

Designing sustainability reporting to meet the needs of small-to-medium enterprises

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Abstract. This paper outlines a process that is more objective and reproducible, integrating a series of 10 divergent and convergent steps, for sustainability reporting that is more suitable for smaller businesses. The steps include considering a comprehensive range of issues by incorporating planned rounds of targeted exploration. Equally important, are rounds of structured materiality prioritisation. Together, these can help deliver a sustainability report that is fit for purpose for small to medium sized enterprises.

Keywords: sustainability, reporting, triple bottom line, materiality.

Introduction

For many, achieving long term sustainability in business across multiple domains is as important as being recognised for this by your investors and your stakeholders. This recognition can offer new business opportunities, favourable trading conditions and new non-price features for your products and services. This is as relevant to large business as it is for small-to-medium businesses.

Sustainability reporting is commonly used by larger companies, which often align closely with established frameworks like the Global Reporting Initiative. Well-regarded reports are characterised by a comprehensive scope and boundary, along with the inclusion of measurable metrics supported by thorough data collection. However, this approach tends to adopt a one-size-fits-all model that can challenge the communication with stakeholders and consumers, while still incurring substantial costs in development and verification.

To demonstrate the return-on-investment of sustainability reporting for small-to-medium sized agricultural businesses, greater emphasis must be placed on carefully defining the scope, using relevant language, and prioritising material issues. Applying key extension methodologies can help design sustainability reports that are both rigorous and tailored to meet the specific needs of the small to medium sized business, but also align to industry, statewide, national or generic reporting standards.

Sustainability reporting and its challenges

Terminology

Sustainability reporting covers a range of terms including Triple Bottom Line (TBL), Quadruple Bottom Line (4BL), Corporate Social Responsibility (CSR), and Environmental Social and Governance (ESG) reporting. It has been mainly driven by businesses and organisations wishing to demonstrate to their investors, stakeholders or consumers that they consider a range of values, other than just profit, in how they conduct their business.

Who is it for?

The concept of sustainability has been around for forty years and sustainability reporting has made significant progress in the past twenty years. In that time, it has been embraced by all parts of society, but it can clearly mean different things to different people. In a food or fibre system, what is reported, why and how varies depending on what role you play in that system (Table 1).

As a result, there is often conflict when people raise expectations about who should pay for the development of sustainability reporting and whether or how well that should meet the needs of all players in an agricultural system. Sustainability reporting that is intended to provide value and meaning throughout the supply chain, however, requires collaboration about design, content (including sustainability standards), format and feedback across the supply chain including suppliers, industry, retailers and consumers.

Table 1. Examples of what, why and how issues, including sustainability, are reported for a variety of relevant participants (who) in an agricultural system

Who	Supplier	Industry	Supply chain (e.g. retailer, bank, insurance)	Consumer
What	Quality of resource base (soil) Input use efficiency (nutrients and water)	Animal welfare Deforestation Chemical residues	Quality specifications Food safety Modern slavery Carbon footprint	Price Quality and shelf life Packaging Nutrition
Why	Land stewardship	Market access	Shareholder values	Consumer values
How	Farm management data	Industry websites	Product software (e.g. Muddy boots® or Blockchain)	Product label, brand or perhaps QR code

Is it still optional?

Sustainability reporting is still optional. Australia's Corporations Act 2001 was amended in September 2024 to introduce a mandatory, phased climate and sustainability reporting regime. This is being implemented in a phased manner with the largest companies obliged to report first. Given that scope 3 suppliers are also included in the second year of reporting for each tier of companies, it is likely that a large proportion of producers in Australia will be asked for their emissions number (t CO₂e/t product) soon, either by their buyer, bank or insurer. Emissions reporting is only one small component of sustainability reporting, but there is a growing interest in a number of sustainability measures by the various supply chain members.

What measures are included?

It is perhaps not surprising that businesses that develop sustainability reports are keen to demonstrate performance across a comprehensive range of metrics that appeal to a broad range of stakeholders. It is also to be expected that these organisations are keen to have their sustainability reports recognised by aligning the metrics with well-regarded frameworks and standards such as the Global Reporting Initiative (GRI) and the UN Sustainable Development Goals (SDG). However, with such broad coverage, alignments with frameworks and the use of third-party verification, many reports end up being large and costly.

There are hundreds of performance topics and metrics that can be used for sustainability reporting across the themes of 'people', 'planet' and 'profit'. More recently this triple bottom line reporting has been expanded to quadruple bottom line reporting to include the 'purpose' of the business. These value-driven metrics are increasingly being embedded in a large number of industry and branded frameworks. This is a substantial barrier to organisations or businesses embarking on the process due to overwhelming amount of envisaged time, cost and complexity.

Narrowing the focus for sustainability reporting means reducing the number of performance topics and hence the time and cost to complete the consultation, data collection, assessment and reporting components. Narrowing the focus in sustainability reporting is referred to as determining the materiality (<https://www.globalreporting.org/>).

To determine the materiality of those topics relevant to an individual business, the current best practice approach is to undertake a double materiality assessment. Double materiality is a concept that provides two criteria for the determination of whether a sustainability topic should be included in a business' sustainability report: the impact of a company's activities on its external environment; and the dependencies that the company's financial performance has on the external environment (<https://www.globalreporting.org/>). Because the materiality assessment is usually subjective and variable between stakeholders, transparent consolidation on the combined materiality of measures can be questionable.

The amount and cost of sustainability reporting must be appropriate to the purpose of that reporting and the size of the business. Businesses wanting to convey the triple bottom line sustainability of their (production and packing) operation to their investors will inevitably develop a more complex report than a small-to-medium enterprise (SME) supplier of agricultural produce. In this investor situation, it is common and reasonable for a sustainability report to utilise 25-30 measures.

Does sustainability drive consumer's purchasing decisions?

Suppliers are usually asked to pay for collecting and reporting the data. Whether suppliers can achieve a return on investment based on the consumer premium, is quite variable and situation dependent. While sustainability is increasingly important to consumers, factors like price and quality are usually more important. Some consumers are willing to pay a premium for sustainable products, but this willingness varies depending on the product category, and the consumer's demographic and financial situation. Increasingly, sustainability is becoming an expectation within the existing price, rather than a justification for a premium paid on that product.

How is the product sold?

The ability to seek a premium from the consumer will often depend on how the product is sold. Bulk commodities, such as grains, that are aggregated for handling, processing and transport efficiencies, are faced with considerable challenges, if not all contributing suppliers meet the minimum sustainability standards. Sometimes the proportion of suppliers or supply meeting the standard, can be used as a surrogate for the traceability expectations of the marketplace.

Complex reporting can challenge the ability to communicate to the consumer

To make the task of communication with the consumer simpler, often the use of branded third-party credentials is used. These rely on both their reputation and their rigorous sustainability frameworks and/or standards (e.g. Fairtrade®). While it can streamline the communication with the consumer, this often requires a minimum number of topics to be addressed and entails a minimum level of third-party accreditation and cost. In this situation, there is often an expectation that the supplier will pay for all the costs despite the fact that the consumer, who ultimately has to pay for products, rarely has ready access to the complex reporting behind the arrangement.

Those who work in market failure have certain biases

Sustainability is often considered an area of market failure and standards and metrics development work is often taken on by those employed in government and not-for-profit roles. Many of these staff members are scientists, who's training often emphasises developing comprehensive solutions. This approach may sometimes differ from a focus on creating minimum viable products. Without recognising these differing perspectives, staff may unintentionally bring a broader range of issues into consideration, aiming to advance topics that may not have gained traction in previous efforts. As sustainability reporting gains momentum or traction, because of its wide definition, it can attract public good issues with benefits for the wider community and hence become a 'Trojan Horse' as developers of sustainability schemes run the risk of integrating a number of social impacts. To date the efforts to scale these efforts for small-to-medium enterprises has been limited, in order not to detract from the comprehensiveness and recognition afforded to the larger businesses and the reputation of sustainability reporting.

There is also the temptation to simply package up sustainability for the larger businesses given the efficiency of servicing the majority of the industry through-put. While this addresses the short term economic interests of the industry, it does risk missing the benefits that small-to-medium businesses offer in innovation and resilience, leading to long term triple bottom line sustainability.

Some relevant extension theory

In terms of developing a recommended process for designing sustainability reporting to meet the needs of small-to-medium enterprises, there are at least three pieces of extension theory that add significant value.

The first of these is the [Double Diamond Design model](#) popularised by the British Design Council in 2005, which identifies the following four steps.

1. Discover: The first diamond helps people understand, rather than simply assume, what the problem is. It involves speaking to and spending time with people who are affected by the issues.
2. Define: The insight gathered from the discovery phase can help you to define the challenge in a different way.
3. Develop: The second diamond encourages people to give different answers to the clearly defined problem, seeking inspiration from elsewhere and co-designing with a range of different people.
4. Deliver: Delivery involves testing out different solutions at small-scale, rejecting those that will not work and improving the ones that will.

This model clearly outlines a process from problem confirmation through to packaging up the product and ensuring that it addresses the problem with the target audience. This is highly

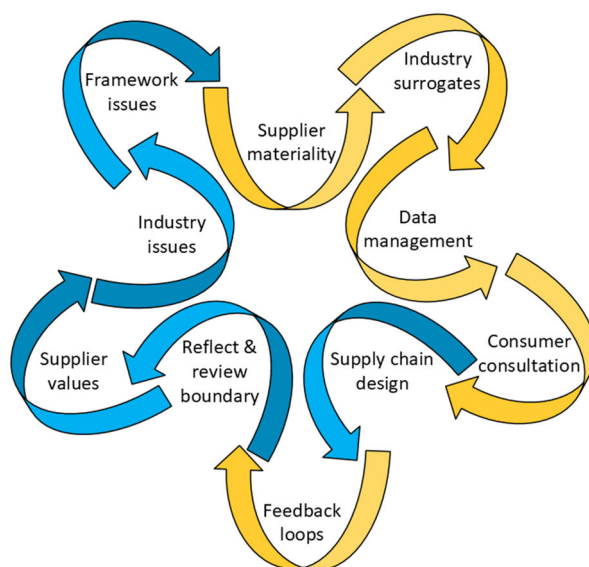
relevant to the process developed here and liberty is taken to extend the number of discovery and definition steps to experiential learning loops to fully encompass necessary elements.

The second important model that forms the basis of the outlined process is the experiential learning process where knowledge is created through the transformation of experience. Kolb (1984) and Kolb & Kolb (2023) reinforces the need to pay due attention to four key steps in each learning loop.

1. Concrete experience (CE): involve themselves fully openly and without bias in new experiences.
2. Reflective observation (RO): reflect on and observe their experiences from many perspectives
3. Abstract conceptualisation (AC): create concepts that integrate their observations into logically sound theories
4. Active experimentation (AE): use these theories to make decisions and solve problems.

This not only draws attention to the four key elements of each learning loop but reinforces the need to address all steps equally, irrespective of personal strengths and weaknesses. As a result, the ten steps outlined in the following recommended process are presented as learning loops (Figure 1) rather than as linear steps.

Figure 1: Designing sustainability reporting includes a number of divergent (opening up consideration of more issues as blue) and convergent (narrowing the focus of measures as yellow ochre) steps, usually starting with the supplier values step in the bottom left



Source: The author

The third and final piece of relevant extension theory is objective driven logic. This is a method for planning and evaluating projects by outlining the logical connections between inputs, activities, outputs, and outcomes. This is based on Bennett's Hierarchy (Bennett, 1975). Essentially, it is starting with the end or outcome in mind and working backwards to identify the necessary steps to maximise your chances of getting there. In this situation the outcome is a limited number of measures or metrics to convey to the consumer the sustainability of the product being purchased. Limiting the number to say five metrics increases the likely impact of each measure on the purchasing decision, given that price and quality will probably be more important anyway. This would also limit the costs and complexity of collecting and communicating that information to the consumer. With a target of only five metrics, it does increase the need for careful prioritisation, consideration of whether a measure can act as a surrogate for a broader accepted suite of measures, and the instigation of an effective system of collecting feedback on how well the measures influence consumer purchasing decisions. Another feature of the five would be that these are topics that can be progressively improved over the coming years, facilitating communication that portrays a sustainability journey by the supplier.

A suggested process for developing sustainability reporting

This paper focuses on narrowing the focus and cost of sustainability reporting for those SME supplier businesses, while ensuring the usefulness of that reporting to their wholesalers, retailers

and consumers of their produce. It doesn't of course preclude a SME business from including internal sustainability measures to track its own efficiency of resource usage, that are not communicated up or down its supply chains.

The main drivers for the use of simplified sustainability reporting depends on the entity and its supply chain interests which can include:

- supplier's interest in reporting on their operations, selecting the measures that matter to them
- funders and industry interests to report progress on their own sustainability frameworks
- retailers and manufacturers interest in a simple approach to engage their suppliers on sustainability. This often offers insights into how retailers may engage with their consumers on what issues are of importance to them in their purchasing decisions, whilst avoiding issues often associated with instances of greenwash.

The development of sustainability reporting involves an array of divergence and convergent steps. Note that these steps, like most experiential learning processes, are not necessarily linear, but situation dependent and each can involve an experiential learning loop (Figure 1).

Step 1: Supplier values

Investigate the business values of those suppliers who will be undertaking the sustainability reporting to identify drivers and to anticipate biases. Espoused business values or even personal values of the business leaders can have a huge influence on the perceived success and sustainability of a business. For example, the importance of the values of stewardship and succession can often present themselves when this step is undertaken for a number of agricultural businesses as suppliers and instigators of sustainability reporting. It is useful to consider that some measures may be only appropriate and useful to collect as part of monitoring business performance and hence its purpose. These need not be reported in sustainability reporting through the supply chain. Some values-driven metrics may not be obvious, if the first step of developing sustainability reporting simply consults dominant sustainability frameworks or standards. There are a number of online resources to help business to identify values and metrics, if this has not already been done.

Step 2: Industry issues

Identify industry issues by developing a quadruple bottom line sustainability framework. This is a useful way to recognise and add the unique values of the instigator, to the elements of triple bottom line frameworks (those that consider environmental, social and economic elements) using industry relevant terminology. This is drawn together in Figure 2 utilising a quadruple bottom line sustainability Venn diagram. Utilising this figure will help to define the problem, confirm the appropriateness of the metric descriptors and drivers that the reporting will address.

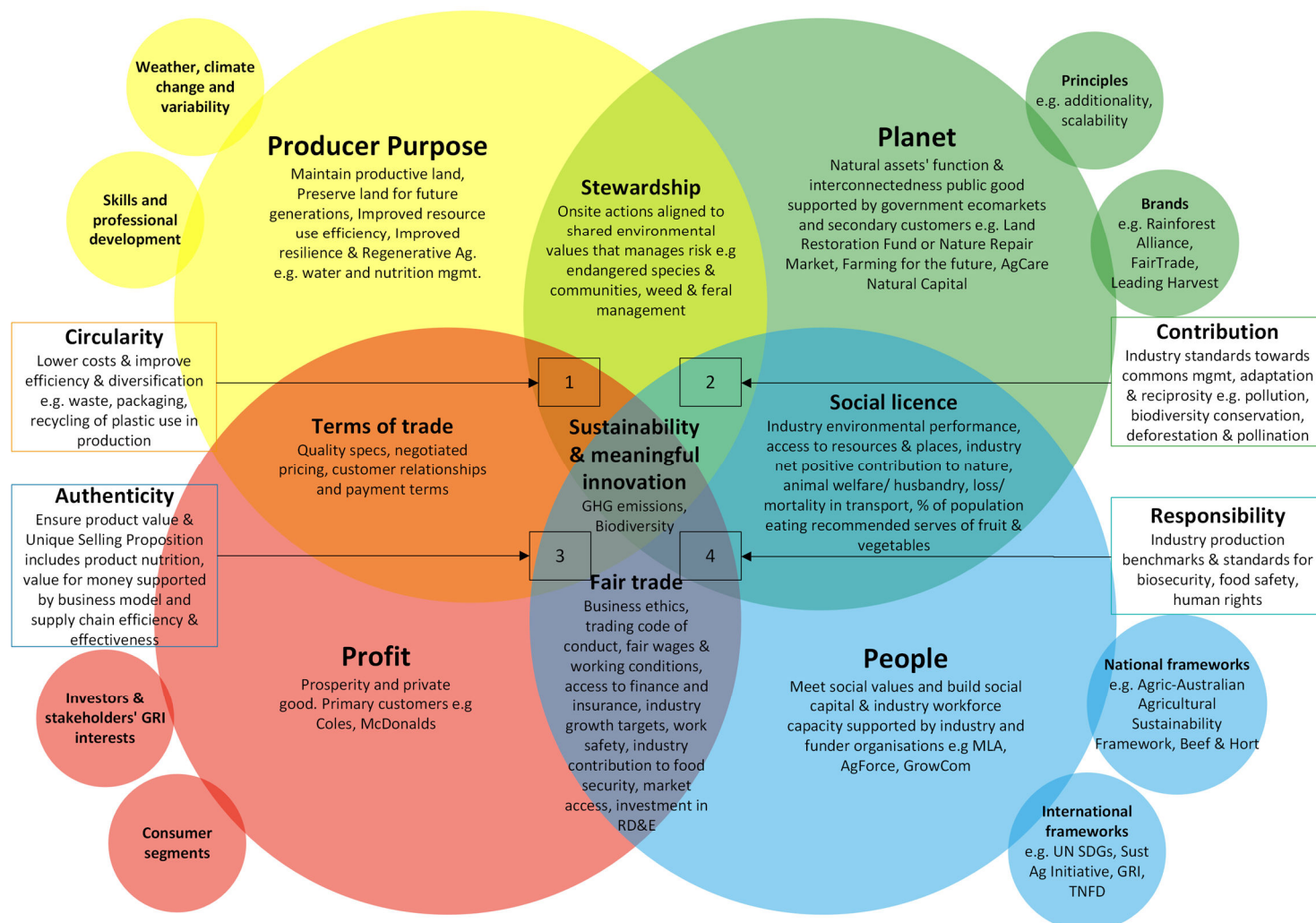
Step 3: Framework issues

Discover the list of potential topics reviewing the existing ones against preferred standards, e.g. GRI, SDG for new concepts, terminology of existing topics, potential for alignment and suggestions for metrics.

Step 4: Supplier materiality

Define or prioritise topics using double materiality assessment by the suppliers based upon a combination of the effects of the business on the topic and what dependencies the business success has on the topic/resource.

To make the process more repeatable, it is suggested to use Likert-scale scoring developed by the author in the following process. Assign a score (each out of five) for: the risk and severity of the impact on the environment (from Table 2); and risk and severity of the impact of the environment on the business (from Table 3). These scores are used to identify the more material topics warranting continued inclusion in this sorting process.

Figure 2. The intersection and influences upon quadruple bottom line reporting topics

Source: The author

Table 2. The impact of a company's activities on its external environment

Score	1	2	3	4	5
Descriptor	Insignificant	Minor	Moderate	Major	Severe
Risk of impact	Regulation significantly reduces risk	Measures that rise and fall in risk or exposure during a production season	Moderate impact, likelihood, risk or dependency	Major impact, likelihood, risk or dependency	Severe impact, likelihood, risk or dependencies
Severity of impact	Efficiency of resource use measure where the additional principle already provides financial incentives for the measure improvement in the supplier's business e.g. to reduce erosion losses or to minimise fertiliser inputs		Indirect impact on social or environmental commons	Direct major impact on social or environmental commons	Direct severe impact on social or environmental commons

Table 3. The impact (or dependencies) that the external environment has on the company's financial performance

Score	1	2	3	4	5
Descriptor	Insignificant	Minor	Moderate	Major	Severe
Risk of impact	Regulation significantly reduces risk	Measures that rise and fall in risk or exposure during a production season	Moderate impact, likelihood, risk or dependency	Major impact, likelihood, risk or dependency	Severe impact, likelihood, risk or dependencies
Severity of impact	Measures already regarded as a requirement of trade, such as a legal safety requirement or market access requirement	Changing availability of resources due to climate change	Importance acknowledges the inherent safety risks associated with different products e.g. salad leaf, rockmelon.	Major dependencies for the financial success of the business e.g. pollination & temperatures	Severe dependencies for the financial success of the business e.g. pollination & temperatures

Step 5: Industry surrogates

Define or prioritise topics using a review of whether data and the associated metrics from industry sustainability schemes that might be an adequate surrogate for the priority topics. If the measure is already being collected, just establish a link to this dataset.

During this stage it is also useful to establish alignment between the selected measures and a suitable set of sustainability frameworks. This can help to identify equivalence and establish credibility. Examples of Sustainability frameworks for the Australian horticulture industry include:

- Australian grown horticulture sustainability framework (<https://www.horticulture.com.au/>)
- Sustainable Development Goals (<https://sdgs.un.org/goals>)
- Agriculture, aquaculture and fishing standards (<https://www.globalreporting.org/>)
- Australian Agricultural Sustainability Framework (<https://aasf.org.au/>).

Step 6: Data management

Chose suitable metrics. While an issue or topic may be agreed as important, unless a suitable metric can be identified, it should not be prioritised and continued to be included. From a data management perspective, a metric needs to pass the following five tests.

- Additivity. Metrics must be quantifiable measures that can be added or averaged across suppliers, so that the measure can be logically represented by a common value.

- Scalability. Metrics should preferably reflect intensity rather than absolute measures to adapt to shifting business size, mergers, etc.
- Independence of time: Where a metric can be influenced from year-to-year by factors such as the weather, the metric should be a rolling average, e.g. over 1, 2, 3 or 5 years, depending on the metric and what will give a true indication of the sustainability without the noise and influence of the year-to-year factor.
- Independence of the location or site: A metric should not be chosen that is simply a reflection of the location or resources at that site. For example, the number of sprays applied or water used in any given year might just be a reflection of the weather, soil type or the influence of neighbouring properties at that location and hence not a useful indication of sustainability.
- Complexity: The metric should be commonly understood by consumers.

Step 7: Consumer consultation

Define topics, metrics and format by consulting consumers and those supply chain actors with responsibility to investors on what top issues affect their purchasing decision beyond the price and quality of the product. Identify the number of topics likely to have significant influence on consumers, who are expected to 'pay' for the sustainability feature of the product. This will not only identify the prioritised topics and metrics but also the restricted number of metrics as an outcome of the process. Take care to avoid overt marketing and potential greenwashing. Some consumers with a significant disconnect with the rural sector may need to be guided about the sustainability relevance of some potential metrics.

Step 8: Supply chain design

Develop the sustainability reporting, ensuring not only the topics and metrics, but especially the format of ongoing data delivery, meets the needs of the suppliers, consumers and those supply chain actors with responsibility to investors. While the 'keep it simple' message must be ever-present, be open to the likelihood that different parts of the supply chain will have interests in different parts of the sustainability reporting.

Step 9: Feedback loops

Deliver the sustainability reporting incorporating a feedback loop from target stakeholders, especially consumers. This should help to refine the topics, metrics and format, ensuring that they are relevant and influential. Being comprehensive to all stakeholders using the one sustainability report risks ignoring the cost to engage consumers in this usually premium market segment.

Step 10: Reflect and review boundary

Reflect on and review the boundary of the sustainability reporting system along with the tailored sustainability report directed to each interested stakeholder.

Discussion

Getting agreement to five measures across all of the potential sustainability reporting topics is a difficult task of compromise. Table 4 identifies five such potential topics and metrics based upon the authors experience over the past twenty years.

Table 4. Potential shortlisted topics and metrics that might form the core of small-to-medium enterprise sustainability reporting

Possible shortlisted topic	Possible metric
The unique nutrition and health benefits of the product	Content levels of the most relevant and health-valued vitamin for that commodity
Food safety	A compulsory safety surrogate (e.g. Harmonised Australian Retailer Produce Scheme, HARPS)
Biodiversity	The percentage of land (and wetlands) that is actively managed for improvement in the condition of the relevant regional ecosystems
Packaging, waste and circular economy	The percentage of all packaging that is compostable / recycled / recyclable
Climate change	Emissions intensity reduction from baseline

Conclusion

What an individual supplier's sustainability report includes and what it looks like to the different stakeholders in their supply chain, is likely to be slightly different for each supplier. This of course will be influenced over time by feedback from their own business as well as that which they receive from their stakeholders.

A further challenge is likely to include working with your retailer to present this information to potential consumers using brands or standardised symbols on product labelling. Given the amount of information already legislated and included, this is likely to be no simple task.

Recommendations for SME suppliers

Recommendation 1: Investigate and document the information needs of supply chain stakeholders.

Recommendation 2: Investigate technology solutions and agreements about data sharing that supports a network of datasets rather than one entity having to pay to consolidate all that data into one sustainability report. The best solution is to develop one module at a time, recognising the stakeholder's distinct needs, potential wants and differences.

Recommendation 3: Develop capacity and templates to deliver tailored sustainability reports for different stakeholders.

Acknowledgements

While much information and advice was gathered from a wide range of peers over many years, I would also like to recognise, acknowledge and disclose the use of background intellectual property developed in my role as Chief Performance Officer with SEQ Catchments Ltd, where I was a GRI Certified Practitioner. In that role I made significant contributions to a number of Combined Annual and Sustainability Reports, aligned with the GRI's sustainability framework.

References

- Bennett C 1975, 'Up the hierarchy', *The Journal of Extension*, vol. 13, no. 2, Article 2.
Kolb D 1984, *Experiential learning: experience as the source of learning and development*, Prentice Hall, Englewood Cliffs, NJ
Kolb A & Kolb D, 2023, *8 things to know about the experiential learning cycle*, Experiential based learning systems, EBL Press, Available from <<https://learningfromexperience.com/>>