



Why sustainability should be at the core of finance technology transformation

**Using technology to integrate and equalise
finance and sustainability reporting**



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1

Prioritise
sustainability



Why you should prioritise sustainability in finance transformation – and what challenges you'll need to overcome

Picture the scene: a vision of the future of reporting

Imagine a world very different from today. One where your entire organisation is interconnected. Where your sustainability data can be accessed easily in real time. Where your team can report on financial and non-financial performance with assurance. It's a world where you can make better and faster decisions, where sustainability is embedded in your core business and strategy, and where you can manage your risk and compliance with confidence and simplicity.

If you think this scenario sounds like a pipe dream, think again. As a finance executive, you can start taking concrete actions to turn it into reality. By implementing integrated reporting practices underpinned by leading technologies, your organisation can reach the tipping-point where sustainability yields business value and competitive advantage, while reducing costs, risks and inefficiencies.

Harnessing the power of integration

At the heart of this new world is integrated reporting: a comprehensive approach that provides an organisation with a holistic view of its performance across both financial aspects and environmental, social, and governance (ESG) – i.e. sustainability – factors. The core objective? To communicate all of an organisation's value creation strategy, risks, and opportunities in a clear and transparent manner and act upon them.

Today, an expanding array of powerful technologies are available to help finance executives achieve this goal. Using tools like advanced analytics, artificial intelligence, data lineage and data visualisation, finance professionals can collect, analyse, and present data on sustainability performance in a more accessible and meaningful way – while also improving decision-making and fostering sustainable growth.

An example? Take an organisation wanting to acquire a new building. Armed with the right technology, finance decision-makers can access multiple data sources to model both the future financial and environmental implications – empowering them to optimise their investment decision-making today, and generate enhanced returns and impacts tomorrow.

A multi-year journey

However, all of this isn't quick or easy to achieve. Transforming your organisation towards sustainable integrated reporting takes time – and resources. During the first year(s), you'll incur costs in areas like compliance, data management and systems integration.

But the payback doesn't take long to kick in. From year two, your organisation should start realising long-term sustainability growth opportunities through impacts such as reputational advantage, internal resource efficiency with (c)leaner reporting, and reduced costs through advances like improved energy efficiency.

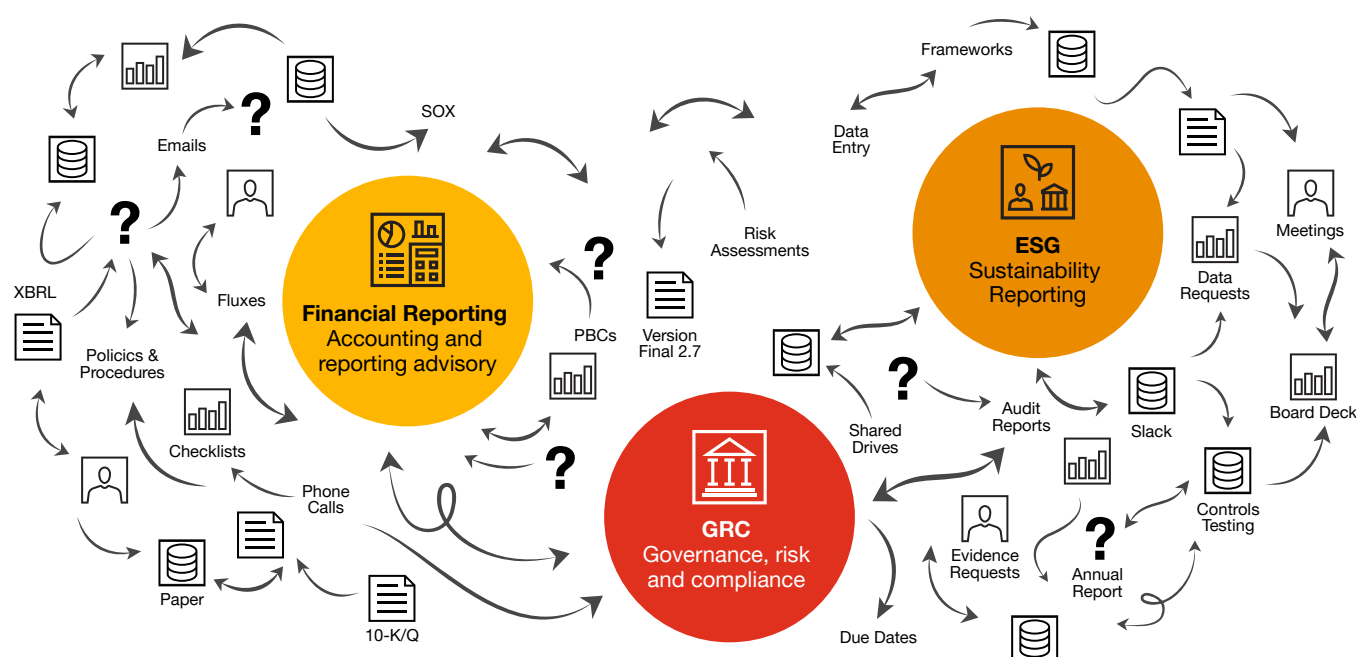
Pain points to address – centred on data

Inevitably, there will be challenges along the way. Sustainability and technology transformation are large and complex undertakings – even more so when tackled together (see Figure 1). And most organisations will encounter some pain points as they look to accelerate their transformation.

78% said many of their biggest challenges in implementing sustainability reporting related to data – across the data model, acquisition, governance, quality, processing and analysis. In PwC's view, technology is crucial to addressing these issues. Let's explore three key areas where they arise to explain why.



Figure 1¹



1. Meeting internal and external reporting requirements

In this area there are typically two pain points. First, organisations don't necessarily know where to start the journey and how to make it concrete. Second, they can't see how technology will provide direction and deliver real change. The result? They focus on siloed compliance with each and every reporting requirement, and don't prioritise sustainability in large transformation projects.

On the first of these pain points, the underlying challenge is the broad and complex nature of sustainability information management. For one thing, regulators impose extensive sustainability reporting requirements: the [EU's Corporate Sustainability Reporting Directive \(CSRD\)](#) requires companies to decide which of more than 1,100 data points to disclose, each requiring independent assurance. For another, investors are increasingly demanding trustworthy sustainability information: 75% of respondents to [PwC's Global Investor Survey 2023](#) said the way companies manage sustainability-related risks and opportunities significantly influences their investment decision-making (see Figure 2).

1. Source: PwC analysis

Figure 2²

In thinking about the companies you invest in or cover, please indicate how much you agree or disagree with the following statements

■ Totally disagree ■ Neutral ■ Totally agree

How a company manages sustainability-related risks and opportunities is an important factor in my investment decision-making



However, the benefits of using a specific technology solution are increasing fast. Major tech vendors now offer solutions or modules that progressively cover more and more of the breadth and complexity of sustainability information, and integrate well within existing solutions, meaning organisations don't need to reinvent the wheel. Also, technology solutions such as ERP and EPM systems can **embed trust in sustainability reporting** in multiple ways, including through audit trails that make independent assurance more efficient and less costly.

Embedding tax

A further benefit of prioritising sustainability in finance transformation is that it can help organisations navigate the complex tax ecosystem, and tackle transformative regulations like the CSRD and Pillar Two together. Technology solutions are now available that address aspects like carbon credits, plastic taxes, ETS, and the Cross-Border Adjustment Mechanism (CBAM).

2. Executing internal and external reporting efficiently

Again, this area has two main pain points. First, organisations often underestimate the urgency of implementing a specific tech solution to enable integrated reporting, and react tactically to new regulations rather than being strategically proactive. Second, they struggle to identify a solution that can enable efficiencies to help meet reporting deadlines and make timely sustainability decisions.

On the first pain point, the need to report is here now: the first wave of businesses began reporting under the EU's **CSRD** from January 1, 2024, and efforts to report on other regulations such as the Sustainable Finance Disclosure Regulation (SFDR) and EU Taxonomy have been well underway for a couple of years. Also, as sustainability information requirements continue to increase and broaden, organisations must embed sufficient capacity and resources to do the work, including replacing spreadsheets with suitable tech solutions. A further imperative is establishing which business function should take the lead, and which should support – be it finance, corporate sustainability, technology or another part of the organisation.

In terms of enabling efficiencies, there are many tools available that deliver task automation – thereby speeding up completion, helping to meet reporting deadlines, and driving better and faster sustainability decisions founded on data. Task automation also frees up scarce sustainability and finance resources to focus on value-adding tasks such as developing data insights.

2. Source: <https://www.pwc.com/gx/en/issues/c-suite-insights/global-investor-survey.html>

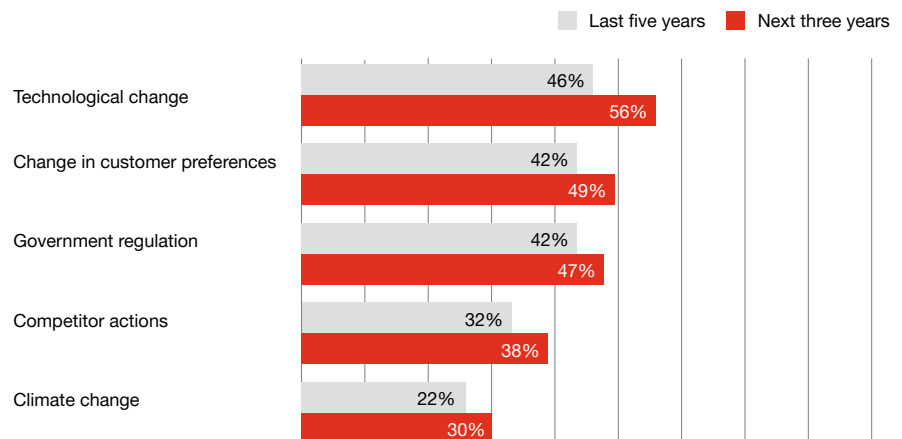
3. Executing internal and external reporting in a cost effective and value-adding manner

The principal pain points in this area are, first, that organisations regard implementing a technology solution as too large and expensive an effort, and, second, that they don't see the net value it can unlock for their organisation.

On the first of these, 49% of respondents to a [PwC survey in Germany](#) said they believe the implementation of sustainability reporting tools will involve a high degree of effort in the coming years. Given that sustainability is a new and complex area with evolving reporting requirements, organisations often opt for the simplest and cheapest solution, such as using spreadsheets – which are not best suited to the task and may lead to challenges when seeking assurance. The same survey found that 72% of German businesses are still using Excel for non-financial reporting.

Turning to the ability of technology solutions to unlock net value, PwC's [27th Annual Global CEO Survey](#) shows that leaders expect business model changes associated with technology, customer preferences and climate change to have a far bigger impact on how they create, deliver and capture value in the next three years than in the last five. And the top change driver? Technology (see Figure 4).

Figure 4³



Our [CEO Survey](#) also underlines that now is the time to invest in sustainability solutions, with 41% of CEOs saying they accept lower hurdle rates for climate-friendly investments compared to other spending.

The benefits of technology solutions – in a nutshell

Integrated reporting and performance management solutions can help your organisation to:

- 01 Manage broad and complex sustainability information more effectively.
- 02 Embed and enable trust in sustainability data and reporting.
- 03 Keep pace with advancing regulatory requirements.
- 04 Meet investors' demand for clear, timely and credible sustainability information.
- 05 Make better, faster decisions across sustainability and finance.
- 06 Realise efficiencies to help meet reporting deadlines.
- 07 Free up resources to focus on value-adding tasks.
- 08 Unlock rising net value for the business over time.

3. Source: <https://www.pwc.com/gx/en/issues/c-suite-insights/ceo-survey.html>



2 Technology's role



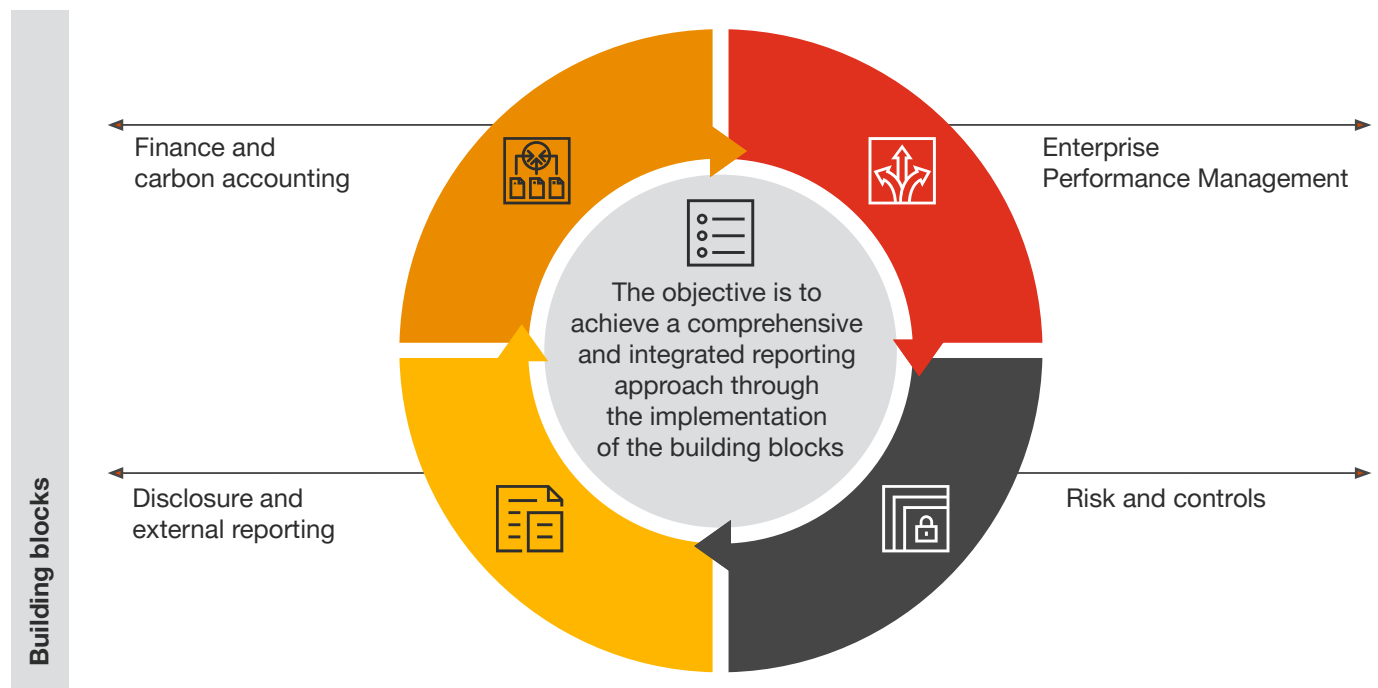
Technology's role as an enabler of comprehensive and integrated reporting

As just highlighted, PwC's view is that technology solutions are a key enabler for organisations to overcome the pain points – and to advance to seamless, holistic and integrated reporting across financial and sustainability data and performance. But how does technology play this role? And what criteria should organisations apply to establish whether they're making the right technology choices?

Four building-blocks...

One of the most effective approaches is to put in place four building-blocks that will act as the foundation for their new integrated reporting environment. As Figure 6 shows, these are: enterprise performance management, risk and controls, disclosure and external reporting, and finance and carbon accounting. Through the implementation of these building-blocks, an organisation can achieve an approach to reporting that is both comprehensive and integrated.

Figure 6⁴



4. Source: PwC analysis

How? Based on these four foundational elements, the business can combine sustainability and financial data at a transaction level to create and report a holistic view of its performance. Ultimately, performance management will also incorporate both financial and sustainability goals. And financial and sustainability key performance indicators (KPIs) will be reported in accordance with regulatory requirements, supported by a fully operational internal control system incorporating controls for both sets of data.

To achieve this comprehensive coverage, each of the building-blocks addresses specific aspects of integrated reporting and performance management. For example, enterprise performance management (EPM) includes activities like strategic steering and budgeting, as well as performance monitoring based on KPIs, risk and controls handles the risk of material misstatement in integrated reporting, disclosure and external reporting covers aspects including reporting of metrics and narratives based on mandatory frameworks such as CSRD and the EU Taxonomy or voluntary frameworks like the one from the Sustainability Accounting Standards Board (SASB), and finance and carbon accounting handles tasks such as maintaining an inventory of greenhouse gas (GHG) emissions, including direct and indirect emissions from operations, the supply chain and other activities.



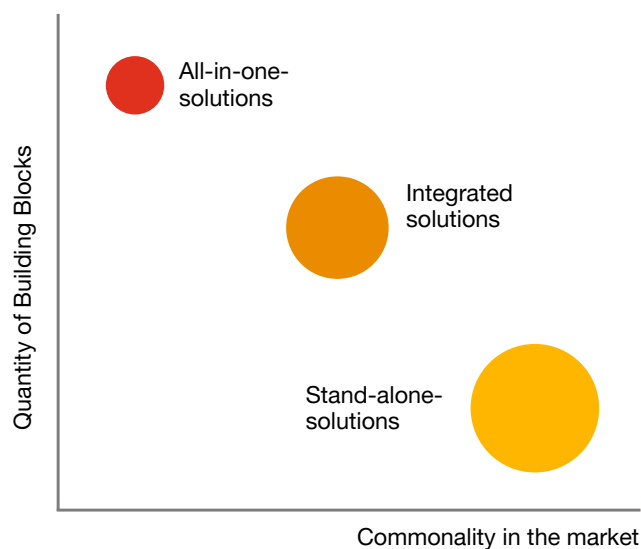
...mirrored in software types

These four building-blocks – and the various activities within them – are mirrored by the different types of software tool available on the market from various providers. Currently, it's relatively rare for a software solution to address all four building-blocks in combination, although a handful cover the other three aside from risks and controls (namely enterprise performance management, disclosure and external reporting, and finance and carbon accounting). The pairs of building-blocks most commonly addressed together in an integrated way are enterprise performance management and disclosure and external reporting; or disclosure and external reporting together with finance and carbon accounting. However, the most frequent approach is a stand-alone solution, i.e. a solution that covers just one of the four building-blocks (see Figure 7).

Figure 7⁵



Tool provider archetypes in the market

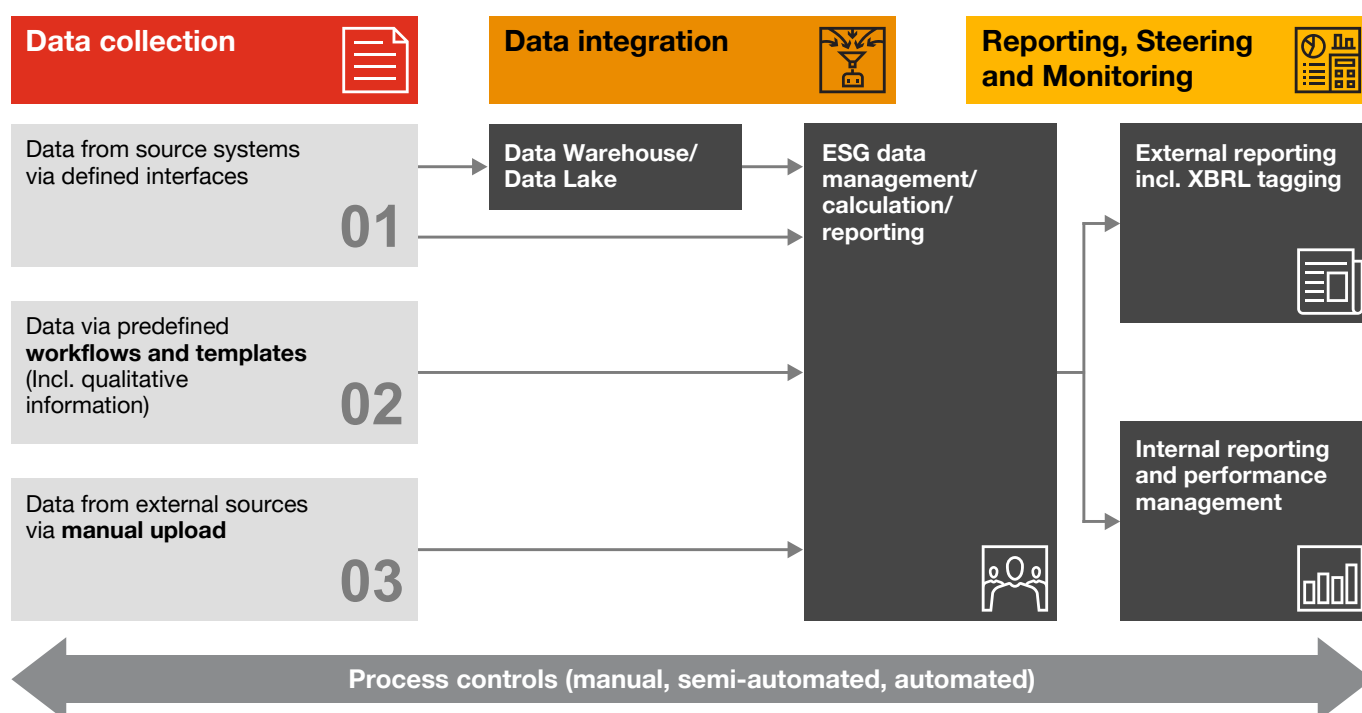


5. Source: PwC analysis

A further important consideration when assessing and selecting software solutions is that there are three distinct ways to collect the data to be integrated and reported.

As Figure 8 shows, these are, firstly, collecting data from source systems via defined interfaces, secondly, collecting it via predefined workflows and templates, and thirdly, collecting it from external sources using manual upload. After collection via any of these methods, the data is then integrated before being reported internally and externally.

Figure 8⁶



Four sustainability maturity profiles...

As organisations approach the decision on which technology solutions will enable their integrated reporting, their choice will be influenced by their own level of maturity and ambition in the sustainability technology area. We've identified four distinct corporate personas or 'profiles' in relation to this maturity, each with its own distinctive perspective on the importance of sustainability and approach to the related technology.

The four profiles – together with some fundamental characteristics of each – are:



Minimalist: views sustainability reporting as a compliance issue, or has only just begun its sustainability journey. Has no or limited public reporting.



Pragmatist: Focuses on sustainability risks rather than opportunities. Has some public reporting but no science-based targets.



Strategist: Sees both risks and opportunities in sustainability, with a long-term perspective. Has more mature disclosure and reporting underpinned by science-based targets.



Trailblazer: Sustainability is core to purpose, strategy and products and services, and interplays with business and IT priorities. Has integrated financial and non-financial reporting aligned to sustainability metrics.


6. Source: PwC analysis

...shaping the reporting approach across the four building-blocks

Based on factors like company size, industry drivers, business performance, regulatory/ competitive pressure and management ambition, any organisation can identify its own technology maturity profile.

So the question is, which profile do you think fits your business? The answer does matter. Because, as Figure 9 illustrates, your organisation's sustainability maturity profile will likely shape its approach to technology across all four of the key building-blocks of integrated reporting.

Figure 9⁷

	Minimalist 	Pragmatist 	Strategist 	Trailblazer 
EPM	No EPM. Performance management is spreadsheet-based with figures extracted from the ERP.	Limited use of visualisation tools like PowerBI, Tableau, which cover financial data and partially cover ESG data via separate ETL workflows.	Visualisation tools pull from a data lake combining financial and non-financial info. ESG data is pulled for external reporting but also to monitor a selection of internal KPI's.	Predictive and what-if analyses are implemented for both finance and ESG KPIs, liaising decarbonisation, levers and progress made against net zero targets with business impacts.
Risk and controls	Spreadsheet-based. There is no formalised internal control system and controls if any are manual.	Spreadsheet-based Controls over financial reporting are manual and leveraged for ESG data.	GRC tool and formalised internal control system in place. Controls are semi-automated.	GRC tool and formalised internal control system in place. Most controls are automated complete with audit trails.
Disclosure and external reporting	Sole usage of Word/Excel. Focus is on compliance. XBRL tagging if needed is performed by third party.	ESG data is partially integrated into finance consolidation and/or disclosure management solution, with some collaborative workflows. XBRL tagging if needed is performed by third party.	Disclosure management solution integrates both financial and non-financial data, collaborative workflows, and native XBRL tagging.	Disclosure management solution is also used for internal steering and fully integrated with EPM/ERP solutions. Embedded AI and GenAI functionalities are leveraged.
Finance and carbon accounting	Basic ERP with limited deployment and use of functionalities. Carbon accounting accounting if any is spreadsheet-based and covers only scope 1 and 2.	Several ERP modules deployed. Carbon accounting performed in stand-alone solution. Data collection remains manually driven, although existing data collection workflows are leveraged.	ERP fully deployed, with scope 1 and 2 data integrated, scope 3 in spreadsheets. Data collection is mostly automated.	Green ledger embedded in ERP, with carbon emissions calculations made within procurement module.

It's important to appreciate that any organisation's maturity profile can – and probably will – evolve over time as its sustainability pressures, needs and aspirations change. So you should evaluate where your business stands today, and where it wants to be in both the short and longer term – and continue to re-run this assessment on a regular basis.

Once your organisation's current and future profiles have been identified and its ambition defined, you can press ahead with evaluating and selecting the appropriate technology tools, possibly including existing ones already in use.

7. Source: PwC analysis

Using outsourcing and managed services.

Alongside the software evaluation and selection process, provisioning the chosen technology from an outsourced or managed services provider is an approach worth exploring. This is especially the case for companies with a minimalist or pragmatist maturity profile, and for specific industries such as private equity.

A particularly viable option may be outsourcing the design and execution of some or all of the activities leading to the first iterations of sustainability reporting and performance steering, given that this phase involves both a high requirement for skills and tight deadlines. Equally, the whole end-to-end process from data collection to reporting can be outsourced as a managed service. Taking this approach can help a business accelerate its journey to achieve higher quality and added value beyond regulatory reporting.

Further aspects that should be considered during the software selection process include how to harness the power of capabilities like AI and generative AI (GenAI). Regardless of your business's maturity profile, you should explore the potential to tap into the opportunities available through leveraging AI/GenAI solutions and vendors, including helping with activities like peer benchmarking and prepping narrative disclosures. However, given the risks GenAI brings in areas like unconscious bias, the framework for using the technology must be carefully crafted.

Progressing to implementation

Once your business has identified its current and future sustainability maturity profiles, and has selected the appropriate technology solutions and providers to support its integrated reporting environment, how do you approach implementation? Let's find out in the next chapter.





3

Implementation



Implementation approach and principles

The most transformational impact of integrated reporting technology solutions springs from its ability to provide a platform for teams to collaborate on process enhancement. So this technology should be regarded as an enabler in bringing functions closer together – one that facilitates and supports true business partnering.

However, the benefits from the technology also go further. Much further. Once implemented, it becomes an underlying element of a sustainable enterprise's strategy and vision, supporting operational planning, sustainability performance measurement and reporting. What's more, as mentioned in Chapter 1, it automates and digitises the processes and systems that collect, manage, analyse and report sustainability data, boosting efficiency and effectiveness end-to-end. All of this can then be embedded into a holistic performance management system along with financial data and reporting.

Starting the journey

For most firms, the need to achieve regulatory compliance is a primary driver for embarking on their sustainability journey. While there are trailblazers and strategists looking to go further and faster, there are also others who may be seeking just minimal compliance. In either case, it's imperative for the organisation to make a start in a way that's aligned with the strategy it has formulated to address sustainability.

Initiating a technology transformation journey today can bring many benefits. Foremost among these is that it enables an organisation to address its sustainability challenges much more effectively, thereby enhancing its agility, resilience, and relevance. This represents the initial stride towards establishing an integrated balance sheet, where sustainability data holds equal importance with financial metrics as a performance management tool.

However, beginning the journey is not necessarily easy. The sustainability solutions marketplace is crowded and often duplicative, making it hard to decide which solution(s) to go for. The challenge is not about familiarity with the vendor brands themselves. Rather, it centres on knowing what the product(s) can offer in terms of capabilities to solve business challenges, combined with the requirement for deep knowledge and experience of the technology's features.

This tech expertise often sits in a separate place in the organisation from the sustainability strategy – so it is important to bring the pieces together when shortlisting software options, and to take into account the other technology strategies and investments that are ongoing in the organisation. This will enable the selection of the best product(s) based on the specific challenges they can address, rather than looking to force-fit the challenges into the product.



Three phases

The technology transformation journey to integrated reporting involves three phases – Assess, Design and Implement – with key topics to evaluate linked to double materiality and gap assessment results. This multi-stage pathway helps organisations to reinvent themselves as agile, robust, relevant and scalable organisations, fully prepared to stand up to the rigours of future sustainability challenges.

1

Phase 1: Assess

During this phase, a baseline is established to help define the sustainable finance strategy. This enables a detailed understanding of the reporting requirements (including regulatory disclosures), sustainable ambitions and structural specificities. At this stage the organisation also identifies its key impacts, risks and opportunities, as well as conducts a maturity assessment and a gap analysis. All of the outputs are brought together to create an implementation roadmap.

2

Phase 2: Design

In this phase, based on the gaps identified and the strategy that's been agreed, an action plan is developed between multiple functions – a plan that includes policy papers, data points, controls coverage, roles and responsibilities. From an organisational perspective, this is the stage where sustainability champions are identified as part of the CSO organisation. This is also the appropriate juncture to pick up the technology architecture and vendor assessments (see Figure 10 for a schematic of the vendor selection process). The available options include using niche tools for sustainability reporting, solutions from more traditional providers, or a combination of both. Partial or complete outsourcing to a managed services provider is a further possibility. It is not able that the traditional platform providers are investing heavily in sustainability capabilities, not just for reporting and compliance but also for data collection and data calculation, such as a carbon ledger, sustainability cloud, and emissions calculator.

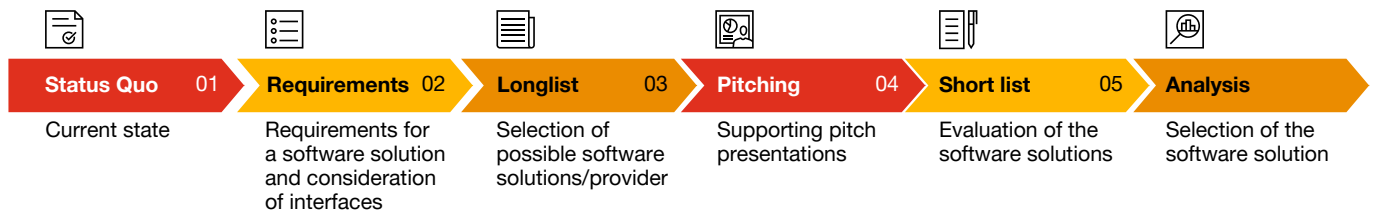
3

Phase 3: Implement

During this phase, internal and external reports are prepared and disseminated. An upskilling programme is put in place and its progress monitored against targets. Testing of disclosures and underlying processes and controls is also conducted to prepare for internal quality reviews and/or assurance, providing a basis for continuous improvement.

Figure 10⁸

Selecting a vendor:



Seven principles for a successful implementation

Today, most organisations setting out on a journey of sustainability innovation are being driven primarily by compliance and cost pressures. Many also underestimate the complexities of requirements they need to fulfil. Even if an organisation decides to start small, its investments will likely end up significant over time, as it strives to comply with evolving reporting requirements and/or seeks to boost growth by leveraging data insights and evolving its strategy.

In light of this, it is recommended that you maintain an unwavering focus on your end goal from day one of the implementation effort, and invest only once in order to operationalise your sustainability data effectively. To maximise your chances of success, here are seven key principles to apply:

01 Start with the end goal in mind: This helps to drive alignment throughout the process. Define your sustainability objectives and clarify how they align with the overall goals of your finance transformation strategy.

02 Conduct a materiality assessment: Identifying the sustainability issues that are most relevant to your organisation will help you prioritise your technology investments.

03 Think beyond software selection: As well as picking the right software solutions, a successful transformation also requires the holistic design of a sustainability technology architecture, all the way from data sourcing through to disclosure. Consider the vendors' product roadmaps to understand the level of investment they are making, and the functionalities that they might release in the future as sustainability standards continue to evolve.

04 Approach data management holistically: Consider performing an ESG data readiness assessment to help you define your implementation roadmap and have a dedicated central data platform to hold ESG data. At a given point in time, the sustainability teams should be able to self-serve the required information from a data platform. The need for integration with existing processes and IT systems should be borne in mind throughout.

05**Consider current and planned IT transformation projects**

as well as existing architecture when evaluating your sustainability technology for the future. For instance, most of the sustainability solutions currently available are on cloud platforms, and if your firm is still on on-premise systems, then this may be the starting point of your cloud footprint too. When selecting the tool(s) to implement, look to achieve integration with the organisation-wide IT strategy. Also, evaluate what elements of sustainability reporting you can handle with existing technology, as well as enabling that any new tools you choose will integrate seamlessly with your existing finance systems.

06

Recognise the dynamic nature of the sustainability software market. Global players are releasing new functionality on a regular basis, existing Environment Health & Safety (EHS) specialists are continuously evolving their portfolios, and new startups are entering the market. As you assess the expanding range of options, what really matters is understanding the scalability of the various technologies to meet your organisation's changing needs and keep pace with evolving standards.

07

Start small with a proof of concept/pilot approach: Do not wait for the regulation to hit before you start to consider sustainability transformation. Make an early start, with a proof of concept that will help to involve your teams in this journey from the beginning. The topics to be addressed will evolve from there – and new regulations will continue to emerge along the way.

Conclusion: time to progress from tactical to strategic

When it comes to undertaking sustainability transformation, digital solutions are no longer a tactical play – but rather a vital strategic enabler. Today, there is much talk of the current raft of CSRD solutions failing to meet all of an organisation company's sustainability requirements. However, you shouldn't allow such concerns to deter you from embarking on your sustainability transformation journey as a matter of urgency.

Whether your goal is to be a standards-compliant minimalist, or to become a trailblazer with sustainability embedded into your performance management, you'll only succeed in your strategy if you digitalise your sustainability data and processing end-to-end. Fail to do this – and you'll face playing catch up. The choice is yours. And the time to start? Today.

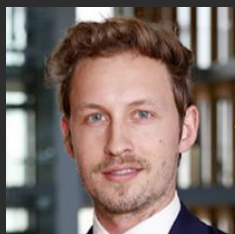
PwC contacts

To find out more about how PwC can help you put sustainability at the core of your finance transformation, please contact:



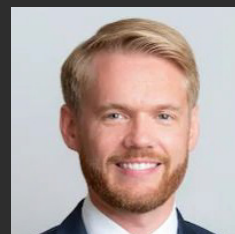
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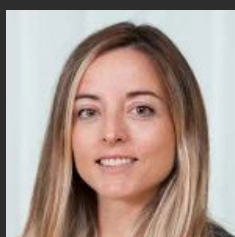
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