of a secure IT environment, in which data can be accessed and exchanged safely, irrespective of its physical location of storage. The Commission will continue to work closely with supervisory authorities, in particular the ESAs, the ECB, the ESRB and the Single Resolution Board (SRB) to determine the precise design of the supervisory data space.

Supervisors should be able to seamlessly combine supervisory data with publicly disclosed information to gain a more complete view of the financial system without having to collect additional data. The proposed European Single Access Point (ESAP)\textsuperscript{31} will assist supervisors in getting easier access to data published by regulated entities. The data specifications and relevant rules for the supervisory data space and those on public disclosures by regulated entities in the financial sector will be coordinated to ensure comparability and interoperability of the respective data sets.

In addition, some public disclosures can be compiled using supervisory data. In its banking package adopted on 27 October 2021\textsuperscript{32}, the Commission proposes to empower EBA to centralise individual bank disclosures with the aim of increasing access to prudential data. The proposal also requires EBA to publish disclosures of small and non-complex banks based on the data that are reported to supervisors, which eliminates additional disclosure costs for banks. The Commission will continue the work in cooperation with the ESAs to have in place a framework to produce disclosures from supervisory data and further coordinate public and supervisory data, in particular during the development of the technical standards for the ESAP.

The reported supervisory data represent a ‘treasure trove’ of potential information. To maximise its value, where appropriate and possible, the Commission encourages initiatives by supervisory authorities to produce market analyses and disseminate information for the benefit of regulators, market participants and the wider public.

The Commission will also look into ways to make data available more extensively for research and innovation, while protecting data confidentiality. In its 2023 progress report, the Commission will assess whether any regulatory adjustments can be made to enable the sharing and reuse of reported data for innovation purposes.

\textsuperscript{31} COM(2021) 723 final, COM(2021) 724 final, COM(2021) 725 final
\textsuperscript{32} COM(2021) 663 final, COM(2021) 664 final, COM(2021) 665 final
Improving the design of reporting requirements

The fitness check highlighted a number of shortcomings in the way supervisory reporting requirements are designed and developed. Based on these findings, the Commission will redouble its efforts to ensure that Better Regulation principles are followed rigorously, also when it comes to developing supervisory reporting requirements, including the enhancements announced in the recent Commission communication on ‘Joining forces to make better EU laws and to prepare for the future’.\(^\text{33}\) As part of these efforts, the Commission also asks the European Parliament and the Council, when considering additional reporting requirements, to comply with the Better Regulation principles.\(^\text{34}\)

In order to reflect and address the specific nature of developing supervisory reporting requirements, in 2022 the Commission will prepare a set of guidelines to further improve the design and process of drafting these requirements within EU financial sector legislation. These will cover topics such as (i) ensuring that the role of reporting requirements in achieving policy objectives is set out more clearly in legislation; (ii) avoiding technical details in legislation and improving the empowerments for the ESAs to develop consistent and precise specifications in the technical standards; (iii) setting timelines and dates of entry into force that allow sufficient time for the ESAs to develop the technical standards; (iv) improving the planning of changes to reporting requirements; and (v) better coordinating deadlines for reporting and the frequency of reporting.

The Commission also calls on the ESAs and other EU and national authorities to fully assess the impact of technical reporting instructions they develop, in line with Better Regulation principles, and in particular to:

- regularly review the collected data and its use and ensure that only data which is required to meet policy objectives are requested;

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\(^{33}\) COM(2021) 219 final

- use clear, consistent and standard terminology across different legislative frameworks;
- use common standards, formats, models and identifiers;
- coordinate the development of reporting requirements among supervisors and closely cooperate on designing the technical infrastructure for collecting and processing the data;
- reduce the use of additional national reporting requirements and ad hoc data requests as far as possible and ensure that any such requests follow standard design principles; and
- ensure that reporting requirements take into account, to the extent possible, standard business processes.

In order to establish a common supervisory culture, the ESAs are to develop and maintain up-to-date Union handbooks on the supervision of financial market participants. The Commission will ask the ESAs to include and regularly update best practices, methodologies and processes related to supervisory data collection in these handbooks.

Finally, the Commission will assess options, including a new legal instrument, for streamlining the current lengthy and often complex process of developing regulatory and implementing technical standards for supervisory reporting. These options would aim to give the ESAs sufficient flexibility when adopting or modifying highly technical elements of the requirements, while maintaining sufficient control and accountability.

**Action 3. To improve the design of reporting requirements, the Commission will:**

- **a)** develop a set of dedicated guidelines in 2022 for drafting reporting requirements, in line with Better Regulation principles;
- **b)** ask the ESAs to include and regularly update best practices, methodologies and processes on supervisory data collection in their supervisory handbooks to strengthen convergence between national approaches; and
- **c)** by 2023, assess the possibility of a more effective, efficient and flexible regulatory process for defining the highly technical elements of supervisory reporting requirements.

### 4.4. Joint governance and implementation

Transitioning to an improved EU supervisory reporting system that is fit for the future will require the joint effort and commitment of all stakeholders. It will require an appropriate forum for further reflection on the technical details and the identification of additional initiatives needed to achieve the long-term objective. This calls for an appropriate governance structure to ensure ongoing cooperation, coordination, and exchange of information between the different authorities involved and with the industry. Such a structure will ensure that work progresses in a timely and efficient manner, and that the different sectoral initiatives are sufficiently coordinated to ensure that the subsequent cross-sectoral bridges can be built.

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35 The requirement to develop and maintain an up-to-date supervisory handbook was introduced by Regulation (EU) 2019/2175.
To ensure success, this governance structure must involve the Commission, the three ESAs, the ECB, the Single Resolution Board and the European Systemic Risk Board\(^{36}\), both at the board level to ensure firm commitment by all parties, and at the technical level to work out the day-to-day practicalities of reporting and to provide technical advice on any legislative or non-legislative actions that may be needed. In addition, any future governance structure should encompass the national competent authorities (NCAs) and include arrangements to bring in industry expertise as needed.

In line with the Commission’s gradual approach, and in order to minimise resource constraints and avoid a proliferation of bodies dealing with supervisory reporting, existing structures will be used to the extent possible. The Commission has already established an informal coordination body (the ‘Supervisory Reporting Roundtable’), comprising reporting experts of all of the EU authorities mentioned above. This group guided the preparation of the fitness check of supervisory reporting requirements and has since worked together to exchange views and find common positions on the future reporting system. In the first stage, the Commission will continue to rely on this group to further deepen cross-sectoral coordination and cooperation and to advance the work on each of the main building blocks.

By 2023, working together with the relevant EU authorities, the Commission will formalise the governance arrangements as the work on the strategy progresses. Within the banking sector, the mandate in the CRR already provides for the possibility of creating a joint data committee to effectively advance the development of an integrated reporting system for banks and move the project to the implementation phase. This can serve as a potential blueprint for a future cross-sectoral governance structure.

Given the global nature of the financial system, the need for coordination and cooperation extends beyond the EU to our international partners. International alignment and more consistent reporting across jurisdictions allows for more effective supervision at global level and helps avoid arbitrage between jurisdictions. It is also necessary to reduce the reporting burden of the many larger EU financial entities with international activities that have to report to authorities in several jurisdictions. The Commission, in coordination with other EU authorities, is already actively participating in various international initiatives\(^{37}\) which aim to prevent further fragmentation and promote greater use of common elements of supervisory data. We will continue our involvement in these activities to help drive forward international efforts to enhance data standardisation and alignment of reporting requirements where it lies in the EU’s interest and to promote EU solutions and approaches.

The Commission recognises that, in addition to the major benefits expected from this strategy, there will also be sizeable adjustment costs for reporting entities and supervisors that accrue over time. However, the proposed gradual approach, supported by the joint governance and close stakeholder collaboration, will allow optimal choices to be made and sufficient time for adjustment and implementation. This will help to ensure that the costs associated with the implementation of the future supervisory reporting system are minimised and the benefits maximised for all stakeholders.

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\(^{36}\) The future structure may also include the new Authority for anti-money laundering and countering the financing of terrorism, as proposed in COM(2021) 421 final.

\(^{37}\) Such as those led by the FSB, the BCBS, CPMI-IOSCO and the ROC.
The Commission will explore and foster models of cooperation and co-investment between different groups of stakeholders to ensure that the necessary resources are available and to provide the right incentives to implement the strategy\textsuperscript{38}. The EU authorities, like other stakeholders, are already devoting a significant part of their budgets to improving the reporting processes and related capacities. The Commission stands ready to provide support to Member States implementing administrative or structural reforms, including to build data capacities\textsuperscript{39}. Moreover, dedicated EU programmes\textsuperscript{40}, which support the development of EU digital capacities, are available to support standardisation activities and projects to further develop the technical infrastructure and tools of EU and national supervisory authorities.

**Action 4. To ensure effective implementation of the strategy, the Commission will:**

a) by 2023, formalise a governance structure to implement and maintain the future reporting system, building on the ‘Supervisory Reporting Roundtable’; and

b) support EU and national supervisory authorities through available EU funding programmes for standardisation and the development of digital capacities and technical infrastructure.

### 4.5. Promoting the use of modern technologies

Modern information technologies have a crucial role in facilitating data-driven supervision. This strategy will put in place the necessary conditions for the optimal use of RegTech and SupTech tools. RegTech can enable more cost-effective, highly-automated reporting by helping reporting entities provide data more accurately and rapidly. SupTech can assist supervisory authorities by allowing faster processing and more accurate and sophisticated analyses of the reported data to support their decisions. The right technology will also be needed to implement and maintain key elements of the future reporting system such as the common data dictionary and the supervisory data space.

To help accelerate the uptake of these technologies, the Commission will work with the European Forum of Innovation Facilitators\textsuperscript{41} to develop and test novel technical solutions. The Commission will also build on the reporting initiatives of supervisory authorities at national level\textsuperscript{42} and, by 2024, prepare a report to share best practices. As announced in the digital finance strategy, in 2022 the Commission will launch the EU Digital Finance Platform to connect stakeholders and public authorities across the EU. This will provide opportunities for firms to develop and test innovative applications, thereby helping to foster innovation in regulatory and supervisory technologies.

\textsuperscript{38} Examples include ESMA’s data project and system development for NCAs; the co-development of data infrastructure between members of the ESCB coordinated by the ECB; development of a tool by EIOPA to help small insurance companies prepare Solvency II reports in the XBRL format; public/private partnerships set up by some Member States.

\textsuperscript{39} Based on Regulation (EU) 2021/240 of the European Parliament and of the Council establishing a Technical Support Instrument for the preparation and implementation of administrative and structural reforms. A current project is ongoing to develop an NCA’s capacities for data-driven supervision.

\textsuperscript{40} Such as the Commission’s annual Union work programme for European standardisation or the new Digital Europe programme.

\textsuperscript{41} As announced in the digital finance strategy (COM (2020) 591 final).

\textsuperscript{42} Such as in Austria (see https://www.aurep.at/), Italy (see https://www.cooperazionepuma.org/) and Denmark (see https://arkitektur.digest.dk/sites/default/files/white_paper_on_a_common_public-sector_digital_architecture_pdfa.pdf)
Improving the clarity and consistency of supervisory reporting requirements and increasing data standardisation are indispensable first steps to advance the use of modern technologies in supervisory reporting. Consistent and unambiguous reporting requirements and clear rules will facilitate simpler RegTech solutions. This will in particular benefit smaller reporting entities, which are less able to afford complex IT-setups or the services of third-party providers. More consistent and better quality data will also enable supervisors to implement effective SupTech solutions.

Going forward, the Commission aims to make reporting requirements readable and executable by machines (alongside a human-readable form). Machine-readable and executable requirements (MRER\footnote{I.e. requirements that are expressed in a logical and consistent sequence and that can be directly used by a deterministic computing system.}) could greatly simplify supervisory reporting by eliminating the need for human intervention to read, interpret and comply with the reporting obligations. MRER will ensure the complete elimination of definitional ambiguities, based on precise and consistent instructions suitable for machine execution. A pilot project to assess the options and identify the prerequisites for the transition to MRER is ongoing, with results of an external study to be published in early 2022\footnote{Call for tender, FISMA/2020/OP/0001}. Upon its completion, the Commission will consider introducing MRER in selected reporting frameworks and report on this in its 2023 progress report.

The Commission will also explore and develop new types of data collection approaches. In financial markets, distributed ledger technologies (DLT) have the potential to enable supervisors to monitor transactions in real time and allow them to extract transaction reports directly from trading systems (rather than wait for the transaction parties to send reports). The DLT pilot regime for market infrastructures\footnote{COM (2020) 594}, recently agreed by the co-legislators, offers the Commission an opportunity to assess the benefits of using DLT for reporting purposes and test the technology under controlled conditions. For this purpose, and building on previous pilots to test DLT for access to regulated financial information\footnote{See the preceding pilot for a European Financial Transparency Gateway (https://eftg.eu/) which demonstrated efficiencies of sharing financial data to enable data traceability and improved data management.}, the Commission will ask ESMA to investigate the use of DLT for supervisory reporting. This assessment will also cover derivatives markets in order to prepare for a possible expansion of the pilot regime and formalisation of DLT-based transaction systems and post-trade infrastructure. At the same time, at the European Parliament’s request, the Commission is planning a pilot project on the technical foundations of supervision embedded into DLT. The Commission will strive to support ESMA’s investigation by leveraging expertise in building a European Blockchain Services Infrastructure (EBSI)\footnote{https://digital-strategy.ec.europa.eu/en/policies/european-blockchain-services-infrastructure.} in the public sector.
5. CONCLUSION

Supervision of the EU financial system relies on data that are timely, relevant and of high quality. Current supervisory reporting requirements are effective in providing supervisors with relevant data. However, more needs to be done to make EU supervisory reporting fit for the future – to reduce inefficiencies and unnecessary burdens, increase the quality and ensure the optimal use of the reported data, and enable reporting entities and authorities to fully harness the benefits offered by modern technologies.

The Commission’s long-term vision on supervisory data in EU financial services focuses on four building blocks: (1) increased consistency and standardisation of data, (2) better data sharing among authorities, (3) an improved process for developing and adopting reporting requirements, and (4) joint governance. Delivering these essential building blocks will enable a more effective and efficient use of modern technologies.

The Commission will undertake a number of important initiatives and put in place appropriate governance arrangements to foster cooperation and coordination between key stakeholders. At the same time, the Commission calls upon supervisors across the EU to work together to streamline, simplify, and modernise supervisory reporting in EU financial services. The Commission also invites the financial industry to continue the constructive dialogue to develop solutions and technologies that help strengthen financial supervision while minimising its costs.

By 2023, the Commission will report on progress and lessons learned from these initiatives.

Action 5. To take full advantage and promote the use of modern technologies in supervisory reporting, the Commission will:

a) work with the European Forum of Innovation Facilitators to develop and test novel technical solutions for supervisory reporting benefiting smaller companies in particular;

b) in its 2023 progress report, assess the feasibility of publishing supervisory reporting requirements in a machine readable and executable form in selected frameworks, building on the ongoing pilot; and

c) carry out a study on supervision embedded in DLT in 2022 and request ESMA to investigate and prepare a report on new data collection approaches under the DLT pilot regime for market infrastructures.