Give every 'thing' its own ID so it connects with the world

SATO has always worked to enhance the quality of data acquired through tagging to better meet the needs of our customers and society.

In the 1960s, our hand labelers helped streamline price marking, making work less laborious for retailers. [Manual tagging]

In the 1980s when point of sales (POS) systems became prevalent, we developed the world's first thermal transfer barcode printer to print durable, high-quality labels for accuracy and labor savings. [Machine-assisted tagging]

With the digital revolution in the 1990s, there were new connectivity needs, and we began offering standard solutions of hardware, consumables, scanners and software to help businesses collect

traceable data and optimize operations, saving resources and providing reassurance. [DCS & Labeling: streamlining customer operations]

Come the 2010s, the advent of the Internet of Things (IoT) made way for RFID tags and sensors, which allowed our solutions to collect dynamic status data that helped customers meet the needs of ever-more complex supply chains and enable sustainable practices and emotional connections.

Today, the issues businesses face are more complex and far-reaching than ever. We will address them with more advanced tagging — Perfect and Unique Tagging — to contribute to well-being and give every 'thing' its own ID so it connects with the world.



Businesses now face bigger and more complex challenges

As the world constantly changes with increasing complexity, companies today face many challenges that they cannot solve alone. Take food waste, for example. About a third of food produced worldwide is discarded, according to a 2019 United Nations study, and reducing wasted food is essential in ensuring sustainable production and consumption. Sustainable Development Goal 12 aims to halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains by 2030. The onus is on companies that are involved in food production, distribution and sale to help solve this global issue, and they can only do so by collaborating across the supply chain. In developed countries, labor shortages are affecting the service industry and threaten to impact production volume and quality. This calls for companies to innovate operations with automation and digital transformation. There are also geopolitical risks that disrupt supply chains and impact operations, forcing companies to take a global perspective as they diversify their supply chains and manage risks.

The complex nature of today's problems defies traditional approaches, requiring industries and societies to find solutions together. SATO can play a part with our tagging technology, which we will keep innovating to meet the needs of an ever-changing world.



We deliver solutions for bigger and more complex challenges

Conventional tagging gives products an ID at the batch level. The ID requires manual scanning that may be semi-automated at best. Perfect and Unique Tagging, on the other hand, is about giving individual items a unique ID to track conditions like temperature, humidity or location beyond a single worksite and over entire supply chains spanning industries and countries. It also expresses a state in which the item-level information can be read automatically without scanning, and logged quickly and accurately.

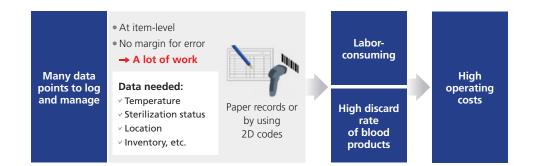
For example, a beverage product of the same flavor and size would take the same ID. But with blood products, each blood bag needs its own unique ID containing information about the donor, blood type, condition and how it was processed. Perfect and Unique Tagging seeks to automate the accurate logging and managing of this data without human intervention, to allow tracking across the entire supply chain — from collection sites to blood centers and hospitals — for greater efficiency and patient safety. While solutions like this are currently used only in health care with high-value products, we will continue to innovate and lower the cost of the technology to expand it to other markets and applications.

Conventional tagging		Conventional tagging, advanced	Perfect and Unique Tagging			
Identification	Product-level	Item-level				
Reading	Manual/semi-automated	Semi-automated	Fully automated			
Data use	Within worksite	Across supply chain				
Examples		Blood bag with unique ID (RFID)				

What SATO can do for blood supply chain management

Current pain points

Blood transfusion involves registering donors and their blood at collection sites and processing it at blood centers before it goes to patients. Blood products require not only information about the donor but other data as well, such as processing status, storage temperature and expiry date, as each blood component needs to be managed under different conditions. This data needs to be logged accurately because it is critical to patient safety. Also, data logging should be simple enough to not burden busy medical professionals.



The solution: Perfect and Unique Tagging

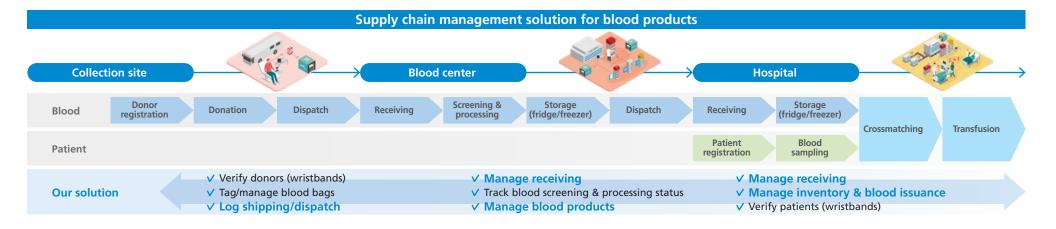
Drawing on our industry expertise, SATO has successfully automated blood product management over a certain supply chain spanning collection sites, blood centers and medical institutions using our own printers and PJM RFID labels in combination with third-party technology such as readers and temperature loggers. This solution minimizes human error while speeding the handling process to raise the quality of blood products and the safety of patients. It also tracks inventory in real time, allowing efficient use of blood products to reduce wastage.

A blood center in Asia has deployed our blood management solution. With the know-how gained in this project, we are looking to port the solution to other markets and countries.



Innovating through peripheral technologies and more

Tagging still relies on people to read the state and data of tagged items, so we are working on a new technology that would obtain and make decisions on such data to fully automate the process. We also seek other ways to identify and track items through peripheral technologies, R&D, M&As, capital partnerships and cocreation.



Our mission is "to create new value for our customers through products and services of superior guality, and to contribute towards a better and more sustainable world." As sustainability is inseparable from our business, we have established a basic policy to ensure we do our part for society through our business.

Basic policy for sustainability

1 Create value	Sustainability goes hand in hand with customer value creation and corporate value enhancement, which we consider the fundamentals of company management.
2 Keep to our business	We achieve sustainability through our business.
3 Make it duplicable	Our sustainability initiatives shall be duplicable over time or across the group.
4 Align with the actual situation	The actual situation of our business operations shall reflect our ideas for sustainability.
5 Enhance disclosure	We shall disclose sustainability-related information to fulfill our accountability to stakeholders.

See our sustainability policy web page for details.

Basic concept

We drive CSR, ESG and SDGs initiatives to achieve sustainability through our business.

In 2019, we conducted a materiality assessment to identify sustainability issues most material to our business and stakeholders. We set up a Sustainability Promotion Committee, which, since April 2022, reports to our executive team to enable close collaboration in formulating sustainability policies and action plans. Through this committee, we contribute to supply chain optimization and society with our business offerings, support the circular economy and decarbonization in our operations, manage human capital, preserve the environment and drive other sustainability efforts in line with our business strategies.

In pursuing sustainability practices to realize our mission, we will discuss with and seek advice from external experts and organizations when necessary. We will also build a stronger sustainability management framework to help us make faster decisions in response to societal changes.

Materiality overview

We identify our materiality agendas by their relevance to three areas: A. Our value proposition, B. Fundamentals of our value creation, and C. Environmental responsibility. These areas stand on the foundation of corporate governance and risk management.

See our materiality assessment web page for details.

A Our value proposition		B Funda our va	C Environmental responsibility		
Stock loss control Productivity improvement		Talent development	Diversity & inclusion	Greenhouse gas emissions	
Safety & security Eco-friendly products		Stakeholder engagement	Supply chain management	Efficient use of resources	
Safety & qual	lity assurance	Workstyle innovations	Harmony with society	Harmony with nature	
		Human rights & labor practices	Health & safety at work		

D Corporate governance, risk management

- A What we aim to offer through our core business to help customers cope with societal challenges Page 12 What we pursue
- ^B What we undertake internally/externally to enable the continuous creation of customer value
- C What we do to protect the global environment where we live and do business
- D Underlying foundation Page 22 Governance

B Fundamentals of our value creation

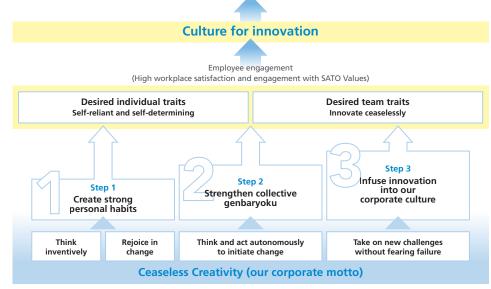
Human capital management

We believe in the importance of cultivating a culture of innovation to create customer value, address societal challenges and raise our corporate value sustainably.

Our employees have developed strong personal habits of thinking inventively and rejoicing in change in their daily work. When the entire organization thinks and acts autonomously to initiate change, it strengthens our core competency of genbaryoku, and when employees take on new challenges knowing what is expected of them and their team, it promotes the exchange of diverse perspectives and values to spark innovation. We invest in human capital, hoping to infuse innovation into our corporate culture.

The HR Development Committee established under our Nomination & Remuneration Advisory Committee looks into fostering key employees, ensuring diversity and crafting different human capital management strategies, helping us make decisions and put them into action.

Achieving company mission and vision



See our **HR policy & strategy** web page for details.

Intellectual property management

SATO provides customers with products and services to meet their operational needs. Intellectual property we produce in the process is inseparable from our business and valued as a business resource that keeps us competitive. Through our Intellectual Property (IP) Department, which reports directly to the Group CEO, we engage in company-wide and cross-functional activities to create intellectual assets that help enhance and grow business in our stride toward realizing our medium-term management plan. We are also eager to produce IP that supports technological innovations as part of our strategic investment in seeking long-term growth. In our innovation process, we started performing and providing IP landscapes,* taking actions to strategize how we create intellectual assets for competitive differentiation and grow our IP portfolio both in and outside Japan. By using IP to protect and leverage the value we deliver for society, we aim to create a better and more sustainable world and grow business to raise our corporate value over the long term.

* Analysis of patent and market data used by companies to understand their strengths and market positioning and to make informed decisions about their corporate and business strategies.

See our IP policy & strategy web page for details.

C Environmental responsibility

Greenhouse gas emissions

Reducing carbon dioxide and other greenhouse gas emissions that cause global warming is essential to contributing to a sustainable world and the continuity of our business. We have set medium- to long-term targets with the aim of halving carbon dioxide emissions in operations groupwide from FY 2016 levels by FY 2030.

We plan to expand use of renewable energy and promote energy efficiency and conservation. Considering the risks climate change poses to water security, we will also strengthen how we manage water resources and provide disclosure on sustainability efforts with transparency.

Our progress in reducing emissions									
(Metric tons of									
Area	Key indicators	FY 2016 results	FY 2021 results	FY 2022 results	FY 2023 results	FY 2030 targets			
Groupwide	Scope 1 and 2 emissions	11,931	10,252	8,709	12,188	5,965			
	Relative to FY 2016	_	Down 14.1%	Down 27.0%	Up 2.2%	Cut by 50%			
Japan	Scope 3 emissions	299,300	332,652	314,271	318,269	232,856			
	Relative to FY 2021	_	_	Down 5.5%	Down 4.3%	Cut by 30%			

Scope 1 covers direct emissions from company-owned sources (e.g., emissions associated with fuel combustion or industrial processes). Scope 2 covers indirect emissions from the consumption of purchased energy including electricity, heat and steam. Scope 3 refers to emissions indirectly linked to the company through its value chain; it includes all sources not within Scope 1 or 2. Overseas data excluded Scope 1 emissions prior to FY 2023.