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



3. How to set and execute your sustainability IT and data strategy

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How to set and execute your sustainability IT and data strategy

In the previous article, we discussed the importance of outlining your data and IT requirements for short-term compliance and longterm strategy. However, before moving to identify a technology solution enabler, you should consider your existing data and technology landscape. This article discusses how to develop an IT strategy and architecture that can inform how technology supports the wider organisation to meet its sustainability goals.

A strategy for sustainability needs a strategy for IT and data

The ESG arena is huge, and sustainability transformation could involve fundamental changes in how an organisation functions and manages its information and technology. Those changes are unlikely to be quick, and nor should they be. They should be guided by a broad vision for sustainability and – if effective – will make a long-term difference within and beyond the organisation. An IT strategy helps an organisation ensure it has the right technology and data to support its overall strategy. The sustainability strategy should not be treated in isolation, but considered a key part of the business strategy, not an addition or "nice-to-have."

Understand the "as-is" and "to-be" states of your organisation

IT reflects, and is integral to, every facet of the modern business. From logging operational details, enabling day-to-day activities and driving efficiencies, through to delivering high-level management information. As such, it's impossible to think about what technology should do without also considering how the organisation works, and a clear business architecture provides an important starting point.

Typically, we consider both the high-level and functional views on the organisation. The high-level business architecture of the whole organisation (Figure 1) identifies how sustainability impacts every business area. Each area will have activities that drive sustainability-related transformation, and some will also have new and specific sustainability capabilities.

Strategy & Planning												
Reporting, Analytics, & Performance Management												
Finance	Asset Management	Asset lanagement Procurement & Supply Chain		Production/ Manufacture	Sei	rvice	Sales	Customer				
People, Talent & HR												
Legal and Corporate Functions												
IT & Technology												
Business area not impacted by ESG			Business area impacted by ESG			Business impacted & needing specific additional ESG capability						

Figure 1 – High-level business architecture (illustrative), showing business functional areas that will be impacted by ESG and areas that will require additional sustainability and ESG capabilities. This simplified architecture is based on over 80 functional capabilities that were assessed in terms of if they would be impacted by business ESG requirements and if additional/new capabilities would need to be introduced to address those requirements.

This high-level architecture provides a clear overview of each function's activities, where they sit and how they serve the overall organisation. This is vital for integration, and gives an understanding of the interdependencies and restrictions that might occur in today's increasing desegregated business landscape.

Drilling into the high-level business architecture, a detailed *functional architecture* for each business area (Figure 2) clearly shows what capabilities the technology and data need to enable.



Figure 2 – Supply Chain Functional Business Architecture (illustrative) – sample business architecture that can be used by the business to prioritise ESG activities within supply chain

The transformation will be enabled by technology and data, guided by a sustainability transformation framework for each business function (Figure 3). Using this framework alongside functional (Figure 2) and business (Figure 1) architectures identifies the changed and new capabilities needed to achieve the "to-be" state. Those capabilities are then translated into data and technology requirements, to identify changes to the IT architecture.

Strategy							۲
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Reporting and Compliance							1
Comply with ESG reg Prepare sustainability disclosure to meet compliance standards Collate, measure and report on ESG data Respond to Tax Transparency and responsible taxation	Jations e.g., disclosure, employment relations Credit and implement Soft related stores of complying with sustaina Align ESG scheld EU Taxonom	health and safety Comply with Equal for Equal Work an memory wage bility regulation Align financial rist declosure standard TCFD (large company	Pay States to reporting sustainabilit Adhere to Duta Right	Communica te undates y progress beyond guidelines	disclosure for voluntary lated ESG objectives standards TNED established fram (andard to TNED formal comparies) rot B Corp certification standard	Define and report metrics beyond establis Product insights neworks: sability issue Scan and mitigate emergic climate risk, employme regult	to monitor ESG progress hed frameworks Conduct qualitative and juanitative cimate rink scenario analysis ing ESG regulations (E.g., nt standards, legal, tax tions)
Supply Chain			Finance				6
Consult supply chan procurement (e.g., materials source) in line with producer responsibility From creating a transparer source of the source of the source for the source of the source (e.g., key suppliers)	a line transport supply chain to creatin t supply chain to creatin of Create a real-time chain to create pact supply chain to create a best pact	by chain acardedity reparted g circular logistic construction g circular sector deg, water en reparted certor deg, water en reparted deg construction deg, water en reparted deg construction deg	y chan nce Integrate ESG metrics into franci- reporting (e.g., EU NRRD and CSR Measure ESG impacts through ES accourt From integrati CS Identify tax Identify tax break grants to fund ESG transition ESG transition ESG transition	Incorporte stress test modeling of material satisf in a sustainability m istainability into fir Mange sustainability issee	Ing and madelity may be SSC male inetrics into finance mancial processes impact we bonds b	cial reporting to e cial reporting to e s and decisions and decisions and decisions and decisions and decisions	Set and implement an internal carbon pro- embedding of decisions antegrate ESG within decisions and decisions antegrate ESG decisions into core Finance covind operational processes e.g., R2R, P2P, O2C
HR	IT and Technology	Q	Marketing & 🤄	Product & 👦 Services	Sales 🗐	Business 🍘 Operations	Customer 🗿 Management
Hereffy people impacts of sustainability grads Assess sustainability processes and ways of working From monitoring social metrics for the organisation to aligning metrics to result organisation to aligning metrics sustainability reward structures to reinforce sustainability constituents of organisation sustainability greats accountabilities	Create efficient and free efficiency of the	erf restate to achieve unamability goals cloud migration and migration thical & magement tainability ation and migration administration and migration tainability ions	From monitoring brand risks to proactively engaging with broader stakeholders to drive the sustainability	From analysing product lifecycle impacts to creating new responsible products & services	Instability sustainability products are related From using sustainability credentials for sales to incorporating re-commerce ing rescalability of	Define internal sustanability operations From waste management to delivering sustainability transfor- mation	From responding to customer sustainability -related requests to embedding sustainability into customer
Identify and monitor social metrics for the organisation	analytics for TR kvendor ESG metrics and compliance status	ed ESG practices into IT transformation	Establish sustainability product/service-related information for marketing	Design asset circularity model	Incorporate re- commerce into sales strategy	Drive sustainability integration in all business processes	management

Figure 3 – Sustainability Transformation Framework – Sustainability Transformation framework; a snapshot of sustainability activities organised per business function that addresses the question of 'What are the recommended activities to become a sustainable business?'. This snapshot is based on an illustrative summary of the 100+ activities identified to achieve sustainability transformation across an organisation.

Our IT architecture model (Figure 4) adopts a layered approach, to codify all aspects of a system, such as hosting platform, business functionality and human interaction, and is complemented – where applicable – by sector-specific views. While this model represents each function separately, enterprise-wide layers – such as integration, data and security – provide the backbone that connects individual business functions. Mapping onto this model the existing IT architecture, and then the expected transformational changes, creates a blueprint for the change, from which a phased delivery roadmap can be created. Such transformational architectures are no small feat to develop, but are vital for an enterprise-led transformation. They reduce duplication of work between business functions, drive intra- and inter-operability for business functions (both during and after transformation), and help improve consistency and overall quality.



Figure 4 – IT architecture (illustrative) – Illustrative view of holistic enterprise technology and data ecosystem. Representing key technology architecture layers, data, and IT elements.

Have an integrated strategy and approach

These ways of looking at an organisation and its technology make it easier to identify how functions are affected by sustainability and other transformational changes. The sustainability transformation framework provides a methodical approach to the complex range of practical actions needed to develop sustainability capabilities and make the greatest organisation-wide impact. It helps identify changes to existing business capabilities, and new functional capabilities. That knowledge then provides a sound basis for translating the capabilities needed into technology requirements, then deciding whether to meet the requirements by buying, developing, or enhancing existing systems in the IT architecture.

Each organisation's architecture, and the impact of changes is different. However, the enterprise layers – such as integration, technology and data – are crucial. Partly, in practical terms, because they must support the cross-functional KPIs that new regulations will require. However, such compliance does not automatically create business value, and the organisations that will truly benefit are those that go beyond compliance, by integrating sustainability into a holistic business strategy. Functions that were traditionally siloed (e.g., finance, operations) must work together in that strategy, and integrated systems (*i.e.*, the enterprise layer) will play a major role in the transformation. Furthermore, some regulations now go beyond box-ticking and require evidence of strategic thinking: for instance, the EU's Task Force on Climate-related Disclosures (TCFD) requires organisations to state their targets, opportunities and risks, and the UK's FCA has announced <u>rules for organisations to disclose their transition plans</u>.¹

Move from averages and assumptions to real data

A significant impact of sustainability is in the IT architecture's *data layer*, because the data required does not yet exist for most organisations, or is not collected operationally. For each new business metric, the underlying data must be identified and defined, and new processes and technology established to measure, transmit, collect, store and use it. This often requires physical changes, such as installing sensors and communication technology in factories, vehicles and other assets around the world. Even if such changes might take time to implement, consider using interim sources for comparable proxy data: for instance, one client faced difficulties obtaining data about farms in remote locations, and we found geospatial data that provided some initial insights, which could be refined as time progressed.² A useful principle is to start early with data, even if it's less than ideal: measure first, then optimise.

Another challenge is where the source data lies outside the organisation. For instance, businesses must account for their third-party (Scope 3) greenhouse gas emissions, which requires data collection across the supply chain. However, suppliers might be poorlyequipped to provide environmental data, while data for social impact is even less well-developed. Obtaining such data therefore requires agreements with suppliers, and might require collaboration to solve practical issues. Such arrangements or partnerships could reflect the power balance between each supplier and customer: for instance, a powerful customer might incentivise a supplier by making its contract or licence to operate conditional on implementing a roadmap to supply sustainability data. Alternatively, a large customer could remove obstacles for a small supplier by, for instance, providing data processing support, thus helping the supplier to meet its own reporting requirements and reducing its need for technology investment. Further complexities exist where different customers or stakeholders require seemingly different information. However, many such requests can often be satisfied from the same underlying data, while tailoring the analysis or presentation to suit each recipient's need.

Enable your organisation to transform

An often-overlooked aspect of IT strategy is the importance of aligning technology across the organisation, not purely in technical terms (*e.g., hardware and data compatibility*): it's also important that technology aligns with how the business, processes and people work in reality, with both hearts and minds. Many organisations continue to focus on *implementing* technology solutions, while a strategy for sustainability relies on *aligning* technology, as one key part of a broader transformation that takes effect across the organisation and its whole supply chain.

¹ Transition Plan Taskforce. <u>Background information regarding the Transition Plan Taskforce</u>.

² Deloitte client engagement.

While the value of strategic transformation is now becoming recognised at a functional level, such as Finance or ERP, most organisations have not yet embraced enterprise-wide sustainability transformation, although many of our clients have instead sought to include a sustainability aspect as part of another functional transformation. Sometimes it may seem easier to get investment for other (functional) activities and then "bolt on" a sustainability element. However, slipping in sustainability piecemeal, by stealth, misses the strategic advantages of taking a holistic approach and engaging in sustainability transformation across the organisation. In technology terms, although siloed functional investments can help to move the needle incrementally, that approach risks losing interoperability or creating duplication, as each function implements the "same, but different" solutions.

However, an incremental approach is feasible, given the right strategic preparation. A clear aim and roadmap, driven by a sustainability transformation plan, can help you implement gradually (e.g., in steps by function), stay flexible and avoid the risks of adding sustainability elements into isolated functional projects. With the right overview and planning in place, a "bolt-on" approach can sometimes be a feasible option.

We'll develop this idea further in the next article, which considers how transformation can be instrumental in creating value as a responsible and sustainable organisation.

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