COP26 Unleashes Passionate Support for the Digitization of Sustainability Information

By Liv Watson and David Wray

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The Backdrop

This year's United Nations Climate Conference, COP26, grabbed global headlines with a "last hope approach" to collectively collaborate to prevent more severe consequences of the climate changes facing our planet and future generations.

A positive outcome from COP26 was the signing of the Glasgow Climate Pact, which, after some tense moments throughout the two weeks, kept the 1.5 degree goal alive. That said, a growing number of voices are raising concerns that the 1.5-degree goal, and the supporting finance initiatives are insufficient to respond to the worsening climate change impacts. With this backdrop, more than 200 countries signed the agreement building on progress in curbing deforestation, reducing methane emissions, and accelerating the transition to carbon-free energy amongst the many steps underway.

In order to hold signatories, and their country enterprises, to account we need robust and reliable sustainability information disclosures. Particularly when demonstrating alignment toward a sustainable global economy as defined by the United Nations Sustainable Development Goals. So, reporting will become increasingly important as we collectively understand, assess, and make purchase decisions that will directly affect the achievement of sustainable economies and a healthy planet.

How we collaborate to achieve this, on the other hand, will quite likely take a momentous digital transition to support policy commitments made. It will require us to also reimagine the digital transformation of climate data to enable stakeholder decision making, facilitate accountability and streamline regulatory oversight activities. This journey is arguably one of the most significant digital transitions we've faced!

Where Exactly Are We Today?

It is probably obvious, based on the introduction, that we are a long way off of where we need to be. Our starting point is the pressing need for end-to-end governance of the data lifecycle (see Figure 1), namely from data creation through consumption.

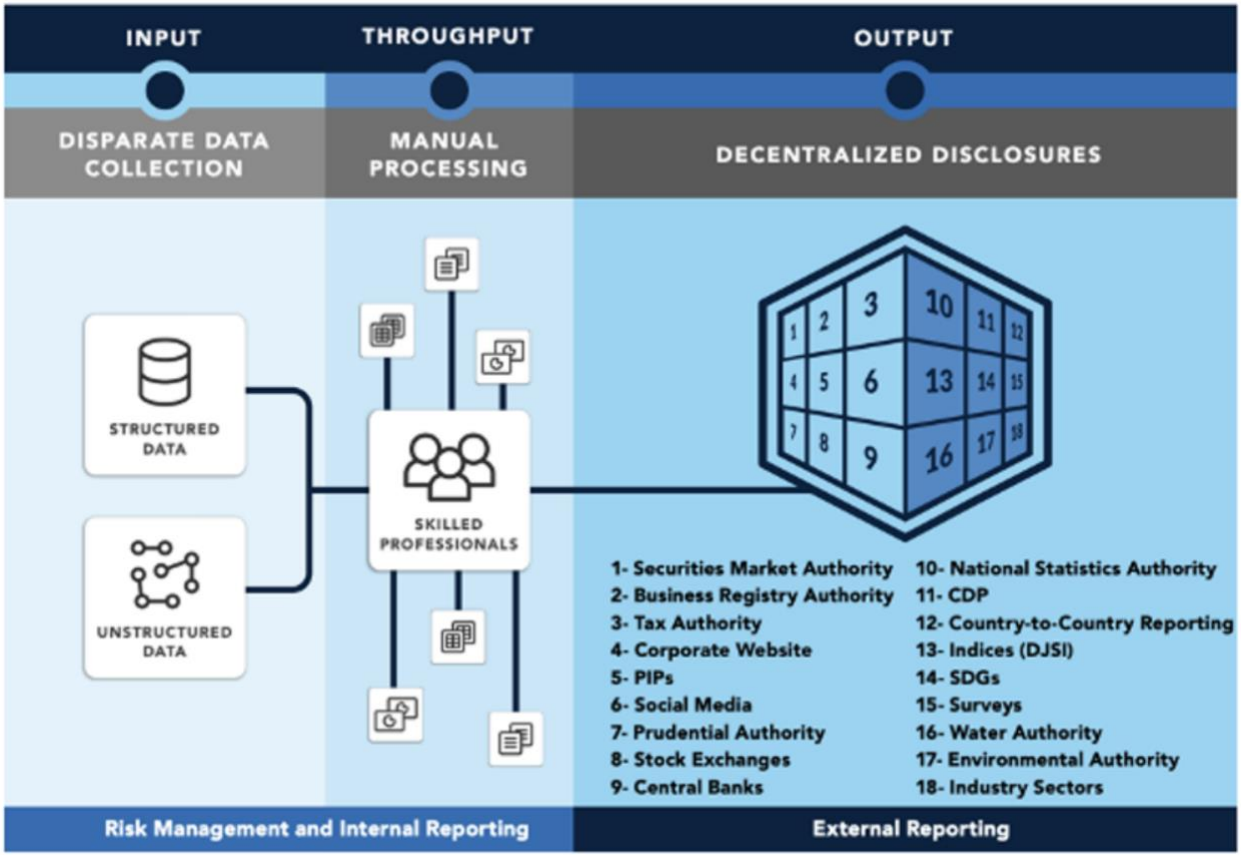

Figure 1 Source: A Digital Transformation Brief: Business Reporting in The Fourth Industrial Revolution https://www.imanet.org/insights-and-trends/external-reporting-and-disclosure-management/a-digital-transformation-brief-business-reporting-in-the-fourth-industrial-revolution?ssopc=1.

Let us elaborate, preparation (INPUT & THROUGHPUT), dissemination (OUTPUT) and usage (CONSUMPTION) challenges exist today that result in insufficient and inefficient sustainability information data flow. The same data needed to support decision making, within an entity and by its ecosystem stakeholders. This, naturally, negatively affects stakeholders' abilities to manage their own impact on people, the planet and their community. Research we undertook identified several common challenges including, in part:

- Stakeholder objectives of the ESG Ecosystem across different sectors, regions and regulators increase the complexity of objectifying and harmonizing the sustainability information Data Flow Framework**,** without a global agreement on a structured digital solution.
- Inconsistent mandates, rules, regulations and governance across the sectoral and regional regulatory bodies make widespread adoption and digital transformation to the necessary level uncertain.
- Multiple taxonomies or other digitization approaches/initiatives by various standard setters and international professional bodies tends to add confusion for ecosystem stakeholders, leads to high compliance costs and hinders the ability to efficiently integrate information for both internal decision-making purposes and reporting.
- Product/Software/Solution Providers tend to localize solutions because of the lack of taxonomy interoperability. The lack of interoperability directly impacts both the data management complexity and the cost of dissemination and consumption.

The costs, for context, were estimated by IFAC at 780 billion USD annually for the financial services industry alone! Extrapolate that to every industry and the number is mind boggling.

The practical questions quickly become:

1. How do we solve the issue when existing data is not fit for purpose (lacking quality, reliability and timeliness)?
2. How do we move forward in creating an environment where accurate, comparable, and machine-readable data is readily available and easily integrated into the investment process?

These were the simple, yet tough, questions we posed at a side event, hosted at COP26 in Glasgow, on digitally transforming sustainability information. The working session called for regulatory authorities, accounting and compliance professionals, standard setters, policymakers, preparers and service providers to collaborate in developing an interoperable digital data lifecycle framework that will dramatically increase data usefulness and drive down the cost of compliance.

Why Do We Need a Data Interoperability Infrastructure Framework to Support the Information Flow of Sustainability Information?

Interconnectivity has always been important in advancing system efficiency. For instance, in 1961 the ISO technical committee ISO/TC 104 established global standards for freight containers. Containerization is a system of intermodal freight transport designed to optimize

cargo utilization. This decision standardized almost every aspect of containers. From their overall dimension, through stacking and defining the twist lock norms that securely fasten them to ships' decks or truck trailers, to the terminology used to describe them.

If we analogize this to consider the data necessary for climate change related analysis and decisions, we can start to understand the significant challenge this poses because the existing technical infrastructure supporting the data flow life cycle is highly fragmented, from a technical point of view. The concept of data life cycle flow is not new; it is only recently that the term has come to emphasize information management with the sustainability information life cycle.

Climate information matters to both private and public sectors. This data is transforming the way in which citizens, consumers, investors, regulators and other stakeholders behave considering the information received. Companies know this, so they are paying more attention than ever to their own actions, and those of their upstream and downstream stakeholders, in all ESG related areas because it affects their financial bottom line.

Several stakeholders are showing renewed interest in meshing climate data with other financial, environmental and socioeconomic, or supply chain data so these extended areas need to be interoperable with climate information. These additions will enhance the information disclosure by providing a holistic view of the entity’s risks and opportunities.

These issues play in at both a local and global level. Why?

Today, decision makers from both private and public sectors typically want timely digitally accessible, readable and trustworthy climate data that reflects the environment within which they either operate or that they focus on. In most cases, there is a gap between what is currently available and what is needed, meaning data that is not readily accessible, discoverable (in a format that lends itself to be machine-readable and human-readable) or trustworthy (only 29% of S&P companies had externally assured sustainability data according to the Governance & Assurance Institute Inc). Today, climate information services (such as data aggregators) often carry quite a price tag, that some cannot afford, and leaving others unprepared to manage risks and leverage opportunities.

We need to increase the availability and dissemination of audited (and auditable) data that becomes trusted for decision making and fulfils integral parts of the compliance and regulatory process. As we know from financial audits, they are a helpful vehicle for assessing the success of processes, products and systems – existing and newly implemented – which will become increasingly critical in ESG related areas. They will become a tool for objectively verifying or evidencing processes and information, thereby becoming the proverbial stick for reducing and eliminating problem behaviours. For instance, armed with information, consumers can make immediate decisions to stop buying a good or service from entities lacking good corporate citizenship in ESG matters. This creates a new decision-based accountability model that will be effective quicker than a regulation could be.

What Data Sharing Strategy Could Address the Trust Challenge?

Data sharing, in our context, depends on a global trusted digital data exchange framework with a supporting governance model that facilitates the sharing of internal and external use data in a non-partisan fashion between systems.

This presents two key challenges:
First, there's a large plethora of ESG measurement methods, frameworks, guidance, protocols, rankings, indices, standards – and we could go on! Each of which is generally disconnected from corporate reporting processes.

Second, the reporting ecosystem is truly broken. Although all of the aforementioned methods have been put in place with good intent, ESG reporting is bordering on being "counteracting." By this we mean, today and in its current form, it breeds confusion, inconsistency, is contradictory, lacks credibility and reliability, and lacks meaningful assurance of the data.
The sustainability standards consolidation actively underway, particularly with the newly formed ISSB (international Sustainability Standards Board) and the integration expected in mid-2023 of the Value Reporting Foundation (created in mid-2021 through the merger of SASB and IIRC) and CDSB, does start to address the standards fragmentation issue but it does not solve the global interoperability issues.

For instance, each standard setter develops its own taxonomy approach and structure – which generally do not correlate to or with each other. We see this with the two-speed sustainability standard development underway within EFRAG (European Financial Reporting Advisory Group) and the ISSB, and we haven't even mentioned the US efforts under discussion within the SEC (Securities and Exchange Commission) around climate. Europe is fundamentally looking to transfer its economy into a sustainable one using the European sustainability standards as the regulatory stick for change, whereas the ISSB is focused on investor impact reporting and has no regulatory leverage at its disposal. The US's position is a little more nebulous as there is no clear agreement within the political stakeholders on a path forward.

So, absent a global harmonized standards approach, which seems increasingly unlikely, Interoperability is the bridge we need to allow for data integration across the ecosystem for stakeholders. Interoperability, in human readable or machine-readable form, is achievable but we need an agreed common approach for the underlying technical plumbing system supporting information flows, and do so by using established open data formats, hosting protocols and semantics.

Here is a very simple example to illustrate what this means. The same term can hold different meanings for different regulatory bodies and, because of differing market needs or regulatory priorities, siloed digital taxonomies are actively under development around the world. This siloed effort will compound the magnitude of issues around the lack of global interoperability and the resulting misaligned data definitions and mismatched taxonomy structures. This means

another alphabet soup, a soup of digital taxonomies not easily embedded into commercial software products for multi-taxonomy reporting.

What It Will Technically Take to Achieve Interoperability of Climate Data

Before we get too far into technical concepts, it helps to define some important interoperability terms.

Syntactic interoperability: Semantic interoperability is the ability of computer systems to exchange data with unambiguous, shared meaning. Semantic interoperability is a requirement to enable machine computable logic, inferencing, knowledge discovery and data federation between information systems. While syntactic interoperability allows two or more systems to communicate and exchange data, the interface and programming languages are different. To be effective, the design of any interoperability solution must be considered and accounted for the granularity of data to be shared

Semantic interoperability: Data transfers where a receiving system can understand the meaning of exchanged data, reusing it appropriately. Higher bar, greater potential for automation and data/model reuse. Semantic interoperability is the ability of computer systems to exchange data with unambiguous, shared meaning. This is accomplished by adding data about the data (metadata), linking each data element to a controlled, shared vocabulary. Without semantic interoperability among disparate IT systems, sharing data in a useful way is impossible.

So, in our context we are suggesting that semantic interoperability, the process of assigning meaning to data, should be examined more closely. Specifically, identifying what meaning needs to be included with a given data point to ensure that it is clearly understood by and between systems and people. This is the first step toward determining how that data and its relevant contextual information needs to be structured.

It then takes a few concrete steps to make technical interoperability a reality:

- ***A purpose driven network*****:** Data achieves higher-level semantic interoperability, as opposed to merely syntactic interoperability, through networks specifically designed for semantic interoperability.
- ***A plan for data compatibility:*** Using open, widely available standards and ensuring that associated metadata are complete, correct, and semantically meaningful.
- ***Data access principles:*** Hosting tabular data in machine-accessible formats and providing an Application Programming Interface (API) for access whenever possible.

- ***Community/stakeholder buy-in:*** Digital data modeling has generally struggled to achieve interoperability and reusability. While our proposals have attracted a high level of interest in improving data interoperability, the technical community has yet to coalesce around a solution to the interoperability problem.

We believe that there is no better time than today to form a global community and establish a path toward data and model interoperability to solve these sustainability information issues. In theory this all sounds great, however where is the market on these issues?

Where the Market is Today

Since the adoption of the Paris Agreement in 2015, data insights show a significant increase in the number of both mandatory and voluntary climate-related information disclosure requirements. This increase was particularly relevant in 2015 and is again in 2019. In 2015, the Financial Stability Board (FSB) concluded that climate change poses a material risk to worldwide financial stability and the issues are, in fact, global in nature. The board's international industry-led Task Force on Climate-related Financial Disclosures (TCFD) was immediately launched and has since established the basic framework necessary to assess, manage and report on climate-related risk and opportunities.

- Since 2017, the publication date of the TCFD recommendations, they have been endorsed, supported and adopted by emerging sustainability reporting standards boards, governments, regulators, international organisations and the private sector around the world. TCFD themselves indicated that "In 2020 more than 9,600 companies, representing greater than 50% global market capitalization disclosed on climate change through CDP's TCFD-aligned disclosure platform, including 84% of the FTSE100."

- Regulation via the national or regional Companies Acts is actively simmering in the background while consumer, media, employee, and shareholder voices are growing and demanding greater accountability for and transparency on key issues.

Looking at the European market. The evolution from the EFRAG Non-Financial Reporting Directive (NFRD) to the Corporate Sustainability Reporting Directive (CSRD) has seen an expansion of scope, but most exciting is the evolution of design thinking. European sustainability standard setting is now mandating a "Think Digital from the Start'' approach in standard development. A summarized timeline of events over the last two years helps contextualize the current European sustainability standard-setting approach and progress against its CSRD objectives (Figure 2).

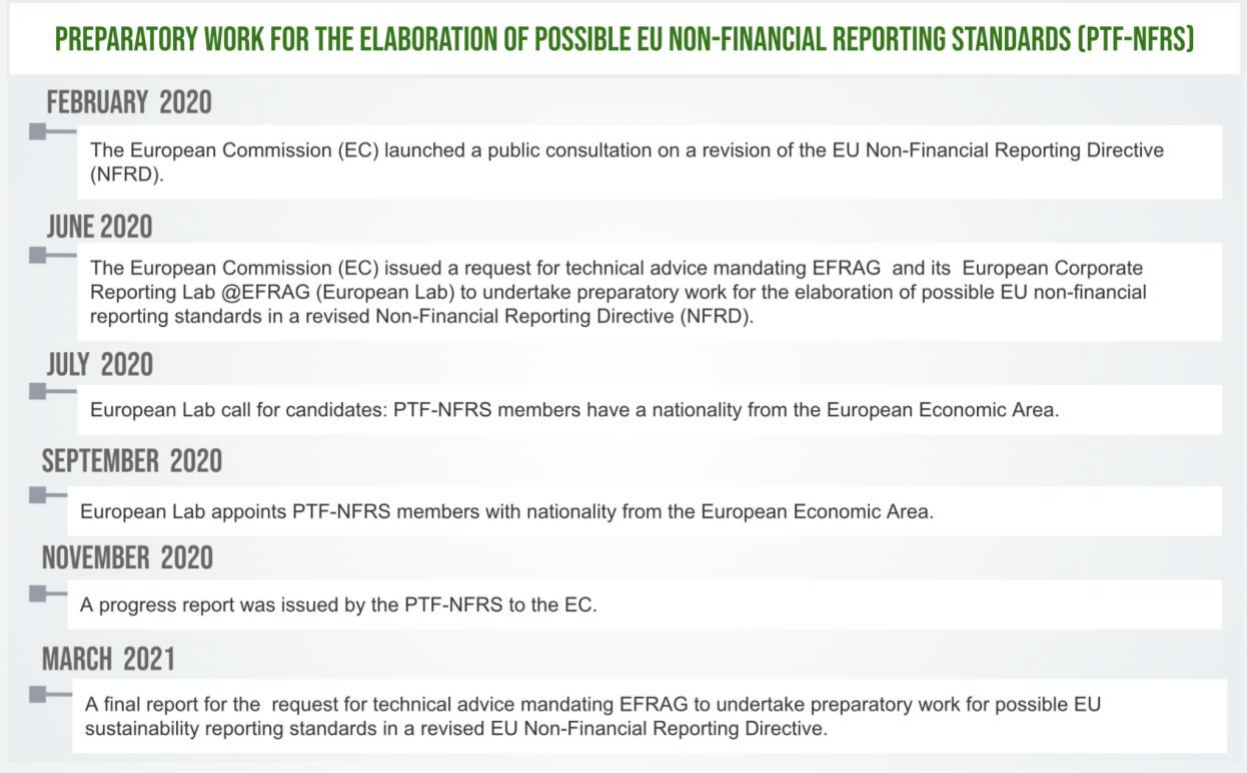

Figure 2: Preparatory Timeline leading preceding the CSRD.

In June 2020, Executive Vice-President Valdis Dombrovskis invited Jean-Paul Gauzès, EFRAG Board President, to provide recommendations about potential changes to the governance and financing of EFRAG, if the latter were entrusted with the development of EU sustainability reporting standards. Gauzès' recommendations were published in March 2021. These recommendations foresee that, following the creation of a new sustainability reporting pillar within EFRAG, the current Board's administrative responsibilities over matters related EFRAG's budget, human resources, etc., will be transferred to a single Administrative Board that will oversee both the existing financial reporting pillar and the future sustainability reporting pillar.

EFRAG currently expects to complete the reform of its governance structures in line with Jean-Paul Gauzès' recommendations by the end of March 2021. In parallel, Executive Vice-President Valdis Dombrovskis also invited EFRAG to establish a multistakeholder task force, under the auspices of the European Corporate Laboratory, to carry out preparatory technical work for the development of possible EU sustainability reporting standards. The recommendations of the task force were also published in March 2021.

This means that European sustainability standards are being designed to ensure digitally compatible outcomes, as well as human readable ones. Similar discussions are actively underway within the ISSB (via the Transition Working Group), and early signs point in the same direction within the US stakeholder discussions.

Where Are Businesses in This Journey?

To better meet the requirements of diverse global statutory reporting environments, forward-thinking businesses are developing their own enhanced frameworks built on 'a single source of data truth' to enable its users to unify, enrich, and explore data at scale — and then create a single connected data source for reporting and analysis. Given that information changes at the source, cloud platforms automatically disseminate updates across all linked instances within, for instance, presentations, reports and spreadsheets. This not only streamlines reporting itself, but it dramatically improves transparency, collaboration, and accountability within distributed work teams.

Final Thoughts on The Global Digital Solution Going Forward

The COVID crisis has crystallized the need for digital solutions. Businesses face mounting pressure to streamline and improve performance, create value, provide greater transparency, become more accountable to stakeholders, while minimizing their impact on natural resources and being socially responsible. To accomplish this, businesses need new methods for gathering and communicating the expanded information sets (increasingly focused on ESG information) sought by investors, analysts and others.

We can all keep an eye on progress with EFRAG, the ISSB and SEC and hold them to account if they do not work together to ensure an ecosystem ready interoperable digital solution for sustainability information! In truth, sustainability disclosures can only be sufficiently addressed through such an unprecedented digital collaboration. The planet deserves no less…

Legend: From right to left are event speakers David Wray, John Turner and Michal Piechocki.