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Series: How to set up your ESG data, technology, and people for success

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4. How to select the right sustainability technology solution

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So far in this series, we've examined the challenges presented by sustainability, and the importance of mapping your organisation's capabilities, and defining IT and data architectures. Many of the new capabilities will be enabled by technology, and this article breaks down how to select the right technology to support your goals.

Current technology solutions are not future-proof, but sufficient to start

The technology market for sustainability is – with a few exceptions – immature, but growing exponentially. Verdantix projects the market for ESG reporting software to be worth $4.35 billion by 2027 (CAGR of 30% from 2021 to 2027).[1] Mature and proven technologies do exist, but only for specific areas, such as carbon management, life-cycle assessments, and health, safety and environment. Examples include IBM Envizi, Enablon, Sphera, Cority, UL Solutions and SimaPro. More recently, established ERP vendors – such as SAP, Oracle and Salesforce – have started to venture into market for sustainability technology.

New regulations, like the CSRD and EU Taxonomy, require much more granular and extensive reporting, for which new innovative solutions have been emerging. Also emerging are solutions that focus on specific topics or industries, like biodiversity, methane emissions management or sustainable food supply chains.

There is no universal technology solution for sustainability, and it's uncertain whether there will be. Based on how most current financial reporting works – a chain of systems with underlying data streams and controls – it's likely that sustainability reporting will come to work along similar lines. Hence, when designing your technology's future state for sustainability reporting and performance management, you will mostly likely need to select multiple solutions.

One challenge in this process is that vendors can make exaggerated claims of their capabilities, intentionally or not. For example, a technology vendor can claim to have a solution for CSRD while, in reality, a full end-to-end CSRD solution simply does not exist. So, how do you know what solutions are available and how far they match your requirements?

Understand what technology solutions are out there

A first step is to get an understanding of which technology solutions exist, and how they relate to each other. We designed a taxonomy with five top categories to create such an understanding. The table below (Figure 1) shows these five top categories with some examples.

[1] Verdantix. Get Ready To Report: The ESG Reporting Software Market Will Reach $4.5 Billion By 2027.

Categories	Technology Solution	Examples	Example Solutions / Solution Providers	
Charting & Achieving Path to Net Zero	Solutions that help companies define and achieve their decarbonization goals and path to net zero, including supporting the baseline measurement and transition to clean and renewable energy	• Carbon/GHG accounting • Scope 1,2,3 emissions tracking • Offsetting, Mitigation, Abatement • Smart Carbon Accounting • Decarbonization planning & strategy	• Deloitte GreenLight • Deloitte GreenSpace Tech • Deloitte D-Carb on SAP IBP • Anaplan • AWS • Climate X • ClimWISE • IBM Envizi	• Oracle • Persefoni • SAP • ServiceNow • Salesforce • Sphera • Sweep • UL Solutions
Building and Enabling Value Chain Responsibility	Solutions that help companies understand their end-to-end value chain providing key insight to transparency, traceability and Scope 1, 2 and 3 measurement, impact and improvement opportunities.	• Circularity • Supplier management & responsible • procurement • Supplier monitoring • Supply chain traceability • Recyclability • Life Cycle Assessment • Responsible Design • Product life extension	• Deloitte Illuminate • Deloitte Electrified Fleet Solution with Google Cloud • AWS • Circulor • Dayrize • Ecochain	• Prewave • SAP • SimaPro • UL Solutions • 3rd Risk Third Party Management
Making Quality & Transparent Disclosures	Solutions that help companies to measure and report internally and externally in accordance with leading ESG standards and frameworks and evolving regulatory requirements (e.g., European Union [EU], US Securities & Exchange Commission [SEC])	• ESG data management and monitoring • ESG ratings • Regulation monitoring • ESG reporting • Regulatory compliance	• Deloitte RegHub.ESG • Atomatik • Cority • Ecometrica • Greenomy • Google Cloud • IBM Envizi	• SAP • Wolters Kluwer - Enablon • Workiva • Workday • Microsoft
Understanding & Managing Physical & Transition Risk	Solutions that help companies measure and reporting on operational, physical, and climate risk as well as modeling climate change externality risk	• ESG Risks • Investment management • Data provision for SDG and ESG	• Deloitte GreenLight • Google Cloud • Datamaran • FactSet • Greenomy	• IBAT • S&P Global • XDI Cross Dependency Initiative
Activating Equity Within and outside the Organization	Solutions that help companies unlock value, orchestrate equitable outcomes, and promote dignity for people across their workforce, marketplaces, and society	• Social impact measurement • Diversity, equity, and inclusion (DEI) measurement and reporting	• Deloitte Social Impact Measure Model (SIMM) • Candidate360™ (Deloitte & Google Cloud) • Uplink (Salesforce, World Economic Forum, & Deloitte)	• AWS • SAP • Oracle • Essential Accessibility

Figure 1 – Five main categories of technology for sustainability – *including sample technology solutions and providers. Please note this is a simplified and non-exhaustive view of the technology solutions / solution providers. Many of these providers have a broad portfolio of specialized sustainability solutions, and this list is a small subset of the full technology marketplace.*

We capture data about solutions and providers, including market maturity, marketplace experience, functionality, and active use cases. Such market intelligence makes it possible to plot solutions according to different criteria, as in as the example Verdantix Green Quadrant below (Figure 2), which shows a snapshot of the current carbon management solution marketplace. We develop close relationships with best in class and marquee solution providers, often forming partnerships and alliances to streamline technology implementation and advisory support services.

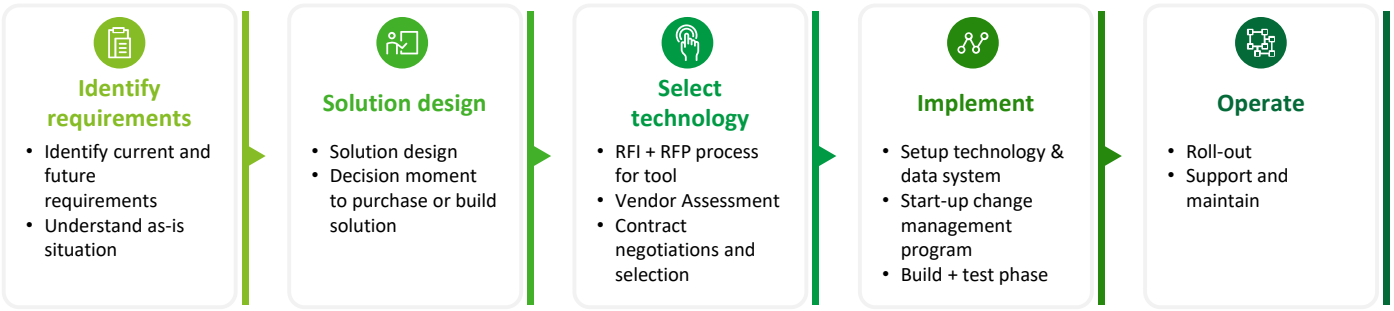
Figure 2 – Verdantix Green Quadrant for ESG reporting and data management software 2023[2] *Copyright © Verdantix LTD 2007-2023*

So how do you select the right technology solution?

Each organisation will need to resolve this technology challenge differently. Continuing our earlier theme, it requires the ability to act quickly, but think strategically, and the right balance will depend on business priorities. In the absence of any "go-to" technology, each business must first start with a reflective approach to understand requirements before navigating towards a solution.

[2] Verdantix Green Quadrant: ESG Reporting And Data Management Software (verdantix.com).

Technology selection process



Identify Requirements:

As outlined in article 2 of this series, identifying and capturing requirements is the most critical step before any technology solutions are considered. First, what are your strategic objectives. Do you have requirements aligned to your business strategy – long-term and short-term. What regulations does your solution need to enable adherence, compliance and reporting. What are the business and stakeholder requirements for this solution? As well as requirements for current business foundational elements such as data and IT architecture.

Second, you need to understand the current state. How is the organization currently processes data related to the requirements outlined above. What are the procedures for people, processes, and systems that this data currently touches. Are there any gaps or challenges in the current process that can be streamlined for the future?

Solution Design

Design the preliminary reporting process and align on detailed data architecture. This helps your organization understand how the data will move through a to-be architecture state and what inputs and outputs will be required. Based on this design as well as previous steps your organization can assess if they would like to build out existing solution(s) or buy a new solution(s).

Select Technology

If an organisation has made a decision to buy a solution, the next step is to create a long list of potential vendors.

At Deloitte, we review the requirements of our clients and assess across our databased of over 400 solutions to provide a long list of candidates to meet our client's needs.

Following, the Request for Information (RFI) / Request for Proposal (RFP) process needs to be scoped, decision criteria aligned, and questionnaire created to send to prospective vendors. Vendor selection process will include hands-on experience and demonstrations enabling the organisation to see the solution in action and inform evidence-based decision making.

Implement

In the implementation phase all technology, architecture and data systems will be set up and aligned from as-is state to to-be. Data will undergo extensive review to aligning data mapping through the new system landscape. As well as alignment of data sourcing, data cleansing and master data management before moving to data migration. Building and testing will take place utilising an agile approach inclusive of reporting processes, testing cycles, results review, functional and user acceptance testing.

In addition to technical steps a change management program and training program will be activated to onboard stakeholders to understand transformation and champion change in organization.

Operate

The new system(s) and ways of working are rolled out across the organization in close collaboration with change management team. A support and maintenance team is established with the responsibility to monitor performance and make sure that the solution continues to meet reporting requirements for compliance.

Act now, but prepare for transition

In many cases, the right solution for today's needs will be different from the one needed in ten years' time. We are seeing two main approaches to this balance between present and future. Some of our clients are adopting a selection of niche technologies and point solutions to deal with immediate priorities, while they wait for enterprise systems to become sufficiently mature; or until they have a more well-defined sustainability and technology strategy, with plans for transformational work further down the line.

Another approach is driven by a policy of committing to IT investments that last a decade, which might favour a large-scale but less comprehensive system as a workable current solution, and which anticipates enhancements over the coming years. If interim "gaps" do arise with the core solution, it can be supplemented with point solutions or configuration changes.

Although the availability of future system is currently unknown, it's unlikely to be the same technology that meets today's sustainability requirements: what's certain is that organisations will have to make a transition. While the nature of that transition can't yet be known, its reality can be safely assumed, and some aspects anticipated.

Awareness of that future transition can help frame current decisions and actions. For instance, there's little value in buying functionality you don't need: a point that many businesses overlook, but one that can simplify the process of choosing the right system for the task at hand. Consider also if you're willing to build requirements with suppliers, which could help ensure that the available technology evolves in a way that aligns with your business needs and transition plan.

Good data is never wasted

While the technology market is currently unstable and evolving, we believe the data landscape is more settled, with common data underlying many different sustainability regulations. Data requirements can therefore guide your transition plan, and provide a robust foundation to underpin both current and future technologies.

Sustainability differs from, say, finance, and will require significant investment to identify and capture new data. Think of equipping all delivery vehicles sensors to measure usage or emissions. A robust transition plan will help you get most value from that investment. By recognising and protecting the new data as a valuable business asset it will endure even if the technology used to capture and process it changes.

Adequate is OK for now

With so much complexity and uncertainty, few clients are getting it totally right. Those coming close include newer B Corp social enterprises; not because of greater insight on regulations or technology, but because they've been created with sustainability at their core, and tend to be smaller and simpler, needing less complex processes and technology. Larger, established organisations carry a legacy of scale and complexity. Our next article will consider how technology enablers fit into the bigger picture of IT strategy, and systems and data architectures.

Contact us

Peter Vickers
Partner Consulting
pgvickers@deloitte.ch

Carlo Giardinetti
Director Consulting
carlogiardinetti@deloitte.ch

Meg Alderman
Senior Manager Consulting
maalderman@deloitte.ch

Deloitte.