

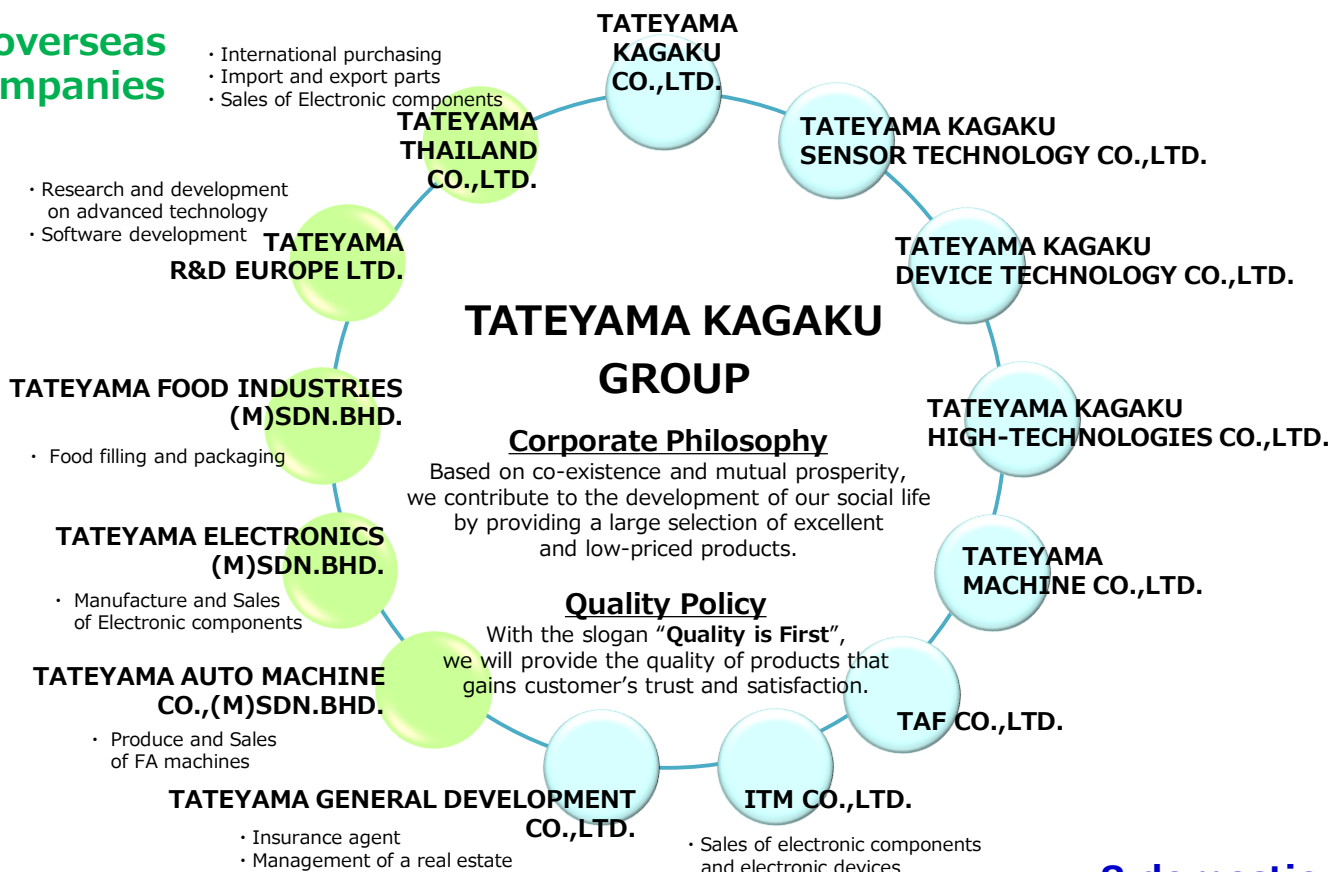
**TATEYAMA**®

We will continue to challenge  
as a company shining like aurora  
with advanced technology.

# Group Profile

TATEYAMA KAGAKU GROUP consists of 8 domestic companies and 5 overseas companies, and is focusing on design, development, manufacturing and sales of many kinds of electronic components, electronic devices, factory automation equipments, precision machined parts, software development and services, new energy system and so on.

## 5 overseas companies



## 8 domestic companies

Company Name (Group representative) TATEYAMA KAGAKU CO., LTD.

Founded May,1958

Representative Shoichiro Mizuguchi, Chairman  
Katsuhito Mizuguchi, President

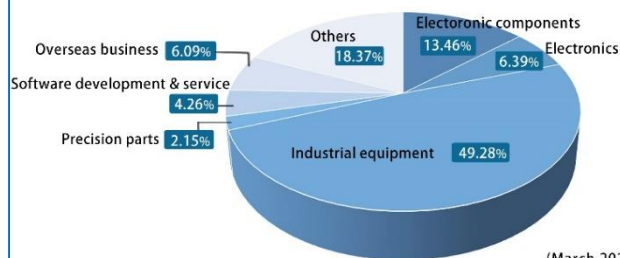
### Group data (March,2020)

Capital 1.28 Billion yen

Net Sales 36.4 Billion yen

Number of Employees 1,302

### Ratio of Net Sales by Industry Segment



## Electronic components



Temperature sensor



Resistor

## Electronics



Measuring devices



Wireless devices

## Industrial equipment



FA solutions



Energy Solutions

## Precision parts



Precision processing parts



Research & Development

## Software development & service



System solution



other

TATEYAMA KAGAKU GROUP offers effective solutions by utilizing our unique advanced technology in various fields.



System solution

# TATEYAMA KAGAKU CO.,LTD.

Provide digital solutions in various fields and distinctive product lines

Company Name TATEYAMA KAGAKU CO., LTD.

Founded Aug, 1958

Representative Katsuhito Mizuguchi, Representative Director & President

Head Office 1583 Oizumi, Toyama-shi, Toyama 939-8058, Japan  
TEL : +81-76-421-0125 FAX : +81-76-492-4573

Outline of Business Sales of in-house software package, watching-over service and so on.  
Provision of consistent services from planning and development to operation and maintenance of various system integration.

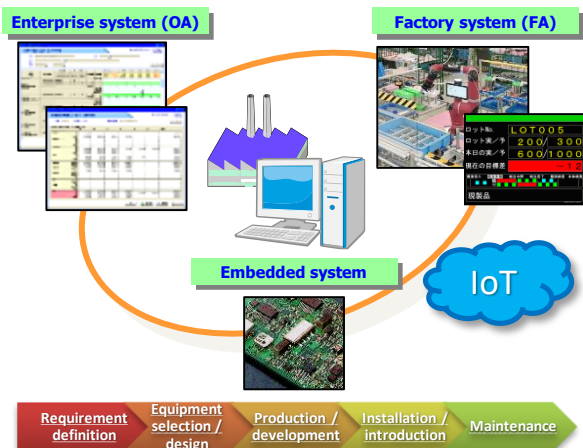


We are an innovation company that provides cutting-edge solutions for society, industry and lifestyle based on two core business, IT solution business and home network solution business.

## DIGITAL SOLUTION BUSINESS

We provide various systems and technologies to our group companies. Typical ones are Business management system and Manufacturing management system, systems integration technology cultivated through Automation control development.

### Extensive system development capability



We provide **one stop solution** including not only software but also hardware such as equipment selection, production and installation.

### Our own products with features

#### Security Filing System "SFS"



This electric document management system ensures easy-to-use operability and high security, and can flexibly respond to customer's operation rules.

**A lot of this system has been introduced to insurers and law firms.**

#### Car License Plate Recognition system "BANCHO"



This high-performance license plate image recognition system expands the scope of activities to many fields such as Security, Customer satisfaction improvement, Marketing.

**Our recognition rate of 99% is top class in the industry. (Under our environment)**

#### 360-degree Panoramic Annular Lens "PALNOR"



This is a panoramic lens that can capture a uniform image of 360 degrees without distortion by special lens processing. 360 degree shooting is possible in all directions thoughtfully.

**With our own patent as a core technology, you can see clearer images.**

## WATCHING-OVER SERVICE BUSINESS

We developed a unique "watch solution" that combines the IT equipment and human ware, contributing to the safety and security development of the local community.

### Provide peace of mind regarding the safety of the elderly by IOT

**Since 2002, our elderly watching services utilizing the human sensor has provided peace of mind to 27,000 people living alone in 200 local governments.**

#### Emergency call service

This service makes emergency calls to a 24-hour center using an emergency call device, and contacts the fire department or related organizations according to the situation.

#### Health consultation service

This service is available 24 hours a day for professional staff to provide users with health, life consultations and heart troubles.

#### Safety confirmation service

Emergency call system reports to call center automatically when our unique human sensor detects users' less activities.

#### Emergency call system

Main device to watch the elderly living alone



#### Human sensor

Sensor that provides an easy-to-use mechanism for the elderly

#### Tateyama Consultation Center (Call Center)



Consultation Center which can respond to users' health, life consultation, heart trouble etc. 24 hours a day, 365 days

# TATEYAMA KAGAKU SENSOR TECHNOLOGY CO., LTD.

The largest sales share of Si sensors in Japan



Temperature sensor

Company Name TATEYAMA KAGAKU SENSOR TECHNOLOGY CO., LTD.

Founded April, 2011

Representative Iwao Hayashi, Representative Director & President

Head Office 1583 Oizumi, Toyama-shi, Toyama 939-8058, Japan  
TEL: +81-76-420-5144 FAX: +81-76-420-5362

Outline of Business Manufacture and Sales of Temperature sensors and Thermistor Probes

We offer a wide range of temperature sensors that contribute to safety, security and environment based on materials, processing and automation technology. And we have the significant market share of highly reliable Si sensor developed with our original technology and mounted on gas stove burner.



### BEAD-TYPE ELEMENT

- High heat resistance and high reliability by simultaneous calcination of pt wire and thermistor materials



### BULK-TYPE ELEMENT

- High accuracy and high reliability
- Applicable for miniaturization as  $\phi 0.5 \sim 2.3$



### BARE CHIP ELEMENT

- For normal temperature
- High accuracy and withstand voltage

Utilizing the performance of the bead-type element, the bulk-type element, and the bare chip element, we will design and manufacture for various applications

Temperature measurement and temperature sensing element **realize high accuracy and high reliability** to meet customer's needs

## TEMPERATURE CONTROL WITH HIGH ACCURATE AND HIGH RELIABLE THERMISTORS IN VARIOUS FIELDS

**Sensor for Catheter Type**

**Sensor for Gas Stove**

**Sensor for Induction Cooker**

**Sensor for Rice Cooker**

**Sensor for Boiler · bidet toilet**

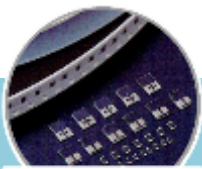
**Sensor for Construction Machinery**

**Sensor for car · HEV**

**Sensor for Air Conditioner**

**Sensor for Fan Heater**

**Sensor for New energy · HEV · Solar**



Resistor

# TATEYAMA KAGAKU DEVICE TECHNOLOGY CO., LTD.

Over 20 years of experience with technology requiring ultra-high reliability

Company Name TATEYAMA KAGAKU DEVICE TECHNOLOGY CO., LTD.

Founded April, 2011

Representative Kazumasa Tanikawa, Representative Director & President

Head Office 3-6 Tsukioka-machi, Toyama-shi, Toyama 939-8132, Japan  
TEL : +81-76-429-5805 FAX : +81-76-429-6630

Outline of Business Manufacture and Sales of Resistors and Electronic components

We manufacture and sell highly reliable components based on our unique technology of thick and thin films utilizing our expertise in manufacturing components since the foundation of TATEYAMA KAGAKU INDUSTRY CO., LTD.

We acquired IATF16949 (Quality management system for the automotive industry), and our products are adopted for automotive components.

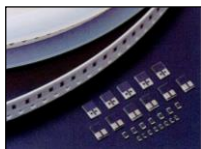
### GENERAL DEVICES

- Chip resistors
- Chip resistor networks
- ESD protection devices (ESD varistor)



### AUTOMOTIVE DEVICES

- IATF16949 Certified
- Chip thermistors

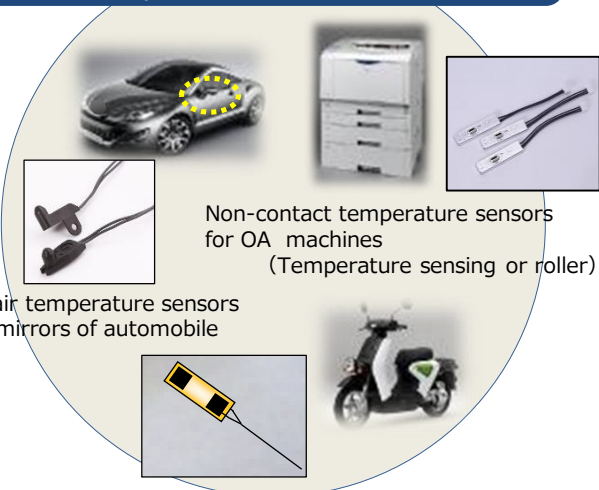


High mechanical strength using thick film technology

Short lead time supply

**High reputation in many fields**

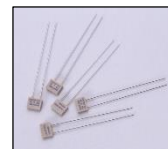
### CHIP RESISTOR/CHIP THERMISTOR ARRANGEMENT



Chip resistor  
JAXA Qualification 2007



Chip thermistor  
JAXA Qualification 2010



Thermistor with lead wire  
JAXA Qualification 2011



Surface mount type fuse  
JAXA Qualification 2013



Lead type thermistor  
JAXA Qualification 2016



Used for electronic equipment installed in satellites, space stations, rockets, transfer vehicles



# TATEYAMA KAGAKU HIGH-TECHNOLOGIES CO., LTD.

Contributing to IoT with wireless and temperature technologies



**Company Name** TATEYAMA KAGAKU HIGH-TECHNOLOGIES CO., LTD.

**Founded** July, 2019

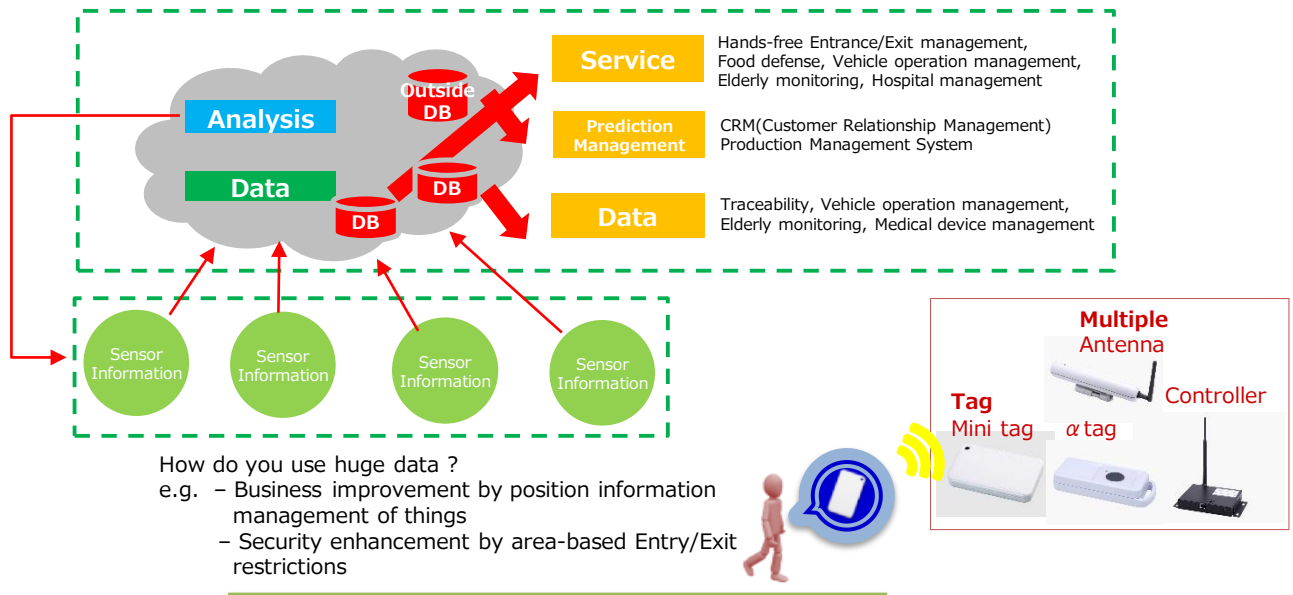
**Representative** Mikio Sugibayashi, Representative Director & President

**Head Office** 3-6 Tsukioka-machi, Toyama-shi, Toyama 939-8132, Japan  
TEL : +81-76-429-4403 FAX : +81-76-429-6044

**Outline of Business** Development, Manufacture and Sales of Wireless devices.  
Solution business based on positioning information using RFID devices.  
Circuit board assembly, Unit assembly, Manufacture and Sales of Measuring devices.

We contribute to IoT with a total solution by development and manufacturing technology of wireless devices powered by ODM for many years in the field of security and telemetering which require high reliability, using RFID and camera etc.

In addition, in the fields of high-precision thermometers, temperature measurement and control, and test equipment (Melt indexer), we offer customization that can be applied to various applications of customers.



**We'll make your request "real"**  
There are many products by TATEYAMA KAGAKU CO., LTD.

**Temperature control solution**  
We'll respond with technologies based on measuring devices and radiation thermometers.

**Security system**

Communication unit

Transmitter with passive sensor

**RS-485 Wireless unit applied to -Modbus-**

**Remote monitoring system Remote control system**

Pendant-type transmitter

Transmitter with temperature & humidity sensor

**Measuring device**

**Thermometer**

High-precision thermo recorder "Precy"

Pocketable multi-mode thermometer

Infrared thermometer

High accuracy and precision Melt indexer

Used by many resin manufacturers High precision and high reliability to meet demand

**Test equipment**



FA solutions

# TATEYAMA MACHINE CO., LTD.

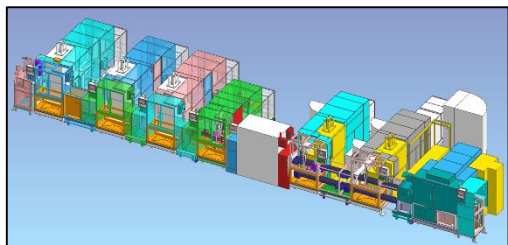
Manufacturing capabilities to provide ONE STOP SOLUTION

Corporate Name TATEYAMA MACHINE CO., LTD.  
 Founded April, 1970  
 Representative Kaneyoshi Miyano, Representative Director & President  
 Head Office 30 Shimonoban, Toyama-shi, Toyama 930-1305, Japan  
 TEL : +81-76-483-4123 FAX : +81-76-483-4014  
 Outline of Business Proposal, Design and Manufacture of FA systems, OEM of Precision machines, and Industrial equipments by own original technology

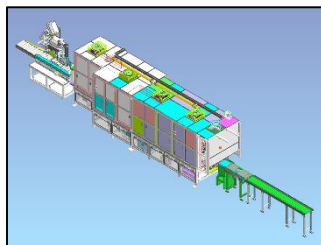
We propose FA Solutions based on our unique core technologies of Image processing, Sensing, Nanotechnology and so on, and provide manufacturing solutions by consolidated technology of hardware & software from proposal to manufacture.

## FA SOLUTION BUSINESS (SFA Division)

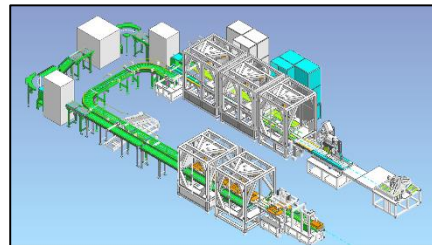
- Develop and manufacture automation system for manufacturing process of electronic components, automotive parts, medicines and so on.
- Provide ONE STOP SOLUTION from proposal of optimum production system to design, manufacturing and service.



<Automobile related system>



<Medical related system>



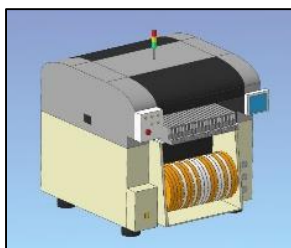
<Food related system>

## EQUIPMENT OEM BUSINESS(DMS Division)

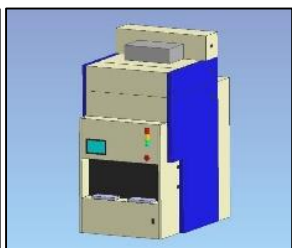
- Design and manufacture FA equipment based on Contract manufacturing
- Capable to mass-produce small to large equipment in a clean environment

### Performance

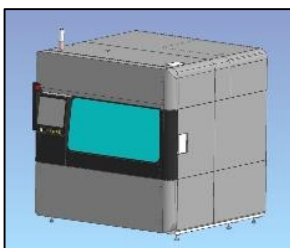
Electronic component mounting machine /  
 Electronic component inspection system  
 Semiconductor mounting machine /  
 Semiconductor manufacturing equipment /  
 Semiconductor inspection system  
 Inspection system for Printed circuit board  
 LCD panel manufacturing equipment /  
 LCD panel inspection and repair system  
 Various kinds of clean system and precision machine



<Electronic component mounting machine>



<Semiconductor manufacturing equipment>



<Tablet Printer with Inspection function>

**Possible to support product-design and joint-development**

## PRODUCT DEVELOPMENT BUSINESS(Business Promotion Department)

- Development and manufacture of Medical products (Ultrasonic therapy device, Infrared-ray therapy device and so on)
- Development, Manufacture and Sales of Laboratory instruments, Gene related products and Plasma system (Atmospheric pressure plasma)
- Offer of Metal nano-colloids and Nanocomposite materials



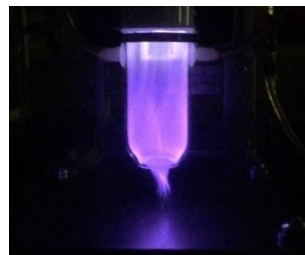
<Metal nano-colloids>



< Ultrasonic therapy device >



<Turbidity detector>



< Atmospheric pressure plasma >



<Nanocomposite materials>



# TAF CO.,LTD.

Challenge to the top of manufacturing by precision machining technology



Precision processing parts

Company Name: TAF CO.,LTD.  
 Founded: May,1987  
 Representative: Motoji Takamura, Representative Director & President  
 Head Office: 3-30, Tsukioka-machi, Toyama-shi, Toyama 939-8133, Japan  
 TEL : +81-76-429-6225 FAX : +81-076-429-6654  
 Outline of Business: Manufacture of Precision parts by cutting (Parts for robot, semiconductor equipment, aircraft)



"Wisdom and ideas are endless"

We will respond to customers with wisdom and improvement capability and will also contribute to the aircraft industry important for Japan.



## STRENGTH

- Quality assurance  
We guarantee high reliability parts with a rich set of measuring instruments and temperature controlled environment.
- Proposal-type manufacturing for cost reduction and process improvement
- Both mass production and high-mix low-volume production



## PROCESSING OF PRECISION MECHANICAL PARTS

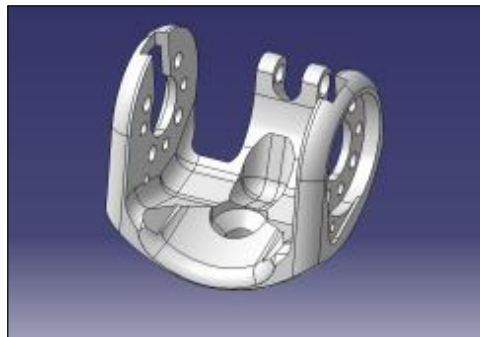
- Precise parts are processed using precise machines in temperature controlled environment
- Acquired JIS Q 9100: 2016 & JIS Q 9001: 2015 (BSK) license required for manufacturing aircraft parts

### Processing Item

- General machine parts
- SUS, Aluminum
- Large scale of processing (Casting, Canning)
- Sheet metal processing
- Various surface treatment

### Processing Material

- Aluminum Alloy
- Stainless Steel (SUS304・316)
- Steel
- Cast Metal (FC・AC)



3D model diagram of processed sample A7075(Aluminum)



Quality Assurance Center



## HIGH-PRECISION EQUIPMENTS POSSESSED



5 axis horizontal type machining center H30i-32PLS



5 axis horizontal type machining center H40i-24PLS



Horizontal machining center YBM800N-5PLS



## HIGHEST QUALITY WITH RELIABLE VERIFICATION

Reliable verification by utilizing software systems



CAD data verification and correction



Create NC data



NC data verification

# Global Business

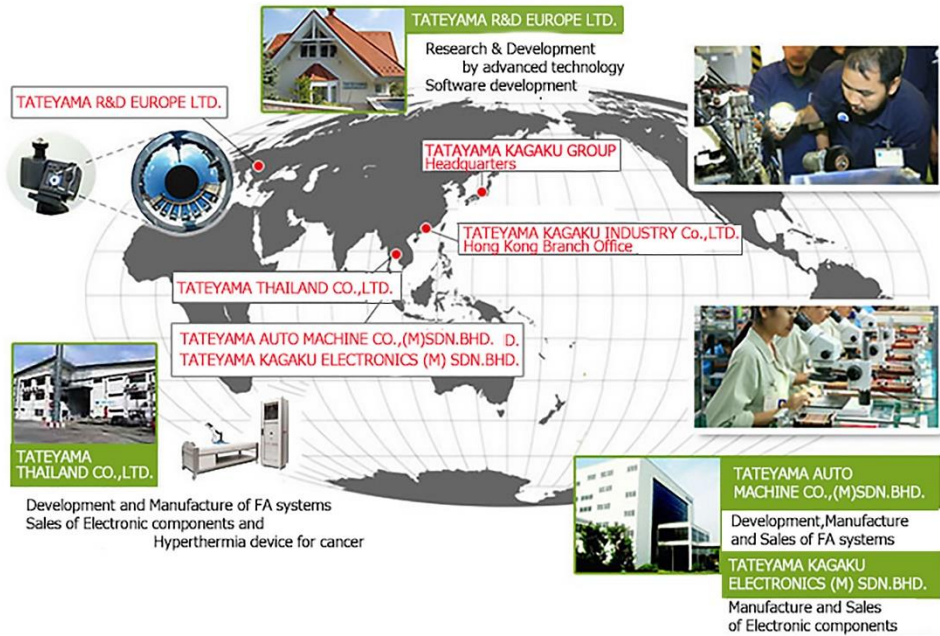
Driving globalization seeking potential markets

TATEYAMA AUTO MACHINE CO., (M) SDN.BHD was founded in Malaysia in 1988, and then TATEYAMA KAGAKU ELECTRONICS MALAYSIA SDN. BHD. was founded in 1994 to develop the business of FA systems and electronic components in Southeast Asia and China.

TATEYAMA R&D EUROPE LTD. was founded in 1997. Collaboration with Hungary attracted a lot of attention as it was a rare case as a Japanese company.

In 2002, Hong Kong branch was founded as sales base and TATEYAMA THAILAND CO., LTD. was founded in Thailand.

TATEYAMA KAGAKU GROUP will continue to proactively expand global business in order to develop distinctive technologies and solutions and to approach potential markets.



# Environment

Efforts to reduce environmental impact

## Environmental activities

We will promote environmental activities toward the realization of a sustainable society with the philosophy of "co-existence and mutual prosperity" with the global environment.



## ISO 14001 certification

8 domestic companies of TATEYAMA KAGAKU GROUP (excluding sales base) are certified under ISO 14001 Environmental Management System.



TATEYAMA AUTO MACHINE CO., (M) SDN.BHD. and TATEYAMA KAGAKU ELECTRONICS (M) SDN.BHD. are certified under ISO 14001 Environmental Management System independently.

## Basic principle

TATEYAMA KAGAKU GROUP recognizes that the protection of the global environment is one of the highest business priorities and makes the management mission "co-existence and mutual prosperity" with the environment and "contribution to the development of our social life", maintaining and improving the environment with utmost care and effort.

## Behavioral guideline

TATEYAMA KAGAKU GROUP recognizes that business activities, products and services will significantly affect to the global environment, and contributes to the protection of the global environment and the realization of a sustainable society by preventing pollution and continuously improving the environmental management system.

## TATEYAMA KAGAKU GROUP

### Headquarters

30 Shimonoban, Toyama-shi, Toyama  
930-1305, Japan  
TEL:+81-76-483-4012 FAX:+81-76-483-4014



### South plant

3-6 Tsukioka-machi, Toyama-shi, Toyama  
930-1305, Japan  
TEL:+81-76-429-3588 FAX:+81-76-429-6630



### Oizumi plant

1583 Oizumi, Toyama-shi, Toyama  
930-8058, Japan  
TEL:+81-76-421-0125 FAX:+81-76-492-4573



### Tokyo branch office

6F Kanda91 bldg.  
1-8-3 Kaji-cho, Chiyoda-ku, Tokyo  
101-0044, Japan  
TEL:+81-3-5256-0721 FAX:+81-3-5256-0728

### Osaka office

6F Osaka-ekimae Dai3 bldg.  
1-1-3-600 Umeda, Kita-ku, Osaka  
530-0001, Japan  
TEL:+81-6-6346-1236 FAX:+81-6-6346-1237

### Nagoya office

2F Tosho bldg.  
1-16-5 Mikawaanjo-cho, Anjo-shi, Aichi  
446-0056, Japan  
TEL:+81-566-71-1008 FAX:+81-566-71-1007

### Hong Kong Branch office

Rm B1, 17/F, World Tech Centre,  
No.95 How Ming St., Kwun Tong, Kowloon, Hong Kong  
TEL:+852-3152-2872 FAX:+852-3152-2867

# TATEYAMA KAGAKU GROUP

<https://www.tateyama.jp/eng/>

TATEYAMA KAGAKU CO., LTD.

TATEYAMA KAGAKU SENSOR TECHNOLOGY CO., LTD.

TATEYAMA KAGAKU DEVICE TECHNOLOGY CO., LTD.

TATEYAMA KAGAKU HIGH-TECHNOLOGIES CO., LTD.

TATEYAMA MACHINE CO., LTD.

TAF CO., LTD.

ITM CO., LTD.

TATEYAMA GENERAL DEVELOPMENT CO., LTD.

TATEYAMA AUTO MACHINE CO., (M) SDN.BHD.

TATEYAMA KAGAKU ELECTRONICS (M) SDN.BHD.

TATEYAMA FOOD INDUSTRIES (M) SDN.BHD.

TATEYAMA R&D EUROPE LTD.

TATEYAMA THAILAND CO., LTD.