TOYODA GOSEI

Company Profile

Pursuing the possibilities of polymers, we will contribute to a future of better mobility and living

Toyoda Gosei was founded in 1949, and over more than 70 years has provided high functioning, high quality products and services based on synthetic rubber and plastics and associated mixing technology. This is done in conjunction with various stakeholders involved in development, engineering, procurement, production and sales. Our company name includes the word "*gosei*" ("synthesis") from a philosophy of creating new things using our main materials, and that mindset has continued today.
The automotive industry is currently going through a period of huge transformation with advances in electrification, autonomous driving and other areas. As management, we must steer a very difficult course in opaque and uncertain circumstances where the future is difficult to predict, amid changing human values, deepening environmental and social problems and geopolitical risks.
Our company creed is "**Boundless Creativity and Social Contribution**" and with this as our cornerstone we will adapt greatly and take on challenges while continuing to value the polymer-based assets in many forms that have been built up by our predecessors.

These cultivated assets are not limited to the fields of technology, products, control technology and the like, but also include our deeply rooted corporate culture.
Like the hexagonal benzene molecule that symbolizes our company, various molecules (= individuals) come together and are linked organically. Chemical reactions of ideas and creativity occur and an organization is structured that changes flexibly according to the environment. We also have ties with other organizations (all stakeholders) and grow expansively.
To further develop this kind of culture, we will adapt to whatever changes occur in the business environment and take these changes as opportunities. We want people to think, "Toyoda Gosei is fascinating, don't you think?" and "They will surely do something good for us."

The Toyoda Gosei Group harnesses the power of 40,000 employees in 62 Group companies in 16 countries and regions under our slogan of "**One Team, One TG.**" We have and will continue to deliver satisfaction to customers in the form of safety, comfort, well-being, the environment and decarbonization to enrich transportation and people's lives.

Management Philosophy

Boundless Creativity and Social Contribution

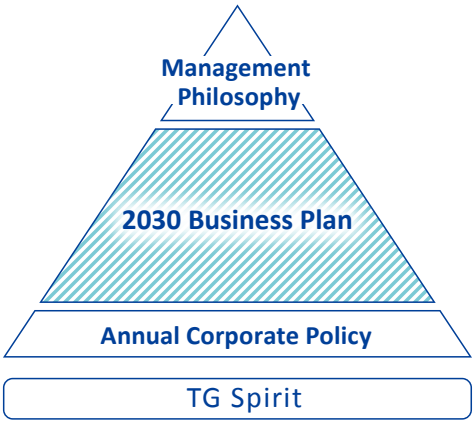
1 Good corporate citizenship
2 Proper business operation
3 Sustainable growth
4 Customer satisfaction
5 Conservation of global environment and resources
6 Respect for the individual

Contents

Medium- and Long-Term Business Plan (2030 Business Plan)

Toyoda Gosei has formulated its 2030 Business Plan as a medium- and long-term business plan to achieve sustainable growth into the future, through the provision of social value corresponding to the changes in mobility in society.

We aim to be a "company that pursues the possibilities of polymers to contribute to a future of better mobility and living." We will deliver to society the values of *safety* centered on automotive safety systems, *comfort* based on interior and exterior automotive products, and *decarbonization* through new businesses using polymer materials.



[Vision for the company]

Become a company that pursues the possibilities of polymers to contribute to a future of better mobility and living.

[Delivered value]

Safety	Comfort	Decarbonization
Through safety systems	Through interior & exterior components	Through new businesses for polymer materials

[Basic policy and priority measures]

Basic Policy

Focus on fields that balance social value and economic value.
(business portfolio restructuring)

Priority measures

- **Structural reforms aimed at growth in priority businesses, regions, and customers**
  (expand sales in safety systems, interior/exterior, and materials businesses to regional automakers in North America, India, and China)
- **Forge strategic alliances to accelerate growth globally and strategically reinforce development and intellectual properties (IP)**
- **Revamp management with a "polymer-like organization" that organically binds people and the organization**

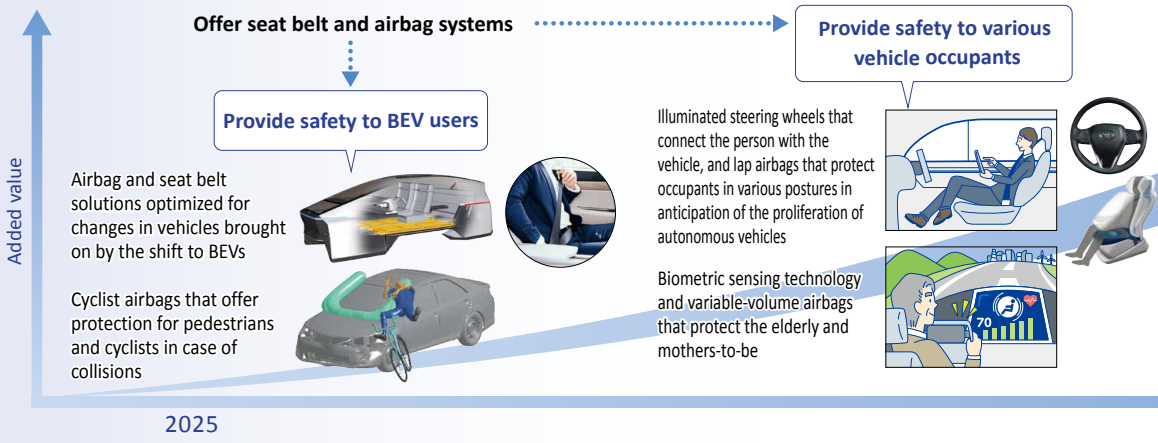
[FY2030 financial objectives]

Revenue	Operating profit	Operating profit ratio	ROE
¥1,200.0 bn	¥100.0 bn	8%	10%

◆ Medium- and Long-Term Business Plan (2030 Business Plan)

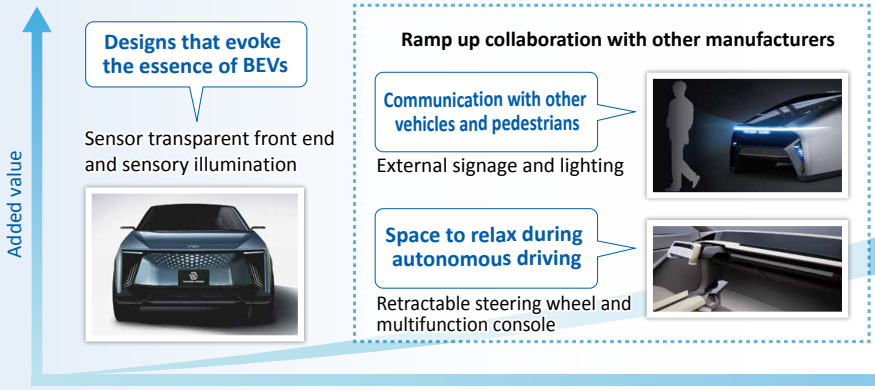
Safety

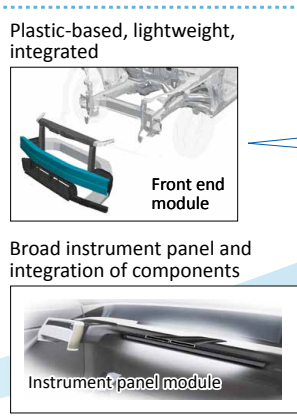
Toyoda Gosei will contribute to a reduction in traffic fatalities by providing airbags and seat belts that correspond to the changes in vehicle structure as society transitions to battery electric vehicles (BEVs). We will also develop and provide more advanced passenger protection products that are adapted to the changes in sitting postures with the spread of autonomous driving.



Comfort

Toyoda Gosei provides new BEV-like functions by combining interior and exterior products with safety systems or illuminated products. We also innovate vehicle design and structure with polymer technology to achieve new mobility.

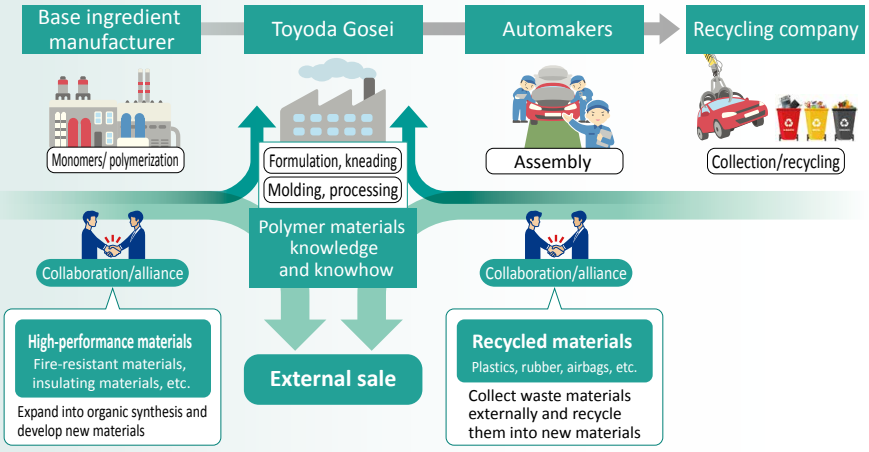




Decarbonization

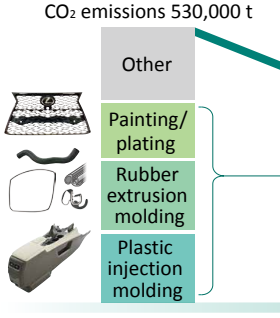
Commercialization of Materials

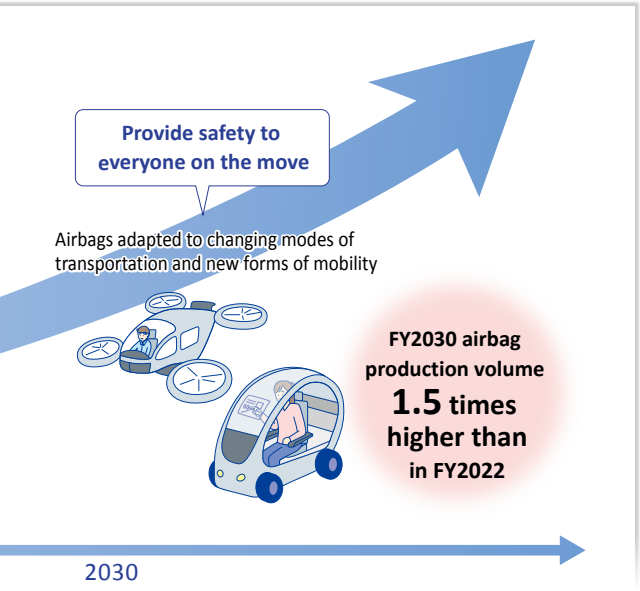
We are capitalizing on our knowledge of polymer materials to develop high performance materials and promote recycling. Moreover, by selling the developed materials and technologies outside the company, we also contribute to decarbonization and a recycling society.

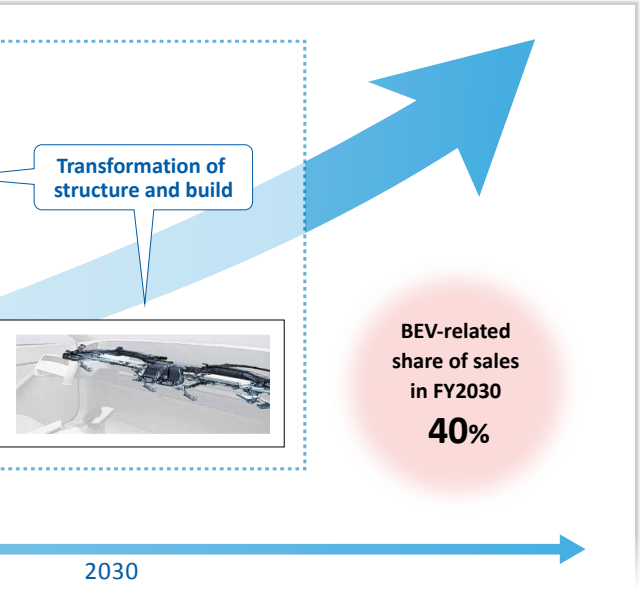


Carbon Neutrality

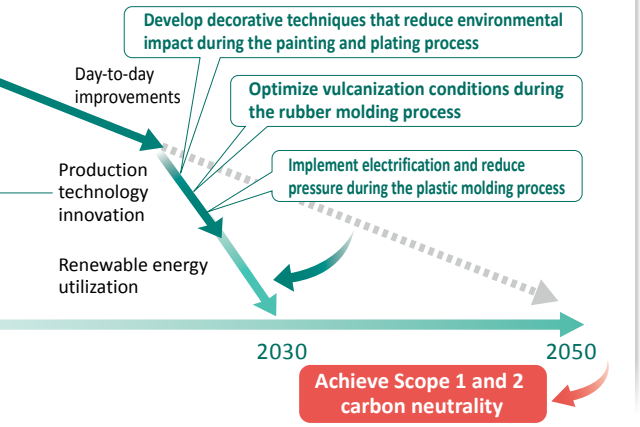
Carrying out not only day-
tions to accelerate reduc-
We have brought forward
and will provide CO_2-free







to- day improvements but also production technology innova-
tions in energy use.
the year to achieve Scope 1 and 2 carbon neutrality to 2023,
high value-added products.



Expansion of Scope of Contribution

We are expanding our range of not only automotive products but other types of products as well to provide social value to many people. For that purpose, we are strengthening our use of CVC and our system to create new value for the early realization of new business.

Deployment of corporate venture capital (CVC) + **Repeat a cycle of rapidly generating ideas and ascertaining their commercial viability**

Healthcare


UV-C space disinfectors


Smart insoles

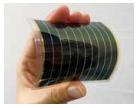

Blood sugar measurement devices

Energy


Hydrogen tanks


GaN power devices


Microwave electricity supply


Perovskite solar cells

2025 2030

Invigoration of People and Organizations

To promote the 2030 Business Plan, we are making efforts to energize people and organizations. To deal sensitively with environmental changes, we are working to create a dynamic corporate culture and personnel.

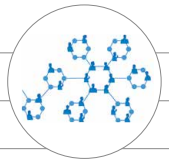
Strengthening of organizational structure
(transition to dynamic polymer-like organization)

- Draw out the individuality, vitality, and strengths of each individual and bring together creativity and potency through organic bonding.
- Strengthen connections with internal and external organizations.
- Customize structure to flexibly adapt to environmental changes.
- Make our management team the catalyst, get work done faster, and maximize results.

Self-fulfillment for each individual
(embrace change without fear of failure)

Enhancement of employee engagement
(establish safe spaces and stages upon which to shine)

Management style transformation



Strategy and execution speed improvements
(sensitivity and swift responses to changes in environment)

- Enhance strategic planning and speed up decision-making by establishing a CxO (chief officer) system (execute strategy, and launch lead organizations for BEVs and recycling).
- Adopt a management approach based on regional autonomy to better serve priority markets.
- Tap the enthusiasm and energy of each region by setting up CoEs*.

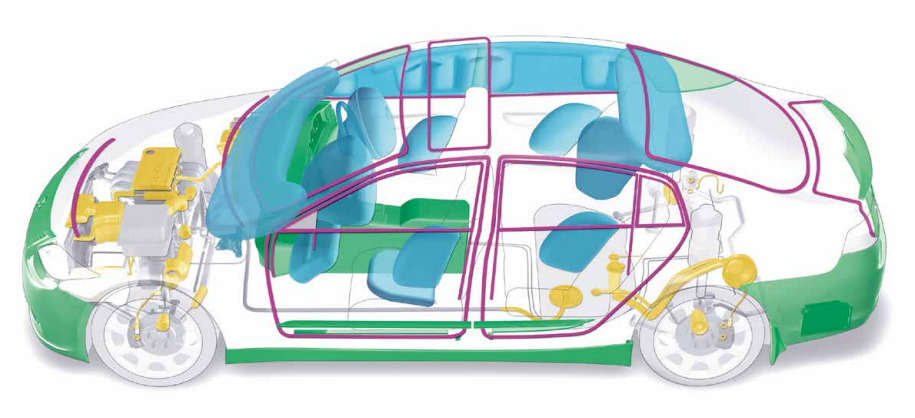
* Propagate the CoE (center of excellence) concept to translate the strengths of each region into global success.

Examples: Thailand's low-cost, energy-saving production automation technology
Techniques for developing and promoting locally recruited personnel in China and North America

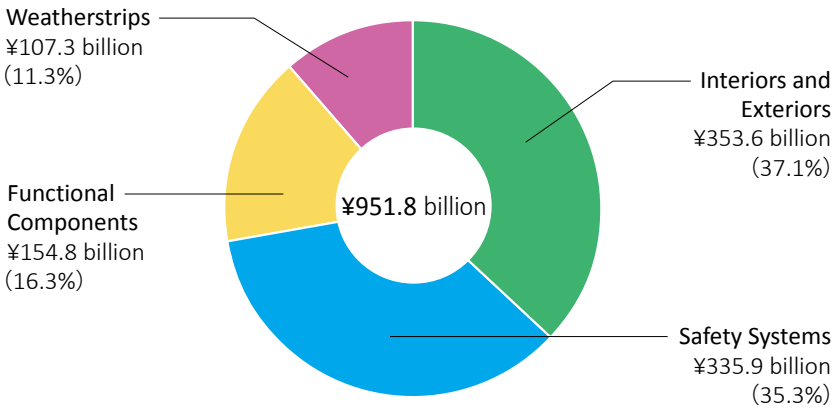
Products

We develop and produce rubber and plastic automotive parts.

With integrated manufacturing systems from development to production, Toyoda Gosei provides various products that contribute to the creation of safe and comfortable automobiles.



Revenue by Product Area in FY2022
(sales ratio in parentheses)



Automotive Parts

Weatherstrips

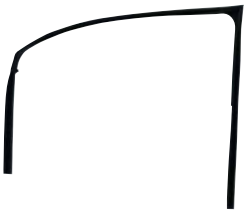
Functional Components

Interiors and Exteriors

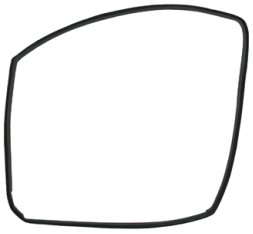
Safety Systems

Other Products

LEDs



Door glass runs



Opening trim weatherstrips

Plastic fuel filler pipes

Plastic turbo ducts

Brake hoses

High pressure hydrogen tanks

Instrument panel modules and components

Radiator grilles

Console boxes

Airbags

Steering wheels
(with built-in airbags)

Pop-up hood actuators

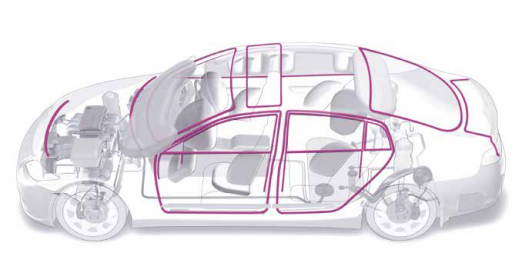
Air purifiers
(general industry products)

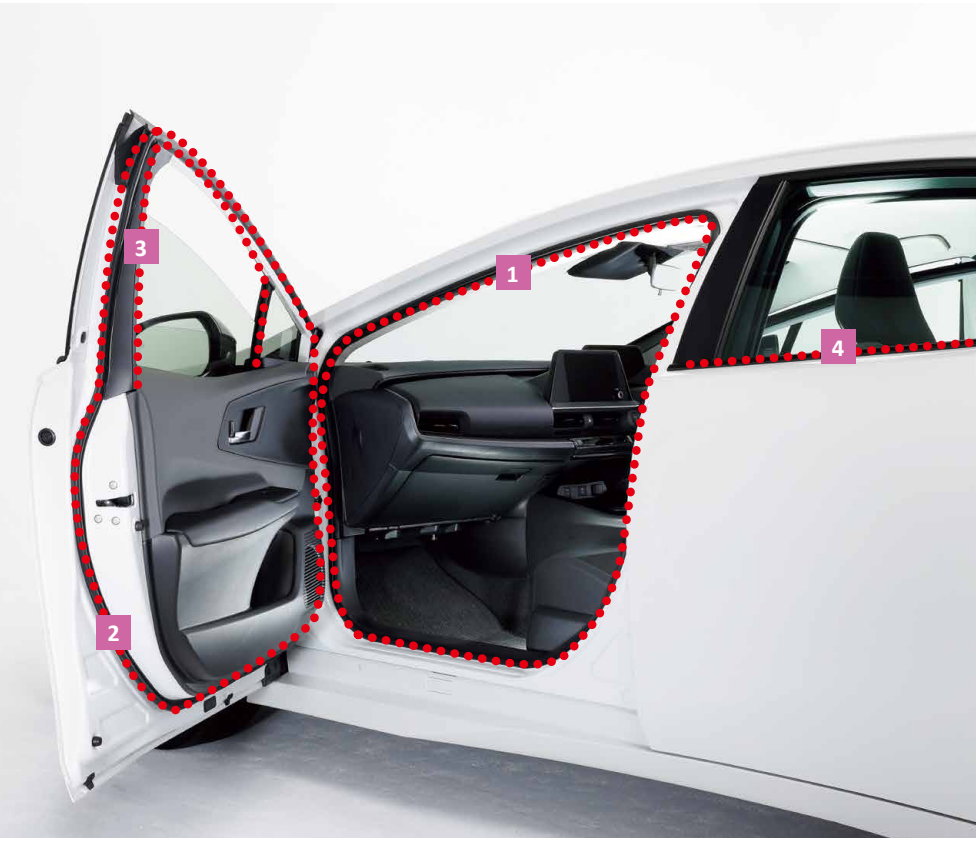
e-Rubber products

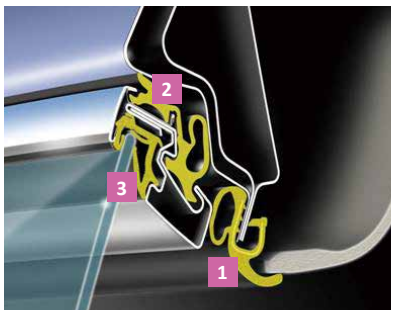
Re-S eco-brand

Weatherstrips

Weatherstrips seal the gaps at door frames and window frames to keep out wind, rain, and noise. These products are essential for comfortable cabin interiors.



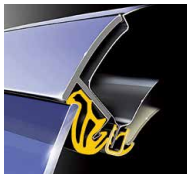


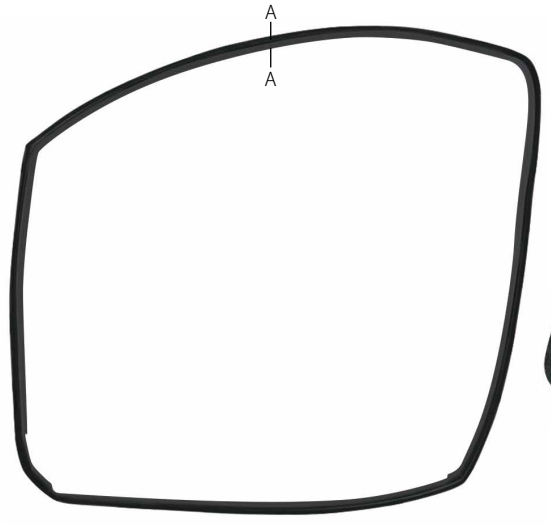


Hidden door


Frame door

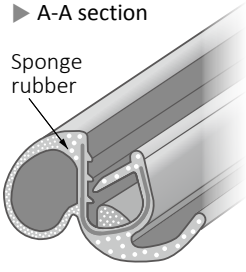

Stamped door


Frameless door



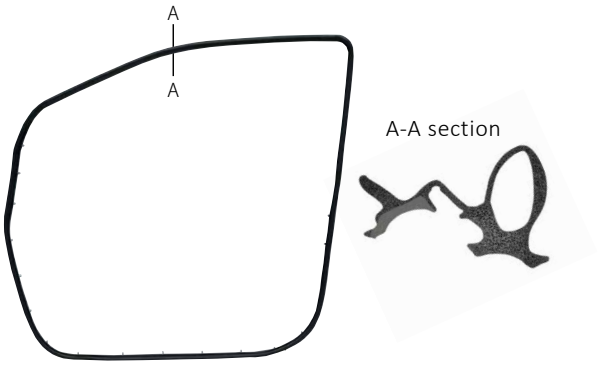
A-A section

▶ A-A section

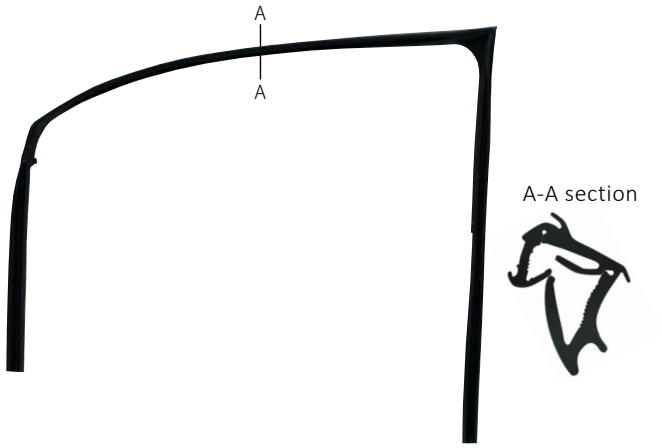


1 Opening trim weatherstrips

Sponging processes for rubber using our materials development and production technology reduce weight by about 30%.

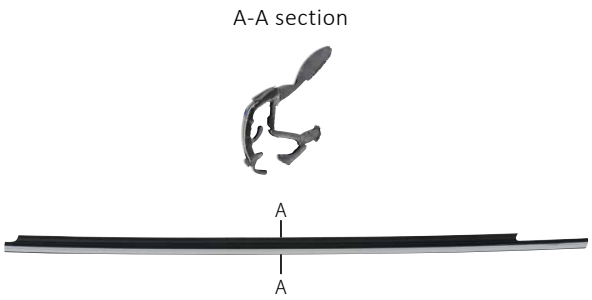


2 Door weatherstrips

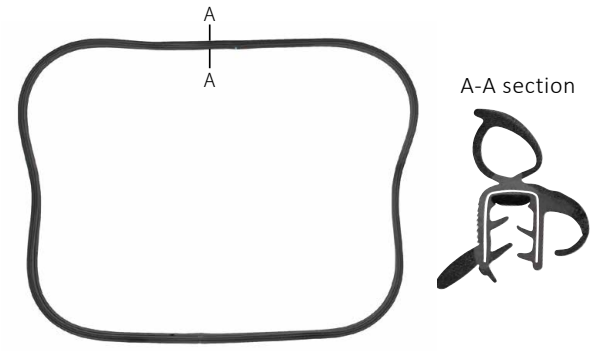


3 Door glass runs

Weight is reduced by about 30% with the use of a mixed material of rubber and plastic that has lower specific gravity.



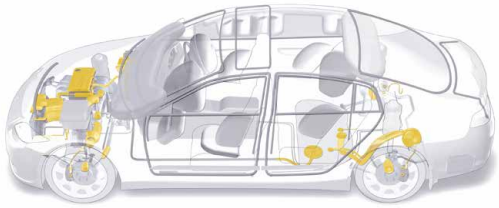
4 Outer weatherstrips



5 Luggage weatherstrips

Functional Components

These rubber and plastic components support the basic vehicle functions of driving, turning and stopping. Toyoda Gosei technology ensures quality for these key safety-related parts.

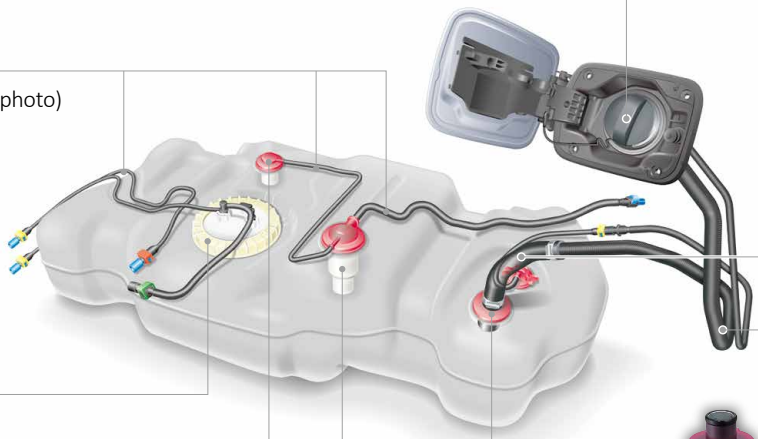


Fuel Tank Peripheral Parts

Fuel hoses and tubes
(engine-side hose included in photo)

Fuel filler caps

Capless fuel fillers



Fuel filler hoses

Locknuts/pump gaskets

Inlet check valves

Cutoff valves

Fill limit vent valves

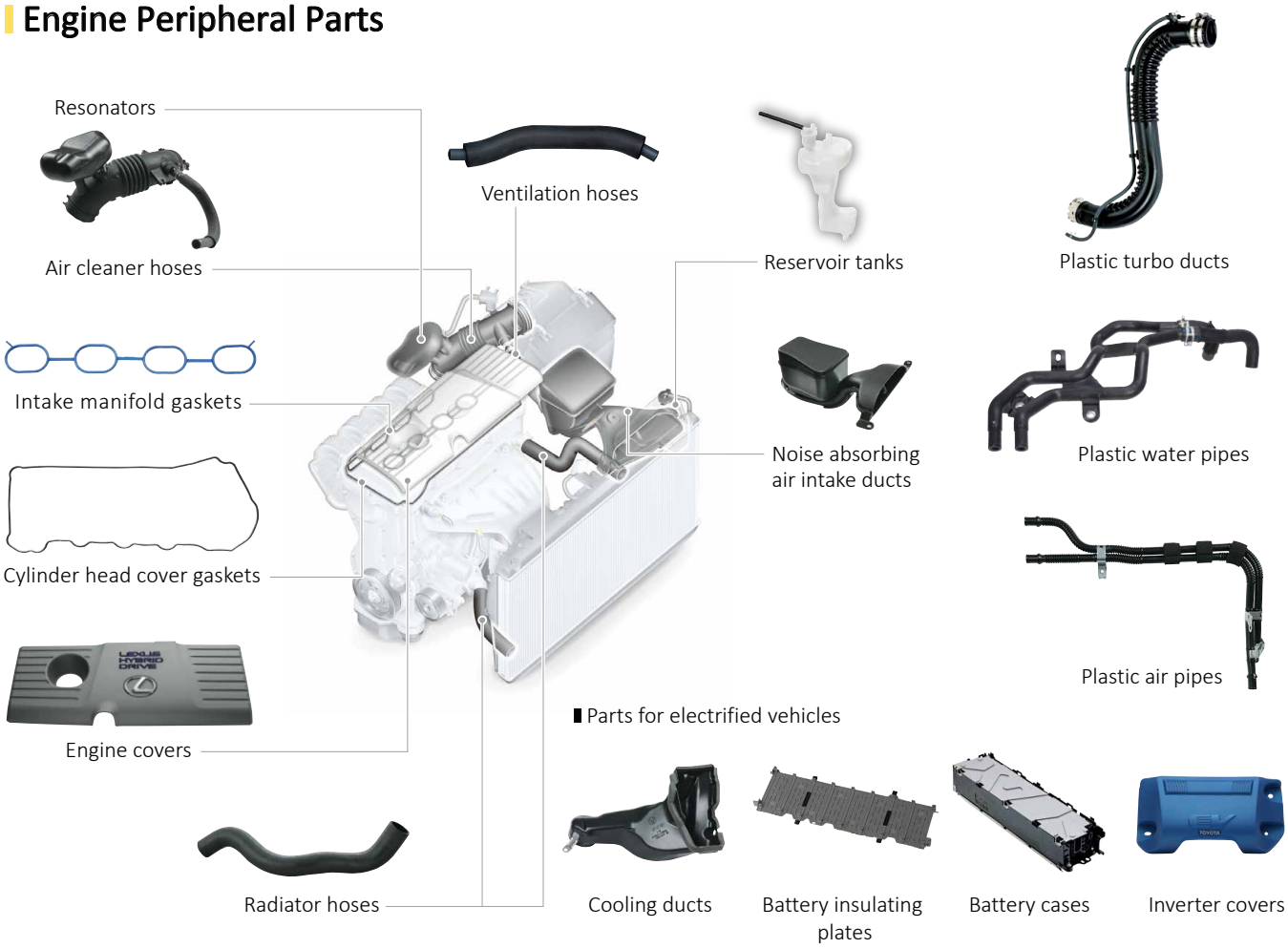
High pressure hydrogen tanks

One of the main components of fuel cell electric vehicles (FCEVs). Hydrogen is compressed at high pressure (about 700 atm) and efficiently stored.

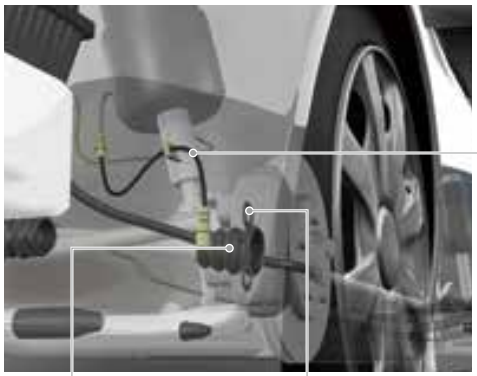
Plastic fuel filler pipes

Single-piece molding of sections with different characteristics (flexible, rigid, and straight sections) assures the strength of these pipes, while their multi-layer structure improves fuel resistance and durability. These technologies have made it possible to reduce weight by nearly 50% compared with previous metal pipes.

Engine Peripheral Parts



Chassis and Drive Train Parts

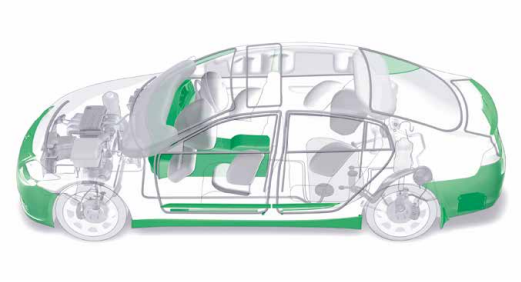


Brake hoses

These are crucial parts in vehicle braking, and must pass a durability test of more than 5 million repetitions.

Interiors and Exteriors

Interior and exterior parts contribute to comfortable and attractive cabin spaces and exteriors.



Interiors

Instrument panel modules and components

Ornamental panels

Registers

Console uppers

Cup holders

Glove compartments

Console boxes

Using traditional, pre-electronic Japanese technology, the console box lid opens and closes smoothly without the use of a motor. Wood-grain panels and leather impart elegance.

LED driver alert lighting system

Decorative lighting added to the function that alerts drivers using light. Contributes to the creation of a safe and pleasant moving space.

Compact wireless charging holder

By simplifying the charger structure, these holders are 60% smaller than previous products and can be installed in confined spaces.

LED graphic lighting

Patterns using light and shadow impart a fresh impression in vehicle cabins at night.

LED cabin lamps

LED lamp modules

Lighting illumination scuff plates

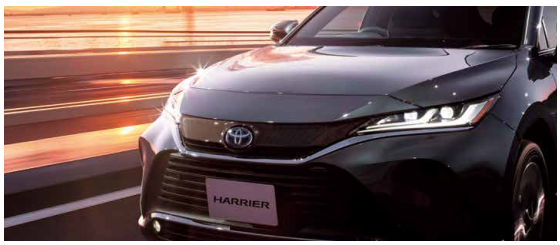
Front pillar garnishes

Assist grips

Exteriors

Radiator grilles

We satisfy all sorts of user design preferences with our decorative technology, such as plating and painting, and molding technology.

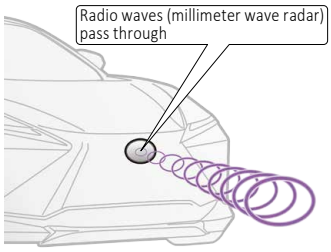


Back door garnishes

Rear spoilers

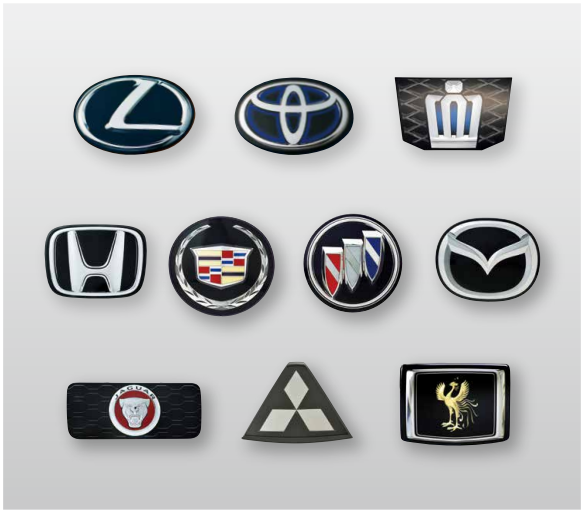
Luminescent millimeter wave compatible emblems

These new emblems are both transparent to millimeter wave radar and luminescent—a world's first.



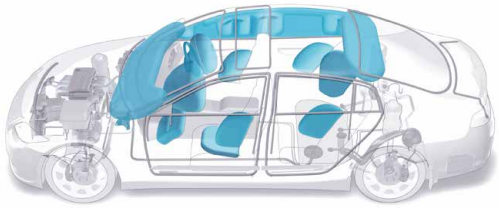
Emblem (when lit)

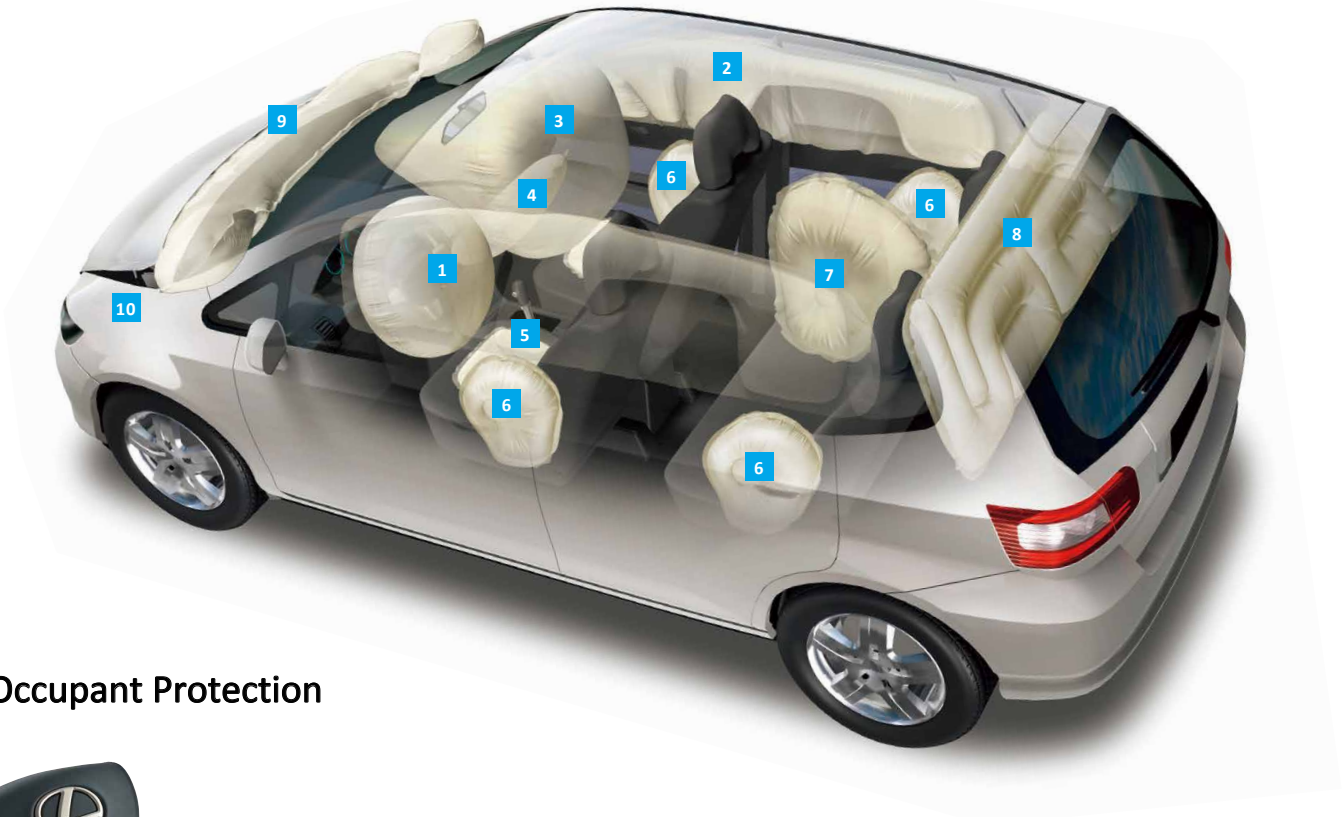
Millimeter wave compatible emblems



Safety Systems

With various types of airbags, we have achieved 360-degree full coverage to protect vehicle occupants from impacts at various angles. We also provide airbags that protect pedestrians and other products.





Occupant Protection

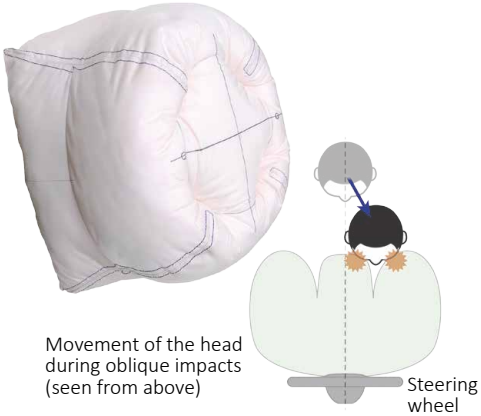
1 Driver-side airbags

2 Curtain airbags

These airbags, developed with the use of deployment simulations and other analysis and evaluation technologies, cushion impacts to the head during side collisions.

Driver-Side Airbags With New Structure

In addition to the conventional function of reducing the impact on the head and chest in collisions from the front, a donut-shaped indentation set in the spherical surface makes it possible to minimize head rotation when the bag inflates during an oblique collision.



3 Passenger-side airbags

4 Knee airbags

5 Seat cushion airbags

6 Side airbags

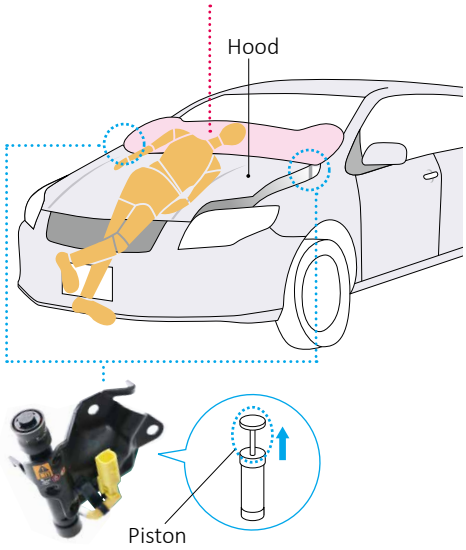
7 Rear-seat center airbags

8 Rear-end impact airbags

Pedestrian Protection

9 Pedestrian protection airbags

The front pillars and other rigid parts are covered with the airbag, mitigating the impact to the pedestrian's head and other parts of the body.



10 Pop-up hood actuators

These actuators lift the hood and widen the space between hood and engine, reducing head or other impacts to pedestrians.

Steering Wheels

Our lineup of attractively designed wooden, leather, and wood grain steering wheels are used by a wide range of customers.

LEDs

We are developing and selling UV-C (deep UV) LEDs that can eliminate viruses and bacteria and other LEDs with new added value.

Water purification | Space disinfection | Surface disinfection

UV-C LED modules

LED modules equipped with water-resistance and heat dissipation functions.

Water purification

Compact UV-C LED water purification units

Units equipped with UV-C LEDs for water purification. Can be set up in small spaces.

Space disinfection

UV-C space disinfectors

Bacteria and viruses captured in a filter are irradiated with deep UV rays to disinfect room air.

Desk lamps with HYPERSUNLIGHT LEDs

These desk lamps use HYPERSUNLIGHT LEDs that reproduce natural light with original technology. The blue light component is smaller than in conventional LEDs, making the light easier on the eyes. The light hue appears the same as that of bright, natural light.

Space disinfection

UV-C personal space disinfectors and deodorizers

These units have both deodorizing and disinfecting effects with the use of deep ultraviolet rays and photocatalyst. Lightweight (300 grams) and portable, with a convenient USB power supply.

Surface disinfection

UV-C high-speed surface disinfectors

More than 99.9% of viruses and bacteria on the top and bottom surfaces of smart phones and other small items are eliminated after just 7 seconds in the disinfector.

Surface disinfection

UV-C disinfection boxes

Small personal items such as breath alcohol testers and cell phones are disinfected with deep UV irradiation.

HYPERSUNLIGHT LEDs

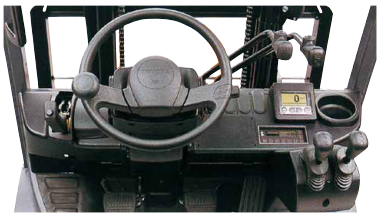
Access here for online store

General Industry Products

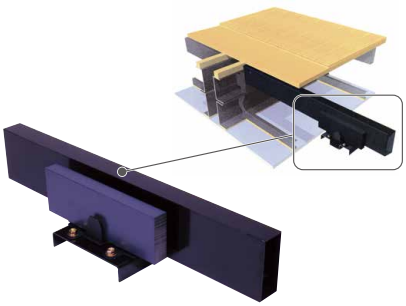
We have used our automotive parts and LED technology to develop and sell products in various other fields.

Air purifiers

We handle many different variations in function, design, color and more.



Interior and exterior products for agricultural, construction, and industrial machinery



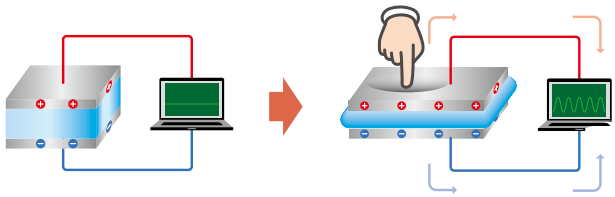
Dynamic dampers for houses

These products use vibration suppression rubber technology to suppress footstep sounds on upper and lower floors in houses and create a quiet, comfortable environment.

e-Rubber

Development of e-Rubber, a next-generation rubber that functions with electricity and mechanical force, continues to progress.

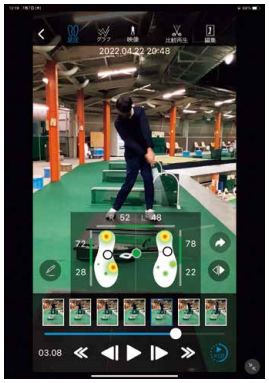
Sensor (mechanical force ➡ electrical signals)



Pushed/stretched out
(amount of electricity accumulated at the electrodes increases)

Example application

Smart insoles
(FEELSOLE)



These insoles provide visual representations of body movement during a golf swing (displayed on application screen).

Re-S Eco-Brand

As one part of our efforts to reduce waste, we have expanded to products that use remnants generated in the production of automotive parts such as airbags and steering wheels. These products are sold under the Re-S brand. “Re-S” was coined from the prefix “re-,” as in “reborn” and “recycle,” that is the start of environmentally-friendly activities, and also includes the meaning of sustainability (S).

Access online shop here

①Pen stand, pen case, and business card holder using real leather remnants and wood from forest thinning
②Tote bag using airbag fabric

Color tote bags that use seat belt material for the straps

Collaborative product with Ashimori Industry Co., Ltd., one of Toyoda Gosei’s business partners

Printed with artistic designs from Atelier Yamanami

Company History

Major Events

1949 Nagoya Rubber Co., Ltd. is established as a spin-off of the rubber research division of Toyota Motor Industry Co., Ltd.

Panoramic view of Nagoya Plant

1957 Haruhi Plant begins operation

1967 Inazawa Plant begins operation

1973 Company name is changed to Toyoda Gosei Co., Ltd.

1976 Morimachi Plant begins operation

1977 US Office is established in Illinois

1978 Company is listed on the Nagoya Stock Exchange

1980 Headquarters is relocated to present location (Kiyosu, Aichi Prefecture)

1982 Bisai Plant begins operation

1985 Capital participation in Tai-yue Rubber Industrial Co., Ltd.

Company wins Deming Prize for Total Quality Management

1986 TG Missouri Corporation is established

1997 Company obtains ISO 9001

Present Kitajima Technical Center is completed

1999 Company is listed on the Tokyo Stock Exchange

Company obtains ISO 14001

Toyoda Gosei North America Corporation is established

1950 — 1980

Development History of Major Technologies and Products

Rubber

1950 Weatherstrips

1953 Brake hoses

1959 Sponge rubber automatic molding technology

1961 Piston cups

1963 Flocked glass runs

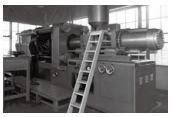
1977 Constant velocity joint boots

1982 Sound insulating glass runs

1997 New rubber recycling technology

Plastics

1954 Production technology for plastic injection steering wheels



Plastic injection steering wheels

1960 PP steering wheels

1964 Plastic-plated products

1967 Plastic radiator grilles

1974 Full instrument panels

1978 PP bumpers

1982 Plastic fuel filler caps

1989 Low-noise resistors

2000 Noise absorbing air intake ducts

1989 Steering wheels with built-in airbags

1998 Curtain airbags

New fields

1986 Start of R&D for blue LEDs

Study session led by Prof. Akasaki

1991 Success in development of blue LEDs is certified

1995 Mass production of blue LEDs

TOYODA GOSEI

In the Toyoda Gosei logo, red represents the courage to lead and blue represents intelligent technologies. The hexagonal motif is taken from the chemical depiction of the benzene ring (hexagon structure from which many polymers are derived).

2000 Toyoda Gosei Europe N.V. is established

2001 Toyoda Gosei Asia Co., Ltd. is established

2005 ISO /TS16949 certification

2006 Toyoda Gosei (Shanghai) Co., Ltd. is established

2008 Toyoda Gosei Minda India Pvt. Ltd. is established

2009 Miwa Technical Center is established

2013 Toyoda Gosei East Japan Co., Ltd. is established

GDBR Industria e Comercio de Componentes Quimicos e de Borracha Ltda. is established

2014 Toyoda Gosei Irapuato Mexico, S.A. de C.V. is established

2016 Bawal plant of Toyoda Gosei Minda India Pvt. Ltd. begins operation

2018 Gujarat plant of Toyoda Gosei Minda India Pvt. Ltd. begins operation

PT Toyoda Gosei Indonesia is established

2019 Hubei Toyoda Gosei Zheng Ao Rubber & Plastics Sealing Technology Co., Ltd. is established

Thai Binh plant of Toyoda Gosei Haiphong Co., Ltd. begins operation

2020 Inabe Plant begins operation

2021 Monterrey plant of TAPEX Mexicana, S.A. de C.V. begins operation

2022 Ohira Plant of Toyoda Gosei East Japan Co., Ltd. begins operation

Investment in Wuhan Binyu Auto Part Co., Ltd.

2010

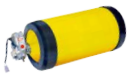
2003 Two-color molded opening trims

2003 Millimeter wave compatible emblems

2010 Lightweight opening trim weatherstrips

2017 Glass runs for flush surface door

2020 High pressure hydrogen tanks



2021 Cutoff valves with new structure

2022 Lightweight oil pumps

CNF-reinforced plastic

2008 Plastic fuel filler pipes

2002 Driver-side knee airbags

2014 Plastic water pipes

2015 Capless fuel fillers

2017 Large radiator grilles

2018 Air conditioner registers with LED lighting

2019 Plastic turbo ducts, Battery cases

2023 LED driver alert lighting system

Compact wireless charging holder

LED graphic lighting

Luminescent millimeter wave compatible emblems

2008 Rear-end impact airbags

2009 Rear-seat center airbags

2012 Pop-up hood actuators

2015 Steering wheels with warning function

2017 Steering wheels with grip sensor, New type of side airbags

2021 Pedestrian protection airbags

2001 White LEDs

2004 White side view packages

2007 Start of R&D for e-Rubber

2010 Start of R&D for GaN power devices

2014 Profs. Isamu Akasaki and Hiroshi Amano (Toyoda Gosei technical advisors) receive Nobel Prize in Physics

2019 Development with EBM Corp. of the SupeR BEAT heart surgery simulator that uses e-Rubber

2020 UV-C (deep UV) LEDs are confirmed to be highly effective in inactivating the novel coronavirus

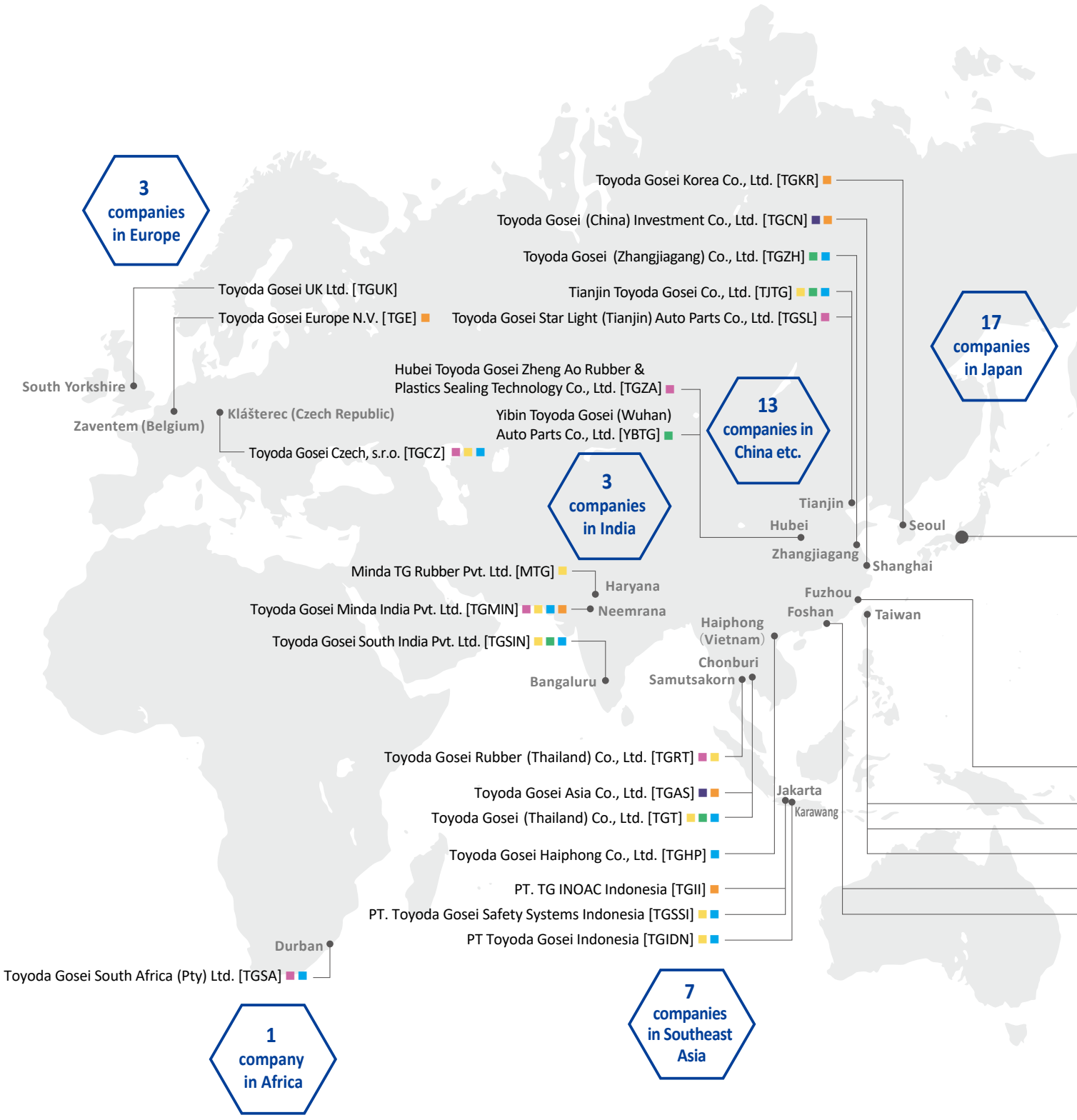
UV-C space disinfectors

2021 UV-C high-speed surface disinfectors

Global Reach

(As of July 31, 2023)

With 62 group companies* in 16 countries and regions, Toyoda Gosei swiftly meets the needs of customers around the world. We have established sales and engineering systems that are customer-oriented and community-based with globally optimal systems of production and delivery. *Companies for consolidation



Production/Function

- Weatherstrips
- LEDs
- Functional Components
- General Industry Products
- Interiors and Exteriors
- Regional Headquarters
- Safety Systems
- Sales / technical development

Company name abbreviations are shown in square brackets

Toyoda Gosei Co., Ltd.
Ichiei Kogyo Co., Ltd.
Toyoda Gosei Hinode Co., Ltd.
Hoshin Gosei Co., Ltd.
Toyoda Gosei Interior Manufacturing Co., Ltd.
Kaiyo Gomu Co., Ltd.
TG Welfare Co., Ltd.
TG Logistics Co., Ltd.
Tecno Art Research Co., Ltd.
TG Maintenance Inc.
TG Opseed Co., Ltd.
FTS Co., Ltd.
TGAP Co., Ltd.
TG-Techno Co., Ltd.
Chusei Gomu Co., Ltd.
Toyoda Gosei East Japan Co., Ltd.
Toyoda Gosei Kyushu Co., Ltd.

Fuzhou Fu-Yue Rubber & Plastic Industrial Co., Ltd. [FZFY]
Tai-yue Rubber Industrial Co., Ltd. [TY]
Fong Yue Co., Ltd. [FY]
TE Opto Corporation [TEOP]
Toyoda Gosei (Foshan) Rubber Parts Co., Ltd. [TGFR]
Toyoda Gosei (Foshan) Auto Parts Co., Ltd. [TGFP]

16 companies in North America

TG Kentucky, LLC [TGKY]
TG Automotive Sealing Kentucky, LLC [TGASK]
Toyoda Gosei North America Corporation [TGNA]
TG Personnel Services North America, Inc. [TGPS]
TGR Technical Center, LLC [TGRTC]
TG Fluid Systems USA Corporation [TGFSUS]
TG Minto Corporation [TGMINTO]
Toyoda Gosei Holdings Inc. [TGH]
Waterville TG Inc. [WTG]
Ontario
Quebec
Michigan
Kentucky
Missouri
TG Missouri Corporation [TGMO]
Texas
Matamoros
San Luis Potosi
Irapuato
Toyoda Gosei Irapuato Mexico, S.A. de C.V. [TGIMX]
Toyoda Gosei Automotive Sealing Mexico, S.A. de C.V. [TGASMX]
TAPEX Mexicana, S.A. de C.V. [TAPEX]
Toyoda Gosei Rubber Mexico, S.A. de C.V. [TGRMX]
Toyoda Gosei Texas, LLC [TGTX]
Toyoda Gosei Brownsville Texas, LLC [TGBTX]

São Paulo
GDBR Industria e Comercio de Componentes Quimicos e de Borracha Ltda. [GDBR]
Pecval Industria Ltda. [Pecval]

2 companies in South America

TOYODA GOSEI CO., LTD.

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