



# **DIGITAL TRANSFORMATION: A PATHWAY TO SUSTAINABLE AGRITRADE**

Leveraging Digital Transformation Solutions to create a visible  
and sustainable global AgriTrade ecosystem

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# EXECUTIVE SUMMARY

This report outlines the critical role of digital transformation in global AgriFood supply chains in order to achieve greater visibility on environmental, social, and corporate governance (ESG) metrics and goals.

Digital Transformation helps AgriFood businesses to better track and manage every step of their supply chain, with benefits including higher supply chain transparency, efficiency, and reduced operational costs. Another significant benefit that stakeholders gain is the improvement in sustainability and access to financing that supports sustainable practices such as reducing carbon emissions.

Today, AgriFood stakeholders are under increased scrutiny from consumers, investors, regulators, and civil society to ensure ethical practices, environmental conservation, and social responsibility. Consumers seek transparency, traceability, and accountability from farm to fork. ESG factors impact brand reputation, financial performance, risk management, and regulatory compliance. As a result, aligning supply chain practices with ESG principles has transitioned from a competitive advantage to a business imperative.

A Digital Transformation offers the AgriFood industry unprecedented opportunities to enhance ESG visibility. Leveraging technologies such as the IoT, blockchain, AI, and data analytics, stakeholders can capture, analyze, and share data across the supply chain in real-time. This enables enhanced traceability, resource optimization, risk mitigation, and collaboration among ecosystem partners.

This whitepaper aims to guide AgriFood stakeholders in understanding the symbiotic relationship between ESG visibility and Digital Transformation, providing insights and strategies to navigate the path toward a more sustainable and technologically advanced supply chain ecosystem.

# GLOBAL AGRIFOOD SUPPLY CHAINS ARE THREATENED BY CLIMATE CHANGE

Global food supply  
could run out by

**2050**

Today, extreme weather events, changing rainfall patterns, and rising temperatures disrupt global agricultural production, reducing crop yields and affecting food availability. An analysis by the FAO reveals that agriculture absorbed 25% of the total impact of climate-related disasters in developing countries over 10 years\*. Experts have also estimated that the world could be facing a global food shortage as soon as 2050\*\*.

By 2030,

**50%**

of the world's population  
will face water stress\*\*\*

This also presents an extremely pressing social justice issue as access to nutritious food and livelihood opportunities diminish. The World Bank estimates that extreme weather events push as many as 26 million people into poverty each year\*\*\*\*, of which many are mainly dependent on agriculture for livelihoods.

**26m**

people are pushed into  
poverty annually by extreme  
weather events

Clearly, the world is experiencing a climate crisis which will affect us all. Thus, our global food system urgently needs to adopt innovative solutions that empower vulnerable populations and build a resilient and sustainable AgriFood supply chains.

# THE STRATEGIC IMPERATIVE FOR BECOMING SUSTAINABLE

Currently, AgriFood businesses are already grappling with the increasing pressure to secure a global food supply amid a burgeoning population\*, the intensifying regulatory pressures surrounding environmental and ethical concerns in the AgriFood industry\*\*, and the escalating expectations from conscious consumers\*\*\*.

These pressures underscores the necessity for AgriFood businesses to transition toward sustainable operations. Striking this balance not only ensures the availability of nourishment for an expanding population but also positions these businesses as conscientious contributors to a healthier planet and society.

As a result, sustainability has evolved from an optional consideration to a strategic cornerstone that underpins the long-term viability and success of agrifood enterprises.







# ENSURING GLOBAL FOOD SECURITY

Agriculture and food-related businesses are facing the crucial task of ensuring a continuous worldwide food supply due to an expected increase in the global population. Despite this, the agriculture sector continues to be particularly vulnerable to climate-related disasters, resulting in billions of losses.

The challenge for AgriFood businesses lies in producing enough high-quality, healthy, and secure food to meet the growing demand. This would require innovation in the way we manage the food supply chain to make it more resilient and sustainable.

Addressing this challenge is not only vital for ensuring food security but also for promoting economic stability and social well-being on a global scale.

## Climate related agriculture losses in Asia\*



# INCREASING REGULATORY PRESSURES

The AgriFood sector faces intensified regulatory mandates driven by global sustainability and ESG concerns.

International agreements, such as the UN SDGs, are compelling governments to enforce sustainable practices. For instance, the Corporate Sustainability Reporting Directive (CSRD) in the EU, set to take effect in 2024\*, requires companies in the agri-food sector to disclose information regarding their environmental, social, and governance practices throughout the value chain.

Similarly, financial institutions and investors are also mandating comprehensive ESG reporting, even for SMEs. Singapore Exchange recently announced a mandatory climate disclosure for listed companies\*\* and the Singapore Central Bank has launched an ESG reporting programme targeted at SMEs\*\*\*.

AgriFood companies must now prioritize sustainability and ESG principles to comply with regulations, stay competitive, and access markets. This proactive approach will address environmental and social challenges and demonstrate a commitment to a future-proof, resilient and sustainable industry.







# INCREASING DEMAND FOR SUSTAINABLE PRODUCTS

Consumers are increasingly propelling demand for sustainable food products within the agrifood industry, where at least 65% of consumers have the desire to spend on socially responsible products\*.

This surge stems from a heightened awareness of environmental and social issues, prompting individuals to seek products aligned with their values. Consumers now value transparency in supply chains, desiring insights into sourcing, production practices, and ethical considerations. This demand for transparency extends to eco-friendly packaging and reduced carbon footprints.

As a result, agrifood companies are under pressure to respond with environmentally-conscious practices that encompass responsible sourcing, reduced waste, and fair labor standards. Meeting these consumer expectations has become not only a competitive advantage but a necessity for brand loyalty and long-term success in a market shaped by sustainability concerns.

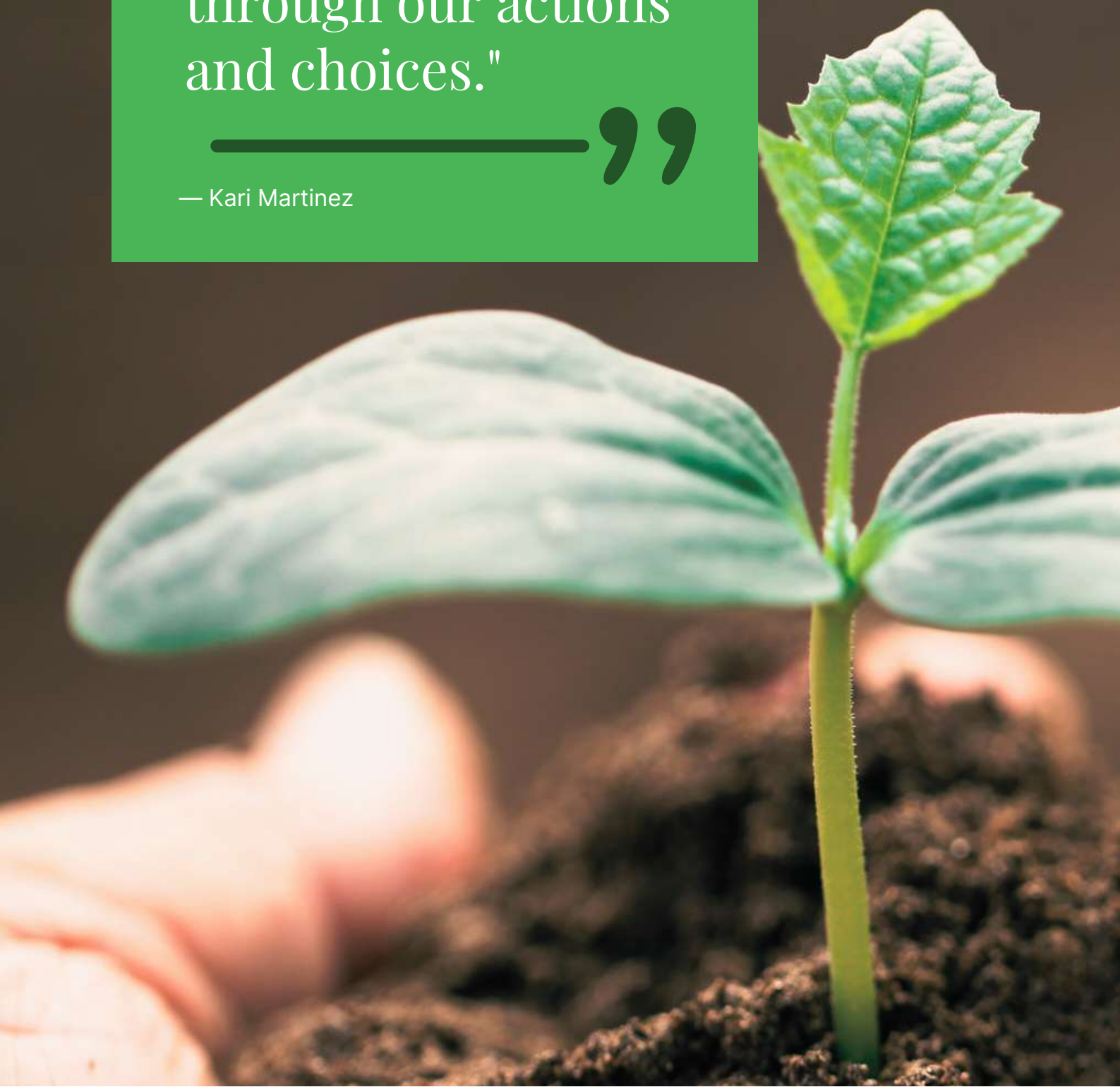


“

We must plant the  
seeds of change, and  
nurture them daily  
through our actions  
and choices."

”

— Kari Martinez



# CHALLENGES OF ACHIEVING SUSTAINABILITY IN OUR GLOBAL FOOD SYSTEM

The AgriFood industry faces 3 main challenges when it comes to the implementation of sustainability strategies.

The first challenge is the difficulty in obtaining accurate data both upstream and downstream, which leads to challenges in decision-making due to information opacity.

Additionally, the lack of validated transaction and sustainability data hinders companies' ability to ensure the credibility of their sustainability efforts.

Lastly, the absence of unified sustainability assessment tools and standards limits both intra-industry and cross-industry sustainability comparisons and measurements.

DiMuto aims to address these challenges and help create a more sustainable AgriTrade food system through our Digital Transformation Solutions.

## 01

**Difficult to get accurate upstream and downstream data**

## 02

**Lack of timely, quality and authentic sustainability data**

## 03

**Lack of unified sustainability assessment tools**

# DIFFICULTY OF GETTING SCOPE 3 EMISSIONS



While there have been great strides by companies in terms of sustainability reporting regarding their own activities, there is still limited progress regarding the tracking and measuring of their Scope 3 emissions, emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled by them, instead by those that the company is indirectly responsible for up and down its value chain.

One of the reasons for the difficulty in reporting Scope 3 emissions is the lack of availability and reliability of data\*. Companies that have attempted to report their Scope 3 emissions voluntarily often face challenges in obtaining accurate information from their suppliers, many of whom are small and medium-sized enterprises (SMEs) that lack the necessary resources or motivation to report their emissions. As a result, companies may resort to using less precise measures such as industry averages, spending data, or estimates, which can result in significant inaccuracies.



# A LACK OF VERIFIABLE, TIMELY & QUALITY ESG DATA



Data is the backbone of ESG reporting. Timeliness, accuracy, relevance, and completeness are factors that contribute to quality data and therefore quality ESG reporting.

However, there is currently a clear challenge with the quality and consistency of ESG data. An article by Ernst & Young discusses the disparity in ESG data quality across industries — better quality data for higher carbon sectors, such as oil and gas, are available compared to other sectors, such as agriculture and forestry, where there is often a lack of data due to a lower level of focus on CO<sub>2</sub> output in the past\*.

Companies, especially SMEs, can also face many difficulties when collecting and reporting ESG data due to not having the required knowledge, resources or systems, causing data coverage to be incomplete\*\*. Additionally, the reliability and quality of available ESG data can be questionable due to lack of independent verification.

\*Source: EY - How environmental, social and governance (ESG) data providers compare

\*\*Source: Environmental, Social and Governance (ESG) Disclosure and the Small and Medium Enterprises (SMEs) Sustainability Performance

# NO UNIFIED SUSTAINABILITY ASSESSMENT TOOLS



Determining which ESG data to disclose, how to disclose it, and to whom, can be a frequent challenge for companies.

For those new to sustainability-related reporting, selecting a suitable reporting standard to support their disclosures can be difficult due to the various standards as well as assessment tools available in the market. Such different standards can often propose various concepts of materiality to help companies decide on significant issues to report and how those concepts relate to a company's unique context as well as reporting philosophy. Companies also need to decide the appropriate breadth and depth of ESG topic coverage for their reporting.

This complexity can reduce firms' willingness and ability to report in accordance with established standards, especially for smaller or privately held companies\*.





“

Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

”

— Gro Harlem Brundtland  
First woman Prime Minister of Norway



# Digital Transformation of Global Food Systems

## DIGITAL TRANSFORMATION CAN HELP REACH SDGS

The progress towards achieving the UN Sustainable Development Goals (SDGs) is at the halfway mark, yet only 12% of the targets are being met. As proposed by the UNDP, Digital public infrastructure (DPI) can be a vital factor in digital transformation and can accelerate progress to achieve all 17 SDGs.

DPIs are systems of digital tools that can overcome the limitations of current digital solutions. DPI offers secure, scalable, fair, and interoperable programs that promote innovation and competition. Unlike traditional approaches that create specific solutions for specific problems in specific contexts, adopting a DPI mindset helps create a holistic approach that combines the right technology architecture with transparent, accountable, and participatory governance. This approach enables local digital ecosystems to drive sustainable innovation and scale\*.

## THE NEED FOR DIGITAL TRANSFORMATION OF AGRIFOOD

The AgriFood supply chain is a complex network that involves numerous stakeholders – from farmers and producers to distributors, retailers, and consumers. Traditionally, this chain has been managed using analog methods that are labor-intensive, time-consuming, and often fraught with inefficiencies. The lack of real-time information sharing and visibility across the entire supply chain results in problems such as overproduction, underutilized resources, food waste, and limited traceability. This is where digital transformation steps in.

# Digital Transformation of Global Food Systems

## BENEFITS OF DIGITAL TRANSFORMATION FOR AGRIFOOD

Digitizing supply chains, particularly in the agrifood value chain, can enhance supply chain processes, leading to improved efficiencies and cost reduction\*. The agriculture and food industry, like other sectors, had already undergone increased digitalization before the COVID-19 pandemic. However, the significance of digital transformations became even more evident during and after this crisis. Today, the utilization of digitalization and automation has become more widespread in enhancing productivity and resource efficiency towards achieving a sustainable food system\*\*.

For agrifood businesses, the benefits of embracing digital transformation are far-reaching. The newfound supply chain visibility provided by digitization allows for proactive decision-making and improved resource allocation. Growers can fine-tune their planting and harvesting schedules based on real-time data, minimizing the risk of crop losses due to unforeseen weather events or disease outbreaks. Traders, Importers, and Exporters can streamline their operations by having precise knowledge of incoming shipments, enabling better production planning and reducing waste. Retailers can optimize inventory management, preventing stockouts and reducing excess inventory costs.



# Digital Transformation of Global Food Systems

## BENEFITS OF DIGITAL TRANSFORMATION FOR AGRIFOOD

Moreover, the ability to provide consumers with detailed information about the journey of their food enhances brand reputation and consumer loyalty. Ultimately, agrifood businesses that embrace digital transformation position themselves as leaders in sustainability, efficiency, and innovation, driving growth and success in an increasingly competitive market.

### Automation & Efficiency

Time and cost savings benefits when switching from Manual to Digital Process

### Easy Access with no lost data

Seamless data management where data is never lost, and easily accessed and shared

### Real-time Insights

Ability to make informed decisions, optimize inventory and be more competitive

### Transparency & Trust

Showcase supply chain provenance to consumers and build a trusted brand



# DiMuto's Digital Transformation Solutions

## FROM ANALOG TO DIGITAL

One of the primary challenges faced by the agrifood supply chain is the existence of data silos. Information is often trapped within individual stages of the chain, preventing seamless communication and collaboration. What makes these data silos even more challenging to resolve is that much of this data exists in pen-and-paper format, even for large companies managing millions of dollars and thousands of products in their daily operations. Additionally, companies often invest in additional manpower, time and resources to do additional sorting pre and post-shipment, just to reduce the possibility of facing rejections and quality issues further down the supply chain.

Thus, to have supply chain visibility, we must first digitize the analog to the digital, transforming operational processes in such a way that recording such data in the digital world is applicable, scalable and operational. DiMuto's QR code labels quickly create a digital twin of each product and carton, allowing production and supply chain captured via our ecosystem of mobile app and web platform to be efficiently tagged to the digital twin of said product and carton. A digital twin is a digital representation of a real-world physical entity for increased productivity, resource efficiency, energy efficiency, and cost reduction.\*



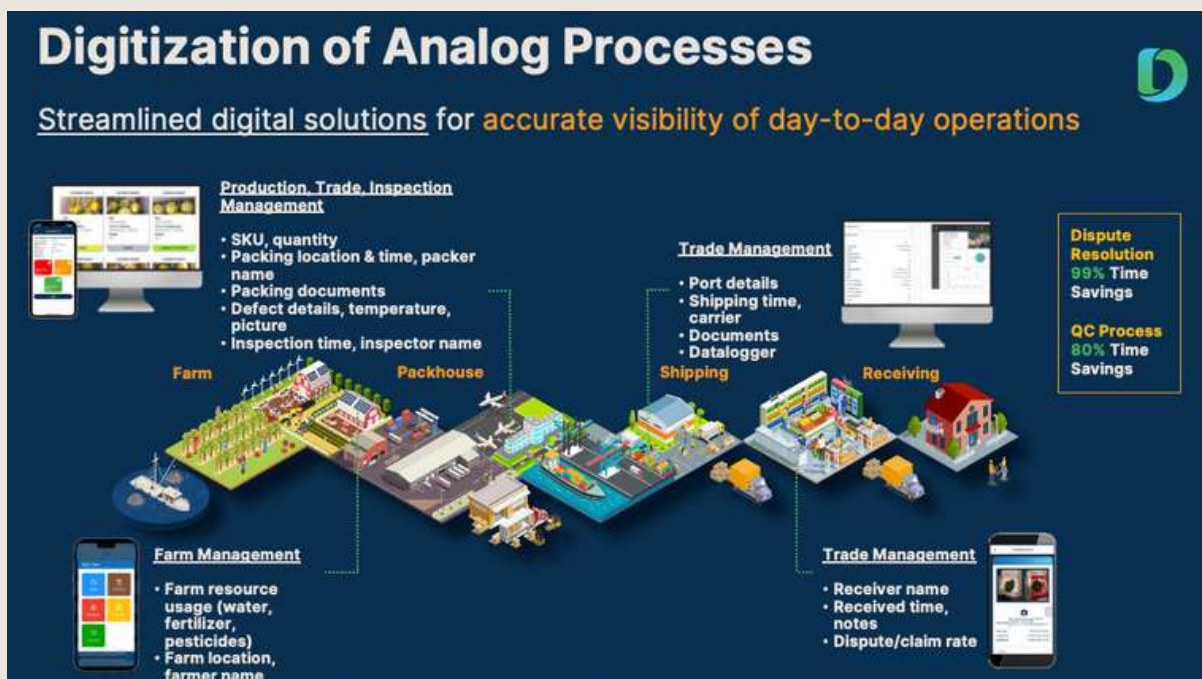
# DiMuto's Digital Transformation Solutions

## FROM ANALOG TO DIGITAL

DiMuto's end-to-end digital transformation solutions can facilitate the transformation from analog to digital across various aspects of the supply chain through our various features.

For instance, DiMuto Farm Management app can record farm resource usage, farm location and create a digital identity for smallholder farmers. This helps to provide a more accurate visibility of supply and harvest activities. For packing and inspection processes, our Production Management and Inspection Management can accurately capture and share production run information such as SKU, quantity, location and product quality data such as defect details, temperature recordings, photographic information of quality issues and more. Our Trade Management can capture sales, shipping and goods arrival condition.

This helps to streamline the supply chain and trade processes for better visibility of day-to-day operations for agriFood companies.



# DiMuto's Digital Transformation Solutions

## ENABLING SUPPLY CHAIN VISIBILITY IN ONE PLATFORM

Supply chain visibility is the cornerstone of an effective and efficient agrifood supply chain. With digitization, stakeholders gain access to real-time data regarding the status of products, from farm to fork. Digital transformation involves the integration of technologies like IoT (Internet of Things) devices, sensors, and blockchain to gather and share data across all stages of the supply chain. This real-time data sharing not only enhances visibility but also enables quick decision-making, reduces waste, and improves overall efficiency.

However, even when data is digital and processes are digitalized, another challenge is that there is currently no one solution that can do it all in the market. There are a multitude of specialized software tackling one part of the supply chain or specific activities, and no one software solution that can connect all the dots. DiMuto is designed specifically to solve this, providing the different stakeholders the option of manually uploading, or integrating with the different existing solutions in use by supply chain players.

### Without DiMuto



Traditional Pen-and-paper, Excel, PDF way of storing data, and email/whatsapp is the only way to share the information with other stakeholders.

### With DiMuto



DiMuto aggregates all trade-related information from different systems into ONE place - enabling communication with any system as necessary.



# DiMuto's Digital Transformation Solutions

## DIGITAL TRANSFORMATION AS A FOUNDATION FOR SUSTAINABILITY

The ultimate goal of DiMuto is to redefine global AgriTrade with digital transformation, with one comprehensive platform to create true supply chain visibility as the pathway towards greater sustainability. With better visibility, organizations can make more informed decisions, identify bottlenecks, optimize processes, and respond more effectively to disruptions or changes in demand.

DiMuto's digital platform can facilitate collaboration among different stakeholders in the agrifood value chain, including farmers, suppliers, processors, distributors, and retailers. This collaboration enables the sharing of best practices, knowledge, and resources, fostering a more holistic approach to sustainability and encouraging the adoption of sustainable practices across the entire ecosystem. As data flows freely through the digitized agrifood supply chain, AI and data analytics step in to make sense of the massive datasets generated. AI algorithms can predict crop yields, optimize transportation routes, and even foresee potential disruptions. Advanced analytics provide insights into consumer preferences, helping farmers tailor their production to meet market demands. Additionally, AI-powered demand forecasting minimizes food waste by ensuring that the right amount of produce is grown and distributed.

The agrifood supply chain urgently needs to transition from analog to digital solutions to enhance visibility, efficiency, and sustainability. Breaking down data silos and adopting technologies like IoT, sensors, and blockchain gives real-time insights to empower stakeholders to make informed decisions. AI and data analytics optimize the system's efficiency to meet the challenges of a growing global population and increasing environmental concerns.



“

Digital transformation  
requires changes to  
processes and thinking  
– changes that span  
your internal  
organizational silos.

— George Westerman, MIT Senior Lecturer & Researcher

”



# Implementation With Impact: The Four Es

It is crucial to ensure that the integration of modern solutions and technology in the global agrifood industry to transform it into a more sustainable one is carried out with a positive impact on all value chain stakeholders. Therefore, DiMuto's digital transformation solutions focus on four main areas to promote and maintain a robust, socially and environmentally conscious AgriFood ecosystem - Environment, Efficiency, Empowerment, Engagement.



## Environment

Easily see company's environmental impact and follow product lifecycles in real-time with useful metrics



## Efficiency

Optimize inventory management, reduce waste, and improve the accuracy and speed of product delivery



## Empowerment

Empower supply chain stakeholders with accessible operational data and trade financing opportunities



## Engagement

Spread awareness of companies' environmental impact, product health information and receive end-consumer feedback on product quality

The following sections of the whitepaper will explore in-depth on how DiMuto achieves each aspect.

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PART 1

# ENVIRONMENT



# Challenges with Measuring ESG Metrics in AgriFood



## Complexity of Global Food Supply Chains

One challenge in measuring sustainability in the food supply chain is the complexity of the supply chain itself. Food supply chains are often long and complex, involving multiple actors and stages, from production and processing to distribution and retail.

This complexity makes it difficult to track and measure sustainability metrics, due to the difficulty of gathering and mingling data that lives in disparate systems and being able to put it together into one truth\*.

Currently, there is no easy way for supply chain partners to share such sustainability data in an efficient and verifiable manner.

## Keeping Up With Compliance & Regulations

Keeping up with constantly evolving environmental and food safety regulations can be a significant burden for both small and large AgriFood enterprises.

AgriFood companies that operate in multiple countries or buy and sell products internationally face complex and varying environmental and food safety regulations. Ensuring suppliers comply with relevant regulations can be challenging, especially if suppliers are located in different areas with different regulatory frameworks. This can lead to higher costs of compliance.

## Lack of Resources & Knowledge for SMEs

Small and Medium-Sized Enterprises (SMEs) are one of the largest sustainability opportunities, as they account for 90% of businesses and more than half of employment worldwide.\*

Despite this, many lack access to the resources required, such as financing, technology and expertise, in order to embrace sustainability.

A survey by DBS x Bloomberg Media Studio revealed that not having an ESG specialist onboard was a barrier to ESG implementation for 34% of SMEs\*\*. 31% of companies struggled with the lack of clarity regarding reporting standards. Implementing and measuring ESG projects was challenging due to a lack of a single platform to harmonize standards.

What is clear is that we must find a way for AgriFood SMEs to be able to easily calculate their Scope 1 and Scope 2 emissions, while keeping up with the latest regulations.

# DiMuto Captures On-the-ground Sustainability Data

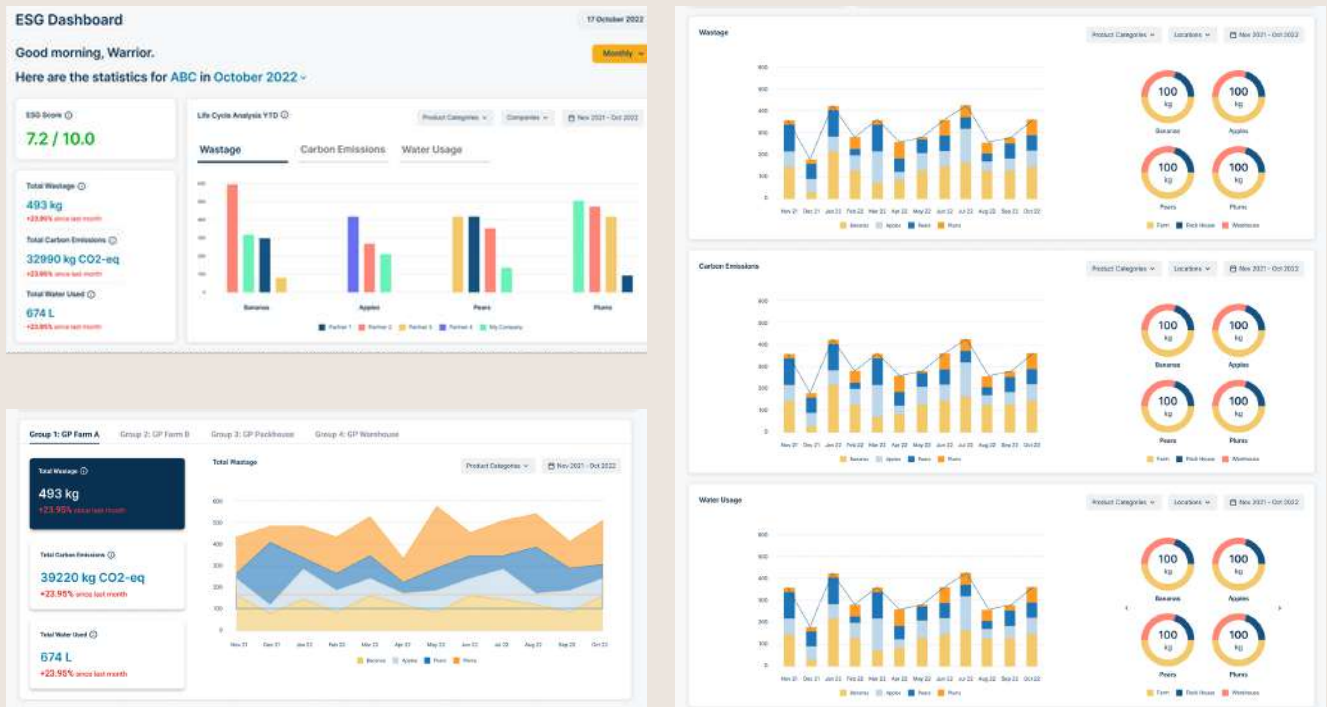
The DiMuto platform offers digital traceability tools that enable all parties involved in the supply chain to input relevant data at different stages of the product's journey. From farmers to processors, shippers, and retailers, each stakeholder can record information on cultivation practices, processing methods, transportation conditions, and storage details. DiMuto provides visualization tools and dashboards that present the aggregated data in an easy-to-understand way, allowing stakeholders to monitor their performance against ESG goals in a timely and efficient manner.

## DiMuto Sustainability Management

With DiMuto Sustainability Management, AgriFood companies can now gain real-time insight into their environmental impact across the global Agrifood supply chain and determine opportunities for them to adopt sustainable solutions. The feature also aims to help expedite the creation of Sustainability Reports with data that is consistent, complete, and reliable.

DiMuto's Sustainability Management feature can immediately determine an AgriFood company's estimated monetary costs from losses and waste, food waste from rejected or discarded products, carbon emissions from various trade activities, and water usage of their facilities.

These 4 key data types are then aggregated automatically on DiMuto's Sustainability Management Dashboard. This dashboard helps Agrifood business owners easily see the environmental impact of their operations and follow product lifecycles in real-time with useful metrics, which can be immediately generated into a report for it to be shared with relevant parties.



DiMuto ESG Dashboard helps automatically aggregate the AgriFood company's supply chain data and organize it into key categories.

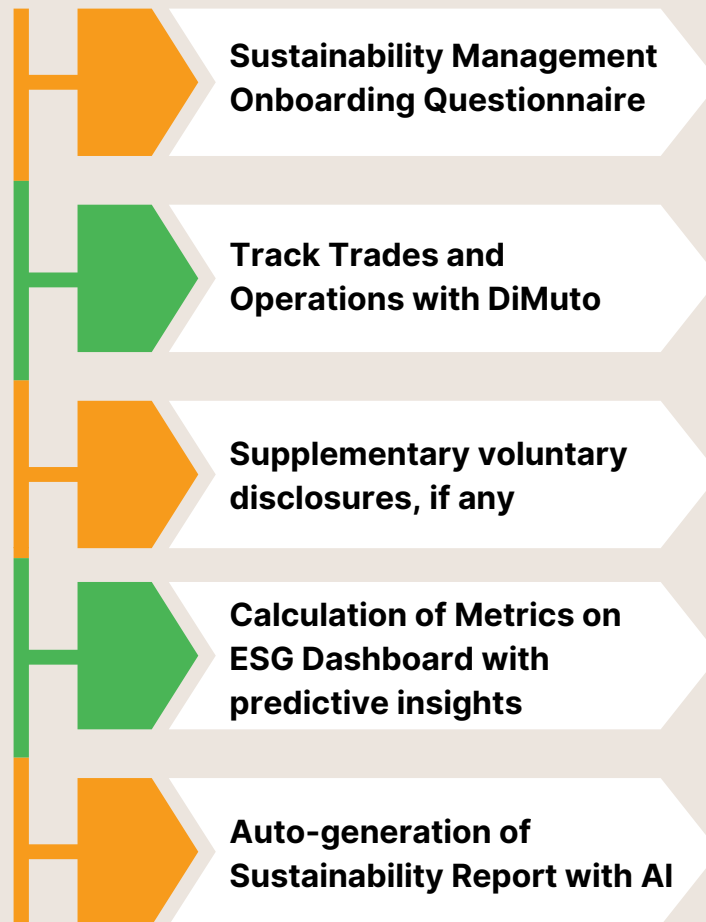
## A Clear Sustainability Roadmap for AgriFood Companies

DiMuto ESG Dashboard is designed to empower customers to generate real-time sustainability reports using firsthand data collected. Our ultimate goal is to provide you with immediate, insightful metrics that help you analyze data, estimate monetary costs from losses and waste, and gain a clear understanding of the environmental impact of your business operations.

As part of our digital transformation solutions, we help AgriFood companies who want to be sustainable to do so in a scalable, efficient and automated way:

1. Basic Onboarding for ESG metrics
2. Start tracking their trades on the trade management
3. Input any voluntary disclosures
4. Automate calculations of metrics in ESG dashboard with predictive insights
5. Auto-generate Sustainability Report using AI





*DiMuto's Sustainability Roadmap for AgriFood Companies*

## Real-time Data Analysis and Environmental Impact Assessment

DiMuto ESG Dashboard enables real-time data analysis, estimating economic costs resulting from losses and waste, helping you gain a clear picture of the environmental impact of your business operations. With practical metrics, you can track product lifecycles in real time and monitor environmental impact.

The dashboards can be customized to show key performance indicators (KPIs) relevant to the business, such as inventory levels, sales performance, and logistics performance. This provides businesses with a comprehensive view of their operations and allows them to identify areas of improvement and potential bottlenecks.

**ESG Disclosures**

Input sustainability data when required to help create sustainability analytics

1 Aspects Required For Update

**Headcount**  
 Data Validity: 16/12/2023 - 16/2/2024  
 Source(s): CSV Import, Manual Input  
 Attachment(s): 1. namelst.xlsx

**DEI Factors**  
 Data Validity: 16/9/2023 - 16/12/2023  
 Source(s): Manual Input  
 Attachment(s): 1. Activities Log

**Water Usage**  
 Data Validity: 16/12/2023 - 16/2/2024  
 Source(s): DiMuto Farm App, Manual Input  
 Attachment(s): 1. Dec-WaterBill

**Electricity Usage**  
 Data Validity: 16/12/2023 - 16/2/2024  
 Source(s): DiMuto Farm App, Manual Input  
 Attachment(s): 1. Dec-ElectricityBill

**Wastage**  
 Data Validity: 16/12/2023 -  
 Source(s): DiMuto Farm  
 Attachment(s):

Headcount DEI Factors Water Usage Electricity Usage Wastage

0 Item Selected | Delete

No.	Category	Group	Quantity	Source	Attachment(s)	Updated By	Actions
1.	Gender	Male	24	CSV Import	namelst.xlsx	Dimuto: Kimberly Ho 16/12/2023   14:23:00	
2.	Gender	Female	24	CSV Import	namelst.xlsx	Dimuto: Kimberly Ho 16/12/2023   14:23:00	
3.	Race	Chinese	48	Manual Input		Dimuto: Kimberly Ho 14/12/2023   14:23:00	

20 Items per page 1 - 3 of 3 items

ESG Disclosures and Onboarding Process on DiMuto Sustainability Management

## Industry Benchmarking

The DiMuto ESG Dashboard offers sustainability benchmarks specific to your industry. These benchmarks are based on industry-standard data that can be compared to GRI Standards as well as the IFSR S1 and IFSR S2 standards recently launched by the International Sustainability Standards Board (ISSB). By analyzing these comparisons, we can assist AgriFood companies in their sustainability journey by providing informed recommendations for reducing carbon emissions, food waste and increasing resource efficiency.

DiMuto is committed to providing an integrated solution for the agrifood industry, empowering small and micro enterprises to effortlessly manage and oversee the relevant requirements and latest updates of agrifood supply chain sustainability regulations worldwide. Through our product, companies will be able to access comprehensive information about the agrifood supply chain sustainability regulations of different countries at the click of a button. This information includes applicable regulations, recent amendments, deadlines, and more, enabling companies to better strategize and adjust your business practices.



## Automatically Generate Shareable Reports

DiMuto offers the capability to generate reports instantly, making it easy for companies to share data with relevant parties. These reports can be generated on-the-fly, allowing companies to quickly communicate information and automatically create reports for efficient information dissemination.

Therefore, DiMuto's Sustainability Management and ESG dashboard helps AgriFood companies to easily see environmental impact and follow product lifecycles in real-time with useful metrics.

The screenshot displays the DiMuto ESG Reporting interface. On the left, a sidebar contains navigation icons. The main area shows the 'ESG Reporting' section with a search bar, filter, and 'Create'/'Export' buttons. Below is a table of reports:

Report	Updated At	Created At
Sustainability Report 2023	13 Jul 2023	13 Jul 2023
Sustainability Report 2023	13 Jul 2023	13 Jul 2023
Sustainability Report 2023	13 Jul 2023	13 Jul 2023
Sustainability Report 2023	13 Jul 2023	13 Jul 2023
Sustainability Report 2023	13 Jul 2023	13 Jul 2023

On the right, a detailed report titled '3 ENVIRONMENTAL PERFORMANCE AND SUSTAINABILITY' is shown, containing sections for Strategy, Objectives, Carbon footprint, Energy usage, and GHG Performance, each with specific metrics and data points.

The screenshot shows the DiMuto Sustainability Report 2023 editor. The main area displays a report preview for 'Food waste' with a bar chart and text. The right sidebar contains a 'Templates' and 'Elements' panel with a search bar and a list of report sections. The 'Section' dropdown is set to 'Environmental Sustainability', and the 'Data Source' is 'Farm Management'. The 'Main Text' area contains a paragraph about sustainability and a 'Use AI' button. The bottom of the editor shows a ruler, grid, and portrait orientation options.

ESG Reporting easily done on DiMuto platform itself

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PART 2

# EFFICIENCY



# Cost Barriers to Adopting ESG for SMEs



A 2022 survey found that 32% of Singapore SMEs listed costs of conducting sustainability as the top challenge\*.

Even though an overwhelming 83% of Asian SMEs prioritize ESG initiatives\*\*, the financial constraints associated with implementing ESG measures can pose a substantial hurdle.

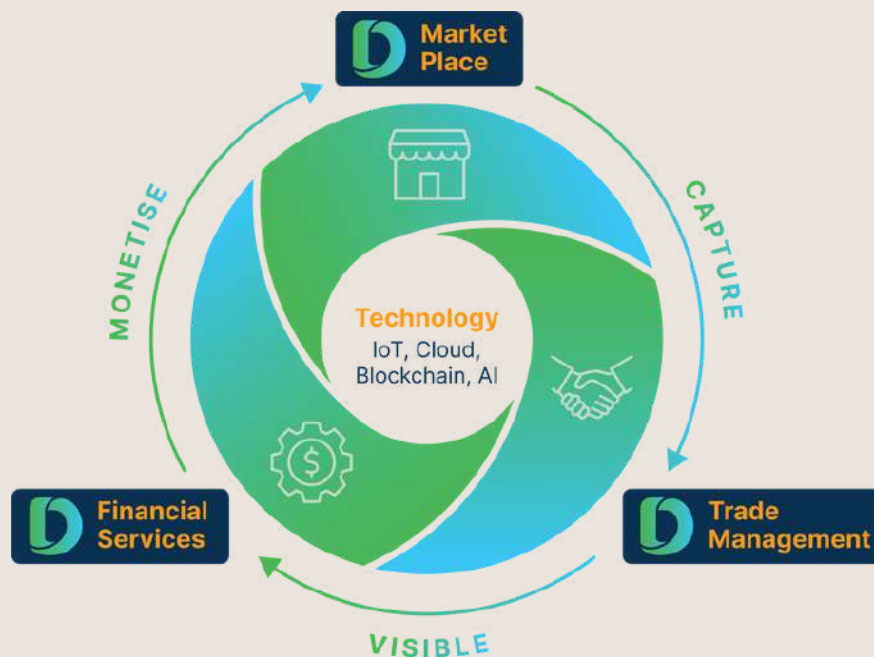
SMEs often operate on limited budgets and may see ESG compliance as costly, including technology upgrade costs, reporting and compliance costs, training and education costs, data collection and management costs, as well as certification costs.

Bridging this cost gap is crucial in enabling SMEs to align with ESG principles and meet the growing demands for ethical business practices in today's marketplace.

# DiMuto Digitally Transforms and Connects AgriFood Supply Chains

Dimuto's Digital Transformation Solutions stands as an efficient tool for optimizing inventory management, reducing waste, and enhancing the accuracy and speed of product delivery within the agriculture and food industries. With the ability to capture sales orders on DiMuto Marketplace, tracking them and making them visible on DiMuto Trade Management, as well as monetizing them on DiMuto Financial Services, DiMuto is able to connect the AgriFood supply chain from end-to-end.

By creating unparalleled visibility at every stage of the supply chain through its modular features, DiMuto empowers companies with comprehensive insights into their operations.





*DiMuto's end-to-end AgriFood Trade Solutions*

DiMuto is able to create visibility for each stage of the supply chain with our modular features and create visibility on pre and post-shipment product quality information, documents and operational statuses. This is combined into a timeline and streamlined dashboard so companies can visualize key aspects of their business performance and recognize overall patterns and trends. The digitization solutions provide a range of benefits for businesses in the agriculture and food industries, including increased transparency, improved efficiency, and enhanced quality control.

Thus, DiMuto presents an avenue through which enterprises can efficiently oversee and manage the sustainability aspects of their complete supply chain through digitization, executed in a streamlined manner. This stands to be a valuable instrument in tracking food waste, elevating operational efficiency, product excellence, and overall competitive prowess for these enterprises.

## Ability to Connect ESG Data on Product & Carton Level Efficiently

DiMuto's digitization solution, powered by its proprietary digital asset creation technology (DAKY), offers a groundbreaking approach to tracking sustainability data on both a carton and product level.

Overcoming the obstacle of digitizing individual produce items and their respective cartons, DiMuto utilizes QR labels and digital images to create a digital identity for AgriFood products. This technology enables precise tracking of product movement throughout the supply chain, ensuring that every stakeholder, from farmers and packers to logistics, shipping companies, distributors, and retailers, has real-time visibility into the products' whereabouts and resource usage at any given moment.

This level of granularity in data collection not only enhances traceability but also facilitates the collection of vital sustainability data, empowering businesses to monitor and improve their ESG practices with unprecedented precision.



*Top L: DiMuto's Digitization Device, DACKY implemented at frozen durian packing facility*

*Top R: DiMuto Digital Identity Labels and DACKY operating on the ground in Mexican Mango packhouse*

*Bottom L: DiMuto DACKY being used at Passionfruit packing facility in Colombia*

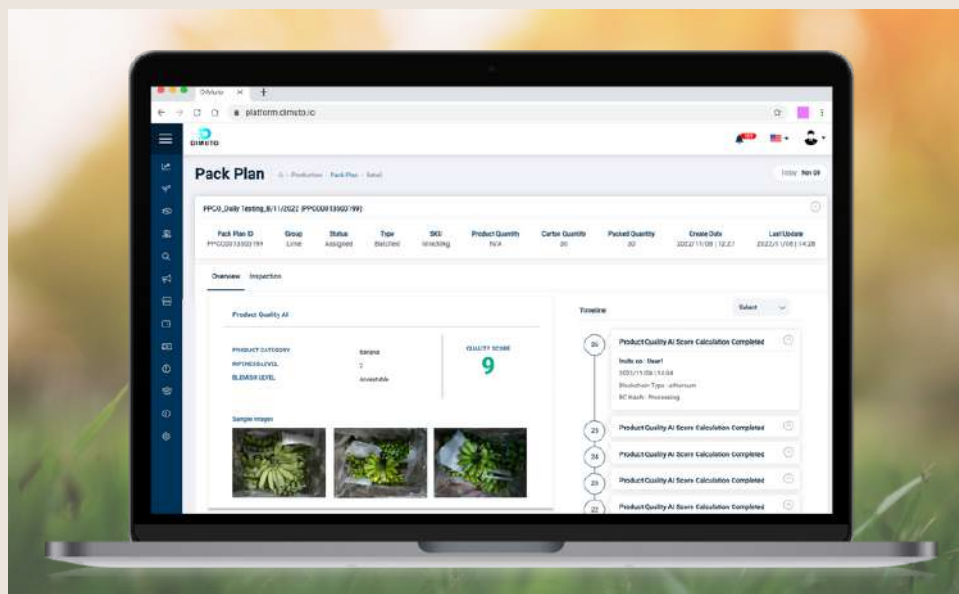
*Bottom R: DiMuto Digital Identity Labels on cartons of Colombian Passionfruit*



## Digitization-enabled Product Quality AI

Through DiMuto's digitization solution, we are able to obtain the visual photo of each carton as they move along the supply chain.

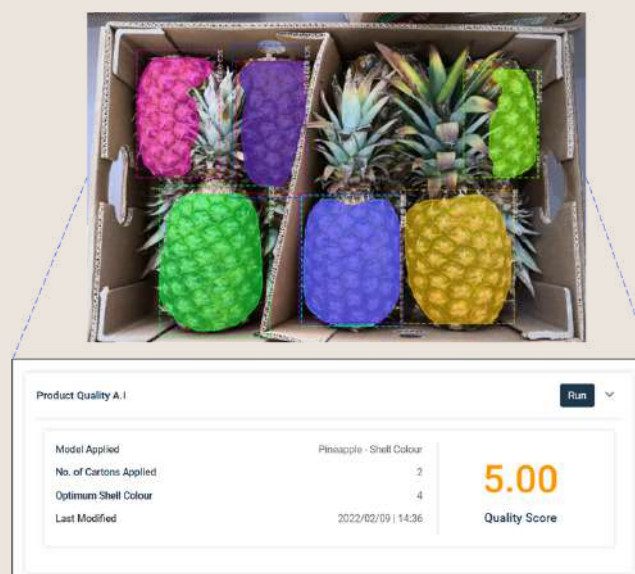
DiMuto's Product Quality AI is an artificial intelligence-based platform that uses computer vision and machine learning technologies to assess the quality of fresh produce. By leveraging advanced AI algorithms, it can identify and mitigate product quality issues in real-time, resulting in optimized inventory management as businesses can confidently maintain appropriate stock levels without the risk of quality-related overstock or understock. Moreover, this AI-driven quality control helps reduce waste by minimizing the disposal of subpar products. Additionally, the accuracy and speed of product delivery are significantly improved, ensuring that only high-quality goods reach consumers promptly, fostering customer satisfaction and loyalty. Overall, DiMuto's product quality AI stands as a cornerstone in elevating supply chain efficiency, sustainability, and customer service.



DiMuto Product Quality AI applied on digitized cartons on DiMuto Platform

DiMuto's capability to capture critical product quality data throughout the supply chain, combined with its AI-driven quality assessment, is a game-changer for improving sustainability and resource efficiency while reducing food waste. By continuously monitoring and analyzing data on product quality, from the source to the end consumer, Dimuto empowers stakeholders with real-time insights. This ensures that only high-quality products are distributed and prevents subpar items from entering the market.

As a result, resource efficiency is optimized, as fewer resources are wasted on producing, packaging, and transporting products that might ultimately be discarded due to quality issues. This not only reduces operational costs but also aligns with sustainability goals by minimizing food waste and resource wastage. Furthermore, by sharing this quality information with stakeholders, Dimuto fosters a culture of transparency and accountability, encouraging sustainable practices and responsible resource management throughout the supply chain.



DiMuto Product Quality AI

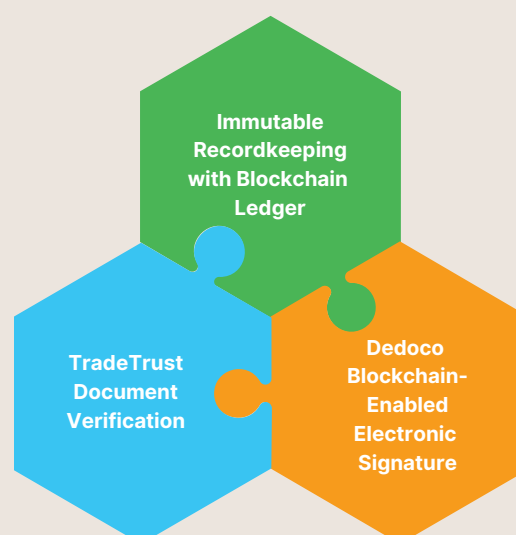
## Verifiable Sustainability Data with Blockchain

Dimuto's utilization of blockchain technology to record transaction actions in each trade is a pivotal element of its approach to enhancing the quality of ESG data collected on its platform. Blockchain brings transparency, immutability, and verifiability to the data, thereby significantly improving the credibility and reliability of ESG information. With blockchain, an unalterable and transparent record of each step in the food supply chain from farm to fork can be kept securely and accurately.

Blockchain's traceability capabilities allow stakeholders to trace the journey of products from their origin to the final destination. This feature is particularly valuable for ESG data related to environmental impact, as it enables the tracking of carbon emissions, resource usage, and sustainability practices throughout the supply chain.

DiMuto leverages blockchain technology in 3 main ways:

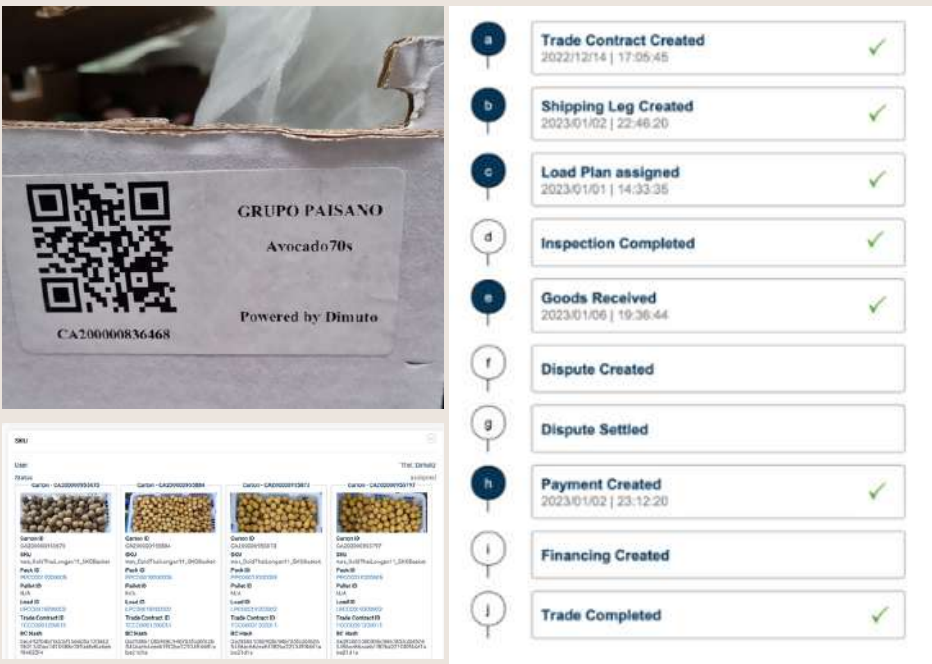
- Immutable recordkeeping for each supply chain action
- Verify electronic trade documents with document verifier TradeTrust, a Singapore Government initiative
- Verify electronic signatures on contracts and trade documents with Dedoco



# Immutability of Sustainability Data

DiMuto uses blockchain technology to create a unique digital identity for each product, which is linked to a QR code. This digital identity contains all the relevant information about the product, including its origin, quality, and condition. The information is recorded on the blockchain and can be accessed by all authorized parties in the supply chain. As the product moves through the supply chain, each transaction is recorded on the blockchain, creating an auditable trail of all the activities that have taken place. This includes information about the location of the product, any changes in ownership, and any inspections or quality checks that have been performed. This is presented in a simple timeline that easily lets you know the latest updates, the who, what, and when of each action. Each action is recorded on the blockchain with a unique hash for immutability.

Once data is recorded on the blockchain, it becomes virtually impossible to alter or delete. This immutability is a critical feature for ESG data because it prevents malicious or inadvertent tampering with information. The historical records of sustainability practices and conditions within the supply chain are preserved accurately over time.



Top L: DiMuto Digital Identity Labels, Bottom L: Visual Quality of each carton captured and recorded on DiMuto Platform,  
R: Trade Timeline Report

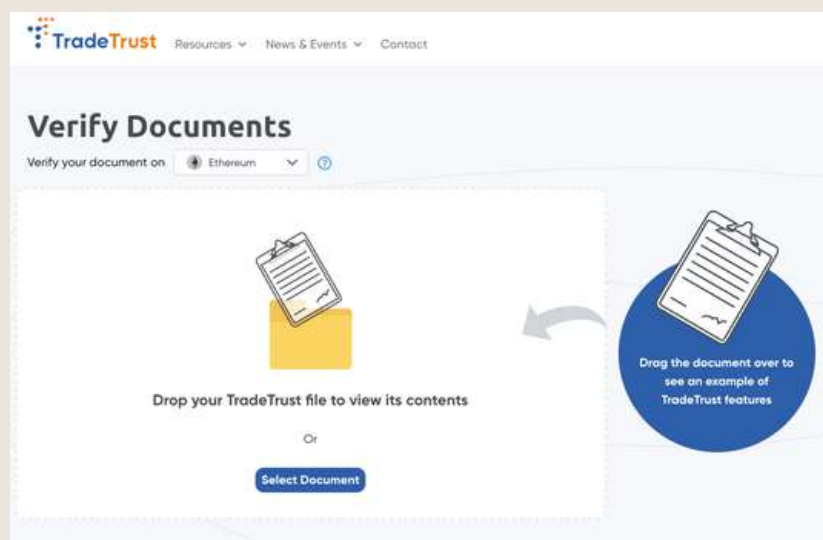


## Document Integrity with Blockchain

Together with the International Chamber of Commerce (ICC), the Singapore government launched TradeTrust, a set of globally-accepted standards and frameworks that is connected to a public blockchain supporting the exchange of electronic trade documents between governments and businesses. TradeTrust aims to digitalize global trade and eliminate the inefficiencies caused by manual trade documents and verification processes. TradeTrust works to ensure there is legal harmonisation across multiple countries and jurisdiction for legal validity of digital trade documents, and promote internationally accepted standards that facilitates interoperability of digital documents exchanged across platforms.

The Tradetrust verification is integrated onto the DiMuto Platform. Trade documents that are uploaded onto the DiMuto Platform are automatically pushed onto TradeTrust, allowing users and relevant parties to verify the authenticity of their documents.

Blockchain's decentralized architecture ensures that data is consistent and accurate across all nodes in the network. This mitigates the risk of data inconsistencies and errors, which can be common in traditional centralized systems. The integrity of ESG data is therefore maintained at a high standard.



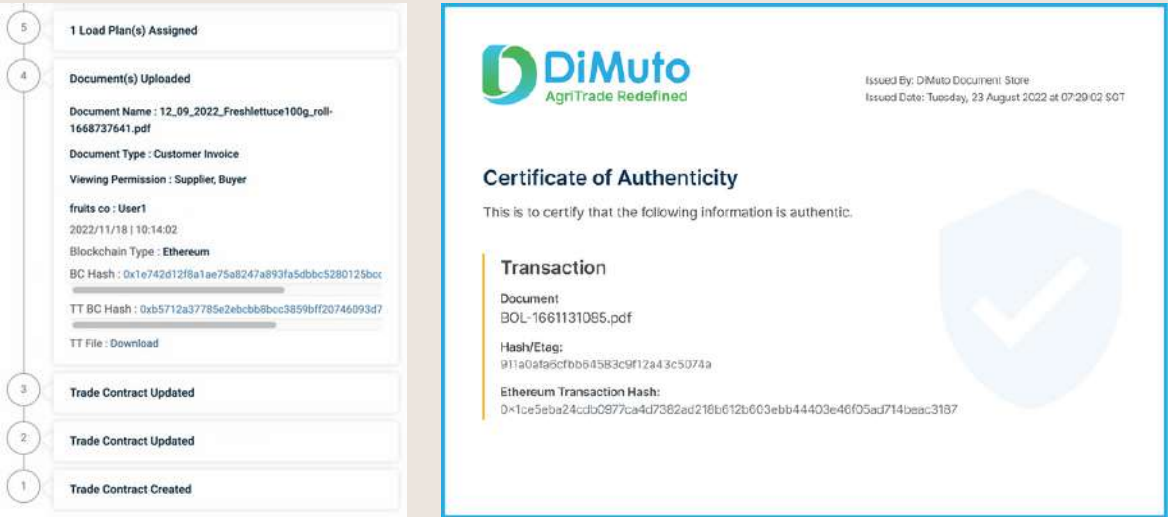
TradeTrust Document Verification Tool

When a trade document is uploaded on the DiMuto platform, it is identified uniquely by a Document Hash and saved as a signed TradeTrust JSON file – this JSON file serves as a unique fingerprint that is then recorded on the public Ethereum blockchain.

Data breaches, document forgeries, and fraudulence have become a pressing issues for digital documents on the web or businesses’ private platforms. It is crucial to note that although there are several methods for digitizing documents and storing digital documents, the security, and efficiency of such methods may not be as seamless and transparent as one might think.

Current communications occur over different communications platforms such as social messaging apps and emails, causing crucial trade information and documents to be scattered and stored inefficiently. This makes it challenging for AgriFood companies to ensure timely verification of these documents, or store and retrieve them securely.

AgriFood Trade documents on DiMuto are further authenticated with Dedoco’s blockchain-enabled electronic signature platform to increase the credibility of digital documents. Documents are readily signed using Dedoco and registered with a unique blockchain hash when they are published to the DiMuto platform. Documents’ signatures can also be verified Dedoco web.



L: TT Blockchain Hash and TT json file found on DiMuto Trade Timeline, R: Verification of documents uploaded on DiMuto done via TradeTrust



With blockchain-verified signatures that act as a guarantee of document authenticity, DiMuto ensures credibility of every trade transaction – removing barriers such as security risks, fraudulence, and forgery of documents. DiMuto's All-in-One trade management platform helps strengthen trust and confidence among AgriFood players in the food supply chain.

Overall, DiMuto's use of blockchain technology for data verification in AgriFood trade offers a secure, transparent, and efficient way to track and verify the origin, quality, and condition of products throughout the supply chain. The comprehensive and verifiable ESG data collected through blockchain provides valuable insights into sustainability performance. Stakeholders can use this data to identify areas for improvement, optimize resource usage, and make informed decisions to enhance their sustainability initiatives.

In conclusion, DiMuto's Digital Transformation solution offers a comprehensive set of tools and technologies that not only enhance operational efficiency but also contribute to sustainability goals for SMEs. By leveraging real-time data, AI-driven quality control, and supply chain visibility, SMEs can achieve cost savings through reduced waste, resource optimization, and improved overall efficiency. These cost savings can be reinvested in further sustainability initiatives, creating a virtuous cycle of operational and environmental improvement.



# DIGITAL TRANSFORMATION

The background features a dark blue hexagonal grid pattern. A hand is visible on the right side, pointing towards the center. Several icons are scattered across the grid: a microchip with circuit lines on the left, a robotic arm in the center, a network diagram with three nodes on the right, and a car with a wireless signal icon on the bottom left.

“

At least 40% of all businesses will die in the next 10 years... if they don't figure out how to change their entire company to accommodate new technologies.

”

— John Chambers, Cisco System





PART 3

# EMPOWERMENT

# Challenges with Incentivising Sustainable Behaviour for Companies



## Financial Barriers For SMEs Adopting Sustainable Practices

With cashflow being critical for SMEs, financial barriers were the most common reason challenge cited in sustainability adoption\*. Over a third of SMEs also pointed out challenges around return on investment, cost of deployment and meeting growth targets as significant barriers\*\*.

Yet environmental initiatives can also be easy wins for AgriFood companies to showcase to investors and stakeholders, helping them secure funding and expertise. Small and medium-sized enterprises can be motivated to initiate ESG initiatives by accessing green funding. Thus, we need a way to financially motivate agri-SMEs to become more sustainable.

## The World of Sustainable Finance

Sustainable finance offers financial institutions the opportunity to distinguish themselves when it comes to products and services, risk management and reporting and disclosures.

Sustainable finance involves making ethical decisions in business and investment, with a focus on environmental, social, and governance (ESG) standards\*. These standards are increasingly demanded by customers, workers, and investors, particularly in the areas of asset management and corporate strategy. Sustainable finance has the potential to drive responsible development and support the transition towards sustainable production and services across the globe, leading to positive impacts on both the economy and society.

## Risks of Greenwashing in Sustainable Finance

Currently, there is a popular trend in the market for sustainable finance products that are mostly voluntary and labeled by the companies themselves. This trend includes environmental, social, and governance (ESG) practices, as well as socially responsible investing (SRI). However, there is a concern about "sustainable washing," where companies use misleading marketing tactics to exaggerate the sustainability benefits of their products, services, or strategies, such as vehicles, savings products, or zero-deforestation commitments\*\*.

Financial institutions that want to expand their sustainable finance offerings must conduct thorough due diligence and have access to reliable ESG data to avoid facing legal and reputational risks.

# Empowering AgriFood Companies and Financiers with Visible Sustainable Finance

With the right financial solutions and risk management strategies in place, it is possible to minimize these risks, lead to more favorable financing rates for agri-food SMEs and thus support the growth and success of AgriFood businesses.

DiMuto's Financial Services provide AI-powered trade financing to agri-food companies. The DiMuto platform unifies critical documents, products, and payments in one place, gathering an accurate depository of live trade data between the borrower and respective business partners.

To ensure the visibility of the supply chain, borrowers are required to digitalize their trades, tracking every single carton for each order from packinghouse to export markets. DiMuto leverages its proprietary AI to assess trade health and product quality for every trade transaction, creating a complete and accurate image of the financial and operational strength of companies.

## BENEFITS OF DIMUTO FINANCIAL SERVICES FOR LENDERS

**VISIBILITY OF OPERATIONAL HEALTH OF APPLICANTS**

**VISIBILITY OF PAYMENTS TO APPLICANTS**

**ACCESS TO ESG DATA OF APPLICANTS**

## BENEFITS OF DIMUTO FINANCIAL SERVICES FOR BORROWERS

**BETTER MANAGE CASH FLOWS**

**MAINTAIN WORKING CAPITAL LIQUIDITY**

**GREATER ACCESS TO RESOURCES**



## Benefits for financiers and SMEs with DiMuto Sustainable Finance

Financiers can use the ESG data to evaluate the environmental and social risks associated with AgriFood SMEs. By considering sustainability performance alongside traditional financial metrics, they can make more informed credit assessments. This reduces the risk of lending to businesses with poor sustainability practices.

Access to trade finance is significantly enhanced for SMEs with strong sustainability records. Demonstrating sustainability excellence through Dimuto's ESG data increases their creditworthiness, making them more appealing to financiers. This can open doors to trade finance options that may have been previously inaccessible, ultimately lowering the cost of capital for these SMEs. SMEs can receive financial incentives, such as reduced interest rates or extended credit lines, as rewards for achieving specific sustainability targets. This incentivizes continuous improvement in sustainability performance.

In addition to financial gains, this method also improves market reach and brand reputation. Small and medium-sized enterprises (SMEs) can leverage their verified sustainability data to gain a competitive edge in the market. They can attract consumers who are mindful of the environment and establish partnerships with retailers or distributors that prioritize sustainable goods. This approach also enables SMEs to broaden their scope, access new markets, and escalate their sustainable endeavors, resulting in higher profitability and market influence.

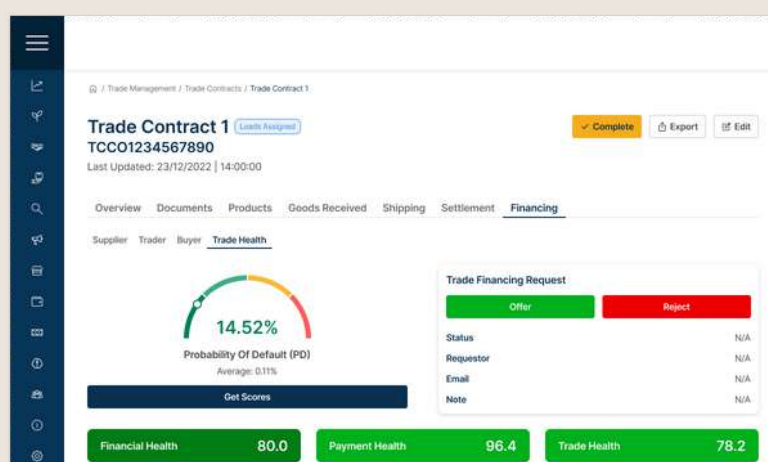
Transparent reporting of ESG performance to financiers strengthens trust and relationships between SMEs and financiers. Overall, Dimuto Financial Services bridges the gap between sustainable practices and financial access, promoting responsible business practices and profitability for AgriFood SMEs in the modern market.

# AI-Powered Trade Health and Credit Scoring

DiMuto Financial Services leverages AI to assess trade health and product quality for every trade transaction on our platform, providing Agrifood business and financiers with:

- Visibility of day-to-day operations
- A complete & accurate image of financial & operational strength of the company
- Low-risk lending for financiers, opportunities for buyers/suppliers

Such analyses can be made not only based on the real-time trade data of each trade that is captured on the DiMuto Platform, but also on the collection of such granular data over time per trade relation. In combination with DiMuto's Product Quality AI, DiMuto can generate a financial risk score for each trade and company that can be used for financing opportunities. Thus, DiMuto's Trade Health & Financing AI allows financiers to enjoy deeper visibility and more robust assurance and for borrowers to gain more accurate risk assessments and more flexible terms.

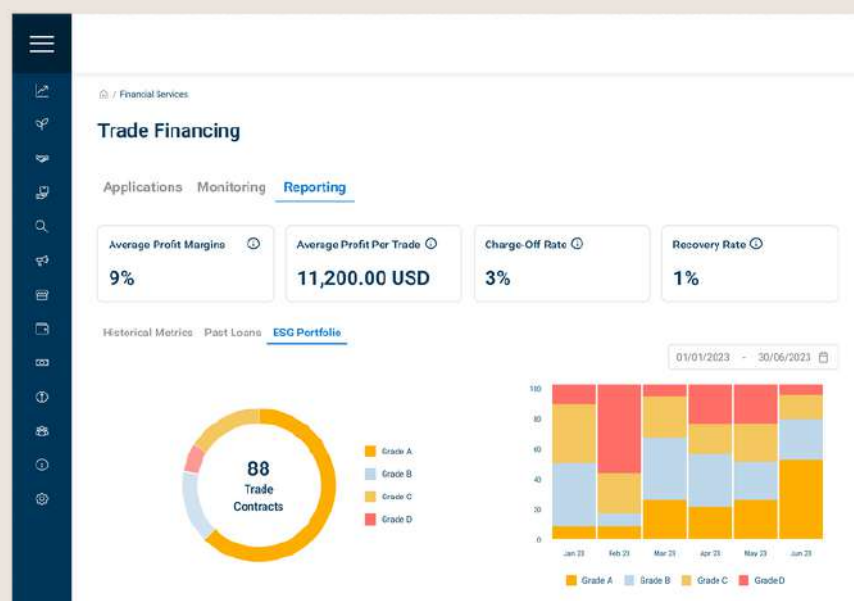


DiMuto Financial Services AI Score

## A Data-backed, AI-powered Financial Service built to de-risk lending

DiMuto is able to capture organizational and supply chain data, analyze and understand companies' trade, financial and organizational health and accurately assess borrowing capacity and risks. Overall, by utilizing AI, DiMuto Financial Services is able to provide more accurate risk assessments, faster decision-making, and better risk management services to its clients, reducing the risk for financiers and increasing the chances of success for agribusinesses.

DiMuto's integrated financial services and sustainability management platform offer financiers a valuable tool to access ESG data and obtain a precise breakdown of their green portfolio when considering lending to AgriFood SMEs. By seamlessly integrating ESG data into the lending decision-making process, financiers gain transparency and confidence in assessing the sustainability performance of SMEs in the agricultural and food sectors. This data-driven approach not only helps financiers make informed lending decisions but also supports the growth of sustainable practices among SMEs, fostering a more environmentally and socially responsible AgriFood industry.



DiMuto Financial Services Dashboard

“

Sustainable development is a fundamental break that's going to reshuffle the entire deck. There are companies today that are going to dominate in the future simply because they understand that.

”

— Francois-Henri Pinault, CEO of Kerig







PART 4

# ENGAGEMENT

# Challenges with Communicating Product's Sustainability



## Consumers' Inability to Verify Sustainability of AgriFood Products

Despite hailing sustainability labelling as critical, consumer confusion is commonplace.

A survey by Euroconsumers\* revealed that a significant 54% of consumers felt that environmental labelling is confusing and akin to a marketing ploy, and 53% admitted to being unable to differentiate between true and false green claims.

Thus, it is important for AgriFood companies to clearly showcase verifiable sustainability information to consumers. In the absence of comprehending the return on investment for paying more, customers are likely to resort to less eco-friendly options which are cheaper.

# Sustainability Sells

87%

global customers are "very likely" to consider a **company's social and environmental commitment** before deciding what to buy and where to shop\*

91%

given similar price and quality, are "very" or "somewhat likely" to **switch brands to one that is associated with a good cause\***

92%

would **buy a product with a social and/or environmental benefit** if given the opportunity, and 67 percent have actually done so in the last 12 months\*

72%

would **recommend a brand** that supports a good cause over one that doesn't — a 39 percent increase in just four years\*\*

76%

believe it is acceptable for brands to **support good causes and make money** at the same time\*\*

90%

want companies to **go beyond the minimum standards** required by law to operate responsibly and address social and environmental issues\*





## Doing Well by Doing Good

The pace of change in our world is constantly accelerating, with grassroots movements taking shape through mobile phones at unprecedented rates. What happens in one area can have profound ripple effects on communities located thousands of miles away.

Similarly, our planet's environment is undergoing seismic change — increased incidences of droughts, floods and other extreme weather events, the destruction of wildlife habitat, the mass extinction of species — and the effects of these shifts are equally momentous.

What does it all mean for AgriFood businesses? How can they adapt to this rapidly shifting landscape? The first step is to ensure that their enterprise is on a sustainable trajectory. That's where DiMuto comes in - we are here to help.



# DiMuto Product Passport

In today's market, consumers value companies that prioritize social and environmental responsibility. It has become increasingly important for businesses to demonstrate their commitment to sustainability through action rather than just words. This is where DiMuto comes in - we can help companies scrutinize their supply chain, source sustainable products and services, and effectively communicate their dedication to their customers. Our philosophy is that ethical practices and profits can work in harmony, and we strive to assist companies in achieving both.

With DiMuto Product Passport, AgriFood companies can differentiate their brands by transforming every product into a powerful sustainability communication tool. Take advantage of the increasing consumer demand for traceable food and fresh produce. DiMuto SMART Marketing enables grower-exporters and suppliers to directly engage with end consumers. By showcasing a verified traceability and sustainability story, companies can establish a strong brand presence and differentiate from the competition.



**Share your products' traceability story**



**Receive feedback on product quality**



**Run engaging lucky draws & promotions**

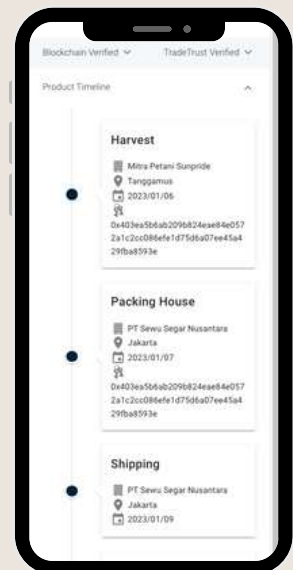
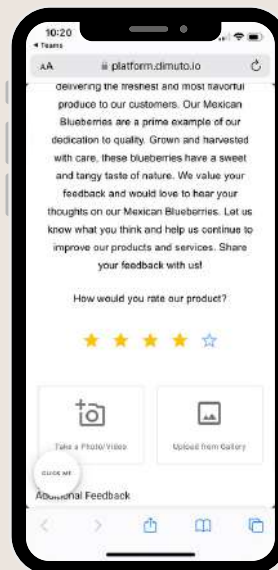
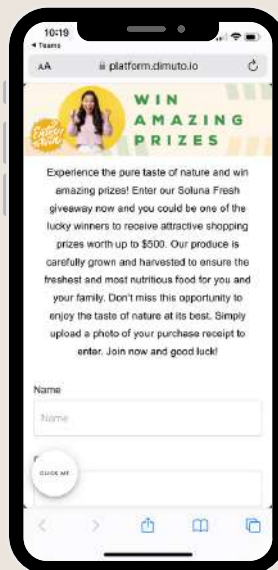
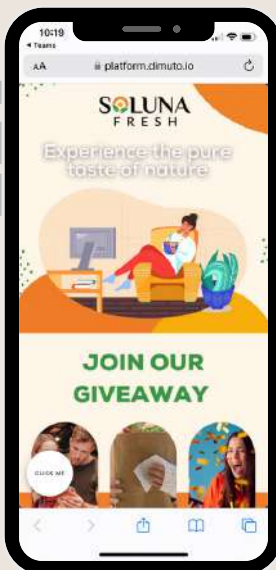


**Communicate health & sustainability data**

*Functions to be explored with DiMuto Product Passport*



**Consumers can easily scan DiMuto QR code to access Product Passport**



*Example of DiMuto Product Passport with ability to show Product Journey, collect consumer feedback and conduct giveaways and marketing promotions while sharing about product and brand story.*





“

The greatest threat  
to our planet is the  
belief that someone  
else will save it.

”

— Robert Swan, British historian, explorer  
and activist



**THE FUTURE**



# Towards a Sustainable Future

Improved supply chain visibility ensures that food resources are efficiently distributed and allocated. This can help reduce food waste and losses.

Traceability ensures food safety and preventing health risks. The overall resilience of agri-food system can be improved by indentifying vulnerabilities and potential disruptions.

Workers can receive fair wages and good working conditions at every stage of the supply chain. Visibility contributes optimizing supply chain processes, improving production efficiency, thereby driving economic growth.

By understanding the flow of goods and information, companies can innovate new products, services, and processes that cater to market demands and foster technological advancements. The transparency allows for better coordination and planning for transportation and logistics infrastructure.

The transparency helps reveal the environmental and social impacts within the supply chain, thereby promoting responsible consumption and production decisions. By monitoring inventory and demand in real-time, businesses can reduce overproduction and excess inventory, thereby minimizing resource waste and environmental impact.

2 ZERO HUNGER



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



12 RESPONSIBLE CONSUMPTION AND PRODUCTION





## Unveiling Tomorrow: The Next Frontier — Tokenization of Carbon Credits

Achieving net-zero carbon emissions is an ambitious goal made possible by the development of a carbon credit system built atop a foundation of quality, verifiable ESG data.

While some companies must purchase carbon credits and offset their carbon footprint, others can buy them voluntarily in addition to their primary net-zero programs.

This has encouraged the development of a carbon offset market where stakeholders can buy and trade carbon credits and help climate change organizations implement carbon reduction projects.

# What is tokenization of carbon credits?

Carbon credit tokenization is the process of creating a tool within the cryptocurrency ecosystem that can be used as an investable asset in carbon credit cap and trade.

An organization that directly contributes to the emission of greenhouse gases (GHGs) is usually obliged by the government to compensate for (offset) their emission. Offsetting can be done by paying direct taxes or by using an emission trading system

(ETS) to buy carbon credits (i.e., the right to pollute in exchange for funding projects aimed at GHG research and reduction).

With carbon credit trading, the company can sell these credits to and organization that produced more emissions that it paid for or that wants to participate voluntarily in carbon imprint reduction.

Carbon credits can be used as tokenized assets in cryptocurrency trading, thus bringing liquidity to carbon markets and helping everyone reach their net zero goal faster.\*



Since virtually any piece of information can be linked to a blockchain, cryptocurrency and blockchain platforms are ideal for supporting the carbon credit market. In particular, a blockchain ledger offers the following advantages over traditional carbon credit trading:

**Transparency  
of transactions  
and data**

Every token is linked to traceable data, which prevents a climate change organization from illegally trading the same credits with multiple investors or buyers

**Improved  
Liquidity**

Organizations can easily exchange credits before they expire or retire

**Pricing Signals**

Each party in a transaction has access to real-time market data, so they can make the best investment

**Data  
Standardization**

Blockchain can remove data inconsistencies caused by typos and misspellings and also prevent ill-intentioned data change.



# What can DiMuto do?

DiMuto can streamline and facilitate the entire process of tokenizing carbon credits for an agriculture company, making it more efficient, transparent, and appealing to both investors and environmental advocates in several ways:

## Data Collection and Verification

DiMuto can gather accurate data from various stages of the agricultural supply chain, including cultivation, transportation, and distribution. This data serves as the foundation for calculating the carbon emissions associated with each activity. Through real-time monitoring and verification, the platform ensures the credibility and accuracy of carbon emission data.

By integrating blockchain or distributed ledger technology, DiMuto can provide a transparent and immutable record of carbon emissions. This traceability enhances the credibility of carbon credit issuance and trading, allowing stakeholders to track the entire lifecycle of credits.

## Transparent Tracking

## Carbon Credit Calculation

Leveraging the collected data, DiMuto can calculate the carbon credits generated by the agriculture company's sustainable practices. This involves quantifying emissions reduction compared to baseline emissions, which can be standardized and verified according to relevant protocols.

## What can DiMuto do?

### Market Access

The platform can connect the agriculture company with buyers and investors interested in purchasing carbon credits to meet their sustainability goals. This expands the reach of the company's environmental efforts and potentially generates additional revenue.

The platform can offer incentives to encourage the agriculture company to adopt more sustainable practices. These incentives could be in the form of additional carbon credits for exceeding reduction targets or discounts on financing rates for implementing eco-friendly initiatives.

### Emission Reduction Incentives

### Reporting and Compliance

The platform can generate comprehensive reports detailing the company's carbon reduction achievements. This aids in compliance with environmental regulations and provides a transparent record of the company's sustainability efforts.

The platform can engage various stakeholders, including investors, consumers, and regulatory bodies, by showcasing the agriculture company's commitment to sustainability through tokenized carbon credits.

### Stakeholder Engagement


# **DIGITALLY TRANSFORMING AGRIFOOD FOR SUSTAINABILITY**

In today's era, AgriFood stakeholders are experiencing heightened demands for ethical practices, environmental stewardship, and social responsibility from an array of stakeholders, ranging from consumers and investors to regulators and civil society. The imperative to align supply chain practices with ESG principles has transcended being a competitive advantage and has become a fundamental business requirement.

Through digital transformation, AgriFood businesses are empowered to forge a sustainable future. They can achieve unparalleled transparency, traceability, and accountability throughout their supply chains. This not only enhances their brand reputation but also contributes to improved financial performance, risk management, and regulatory compliance.

As we navigate the path toward a more sustainable and technologically advanced supply chain ecosystem, this whitepaper serves as a beacon of guidance. It elucidates the synergistic relationship between ESG visibility and digital transformation, offering insights and strategies for AgriFood stakeholders to navigate this transformative journey successfully.

By embracing digital transformation, the AgriFood industry has the potential to not only thrive economically but also to lead the way in creating a more sustainable and responsible global food system.



“  
The best way to  
predict the  
future is to  
create it.

— Peter Drucker, management consultant,  
educator, and author

”





DiMuto redefines AgriTrade with AI, Data Visibility, and Finance — Using tech to create and connect a sustainable, global AgriTrade ecosystem.

With our three pillars of Marketplace, Trade Management, and Trade Financing, DiMuto supports every aspect of AgriFood trading, redefining the way goods are managed from farm to table, seamlessly and simply connecting every step, and making it visible throughout.

By traders for traders, we want to help AgriFood business owners optimize their operations efficiently and for them to build a foundation of trust between their buyers or sellers so that they can take action on improving and growing their businesses in a more sustainable, efficient manner.

Maximizing Business Efficiency, Minimizing Impact on The Planet.

Since 2019, DiMuto has successfully tracked and traced over millions of pieces in produce and millions in dollars of trade value on our platform, working with a global portfolio of clients in over ten countries and five continents. DiMuto is founded by Chief Executive Officer Mr Gary Loh, who is also the Executive Chairman of First Alverstone Group.

For more information, please visit [www.dimuto.io](http://www.dimuto.io).



[www.dimuto.io](http://www.dimuto.io)



[contact\\_us@dimuto.io](mailto:contact_us@dimuto.io)



DiMuto



DiMuto\_sg

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