

Supply chain transparency

Produced for the Westpac NZ Government Innovation Fund

February 2021

Acknowledgements

Key contributors (via interviews):

Catherine Beard, ExportNZ

Jon Duffy, Consumer NZ

Rachel Brown, Sustainable Business Network

Holly Norton, Sustainable Business Network

Written by:

Marshall Bell, ThinkPlace

Mondy Jera, ThinkPlace

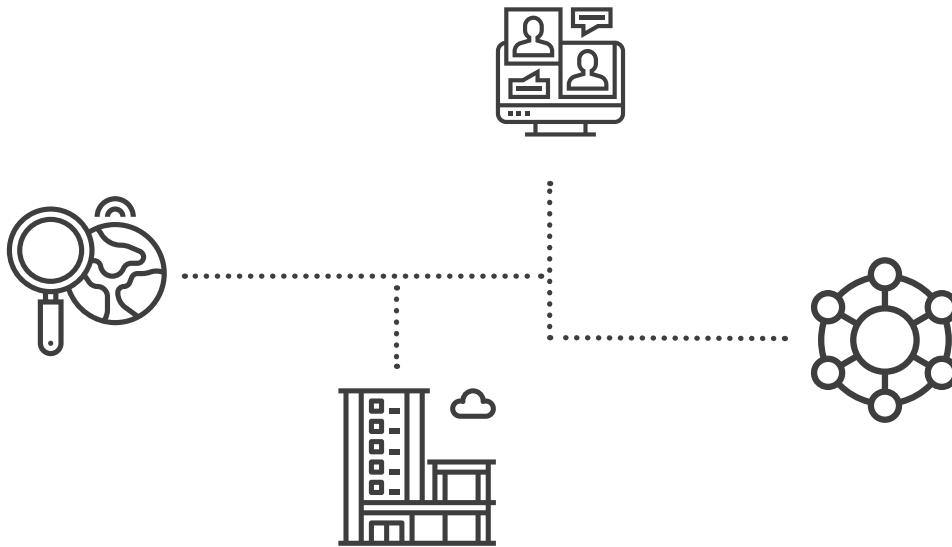
Jim Scully, ThinkPlace

Designed by:

Rose Wu, ThinkPlace

Contents

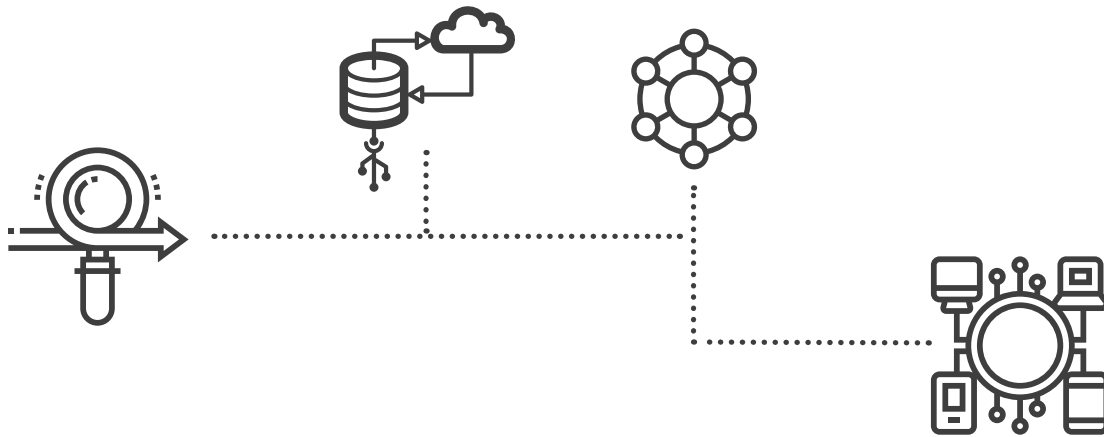
Intent	04
Defining supply chain transparency	05
Key shifts	09
Potential challenges	12
Real world insights	14
Barriers and enablers	19
Areas for potential innovation & principles	21
Closing thoughts.....	23



Intent of this report

This report was written to support the Westpac NZ Government Innovation Fund's funding round, on the topic of supply chain transparency. The report was designed to provoke thought and to explore the nuance of this ambiguous and complex topic.

Why now? Over the past few years, a consumer trend has emerged; the desire to understand more about the how, the where, and the why of the products and services we consume. During 2020, COVID-19 also significantly disrupted previously stable supply chains. The combined effects of these two forces are hastening calls for more intentional management of supply chains so that New Zealanders, and our global consumers, have confidence in supply chain resilience, sustainability and safety.



What does supply chain transparency mean?

Supply chain transparency is a simple concept on the one hand, yet loaded with nuance. The term ‘transparency’ in a commercial context is used differently by stakeholders depending on their interpretation and needs. Recently, this topic has been given increased focus and attention by consumers. This renewed focus may hasten the nudge required for businesses to grapple with the challenges and opportunities associated with the outcomes of how goods and services are produced.

At every stage in the supply chain, entities have a role, and some would argue a responsibility, to do their part to enable transparency. A simple explanation of what supply chain transparency is:

“Requir[ing] companies to know what is happening upstream in the supply chain and to communicate this knowledge both internally and externally.”¹

This definition is indicative of a direction but fails to capture the way the world has changed and it is “unclear which pieces of information should be disclosed, to what degree, to which stakeholders, and under which conditions.”²

The distinction between internal and external communication of transparency is important because it has implications for requirements and expectations for the

various the stakeholders. Essentially there is not one way of looking at it and there are many viewpoints. We present a position in this report that acknowledges the complexity of the concept and that it means different things to different audiences. It is through this exploration that we believe you can draw your own conclusions about what might be need to develop supply chain transparency in this country and beyond.

A model for a transparency system

Transparency is a concept beyond traceability via digital proof points. In reality, transparency is comprised of multiple individual concepts and enablers.

From an academic perspective, the main underlying influences that factor into supply chain transparency, include “supply chain disintermediation*, legal complexity of countries involved in the supply chain, product formalisation†, integration of third-party monitoring, and communication between players in the supply chain.”³ Transparency also relies on a series of enablers that lay the foundation for better accessibility of information such as an interoperable network of data, systems, processes and infrastructure that can support a unified digital language along with empowered and educated humans.

Let us take a simple hypothetical example of a muesli bar maker that seeks to use only New Zealand grown, organic wheat from Canterbury. The manufacturer needs traceability from its suppliers to ensure the wheat they use comes from the organic farms they mill the grain from. The suppliers need verifiability through a technological method that the wheat does not contain any unacceptable chemicals, and the farmer needs to be able to collect data at the ground level. Accountability measures through the legal consequences must be in place to hold the supplier or grower responsible if what the manufacturer puts in their product is not organic. Authenticity to this commitment, including where the company wants to go in the future (e.g. all of their products using

locally sourced organic ingredients), aligns with the unwavering purpose of a values driven company that instils confidence and trust. To maximise the benefit of this effort and connect with consumers looking to make more informed purchasing decision, relatability is key to present the information in a buyer-friendly form that is comprehensible. It is the composition of these various elements that give shape to transparency.

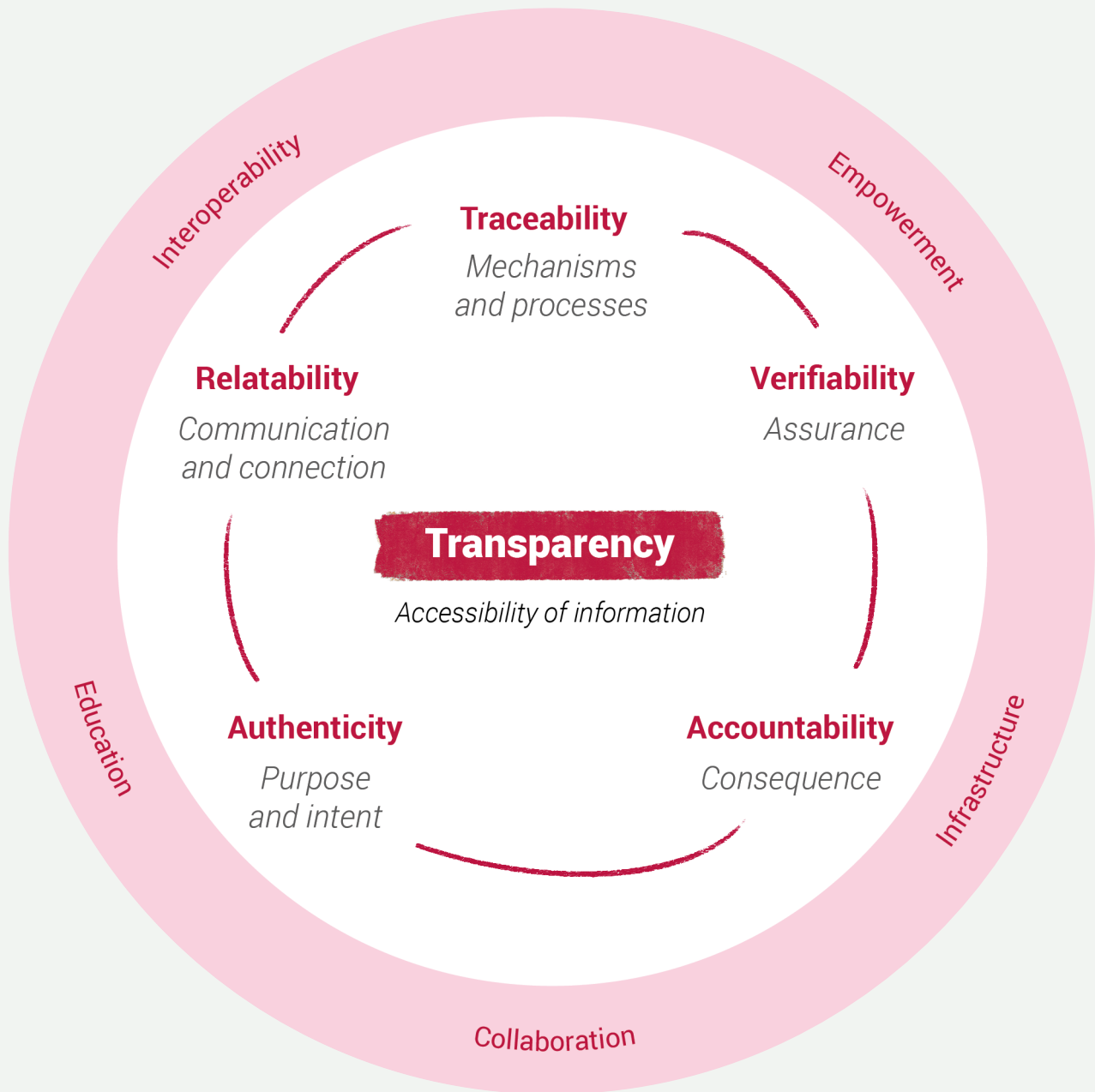
In reality, this example can take the form of a much more complex topic, such as ethical working conditions of a manufacturing plant on the other side of the world that is several steps removed from the product being created or procured in New Zealand.

The following framework presents a snapshot of this complex topic. Transparency does not exist on its own, but is comprised of several elements, ideally working in unison, powered by enablers. When linkages are insufficient or non-existent, the system of transparency operates in a sub-optimal state. This model can assist in reflecting on the various areas that support transparent supply chain, understanding strengths and gaps, and considering innovations from an ecosystem approach.

* Reduction in the use of intermediaries between producers and consumers.

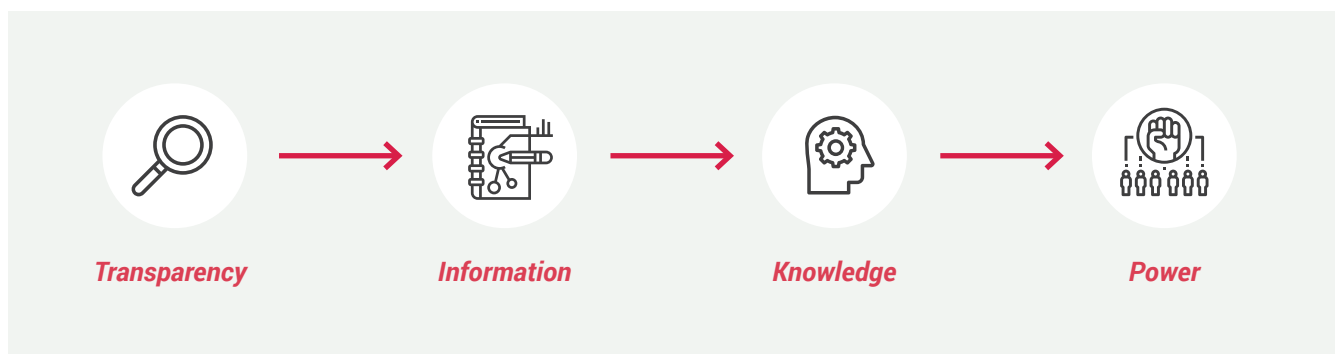
† The level to which the product makes social and environmental claims.

A transparency system to support trusted supply chains



Why this matters

Purpose-driven companies are gaining more traction every year. As Unilever's CEO put it, "Purpose creates relevance for a brand, it drives talkability, builds penetration and reduces price elasticity" and they "believe this so strongly that [they] are prepared to commit that in the future, every Unilever brand will be a brand with purpose."⁴ Sustainability and ethical production is a key value of many purpose driven companies and increased access to information through improved transparency can support these outcomes through knowledgeable buyers. How might we support the availability and access to information with informed, educated, and empowered humans to reshape norms for transformative change?



Businesses driven solely for profit are an increasingly unfavourable model, and brands now have the power to create significant positive environmental and social impact. "It is critical that brands take action and demonstrate their commitment to making a difference"⁵ and transparency enables trust in a company's philosophy, practice, and goals while avoiding "greenwashing"[‡].

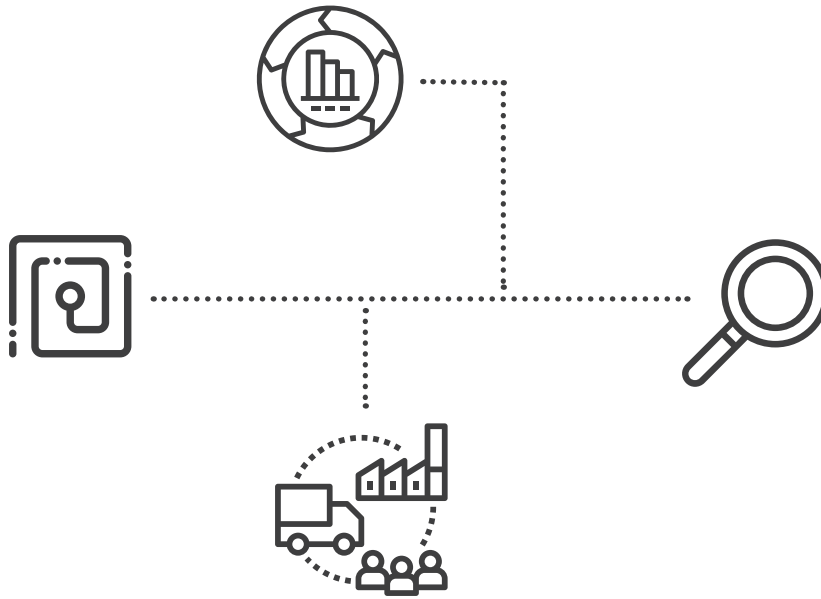
Consumers are demanding it and may be willing to pay 2% to 10% more for products from companies that provide greater supply chain transparency, valuing information such as treatment of workers in the supply chain, efforts to improve working conditions, where products come from and how they were produced.⁶

At an individual level, New Zealanders have been exposed to the benefits of increased transparency across societies through the COVID-19 response. The demand for clear information and people's willingness to support the collective at the expense of individual data privacy is being pushed to new limits. However, this is also happening at the same time as privacy challenges on social media continue

to be exposed and people grow more apprehensive. The opportunity that exists now is for businesses and government to effectively manage privacy concerns through a holistic platform of transparency that clearly communicates the desired outcomes and risks.

From an investment perspective, environmental, social, and governance (ESG) criteria are being used as indicators on the transparency of businesses and some investors have come to believe that by "following ESG criteria, they may be able to avoid companies whose practices could signal a risk factor—as evidenced by BP's 2010 oil spill and Volkswagen's emissions scandal, both of which rocked the companies' stock prices and resulted in billions of dollars in associated losses."⁷ The stipulations and expectations in these frameworks will become increasingly more stringent and by not promoting better transparency efforts and systems, there is the risk of falling behind on the global stage. Adhering to a higher standard for New Zealand can elevate the nation globally for sustainable and low-risk investment.

[‡] Misleading consumers with products and brands are marketed as environmentally friendly where the claims are unsubstantiated.



Key shifts in the world of supply chain transparency

The following shifts in how people are thinking about supply chain transparency have begun. They are not the result of increased transparency but rather the increased significance being placed on the topic, driven by consumers and externalities such as climate change. Through these shifts, the ability for transparency will increase along with positive outcomes as a result.

FROM:

TO:

TRACEABILITY

TRANSPARENCY

TRANSPARENCY AS THE OUTCOME

OUTCOMES FROM TRANSPARENCY

SUPPLY CHAIN THINKING

VALUE CHAIN THINKING

INTEGRATION THROUGH OWNERSHIP

INTEGRATION THROUGH PARTNERING

From traceability to transparency

Traceability is the practical origins of transparency. “End-to-end traceability will become common to all food products in the near future and will be necessary for addressing yet unanticipated recall scenarios.”⁸ But global needs have changed and we require a more comprehensive system of transparency that incorporates end users into the process. The power of transparency lies in public disclosure, which, “Invites us in, and allows us to exercise our right to find out more, [while] non-disclosure perpetuates a non-inclusive system.”⁹



Transparency expectations are shifting to upfront, proactive, and forthcoming disclosure of information rather than just access on request. This includes the entire product lifecycle as processors are now taking responsibility for all inputs into their products as well as how their products are disposed of through on-package information to educate consumers and support sustainability. The definition of transparency is continuing to morph and will continue to evolve as expectations increase around organisational roles in improving people and planet.

From transparency as the outcome to outcomes from transparency

Transparency outcomes are becoming more nuanced. The private and public sector are expected to be aware of, and provide access to, environmental, social, and increasingly, the economic ongoings of their operations as people seek to understand the value of intangible transactions in the digital world. Traditionally, transparency has been treated as the end state in and of itself. This is as a result of being seen through a compliance approach and implementing a code of conduct for their supply chain.

The alternative is looking at a cooperation approach based on shared values and desired outcomes for supply chain partners. In this approach you “Instead attempt to understand the network context of their suppliers and to involve suppliers in developing supply chain transparency attempts,” and for example, “view supply chain transparency as a means to the end of improved sustainability conditions.”¹⁰ The question is, what combination of approaches is right for New Zealand? More information on the distinction between the approaches can be found in Table 1.

Table 1. A summary of upsides and downsides of the transparency approaches described by Egels-Zandén et al. 2015.

	 UPSIDES	 Downsides
Compliance approach	<ul style="list-style-type: none"> • Easily communicated • Allows the firm to gain legitimacy • Provides a uniform way of working on transparency 	<ul style="list-style-type: none"> • Requires managers to be willing to jeopardize their relationships with suppliers and cancel contracts with suppliers resisting transparency attempts • Requires firm to have enough power to force suppliers to comply
Cooperation approach	<ul style="list-style-type: none"> • Can minimise dysfunctional conflicts in supply networks • Can shift the focus to normative rather than authoritative control • Potentially make supply chain transparency a tool for developing supply networks 	<ul style="list-style-type: none"> • Makes external transparency difficult since the firm’s disclosure can be perceived as greenwashing attempts

From supply chain thinking to value chain thinking

The conversation is shifting to creating value outside of the traditional supply chain of a business to include collaborative elements across industries and sectors to create added value to products and services. This is where value chain thinking comes in; a broader scope of business activity than the supply chain, with the supply chain being a central component to the value chain. “Essentially, the value chain comprises all business activities which increase the value of a product or service in the eyes of the buyer” and includes, “activities such as product development and marketing.”¹¹

A widening of scope to support transparency across the value chain has the potential to address both how to fulfil buyers’ needs and increasing focus on innovation, market opportunities, and competitive advantage. This is where the crossover with ‘open source’ comes into play which is a “social movement, begun by computer programmers, that rejects secrecy and centralised control of creative work in favour of decentralization, transparency, and unrestricted sharing of information.”¹² This thinking is spreading beyond software engineers to support innovation and advancement of entire industries, including most recently COVID-19 vaccination development.

The sweet spot where transparency is concerned, is the intersection of supporting innovation, business processes, efficiencies and regulation, and connecting with consumers in a meaningful way that increases marketability. This subtle distinction is where the potential for New Zealand lies in global markets, through an interconnected and integrated global value chain. We can be proud of the provenance of our products in a way that not many other countries can be.

From integration through ownership to integration through partnering

A cooperative approach to transparency can be viewed as value chain partnering, both vertically and horizontally, and takes a leap of faith, but keeps focus on what each partner does best. In essence, this is the relatively recent concept of creating an ecosystem of shared value. Another description for a value chain is a “number of strategic players working together in order to satisfy market demands related to a specific product or service.”¹³ This holistic view and collaboration across and within sectors extracts more value, reduces waste at each step, and reduces the dilution of innovation.

This way of operating is gaining more traction in New Zealand as we shift from volume to value in our export goods. “Global, precompetitive public-private partnerships are key to productive collaborations driving voluntary standards.”¹⁴ Competing as a collective requires a mindset shift and a foundation of trust. Transparency enabled through a system of interoperability spreads innovation upstream and downstream, can allow businesses and government agencies to capitalise on their core competencies, and work together across the value chain to exceed customer expectations. From a systems thinking perspective, the interplay of power dynamics, feedback loops, system leadership, and vision and goals are all critical components. Understanding these factors as they relate to the New Zealand economic ecosystem will support the determination of the suitable overarching strategy for improved transparency in supply chains. What is the opportunity for New Zealand to leverage cooperation for creating positive outcomes at home and globally through transparency?

Some potential pitfalls

To design innovations that support positive outcomes for supply chain transparency, we must consider the challenges and potential consequences as well. New Zealand's unique business landscape, high-levels of export and import, as well as our large primary industry requires thought on the ways transparency might be increased that works best for all stakeholders.

Value chain constraints

Using New Zealand primary industries as an example, there are significant challenges associated with improving transparency at various stages of the value chain. This is especially relevant for small-scale producers and processors as well as the farmers and growers. Financial, capability, and technical constraints are an everyday reality and "Capacity-building initiatives for enabling data collection capabilities for these stakeholders, including education and training on digital technologies, with coaching through evaluation and implementation, is required for the system to operate effectively."¹⁵ In addition, infrastructure for rural connectivity must be in place to support transparency efforts at the beginning of the value chain.

Transparency at the ground-level

User-centricity in the design and implementation of the technology needed for market transparency is a common concern across food and fibre industry bodies.¹⁶ Farmers and growers are getting bombarded with multiple, uncoordinated solutions for on-farm data monitoring that do not integrate with existing platforms or support mixed land use needs, creating confusion and additional burden to comply. Furthermore, they are disconnected to how this data is actually used to meet market needs and do not receive signals back from the market to understand the 'why.'

Balancing cooperative action and top-down compliance

Transformative system change requires cooperative action to accelerate the majority and push the laggards via compliance measures. Creating the conditions to make collaborative action easier, through "equip[ping] actors with the information and tools they need to contribute effectively towards collective action problems, including by helping build coalitions of trusted actors who can reduce costs by working together,"¹⁷ is critical to complement policy approaches. In systems thinking language, this is called activating emergence. While regulation and compliance initiatives are effective at increasing accountability, we must look beyond this to a, "system which is adaptable to different contexts and stakeholder needs, and a process for engagement that may require a step-wise disclosure of information."¹⁸

Technology does not equal transparency

Supply chain transparency is enabled by technology. Whether this is tracking a physical product around the world, keeping a tamper-proof common ledger of transactions, or gaining assurance on the sources of materials, the role of blockchain, radio-frequency identification (RFID), and other cloud-based technologies is instrumental. However, it is important not to confuse the technology with transparency.

Increasing the digital divide

Transparency enabled through digital technologies is undoubtedly a significant opportunity and can be considered a component of an overall strategy that helps transform the New Zealand economy. We have a productivity growth issue as a result of a “breakdown in the diffusion machine,” leading to some “reaping the benefits of digital technologies, while others are being left behind creating a situation where the ‘productivity gap’ between leading and lagging firms has widened.”¹⁹ While this is largely in reference to general-purpose digital technologies, the possibility is ever present that those that are able to adopt do, and those that are unable or unwilling, do not. Given New Zealand’s unique small and medium sized enterprise (SME) landscape and the market opportunity that transparency offers, “we run the risk of creating a ‘two-speed’ economy that worsens inequality.”²⁰

Transparency without reliability

Consumer education and marketing is a fine line to balance for companies investing in greater transparency. Ultimately, the reliability of disclosed information through consumer understanding is essential for accelerating transparency practice across all sectors. This is not necessarily a technological challenge or an innovation challenge, but rather a human-centred design challenge to make better choices easy for the consumer.

Transparency at the cost of equity

Premium products of all sorts will continue to provide increased transparency for their target market because they can afford it, while the majority of low-cost consumer goods will be slow to adapt. This brings into focus Government’s role to promote positive outcomes for all. The demand for transparency can be seen as a result of power and privilege, but having an accessible window into the products and services you buy should not be limited to only a portion of the population.

Transparency should not be used to replace trust

A system of transparency is a key component of trust in a system. However, we must clearly distinguish the two concepts because “The use of transparency to replace trust can alter social relations by favouring impersonal means of social control, emphasising standardised information, external surveillance and third-party auditing.”²¹ This has the potential to overwrite elements of our humanity if transparency initiatives are not well considered and carefully managed “undermin[ing] voluntary cooperation, the development of shared meaning, and reciprocal relationships of trust and trustworthiness.”²²

Real world insights

The following section highlights important concepts of systems of transparency in more detail, including examples and considerations, as they relate to consumers, businesses, and procurement.



1. The evolution of relatable transparency for consumers

Transparency reporting entered the mainstream with tech companies following the 2013 leak by Edward Snowden revealing mass surveillance activities by the United States National Security Agency. These reports offer a means of holding companies to account for their actions and have since spread to other industries. However, the momentum, at least in tech companies, to publish yearly reports is fading and the overall effectiveness of transparency reports to educate and inform consumers in an accessible and relatable way is questionable. “Advocates of transparency reports say [while] they remain an important factor for privacy-conscious consumers, their appeal to the mass market is harder to pin down.”²³ They are not easy to interpret for the public, and there is a significant time and cost commitment required by companies to complete without an official mandate. This has led to reporting, in the tech sector at least, to diminish over time without continuous public pressure.²⁴

In other industries, the availability of data will continue to grow, as more sectors from food, to fashion, to extractive industries (oil, gas, and mineral resources) are reporting in the name of sustainability. However, the conversion of that information into knowledge that buyers can use to make decisions remains a challenge. Transparency reports support our reliance on watchdogs and whistle blowers, which are an essential part of an effective system of trust, however, they are ineffective for enabling individuals to make better daily decisions. Is it an effective system of transparency if “as research suggests, the majority of consumers

may be influenced by the information they receive through a company’s transparency efforts, they do not seek out the information themselves”?²⁵ The bottom line is that currently, it is still difficult for consumers to make the educated choices that enable them to avoid buying from a non-sustainable brand or alternatively, supporting a sustainable brand.

Brands can mishandle the use of certifications when they fail to understand what they mean and what they do not, and not everyone in the supply chain is coming out ahead. Sustainably produced palm oil, for example, can still come at the expense of poor working conditions and human rights issues. Certifications are not the ticket to an ethical product for businesses, but this is often how they are presented to consumers.[§]

Jon Duffy, CEO, ConsumerNZ

Certifications are widely used as a way to connect customers and a specific business decision, but this presents a set of challenges in its own right. Undoubtedly, certification programs and labelling have had a net positive effect in the world, but they often fail to capture the complexity of the multi-faceted ethics involved in making sustainable products.

[§] All excerpts from contributors in this section have been paraphrased and included with permission.

As an example, the challenges with the existing models are being realised in the fashion industry, with several brands leading the way in the “move toward radical transparency in manufacturing, hoping to regain the trust of disillusioned customers”²⁶ and moving beyond the limitations of transparency reports. How might this shift be used as inspiration beyond retail for other sectors, businesses, and governments to better connect with their customers?

- Lablaco uses a blockchain method of tracking and recording information that can trace every step of a fashion item’s journey from farmer to consumer through a QR code or NFC chip. Customers can scan a product with their phone on product labels and immediately know where it comes from and who was involved in the production at every step of the supply chain.²⁷
- The retailer Reformation applies its RefScale methodology to measure the environmental impact of every garment it sells, and it discloses the results to customers. RefScale tracks pounds of carbon dioxide and gallons of water used in production.²⁸
- Allbirds recently launched ‘[carbon footprint](#)’ measure on all of their products, generated across their entire lifecycle and presented in a consumer-friendly metric and a new performance indicator that they measure success against at a management level.
- Icebreaker’s philosophy of sustainability and transparency is core to their DNA and pervades through decision making across their global enterprise. While they produce an excellent transparency report, they do not stop there, making insight into every aspect of their supply chain and transparency practices and aspirations [easily accessible](#) and understandable on their website. If that does not cover it, you can always [ask them anything](#).
- San Francisco apparel company Everlane offers its customers insight into materials, labour, transport, duties, and mark-up costs, alongside information on the factory that produced the products.²⁹

2. Challenges of transparency for small businesses

Transparency is a tool in business to “improve employee engagement, brand reputation, operational efficiency and cost savings.” Ethical and commercial considerations are now becoming on par. Businesses need to approach processes from a “more holistic perspective, one that enables visible commerce through automating finance and procurement processes and provides total transparency of money, goods, and services.”³¹

However, there are issues that prevent increased transparency for businesses, especially as they relate to small firms that are constantly fighting fires. As they often make up only a part of the value chain, the lack of visibility into supplier

products and processes is a major limitation. Additional barriers, on-the-ground in businesses include: ³²

- Manual processes that result in incomplete data
- Lack the tools/technology to evaluate and monitor suppliers
- No way to properly analyse data
- Lack of visibility into the purchase-to-pay[#] process
- No immediate support from top management

Using transparency in the commodity market as an example, it is possible to investigate how decisions ripple across the supply chain. While businesses struggle to evaluate and monitor suppliers, upstream suppliers and producers are highly “susceptible to the imposition of new production standards by powerful downstream actors.”³³ The consequences can be both positive and negative, as the pressure can accelerate positive environmental and social outcomes, while at the same time reinforcing inequities. This is especially true for small businesses and producers operating sustainably, but are unable to afford the cost of compliance and certifications needed by their customers, “locking non-compliant yet vulnerable actors out of the marketplace.”³⁴ Lacking the tools, resources, and connectivity to have strong data and monitoring, especially in remote areas, is also problematic to accessing financing. The risk associated with fraudulent and manipulative activities is also increased as a result of high barriers to transparency.

[#] Comprises a number of stages that describe the end-to-end process from an organisation ordering a product or service from suppliers, through to making the subsequent payment for those products or services. (<https://www.waxdigital.com/blog/purchase-to-pay-process/>)

There have been a lot of technology come across my desk that are solutions looking for a problem.

Catherine Beard, Executive Director, ExportNZ

In the midst of these challenges, Catherine Beard, who represents BusinessNZ’s exporters and manufacturers, advises that when it comes to supply chain transparency, we need to better understand the real problem we are trying to solve. Having seen a lot of technological innovations fail to address the key transparency issues for New Zealand businesses, she says that “it’s not that the solutions don’t exist, but the need is to help SMEs get more sophisticated with what already exists to help do [transparency] better and move to the world’s best practice.” This requires supporting the broader system that around them and building on top of the foundations set at a global level. GS1, the global standards organisation, is a strong example of enabling system-wide transparency through a combination of standards, unique identification, technology, partnerships, and business supports. The New Zealand chapter was initiated in 1979 through the collaboration of grocery competitors to support better business outcomes has laid groundwork for transparency. More and more data, driven by interoperable standards, and relationships with global customs agencies, is being attached to barcodes and RFID tags, driven largely by e-commerce. Hooking innovation into existing standards prevents siloed approaches. However, as a board member of GS1 New Zealand, Catherine sees that SMEs often need much more than a barcode. They need a supply chain strategy, education on how to do it, and a realisation of the productivity and economic gains that result from better control and transparency in your supply chain.

3. The progress of transparent procurement

Transparency in procurement and finance is a topic that is gaining in popularity due to the potential for internal cost savings, improved decision making and ensuring ethical practices throughout the supply chain. There is a link between success and commercial transparency with “firms identified as much more successful are nearly twice as likely to be effective at evaluating suppliers.”³⁵ Given the commercial benefits, this begs the question of how might Government in particular set itself up to take advantage of improved transparency in procurement and increase trust from its citizens?

To do this, we need to consider the system in which procurement exists, which are challenging for both buyers and suppliers. Environmental and ethical indicators now are often a part of the criteria for assessing supplier success for goods and services, but lowest price is typically the biggest factor.

Price still wins out. Decisions are being made on short-term monetary outcomes and there is inconsistency in how the rules are applied across the public and private sector.

**Rachel Brown, CEO,
Sustainable Business Network**

The flipside is also problematic when over-prescription, over-standardisation, and strict adherence to criteria are used for procurement, no matter the company size. From a B2B perspective, there are challenges with the expenses of audits, certifications, insurance, and other hurdles that vary across buyers resulting in the potential to discriminate against smaller suppliers.

To improve supply chain transparency, I would focus my efforts on the relationships first. This naturally follows a Te Ao Māori supplier approach.

Holly Norton, Senior Project and Partnership Manager, Sustainable Business Network

In order to improve the supply chain transparency in procurement, the procurement expert the Sustainable Business Network, Holly Norton, recommends an approach focusing on relationship management and partnership models that include negotiation points in the process to collaboratively support the best overall outcomes. Through building trust around a shared goal, transparency can be enabled through better collaboration, which then ideally supports standardised data, targeted for quality, not volume, that is collected in real-time.

Current procurement tools are being customised to include transparency outcomes and blockchain is a promising (but carbon intensive) technology for traceability. This will help support the major problem of manual data entry with around “half of procurement organisations use legacy tools such as Excel spreadsheets to store and analyse their data.”³⁶ While improvements to these tools are important, transformative changes will hinge on co-investment and shared data and processes. For example, shared assessment criteria for suppliers and sharing the cost of audits, such as CO2 emissions, can support increased accessibility and usability of data required in a transparency system.


With a desire to localise supply chains as a result of COVID-19, combined with New Zealand’s relatively small size, we are well placed to take advantage of the benefits of increased collaboration to support a more transparent and equitable procurement process that can ultimately support better sustainability and wellbeing outcomes.


Understanding barriers and enablers


Gleaned from the research and with input from our key contributors, some key challenges and opportunities have been highlighted. Awareness of these factors can help in the delivery of effective innovations for supply chain transparency.





Barriers


 High capital expenditure (technology, process, certifications)


 Unclear return on investment for businesses upstream in the supply chain


 Fear of market blowback and greenwashing accusations

 Organisational capacity and capability to adapt and leverage data


 Limited focus on transparency solutions for small and medium sized businesses


 Limited infrastructure for rural and remote area connectivity


 Fear of disrupting long-term supplier relationships


 Lower levels of digital literacy in rural areas


Enablers


 Data interoperability, standardisation, and Integration with existing platforms


 Integrated and collaborative value chains with shared goals

 Education and training on digital technologies

 Accurate, cross-functional data in real-time

 Connectedness of producers to global consumer demand

 Consumer education and advocacy on transparency outcomes

 Effective marketing support for branding transparency efforts and outcomes

 Compliance and regulation

Areas for potential innovation focus and principles to guide progress

Through this provocation, we have explored some supply chain transparency characteristics. Through the considerations, barriers, and enablers presented in this report, we have elevated some possible design challenges on the following page that could support a better system of transparency.



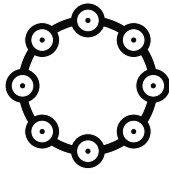
Whilst there are no silver bullets, transparency initiatives are more likely to make a positive contribution if:

Principles to guide progress

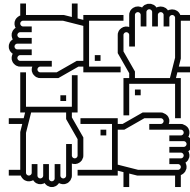
- 1 Transparency is only ever considered as a means, not an end and is viewed as a constantly evolving contribution towards a process of continuous improvement.
- 2 They go beyond a narrow focus on products and companies to also assess changes on the ground.
- 3 Quality of information shared is preferable to quantity of information shared.
- 4 It facilitates greater cooperation amongst actors with shared goals whilst at the same time strengthening compliance where progress is lacking.
- 5 They are hosted primarily in the public domain, yet mediated by actors who can help ensure that any information is accessible to those who need it.

(Adapted from Transparency and sustainability in global commodity supply chains.³⁷)

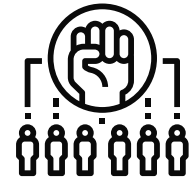
Areas for potential innovation focus



How might we enable increased interoperability and data sharing to reduce costs?



How might we increase value chain partnering and precompetitive collaboration?



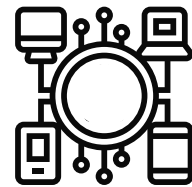
How might we enhance consumer empowerment and education to reduce risk from greenwashing?



How might we mitigate vulnerability for businesses and consumers from bad actors?



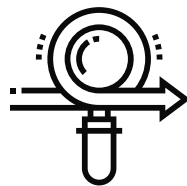
How might we help SMEs adopt existing technologies and practices more quickly least cost solutions?



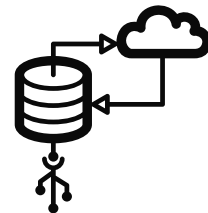
How might we create and leverage shared infrastructure?



How might we achieve supply chain transparency while reducing the digital divide?



How might we increase the reliability and marketability of transparency to consumers?



How might we improve data collection in remote areas?

Closing thoughts

Supply chain transparency is a complex topic, but one that can create significant shifts in positive social, environmental, and economic outcomes. Solutions must be pursued with a strong understanding of the problem you are addressing from a system point of view. Governments, companies, and individuals all must consider the question of what level of transparency helps them achieve their imperatives while also aligning with their values.



What if we don't do anything?

- Consumer awareness and demand for transparency continues to accelerate leaving unprepared or unwilling businesses behind
- Certification programs continue to be relied upon as main markers of transparency
- The pressure to promote sustainability increases without appropriate checks and balances (greenwashing)
- Consumers will continue to have difficulties in making ethical purchasing decisions
- Transparency compliance demands (e.g. audits and accreditations) of powerful downstream actors, such as large procurers, can increase the inequity in the system for smaller businesses
- New Zealand's reputation on a global scale could be at risk
- Procurement processes could fail to support transparency outcomes while increasing workload for suppliers
- Smaller businesses continue to struggle with the growing demand to improve their supply chain strategy, without the capabilities and capacity to do so

What if we do something?

- Consumer awareness and demand for transparency will drive corporate and government responsibility
- A 'transparency divide' could be created where premium products provide full access and low-cost goods remain opaque
- The economic return on investment for transparency efforts could increase
- Value chain partnering is promoted which can reduce expenses through cost sharing activities
- Consumer vulnerability is decreased
- Increased focus on procurement processes can be improved which can lead to internal cost savings
- Time and resource costs to businesses would increase in the short term and may not produce an immediate return on investment

End notes

¹Bateman, A. and Bonanni L. 2019. What Supply Chain Transparency Really Means. Harvard Business Review. Retrieved from <https://hbr.org/2019/08/what-supply-chain-transparency-really-means#:~:text=Supply%20chain%20transparency%20requires%20companies,more%20consumers%20are%20demanding%20it.>

²Bozic, D. 2017. From Haute Couture to Fast-Fashion: Evaluating Social Transparency in Global Apparel Supply Chains. Retrieved from <https://dspace.mit.edu/bitstream/handle/1721.1/111237/1003284362-MIT.pdf?sequence=1&isAllowed=y>

³Bastian, J. and Zentes, J. 2013. Supply chain transparency as a key prerequisite for sustainable agri-food supply chain management. The International Review of Retail, Distribution and Consumer Research, 23(5), pp.553-570.

⁴Unilever. 2019. Unilever's purpose-led brands outperform. Retrieved from <https://www.unilever.com/news/press-releases/2019/unilevers-purpose-led-brands-outperform.html>

⁵Ibid

⁶Kraft, T, et al. 2018. Supply Chain Visibility and Social Responsibility: Investigating Consumers' Behaviors and Motives. Manufacturing & Service Operations Management, 20(4), pp.601-800.

⁷Chen, J. 2020. Environmental, Social, and Governance (ESG) Criteria. Investopedia. Retrieved from <https://www.investopedia.com/terms/e/environmental-social-and-governance-esg-criteria.asp>

⁸IFT. 2020. Oral Public Comments: United States Proposed Food Traceability Rule. Retrieved from <https://www.ift.org/-/media/policy-advocacy/ift-comments/ift-comments-on-fda-food-traceability-rule.f?la=en&hash=04AEF432A5AF5A8E0506CFC82646E03E5CE9A122>

⁹Fashion Revolution. 2020. Fashion Transparency Index 2020. Retrieved from <https://www.fashionrevolution.org/about/transparency/>

¹⁰Egels-Zandén, N. et al. 2015. Trade-offs in supply chain transparency: the case of Nudie Jeans Co. Journal of Cleaner Production, 107, pp.95-104. Retrieved from https://gup.ub.gu.se/v1/asset_data/183060.pdf

¹¹Supply Chain Secrets. 2017. The Supply Chain and the Value Chain: The Same but Different? Retrieved from <https://www.supplychainsecrets.com/the-supply-chain-and-the-value-chain-the-same-but-different/>

¹²Britannica. 2020. Open source. Retrieved from <https://www.britannica.com/topic/open-source>

¹³Sangoma. 2020. Value Chain Partnerships 101. Retrieved from <https://www.sangoma.com/articles/value-chain-partnerships-101/#:~:text=A%20value%20chain%20can%20be,a%20specific%20product%20or%20service.&text=Value%20chain%20partnerships%20enable%20businesses,to%20achieve%20a%20common%20goal.>

¹⁴IFT. 2020.

¹⁵Ibid

¹⁶ThinkPlace. 2020. Sustainable Food and Fibre Futures Fund Sector Acceleration Project.

¹⁷Gardner, T.A. et al. 2019. Transparency and sustainability in global commodity supply chains. World Development. 121. pp 163-177.

¹⁸Gardner. 2019.

¹⁹Conway, P. 2020. Connected New Zealand: Our digital path forward. Bank of New Zealand. Retrieved from <https://blog.bnz.co.nz/wp-content/uploads/2020/05/Connected-New-Zealand-The-case-for-a-digital-New-Zealand-economy.pdf>

²⁰Ibid

²¹Gardner. 2019.

²²Ibid

²³ Pegoraro, R. 2019. Tech Companies Are Quietly Phasing Out a Major Privacy Safeguard. Retrieved from <https://www.theatlantic.com/technology/archive/2019/09/what-happened-transparency-reports/599035/>

²⁴ Ibid

²⁵ McClain, A. 2016. The Effectiveness of Supply Chain Transparency Among Consumers. Supply Chain Management Undergraduate Honors Theses. 3.

²⁶ Amed, I. et al. 2019. What radical transparency could mean for the fashion industry. Retrieved from <https://www.mckinsey.com/industries/retail/our-insights/what-radical-transparency-could-mean-for-the-fashion-industry>

²⁷ Nyfeler, M. 2020. How Blockchain Is Powering Transparency in the Fashion Supply Chain. Retrieved from <https://eco-age.com/magazine/blockchain-technology-powering-transparency-fashion-supply-chain/>

²⁸ Amed. 2019.

²⁹ Ibid

³⁰ Basware. 2020. Using Transparency to Enhance Reputation and Manage Business Risk. Retrieved from <https://www.basware.com/en-en/resources/harvard-business-review-analytic-services-using-tr/>

³¹ Basware. 2020.

³² Ibid

³³ Gardner. 2019.

³⁴ Ibid

³⁵ Basware. 2020.

³⁶ Ford, M. 2019. 50% of procurement organizations use Excel for data analysis: study. Retrieved from <https://www.supplychaindive.com/news/50-procurement-organizations-excel-data-analysis/565622/>

³⁷ Gardner. 2019.

