

Automa Impact Report 2024





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Disclaimer

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Message From JICA

JICA (Japan International Cooperation Agency) is an implementing agency of the Japanese government's Official Development Assistance, and we have a long history of partnership with Indonesia dating back to the 1960s. Until today, a variety of projects have been implemented to help achieve socio-economic development of Indonesia in collaboration with various Indonesian and Japanese organizations, including the central and local governments, NGOs, academic institutions, and private companies.

Project NINJA (Next Innovation with Japan) is also one of JICA's important programs. As you all know, startups are making a huge impact on solving social issues through their innovation. JICA considers startups as our important partners, and in order to support them NINJA started first in Africa. Following its success in Africa, it has expanded its scope to other parts of the globe. NINJA Indonesia began in 2021 and is now in its 4th year.

In 2024, we focused on eco-friendly and carbon neutral areas, such as "Green Transformation", "Natural Environment and Conservation" and "Sustainable Water Resources, supply and management". This is because JICA believes it is critical to protect Indonesia's wonderful natural environment, and make effective use of it, with necessary "mitigation" and "adaptation" measures against climate change. Finally, three promising startups, Automa Supply Chain, Kepul, and Parongpong RAW Lab, were selected as our special partners from a highly competitive pool of 264 applicants.

This impact report was created as part of the JICA project NINJA in Indonesia in 2024 and shows how those selected startups will make an impact on society.

We hope that the report will deepen reader's understanding of them and encourage more partners to create and expand social impact together.



Alfons Tefa

Automa CEO

Eumir Bethbeder

Automa CMO

Wirawan Winarto

Automa CTO

Founder's Message



Automa was founded in response to a personal challenge my family's business faced: logistics fraud resulting from a lack of transparency between offline delivery activities and online ERP systems. This information asymmetry led to repeated adverse selection, eroding both trust and resources. To address this issue, we developed a platform that integrates IoT technology to bridge offline and online data, enhancing transparency, reducing inefficiencies, and enabling smarter decision-making.

As we grew, we recognized that the same core values—transparency, integration, and innovation—could solve a much larger global challenge: carbon emissions. By developing tools that allow businesses to track, reduce, and report their emissions, we expanded our vision to accelerate decarbonization while maintaining green inflation below 5%. Sustainability is no longer just an aspiration; it is an opportunity to optimize operations, minimize waste, and drive long-term profitability.

Today, we are not just solving logistics challenges; we are empowering businesses to transform their supply chains into engines of efficiency and sustainability. Guided by our principles of transparency, integration, and innovation, Automa remains committed to building a future where businesses thrive alongside a healthier planet.

Problem

The problem of supply chain operations in Indonesia

Global supply chains contribute approximately 75% of companies' total greenhouse gas emissions through procurement, transportation, and business travel. Eight key industries—food, construction, fashion, fast-moving consumer goods, electronics, automotive, professional services, and freight—account for over 50% of global emissions, emphasizing their substantial environmental impact.

In **Indonesia**, the energy sector, a major component of supply chain operations, has seen emissions more than double over the past two decades, reaching around 600 million tonnes of CO₂ in 2021, making the country **the world's ninth-largest emitter**.

Globalization has created highly complex and intertwined supply chains, making it difficult to achieve comprehensive efficiency – creating significant economic and operational problems such as **increased operational costs, wastage of resources and excess inventory, reduced competitiveness, and regulatory and compliance risks**. Furthermore, supply chain operations traditionally overlooks environmental considerations, leading to **significant carbon emissions and resource depletion**.

Several key challenges hinder the efficiency and sustainability of supply chains, preventing businesses from optimizing operations, reducing costs, and achieving sustainability goals:



Limited data integration and visibility



Inadequate digitalization and technology adoption



Lack of access to sustainability tools and carbon accountability



Regulatory complexity and compliance challenges



Limited collaboration between stakeholders



In the increasingly complex landscape of supply chains, **Automa addresses the intertwined challenges of supply chain inefficiencies and emissions**. Through our efforts of data processing and integration, we are tackling these relevant problems:

01

Inefficiencies due to **lack of visibility and coordination** across supply chains

02

High carbon emissions from supply chain operations

03

Limited digitalization and data integration, especially among SMEs

Problem

Why efficient supply chain matters

Inefficient and high-emission supply chains contribute significantly to carbon footprints, resource depletion, and rising costs, hindering sustainability and economic growth. **A resilient and sustainable supply chain infrastructure prevents the drastic alternative of degrowth** – a forced reduction in economic activity to conserve resources, which could lead to economic depression, unemployment, and social instability. By fostering collective action, promoting transparency, and integrating sustainable practices, businesses can ensure economic, environmental, and social balance. This approach not only mitigates environmental harm but also positions industries for long-term success in a resource-conscious global market.

01

Economic stability and growth

Improving efficiency reduces costs for businesses, making them more competitive and fostering economic growth. Furthermore, efficiency creates operational resilience – better equipped to handle disruptions such as global trade issues, pandemics, or natural disasters.

02

Environmental sustainability

An efficient supply chain minimizes unnecessary transport, energy consumption, and waste, significantly reducing its environmental impact of carbon footprint. Additionally, optimized supply chains ensure better resource utilization, reducing depletion of natural resources and fostering long-term environmental stewardship.



INDONESIA'S TRANSPORT SECTOR

The transport sector contributes to **26%** of energy-related emissions, with over **90%** coming from road transport



INDONESIA'S PROJECTION OF TRANSPORT SECTOR EMISSIONS

Without intervention, these emissions are projected to increase by **53%** by 2030 compared to 2015 levels



Indonesia's goals for the future

Indonesia aims to **become the fourth-largest economy globally by 2050**, with an estimated real GDP of \$6.3 trillion – which highlights the critical need for **sustainable management of expanding supply chains** and transport emissions.

About Automa

Automa is a forward-thinking B2B operations platform - revolutionizing supply chain management, energy optimization, and sustainability. Since our establishment in 2022, we have rapidly grown into a pivotal partner for enterprises seeking to enhance operational efficiency while minimizing environmental impact. Our innovative solutions leverage IoT and data integration across transportation, warehouse management, and energy systems to improve supply chain efficiency, resilience, and connectivity.

We are driven by a commitment to decarbonize supply chains. We enable clients to monitor and manage carbon emissions across all scopes and offer advanced energy modeling tools - positioning ourselves as a leader in promoting and providing access to sustainable practices. Our integrated solutions enhance data-driven decision making and overall efficiency, ultimately enabling businesses to reduce both operational costs and environmental footprint.

At Automa, our core values define our mission of transforming supply chains through technology. Sustainability is at the heart of our operations, as we are dedicated to promoting environmental responsibility across all aspects of our solutions. Our commitment to innovation pushes us to continuously embrace cutting-edge technologies. We recognize that progress is best achieved through collaboration, and we actively foster partnerships with industry leaders, governments, and non-profits to extend reach and impact. Transparency is fundamental to how we operate, guiding every decision with ethical practices and accountability to build trust with our stakeholders. Lastly, our unwavering focus on customer-centricity ensures that our solutions are designed to meet the real needs of businesses, providing measurable impact tailored to the evolving challenges of modern supply chains. Together, these values shape our approach in shaping the future of sustainable, efficient, and resilient supply chain ecosystem.



Our Mission

- To empower businesses with transformative technology that optimizes supply chain operations and fosters sustainability
- To drive meaningful progress towards a decarbonized economy

Our Vision

To become a leading Supply Chain Carbon Emission platform in Asia Pacific, creating a sustainable and inclusive global economy where supply chains serve as engines of both economic growth and environmental stewardship

Core Values

- Sustainability
- Innovation
- Transparency
- Collaboration
- Customer-centricity

Solution

We address the intertwined challenges of supply chain inefficiencies and emissions through an array of integrated solutions. We provide an **IoT-powered digital supply chain platform** that enhances visibility, automation, and sustainability across logistics, warehousing, and energy management. Our solutions integrate real-time tracking, carbon emissions analytics, and modular business apps, as well as connectivity with relevant stakeholders. Ultimately, we empower businesses with data-driven decision-making to optimize operations and meet the demands of a low-carbon global economy.

Supply Chain Social Platform

Our Supply Chain Social Platform is an integrated digital ecosystem designed to enhance efficiency, visibility, and sustainability. It **connects business with vendors and customers, creating a data-driven supply chain ecosystem** with seamless data sharing and system interoperability. The platform is **powered by three IoT-based systems – TMS, WMS, and EMS**. Leveraging IoT-driven insights, automation, and real-time data analytics, they enable business to optimize operations while reducing costs and environmental impact.



Transportation Management System (TMS)

- Offers **comprehensive fleet management** Enhances **order and delivery management**
- TMS improves visibility, reliability and customer satisfaction, while **minimizing costs and emissions from fleet inefficiencies**



Warehouse Management System (WMS)

- **Streamlines warehouse operations** and **optimizes storage** through automation and real-time tracking
- WMS **reduces waste, minimizes errors**, and enhances overall warehouse efficiency



Energy Management System (EMS)

- **Optimizes energy consumption** in logistics and warehouses
- **Integrates renewable energy transition** solutions while enabling Energy Audits and IPMVP-based verification for **accurate measurement of energy savings**

Beyond the core systems, our platform extends its functionality with **Business Supporting Apps** – including Store, 3PL, Rent, Driver, Maintain, and Energy Apps. By integrating these additional tools with our core system, businesses can further customize and enhance operational control. We also offer **B2B E-commerce Solutions** – enabling seamless transactions and digital order processing between businesses, suppliers, and logistics providers. By integrating e-commerce capabilities into supply chain operations, companies can reduce lead times, enhance supplier collaboration, and streamline logistics. What sets our platform apart is the ability to **integrate all these systems into a unified network**. By providing end-to-end visibility, real-time automation, and data-driven insights, we empower businesses to streamline their operations, reduce costs, and achieve sustainable growth.

Solution

Carbon Reporting and Analytics

Our Carbon Reporting and Analytics enable businesses to **track and analyze carbon emissions across Scope 1, 2, and 3**. The system **can be a standalone solution**, allowing businesses to independently input emissions data. It **can also be integrated with our Supply Chain Social Platform** for real-time, automated data tracking. This flexibility ensures that companies at different stages of digitalization can still benefit from comprehensive carbon tracking and sustainability reporting. When connected with our platform, the solution integrates IoT-powered monitoring with carbon analytics, enabling businesses to pinpoint high-emission areas and identify reduction opportunities.



Scope 1

Direct Emissions

Our **TMS** and **EMS** track and help reduce Scope 1 emissions by **optimizing fleet fuel consumption and energy efficiency**



Scope 2

Indirect Emissions from Energy Use

EMS provides real-time monitoring, renewable energy integration, and **energy optimization** to help businesses reduce Scope 2 emissions



Scope 3

Indirect Emissions from the Value Chain

Our **Supply Chain Social Platform** integrates Scope 3 by monitoring supplier emissions and providing a **marketplace for carbon offsets**

Through **analytics and regulatory compliance tracking**, businesses can monitor progress toward decarbonization goals while ensuring adherence to sustainability standards such as IFRS S2 and ESG reporting requirements.



Key Milestones

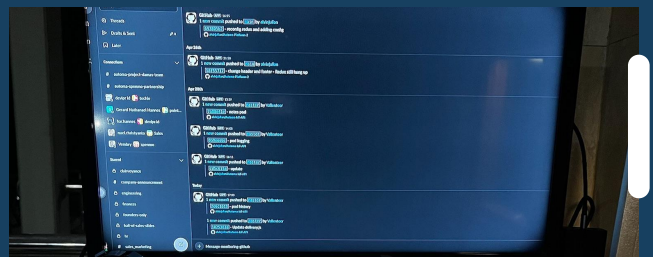
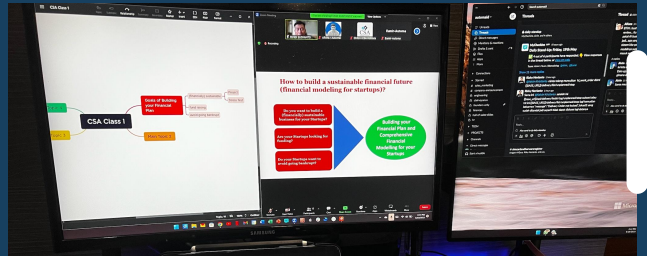
20
21

- Pre-launch and development phase
- Begin energy efficiency and sustainability consultancy for companies



20
22

- **Official platform launch:** addressing logistics fraud through IoT-enabled transparency and integration
- Early adoption: achieving early measurable results such as reduced costs, fuel savings, and inventory waste
- Angel investment: securing our first angel investment, providing the necessary capital to scale and refine the platform
- Begin to incorporate Scope 1, 2, and 3 carbon emissions calculation in sustainability consultancy for companies



20
23

- Accelerator funding: selected for the Indigo Telkom Accelerator Fund, enabling us to expand market strategy and reach state-owned enterprises and government entities
- **Impact-driven focus:** elevating solutions for sustainability and decarbonization, aligning business growth with measurable environmental impact



Recap 2024



2024 has been a year of growth for us at Automa. We were able to launch new features, expand our network of partnerships, and receive international recognition.

Launch of new features

In 2024, we introduced a suite of features designed to enhance sustainability tracking, streamline financial operations, and improve ESG reporting. One of which is the **Automatic Emission Tracking**, providing businesses with real-time carbon emissions monitoring across their operations. This feature enables precise tracking of Scope 1 (transport emissions), Scope 2 (electricity consumption), and Scope 3 (inbound and outbound logistics emissions), allowing companies to make data-driven sustainability decisions while ensuring regulatory compliance.

The image displays two screenshots related to the Automatic Emission Tracking feature. On the left is a laptop showing a dashboard with various charts and data points for Scope 1, 2, and 3 emissions. On the right is a 'Carbon Invoice' from kargo and automa for the period 2022-2023. The invoice includes a table of emissions data for various locations and a total summary.

City Origin	Verifier	Shipment Qty	Distance	Emission (kgCO2)
Jakarta	Automa	1,485	52,691 km	51,320 kgCO2
Depok	Automa	237	13,053 km	5,785 kgCO2
Bogor	Automa	210	11,460 km	3,118 kgCO2
Tangerang	Automa	100	10,000 km	10,004 kgCO2
Bekasi	Automa	185	42,246 km	18,277 kgCO2
TOTAL		3,322	176,876 km	95,905 kgCO2

Automatic Emission Tracking

We also launched **ESG and environmental reporting features** to support businesses in achieving greater transparency and alignment with sustainability goals. These features focus on critical areas such as asset tracking and purchased goods under Scope 3 emissions, enabling companies to simplify emissions reporting.

Additionally, we expanded our platform with the launch of **Automa Wallet** – a digital financial solution designed to support 3PL (third-party logistics) partners. By streamlining financial transactions and enhancing payment efficiency, Automa Wallet eliminates bottlenecks in supply chain payments, fostering operational agility within logistics networks. Ultimately, these feature rollouts reflect our commitment to continuous development in integrating technology, efficiency, and sustainability into supply chain operations.



Recap 2024

Strategic partnerships

In 2024, we established strategic partnerships to enhance our impact in the logistics and sustainability sectors. Collaborating with TÜV Nord, we began implementing globally recognized carbon emissions Measurement and Verification (MnV) standards, ensuring the accuracy and credibility of our environmental data. Through our alliance with CarbonEthics, we provided comprehensive solutions for carbon monitoring and offsetting, enabling businesses to effectively manage and reduce their carbon footprints. Continuing our joint efforts with Indigo Telkom, we expanded the adoption of our technologies in key markets, leveraging Telkom's support to accelerate the development of IoT solutions for the supply chain industry and promote sustainable practices across Indonesia.



Automa engages in discussions with ASYX regarding the utilization of technology for financial transaction monitoring



Automa in collaboration with PLN through a partnership under the PIJAR Foundation program

Asia Smart App Merit Award 2024

In 2024, we were honored to be recognized in the "Business and Commercial" category at the Asia Smart App Awards (ASA) 2024, organized by the Hong Kong Wireless Technology Industry Association (WTIA) with support from the Cultural and Creative Industries Development Agency (CCIDA) of the Hong Kong Special Administrative Region. This accolade underscores our commitment to delivering innovative solutions in the business and commercial sectors.



Our Proud Progress

Since our platform launch in 2022, we have seen significant growth in business capacity, as well as expansion of network to strengthen our impact.

COVERAGE

9 Provinces

Banten, DKI Jakarta, West Java, Central Java, East Java, Yogyakarta, Lampung, West Sumatera, Jambi

CLIENTS

23

Total B2B clients

Since our launch in 2022

REVENUE

3 billion

IDR revenue in 2024

Equivalent to approx. USD 194,000

REVENUE

20%

Revenue growth in 2024 compared to the year 2023

NETWORK INTEGRATION

450+

Fleet connected

NETWORK INTEGRATION

1,000+

Drivers connected

NETWORK INTEGRATION

5,000+

Warehouses connected

NETWORK INTEGRATION

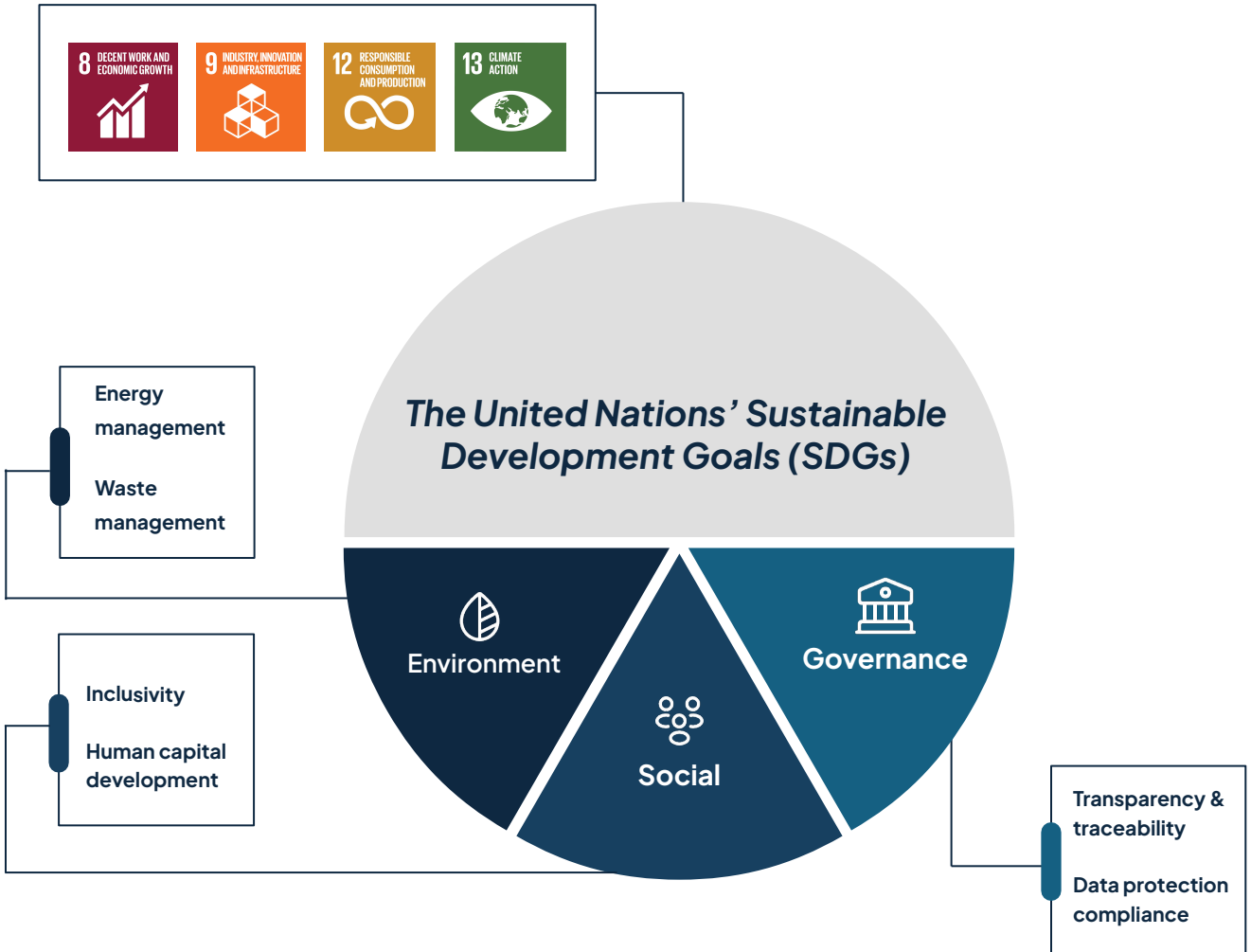
5,000+

Delivery points connected

Impact & ESG

The following section discloses our impact progress and sustainability efforts to improve business practices related to environmental, social, and governance (ESG) topics. Our efforts are aimed at driving positive change not only for our company, but also for the environment, the community, and all stakeholders involved.

Impact Summary



Economic growth and environmental sustainability must go hand in hand, as **long-term economic stability relies on the responsible management of resources and environmental impact**. The modern economy faces increasing pressure to transition toward sustainable practices, and at the heart of this transition lies the supply chain – a critical driver of economic activity that influences everything from resource procurement to final product delivery.

At Automa, we are working towards a **decarbonized economy**; an economic system that significantly reduces carbon emissions while maintaining growth and productivity. We believe that **efficient operations are inherently sustainable operations**. By leveraging technology and digital solutions, our solutions empower businesses to not only comply with sustainability regulations but also gain a competitive advantage in the evolving global economy.

Furthermore, we recognize that supply chain sustainability is a joint effort, requiring collaboration across industries, suppliers, and regulatory bodies. Our initiatives and solutions reflect this concern by promoting **data integration and connectivity**. Ultimately, we strive to lead the charge towards a sustainable supply chain ecosystem that benefits all.

In this endeavor, we align our efforts with Sustainable Development Goals (SDGs) as our commitment to impactful and meaningful work. Furthermore, we also believe in ESG best practice on our own premises for a holistic impact approach.

Impact Target

Automa aims **to transform supply chain sustainability by providing businesses with integrated, data-driven tools that optimize operations**. We foster collaboration and transparency – aiming to make sustainability an accessible, measurable, and seamless part of modern business operations. Ultimately, we are working towards a decarbonized economy where efficient and resilient supply chains drive both profitability and sustainability

01 Primary impact targets

By engaging businesses in supply chain transformation, we are building impact for the environment. We provide solutions and initiatives that both strengthen businesses and support climate action.

Businesses

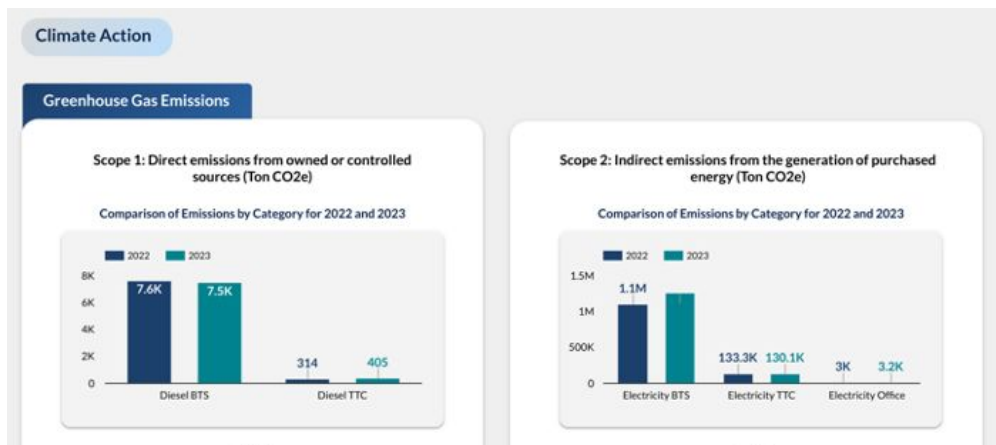


We empower businesses across various industries by providing **integrated digital solutions that enhance operational efficiency, cost reduction, and supply chain resilience**. Through our Supply Chain Social Platform, companies gain real-time visibility into their operations while staying connected to relevant stakeholders. We leverage IoT-based solutions – our Transportation Management System (TMS) optimizes fleet operations, reducing fuel costs and delivery times, while the Warehouse Management System (WMS) streamlines inventory control to minimize waste and errors. Our Energy Management System (EMS) helps businesses lower energy consumption through data-driven insights and renewable energy integration.

Beyond efficiency, we enable businesses to **align with global sustainability standards by integrating Carbon Reporting and Analytics** into their operations. Our platform tracks Scope 1, 2, and 3 emissions, providing companies with the necessary data to measure, report, and reduce their environmental impact. Businesses can also leverage our **Carbon Offset Marketplace to mitigate emissions and achieve ESG compliance** while maintaining a competitive edge. By integrating decarbonization strategies with supply chain optimization, Automa ensures that businesses not only meet regulatory requirements but also future-proof their operations in a rapidly evolving economic landscape.

Impact Target

The Environment



Our carbon tracking dashboard

Environmental sustainability is central to our mission, as we strive to equip businesses with the **tools needed to track, manage, and reduce their carbon footprint** effectively. Our tools provide accurate carbon emissions tracking – enabling informed decisions towards carbon reduction. By promoting the adoption of renewable energy and efforts of minimizing environmental footprints, our approach goes beyond compliance – we aim to drive **meaningful and scalable climate action**, ensuring that responsible consumption and production become standard practices in the modern economy.

Other than the solutions we offer on our platform, we promote **capacity building for environmental stewardship through sustainability training programs**. We provide businesses with the knowledge and guidance to implement sustainable supply chain practices, understand carbon accounting, and develop strategies for long-term emissions reduction. Through a combination of technology, education, and network expansion, we strive for wider sustainable supply chain practices towards a decarbonized economy.



Our Impact Framework

Automa is a B2B supply chain operations platform, leveraging technology and digital solutions to optimize company operations towards sustainable practices. We strive to accelerate efforts of decarbonized economy – equipping businesses with tools that build both economic resilience and environmental sustainability.

We incorporate the United Nations' Sustainable Development Goals (SDGs) into our impact framework – to shape, steer, and communicate our vision of **creating a sustainable supply chain ecosystem that drive both economic growth and environmental stewardship**.

Goals	Targets	Automa's Initiatives
 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading, and innovation.</p> <p>8.4 Improve resource efficiency in consumption and production and endeavor to decouple economic growth from environmental degradation.</p>	<p>Tools to support supply chain efficiency and resilience</p> <p>We offer an array of solutions that leverage IoT-based technology across transportation (TMS), warehouse (WMS), and energy (EMS) management systems. Supported by various Business Supporting Apps, our solutions aim to improve visibility, optimize resource management, and reduce costs – building supply chain resilience towards a decarbonized productive economy.</p>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	<p>9.1 Develop quality, reliable, sustainable, and resilient infrastructure to support economic development.</p> <p>9.4 Upgrade infrastructure and industries to make them sustainable, with increased resource efficiency and clean technologies.</p>	<p>Development of supply chain solutions that leverage technology and data integration</p> <p>We implement IoT-based solutions that enable real-time tracking and enhanced visibility for businesses. We are committed to continuously develop integrated solutions that leverage digitalization and technology, building a sustainable supply chain infrastructure that is based on data-driven decision making.</p> <p>A platform for a sustainable supply chain ecosystem that connects businesses</p> <p>Our Supply Chain Social Platform fosters collaboration among stakeholders – expanding the network of sustainable supply chain infrastructure and building an ecosystem that promotes sustainable practices. Our platform connects businesses to suppliers, vendors, and customers, supported by B2B E-commerce tools to further strengthen connectivity and streamline logistics – ultimately creating an ecosystem of resource efficiency through system interoperability.</p>

Goals	Targets	Automa's Initiatives
	<p>12.2 Achieve sustainable management and efficient use of natural resources.</p> <p>12.6 Encourage companies to adopt sustainable practices and integrate sustainability information into their reporting cycle.</p>	<p>Tools to support accurate carbon tracking in supply chain operations</p> <p>Our Carbon Reporting and Analytics provide tools for real-time carbon emissions and regulatory compliance tracking. By connecting these tools to our main platform, businesses can integrate IoT-powered monitoring with carbon analytics – enabling identification of efficiency and emission reduction opportunities. Additionally, we also provide carbon market integration to further incentivize emissions reduction. Ultimately, we enable adherence to sustainability reporting and standards through data-driven efficiency.</p>
	<p>13.1 Strengthen resilience and adaptive capacity to climate-related hazards.</p> <p>13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation.</p>	<p>Sustainability training and consulting</p> <p>Other than our available solutions, we offer sustainability training and consulting for businesses. We equip them with knowledge to implement sustainable practices, as well as insight to develop long-term strategies towards decarbonization goals. To scale up this initiative, we are developing a comprehensive training module – an opportunity to extend our reach beyond our current customized training.</p>

Automa/Our Impact Framework



Impact in Numbers

01

Primary impact target
Businesses

EFFICIENCY

20%

Average direct cost savings
Reduction in logistics and supply chain costs for client businesses

EFFICIENCY

200%

Reported indirect cost saving
Taking into account prevented frauds and smugglings

EFFICIENCY

30%

Average increase in fleet and area utilization
Improvement in resource utilization efficiency for client businesses

RESILIENCE

80%

Businesses reporting improved supply chain resilience after adopting Automa's solutions
Improvement in order fulfillment and customer receipt confirmation

RESILIENCE

95%

Average perfect order fulfillment
Improvement in order delivery for client businesses

RESILIENCE

60%

Reported customer active package receipt confirmation



Impact in Numbers

02 The Environment

50

Tons CO2 saved annually by client businesses

20%

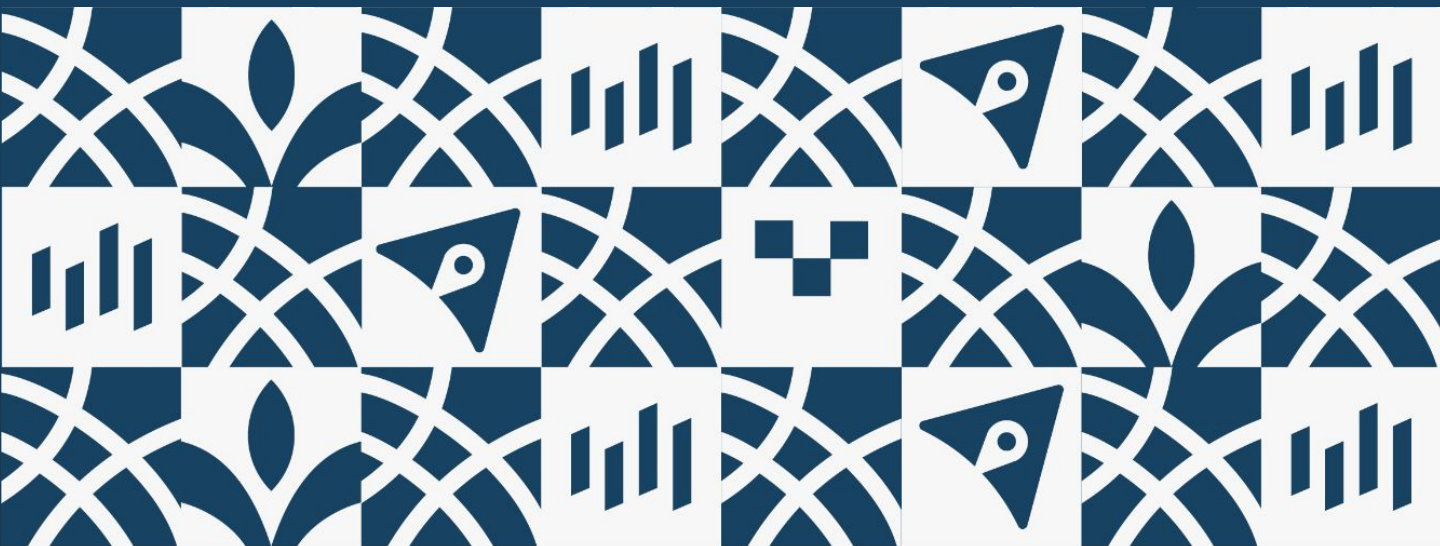
Less fuel usage among client businesses

35%

Less inventory waste among client businesses

20

Trainings on carbon emissions



Impact Deep Dive Businesses

Automa is working towards a decarbonized economy by tackling supply chain concerns of efficiency and sustainability. In this endeavor, we engage businesses as a key stakeholder – strengthening their operations and equipping them with tools to build sustainability.

We believe that resilience and sustainability begin with operational efficiency. A business that optimizes its supply chain is not only more cost-effective but also better prepared for long-term challenges. A key driver of optimization is data integration, which connects all aspects of the supply chain into a seamless digital ecosystem.

We equip businesses with data-driven solutions that enhance visibility, automation, and decision-making. This operational efficiency translates directly into economic benefits, including reduction of unnecessary expenditures. At the same time, our solutions enable integration of efficiency and sustainability – ensuring compliance with ESG regulations, reducing environmental risks, and enhancing corporate responsibility. Ultimately, we empower businesses to remain competitive today while building resilience and sustainability for the future.



Study Case 1: Regional Logistics Company

A regional logistics company partners with us to enhance both sustainability and operational efficiency. By integrating IoT-powered tracking and real-time carbon monitoring, the company is able to gain visibility into its emissions footprint across transportation, warehousing, and supplier networks. This deeper insight allows them to pinpoint inefficiencies, optimize fleet operations, and transition toward more sustainable logistics practices.



IMPACT IN NUMBERS

Study Case 1: Regional Logistics Company

5,000+

Delivery orders tracked annually

70+ tons

Emissions tracked and quantified
Through our Carbon Reporting solution

CARBON REPORTING NUMBERS

80%

Scope 1

90%

Scope 3 –
Upstream Transport

100%

Scope 2

95%

Scope 3 –
Downstream Transport





Study Case 2: Vitoria Group

Vitoria Group, a leading building material distributor in Central Java, faced significant challenges with internal delivery fraud and fuel theft, resulting in annual losses exceeding \$250,000. Automa's solutions transformed our operations by eliminating these issues through real-time tracking and data-driven management. With Automa, we not only eradicated fraud and reduced fuel theft but also gained precise insights into our emissions across Scope 1, 2, and 3. This has empowered us to deliver sustainable building materials to our 500 retail customers while actively contributing to environmental goals.

The ability to monitor and report emissions has also opened doors for us to collaborate with environmentally conscious partners and achieve regulatory compliance with ease. Our operational costs have decreased significantly, and the newfound transparency has strengthened relationships with our stakeholders. Automa has truly been a game-changer, transforming not just our bottom line but also our reputation as a responsible and sustainable business.



Impact Partners

Automa partners with both local and global organizations in a joint effort towards decarbonization, sustainability, and compliance. Through these key partnerships, we are able to strengthen and expand our reach of impact.



01 Indigo Telkom

As a leading Indonesian startup accelerator under Telkom Indonesia, Indigo Telkom has played a crucial role in expanding Automa's reach within state-owned enterprises and government sectors. This partnership has accelerated our go-to-market strategy, allowing us to engage with key stakeholders who drive systemic change in supply chain digitalization and sustainability. By leveraging Indigo Telkom's extensive network and expertise, we have introduced technology-driven efficiencies at a national level, ensuring that businesses and institutions can enhance their operational effectiveness while integrating sustainability into their supply chains.



02 TÜV Nord

A globally recognized certification and technical inspection organization, TÜV Nord specializes in quality, safety, and sustainability standards, making them a key partner in strengthening Automa's carbon emissions tracking capabilities. Through this collaboration, we have integrated internationally recognized Measurement and Verification (MnV) standards into our platform, ensuring that businesses can accurately track, report, and manage their carbon footprint in compliance with global ESG frameworks. By aligning with TÜV Nord's rigorous standards, we enable businesses to demonstrate credibility in their sustainability initiatives, ensuring their emissions reduction efforts are measurable, compliant, and globally recognized.

Impact Partners



CarbonEthics

03 CarbonEthics

As a nonprofit organization focused on restoring nature-based ecosystems and promoting climate resilience through carbon offset initiatives, CarbonEthics complements Automa's carbon tracking and management solutions by providing verified offset opportunities for businesses. This partnership allows companies to not only monitor and reduce emissions but also invest in carbon offset projects such as reforestation and renewable energy initiatives. By bridging technology-driven carbon monitoring with real-world climate action, we help businesses meet sustainability targets while actively contributing to environmental restoration and long-term climate resilience.



ecoxyztem

VENTURE BUILDER


04 Ecoxyztem

A climate-tech venture builder that supports sustainability-focused innovations, Ecoxyztem strengthens Automa's emissions baselines and MRV (Monitoring, Reporting, and Verification) systems, particularly in the transport sector. This partnership ensures that businesses can accurately measure their carbon footprint, comply with evolving regulations, and implement effective decarbonization strategies. By advancing data-driven emissions tracking and regulatory compliance solutions, our collaboration helps companies transition toward a low-carbon future while maintaining transparency and accountability in their sustainability efforts.


ESG Overview

We recognize that there are critical factors of Environmental, Social, and Governance (ESG) conduct that have impact on both our business and the communities we operate in. In this report, we provide an overview of our ESG performance with a deep dive on social metric.

Current initiatives

	<p>01 Environment</p>	<ul style="list-style-type: none"> • Energy management through fully remote operations • Waste management through fully digital workflow and paperless practices • Sustainability capacity-building for employees
	<p>02 Social</p>	<ul style="list-style-type: none"> • Actively engages with clients through training programs that promote sustainable practices in operations • Makes advanced technology accessible to SMEs, supports equitable economic growth and enhances their resilience.
	<p>03 Governance</p>	<ul style="list-style-type: none"> • Integrates blockchain technology to ensure traceability and ethical sourcing in supply chain management • Prioritizes compliance with data protection regulations, ensuring secure operations for all stakeholders

Ways we will explore to increase our ESG impact even further

	<p>01 Environment</p>	<p>To invest in eco-friendly equipments and carbon-negative hosting</p>
	<p>02 Social</p>	<p>To introduce affordable packages tailored for small and medium enterprises to drive digital inclusion</p>
	<p>03 Governance</p>	<p>To adopt international standards such as GDPR for enhanced data security and privacy</p>



ESG

Overview



ESG Deep Dive Environment

In our endeavor towards supply chain sustainability, we strive to have the best conduct in environmental metrics. Sustainability begins within our own company’s premises, where we uphold and implement green practices across company operations.



What we want to do better

To align our IT strategy with environmental goals through **eco-friendly equipment and hosting**. We plan to invest in energy-efficient laptops and carbon-negative hosting solutions to reduce digital carbon footprint. We also plan to implement an **e-waste recycling program**, ensuring that unused devices are disposed of responsibly or refurbished for extended use.

- **Fully remote operations**
We prevent emissions from daily commuting, and eliminate energy consumption from office electricity, heating, and cooling by having no physical office space
- **Paperless practices**
We deploy full digital workflow with digital signature platforms and cloud-based document management
- **Low-emission travel**
We prioritize train travel over flights, and encourage employees to use public transportation or carpool for local business travel
- **Sustainability education**
We provide workshops for employees, including hands-on training in waste management, sustainable procurement, and responsible resource consumption



Certifications

As part of our commitment to sustainability, we implement standardized frameworks for accurate emissions tracking through our solutions. We are also working to attain certifications to elevate our credibility in environmental measurements – further strengthening impact and validity for the businesses that use our carbon tracking tools.

Current Frameworks

Measurement and Verification (MnV) Standards

In partnership with TÜV Nord

Methodologies and frameworks used to accurately track, report, and validate greenhouse gas (GHG) emissions and emission reductions. These standards provide a structured approach for businesses to ensure their carbon accounting is reliable, consistent, and verifiable – including application in carbon offset programs and emission reduction initiatives to confirm impact.

MRV (Monitoring, Reporting, and Verification) System

In partnership with Ecoxytem

Structured frameworks designed to accurately track, document, and validate greenhouse gas (GHG) emissions, carbon reduction efforts, and sustainability performance. These systems ensure that environmental data is measured accurately and reported transparently for regulatory compliance – deployed in corporate ESG reporting, emissions trading systems (ETS), carbon tax compliance, and sustainability disclosures.

Future Certifications

To be issued by the International Organization for Standardization (ISO):



01

ISO 14064 – Greenhouse Gas Measurement & Verification

A structured framework for measuring, reporting, and verifying greenhouse gas (GHG) emissions in line with global climate goals. By leveraging this certification, we can offer businesses more accurate carbon reporting tools, helping them track emissions, comply with regulations, and implement decarbonization strategies.

Automa/Certifications

Certifications

Future Certifications



02

ISO 14001 – Environmental Management Systems

Certifies that an organization has an effective environmental management system (EMS) that meets international sustainability standards. By obtaining this certification, we can strengthen our environmental policies, ensuring our solutions help businesses implement more sustainable supply chain practices.

03

ISO 14001 – Environmental Management Systems

Certifies that an organization has an effective environmental management system (EMS) that meets international sustainability standards. By obtaining this certification, we can strengthen our environmental policies, ensuring our solutions help businesses implement more sustainable supply chain practices.

04

ISO 9001 – Quality Management Systems

The international standard for quality management systems (QMS), ensuring that products and services meet consistent quality benchmarks. Achieving this certification will allow us to enhance reliability and operational excellence, ensuring businesses benefit from high-quality, efficient, and scalable supply chain solutions.

To be issued by the the Global Reporting Initiative (GRI):

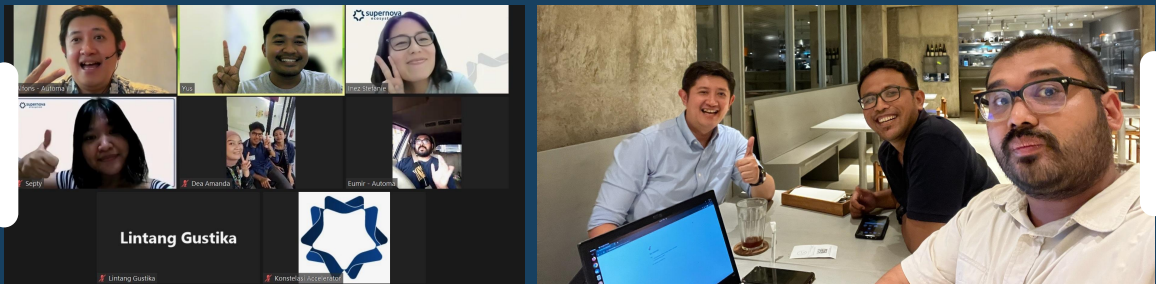


01

GRI Software and Tools Certification

Ensures compliance with the Global Reporting Initiative (GRI) framework for sustainability and ESG reporting. With this certification, we will enable businesses to generate transparent, standardized ESG reports, helping them align with global sustainability disclosure requirements.

What's Next



Looking ahead

Looking ahead, Automa remains focused on advancing technology-driven solutions that enhance efficiency, transparency, and sustainability in supply chain management. Our next steps include expanding sustainability tracking and reporting tools, enabling businesses to monitor emissions comprehensively and implement effective decarbonization strategies. To further strengthen supply chain traceability and compliance, we are actively exploring blockchain technology, Open API integration, and pallet tracking capabilities, ensuring seamless data flow and operational optimization.

To support businesses in achieving their decarbonization goals, Automa is developing a suite of AI-driven emission reduction tools. These include the AI Decarbonization Advisor for strategic sustainability planning and compliance, along with NodeWatch, EcoTrack, and GreenPath, which provide real-time carbon monitoring and regulatory reporting capabilities. Additionally, our predictive maintenance systems will enable companies to detect inefficiencies, optimize resource usage, and reduce operational disruptions, ensuring a more sustainable and cost-effective supply chain.

We are also working on AI-powered analytics and an integrated API Black Box, which will streamline energy consumption tracking, detect operational bottlenecks, and enhance sustainability forecasting. The API Black Box will further secure and optimize data management, allowing businesses to make data-driven decisions with greater efficiency and interoperability. Meanwhile, our renewable energy monitoring solutions will help companies verify emissions reductions and track the long-term performance of renewable energy installations, ensuring continuous improvements in sustainability efforts.

As part of our commitment to driving sustainability and regulatory compliance, we are actively pursuing ISO 14064 certification, which will enhance our ability to measure, verify, and manage greenhouse gas emissions with precision. Additionally, our integration with Global Reporting Initiative (GRI) certification will provide businesses with comprehensive ESG metric disclosure capabilities, ensuring they align with global sustainability frameworks and reporting standards.

Collaboration will continue to be a key driver of impact. Working alongside industry leaders, government institutions, and sustainability-focused organizations, we aim to expand the adoption of digital supply chain solutions that promote eco-friendly business practices. Additionally, we are developing public transit solutions that incorporate gamification and incentives for sustainable commuting, encouraging eco-conscious employee behavior while optimizing emissions tracking in transit systems.

Looking ahead, Automa's vision is to set new standards for efficiency and sustainability in supply chain management. By integrating AI, blockchain, renewable energy tracking, and enhanced data analytics, we are creating a future where businesses thrive while maintaining environmental responsibility. Our goal is to align profitability with sustainability, ensuring that businesses are not just prepared for today's challenges but are also resilient, data-driven, and sustainable for the future.





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