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TOREX
Torex...Powerfully Small!

FY2021-2025
Mid-Term Management Plan

February 15, 2021

TOREX SEMICONDUCTOR LTD.

Life is analog.

Torex power management ICs:
Supporting electronic devices in every field

Powerfully Small !

We aim to achieve a decarbonized society with CMOS power supply ICs and power devices.

In the past, present and future

The Torex Group has declared "preservation of the global environment" as part of its corporate philosophy, and we have positioned the development and production of compact, power-saving low-loss power supply ICs and power devices as its strength. Looking ahead, we will continue to leverage this strength in an effort to realize a decarbonized society.

Promoting GX: Green Transformation

What is GX at the Torex Group?
- Promoting power savings in electronic circuits and smaller mount boards
- Promoting low-loss power devices that minimize heat generation

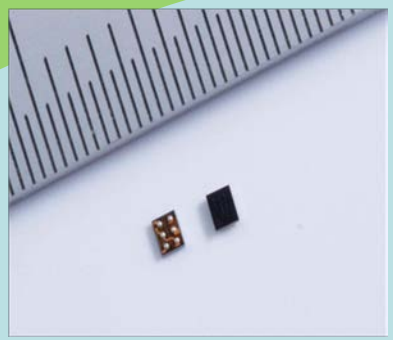
We aim to create a decarbonized society through these endeavors.

DC/DC Converters

Promoting of power saving electronic circuits

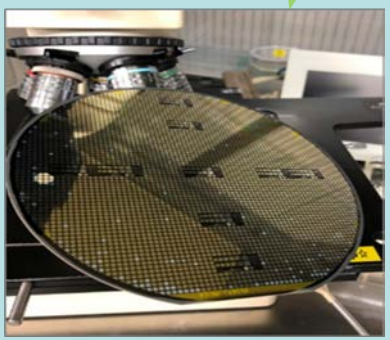
Small Packages

Smaller mount boards



Power Devices

Reduced loss with low ON resistance



Decarbonized Society

Becoming a Global Company Supporting GX with Semiconductors

From a company contributing to society with compact, power-saving technologies

CSR Action Policy

We endeavor to develop eco-friendly products, ensure stable supply and improve service. We strive to deepen mutual understanding with and enhance the satisfaction of stakeholders, and fulfill our social responsibilities.

Environment | Quality | Society | Organizational Governance | Information Management

With a focus on contributing to a sustainable society with product technologies, Torex will identify key issues to be addressed on a priority basis (material issues) and work towards the SDGs.

Management Utilizing the Strengths of a Fabless Manufacturer and Specialized Consignment Plants

Torex Semiconductor

Fabless
Dedicated Manufacturer of Analog Power Supply ICs

Strengths
- Technologies for power saving and reduced size
- Accumulated expertise in analog circuits
- Marketing and product planning capabilities
- Flexible production plants
- Quality control to maintain high quality
- Worldwide product sales network

Torex Semiconductor Group

Phenitec Semiconductor

Specialized Consignment Plants for Semiconductors
Discrete Semiconductors, Power Devices, CMOS Analog Process

Strengths
- Production expertise supporting high quality
- Japan Fab for long-term stable supply
- Plants certified for IATF16949 specification for automotive applications
- Ability to adapt to highly specialized manufacturing
- Original device development capabilities
- Power device development capabilities

- **Customer-first, flexible responsiveness**
- **Active promotion of collaboration and M&A**

Fabless and foundry each become a professional group that pursues their main business, demonstrating mutual synergies.

Technical Background

Awards Given to Torex Products

Power supply ICs produced by Torex have earned a reputation for their compact sizes and power-saving specifications.

FY2020

一般財団法人省エネルギーセンター　主催
2020年度 省エネ大賞
（製品・ビジネスモデル部門）
トレックス・セミコンダクター株式会社

XC9276 series : DC/DC converters recognized for their high power saving (ECCJ Chairman's Award)

FY2019

超モノづくり部品大賞

Organized by The Daily Industrial News

XC9281/XC9282 series : DC/DC converters recognized for achieving the world's smallest mounting . (Encouragement Award)

FY2018

第7回 ものづくり日本大賞

Organized by the Ministry of Economy, Trade and Industry

XC9265 series : DC/DC converters recognized for supporting the extended life or reduced size of equipped batteries. (Excellence Prize)

FY2018

超モノづくり部品大賞

Organized by The Daily Industrial News

XC6192 series : load switch ICs recognized for significant reductions in power consumption during long-term storage. (Electronic-Electrical Parts Award)

Phenitec Starts Supplying Samples of SiC SBD

Phenitec

SiC SBD

Next Generation Compound Semiconductors
650V / 10A

Phenitec has begun shipping samples of SBDs (Schottky barrier diodes) that use Silicon Carbide (SiC) next generation compound materials.

A 1200V product is scheduled for release in FY2021

■ Introduction of Unique Equipment to Manufacture SiC Devices

(Already introduced)


High temperature ion implanter


SiC dry etching equipment


Activation annealing equipment


Alignment measurement equipment


Film thickness measurement equipment

(Scheduled for Introduction)


Lamp annealing equipment

Use of high-concentration substrate

⇓

Process simplification

⇓

✓ **Low price**
✓ **High quality**
SiC Devices Produced In-House

Collaboration with Other Companies

- Expanding sales through EnerCera Battery Solutions in conjunction with NGK

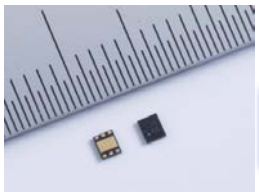
Compact high performance batteries + power supply IC solutions for IoT, wearable, medical and smart card applications

Ultra-compact, low-consumption current power supply ICs

- Charger IC and LDO suited to Li charging
- Reset IC achieving 100nA-class consumption current
- Coil-integrated "micro DC/DC" achieving ultra-compact size and low EMI
- USP/WLP package with 0.33mm (max) height ideal for smart cards

EnerCera batteries

- Li secondary battery that is compact, thin and supports high-temperature mounting
- Types that enable LDO charging are available
- The coin type supports reflow
- The pouch type supports hot lamination



Charging Circuit Solutions

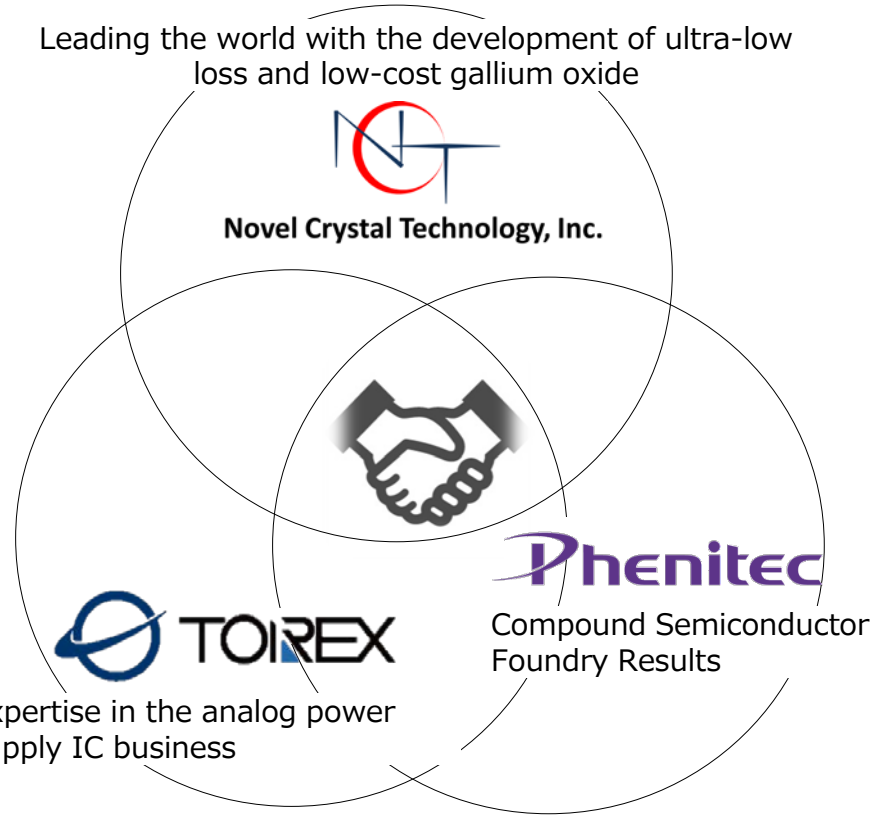
<Charging Components>	
LDO for charging	XC6240 series
Battery monitoring voltage detector	XC6140 series
Wireless power receiver	XCM414 series
<Power Supply Output Components>	
Voltage regulator	XC6215 series
Step-up DC/DC converter	XCL103 series
Step-down DC/DC converter	XCL210 series

Charging Components / **Power Supply Output Components**

Joint ventures with several other all-solid-state battery manufacturers are underway

- Capital alliance with Novel Crystal Technology

Capital alliance with Novel Crystal Technology, which develops gallium oxide, a next-generation power semiconductor



Gallium oxide, whose logical performance is far superior to silicon and surpasses SiC and GaN, receives high expectations in diverse fields.

Moving forward, TRX will continue to promote collaborations and M&A activities that lead to stronger product planning

Numerical Targets

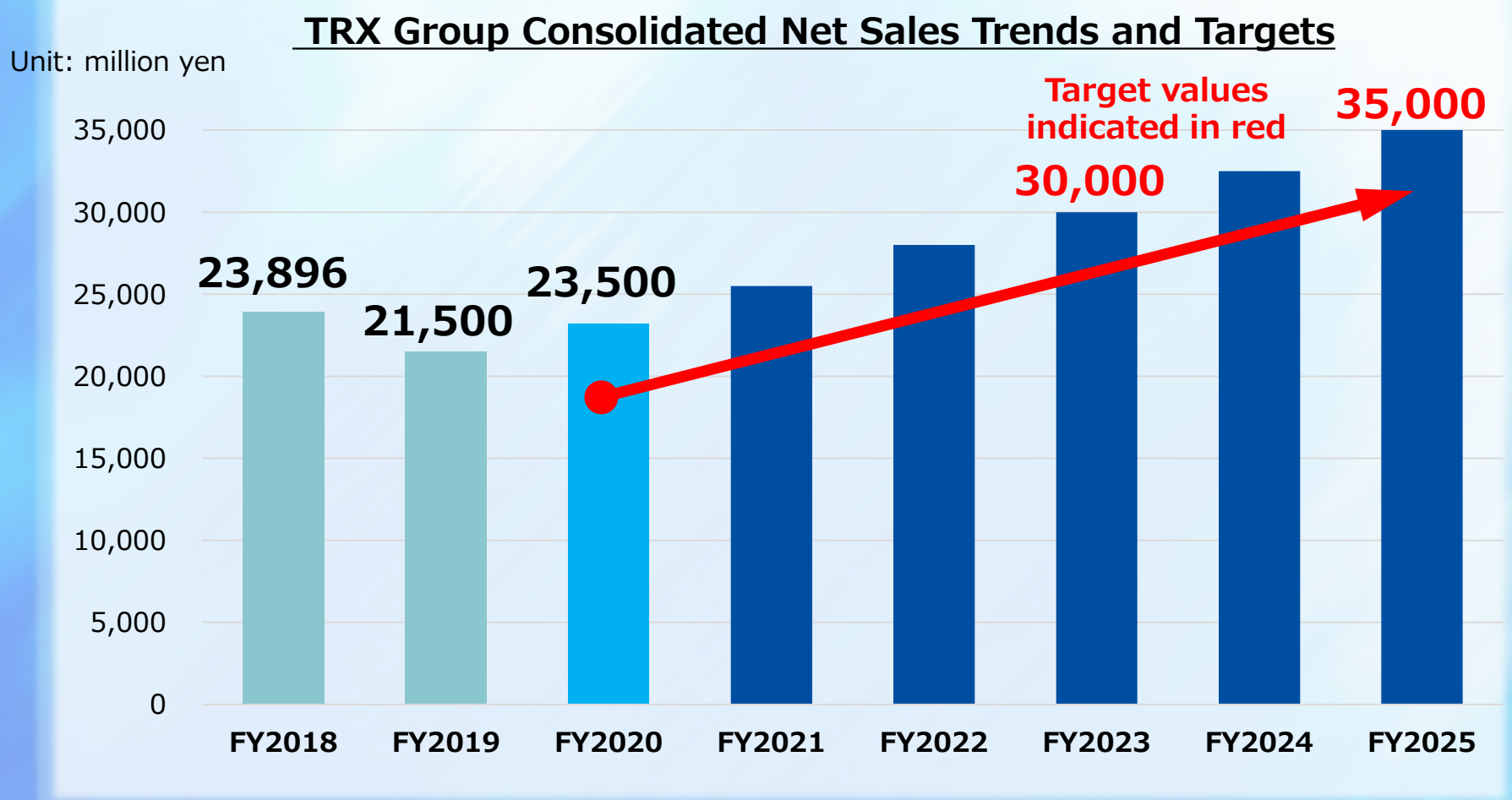
Torex Group Numerical Targets

FY2023	
Consolidated Net Sales:	**¥30 billion**
Operating Profit:	**¥3 billion**

FY2025	
Consolidated Net Sales:	**¥35 billion**
Operating Profit:	**¥4 billion**
DOE:	**3.0%**

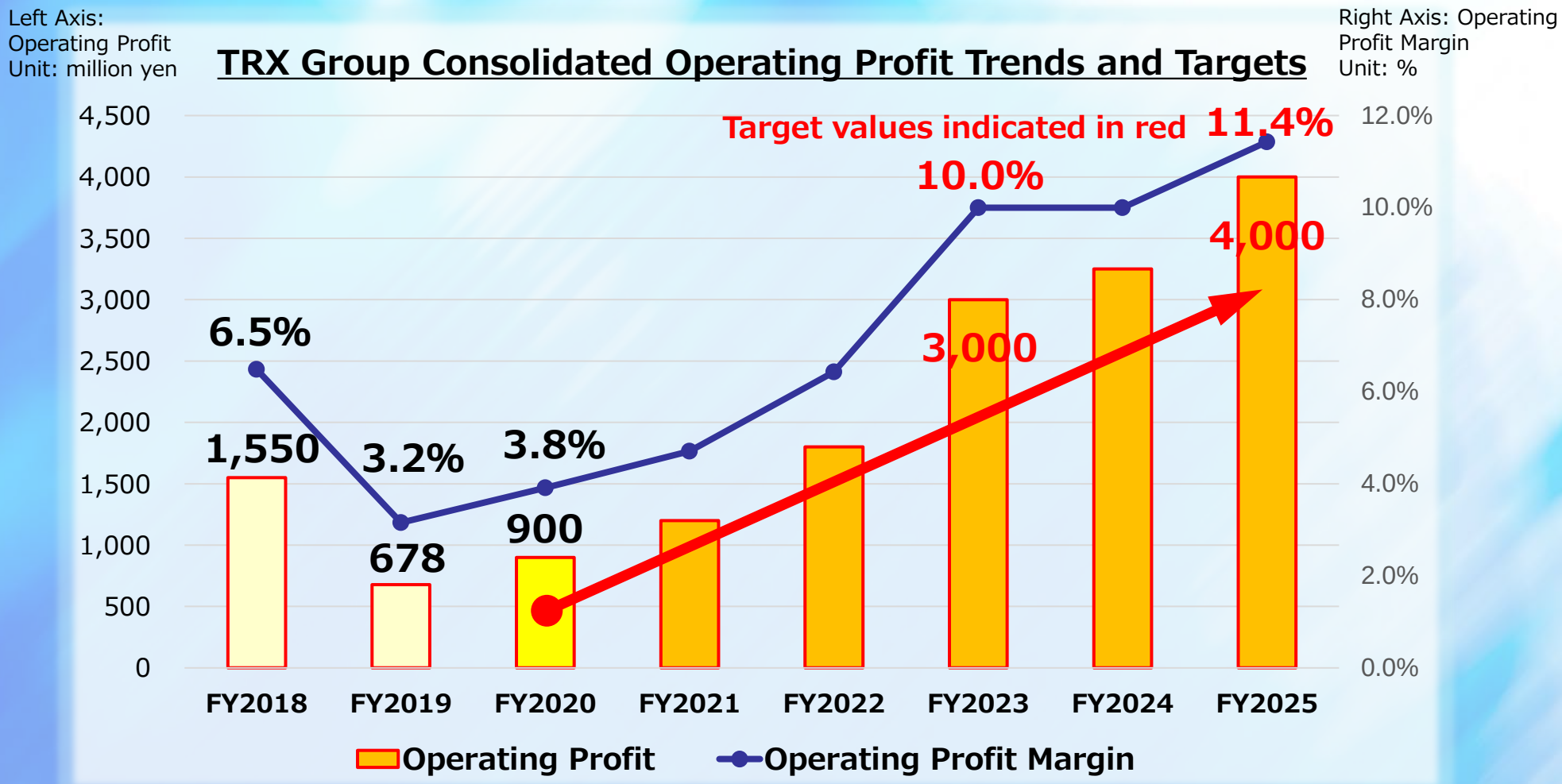
Mid-Term Management Plan
Torex Group Consolidated Net Sales Target

1.5X in 5 years at a CAGR of 8.3%



Mid-Term Management Plan
Torex Group Consolidated Operating Profit Target

4.4x in 5 years at an operating profit margin of 11.4%



The Torex Growth Strategy

Strengthening Product Planning
Market-oriented and timely commercialization

- Enhancement of planning departments to achieve winning market-oriented product planning
  - ⇒ Promote product planning focused on markets, technologies and product roadmaps
  - ⇒ Identify changes in market trends and swiftly promote commercialization (shifting to mass production)
- Promoting collaborations and M&A activities that lead to stronger product planning
  - ⇒ Actively expand circuit proposals and reference circuits through collaboration with battery and chipset manufacturers, etc.
  - ⇒ Shift to full-scale development operations in India to meet growing demand
  - ⇒ Drive the development of Ga oxide devices as new technologies ahead of the market
- Market analysis using DX and customer support utilizing the Web
  - ⇒ Achieving speedy customer support through a balance between FAE support and Web support
  - ⇒ Flexible and swift provision of samples by utilizing the Web

Enhancing the development of high value-added products that highlight our strengths

- Exerting a presence in the automotive, industrial machinery and medical markets
  - ⇒ Developing power supply ICs for the electronic devices that support ADAS and autonomous driving technologies
    (Design environment compatible with automotive requirements – certification under the IATF16949 specifications)
  - ⇒ Enhancement and expansion of products specially designed for the 5G and IoT markets
  - ⇒ Proposal of power supply solutions aimed at all- and semi-solid-state batteries
- Enhanced development of high added-value power supply ICs and power devices
  - ⇒ Further expanded lineup and increased market share for coil-integrated DC/DC converters
  - ⇒ Expansion of medium-to-high-voltage products
  - ⇒ Development of low-output-voltage power supply ICs and low-noise products for high-performance microcomputers
  - ⇒ Development of ultra-compact, ultra-thin and high-capacity packages
  - ⇒ Commercialization of low ON resistance power devices

Securing production capabilities that can respond to market changes

- Identify market trends and customer information to take proactive action
  ⇒ **Make on-time delivery an even greater strength of Torex**
- Build win-win relationships in which Torex shares business objectives with subcontractors
- BCP handling through distribution among multiple production sites
- Making use of our subsidiary Phenitec

Sales activities for solutions that match customer needs

- Encouraging the proposal of solutions that sell value
- Timely provision of samples, evaluation boards, applied circuit proposals and so on
- Thoroughly implementing agile service that cater to customer circumstances
- Strong design-in that delivers value by utilizing a sales network that extends globally

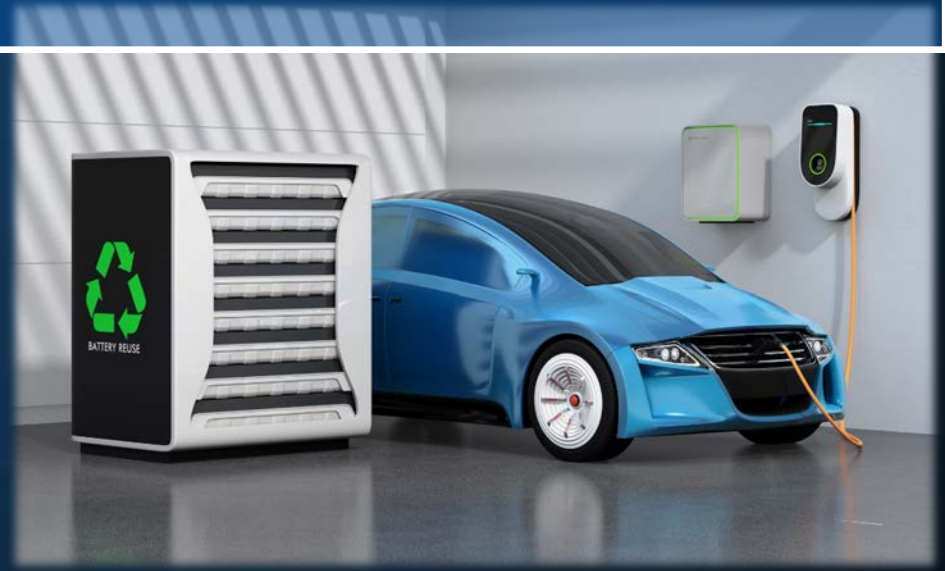
Improved quality performance to maintain the guarantee of long-term stability

- Maintaining high reliability with Torex-owned analysis equipment and dedicated technicians
- Developing a full-fledged quality assurance system through close information exchanges with cooperating plants
- Maintaining high reliability despite being a fabless manufacturer
  ⇒ **Enhancing design and manufacturing environments to guarantee stable performance over the long term**

Enhancing corporate governance and IR

- Promotion of CSR activities, ESG and SDG initiatives
- Enhancing the governance structure in light of revisions to the Governance Code
- Improving investor relations with individual investors and continuing overseas IR activities

The Phenitec Growth Strategy



For Further Growth Together

Transform into a more adaptable Phenitec

- Spreading a sense of peace of mind in guaranteeing high quality and stable long-term deliveries utilizing the 53-year track record as a dedicated Japanese foundry (Japan Fab)
- Actively spreading the message about Phenitec's strong "production technologies" that support stable, long-term deliveries
- Proactively handling small-lot, high-mix needs with a wide variety of processes

  ⇒ Further pursue a "Flexible Phenitec," making the ability to continually meet the demands of customers in stable, long-term fashion the greatest strength of Phenitec

Strengthen the development of power devices and promote low energy loss

- Enhance the development of silicon-based power devices
  - ⇒ **Development and mass production of power devices, such as IGBT and Split Gate-MOS**
- Bolster the development of compound semiconductor power devices
  - ⇒ **Development and mass production of power devices, such as SiC and Ga oxide semiconductor**
  - ⇒ **Promote joint research and collaboration to speed up development**
  - ⇒ **Invest in equipment aimed at mass production**

Implement a revenue improvement project

- Reduce manufacturing costs
- Orders and stable production at Kagoshima Fab
- Effective utilization of the HQ Fab following relocation and integration to Fab4
- Promoting the shift to 8 inch

Capital and Dividend Policies

Capital and Dividend Policies

In terms of capital policy, Torex aims to achieve a double-digit ROE.
As for the dividend policy, we will pay dividends in accordance with business circumstances surrounding us, medium- and long-term consolidated financial results, and the level of ROE while making strategic investments to increase growth potential.

Targets for the Final Year of the Mid-Term Management Plan

- Consolidated dividend payout ratio of at least 20%
- DOE (dividend on equity) of 3%

Disclaimer

The content of these materials was created by us based on information generally accessible as February 15, 2021, as well as certain conditions deemed rational.

Descriptions of our medium-term business plan and outlook in these materials do not guarantee future earnings, and includes risks and uncertainties.

The actual earnings may differ considerably from what is listed in these materials, due to these factors.

When making decisions on investments, we ask that you avoid placing undue reliance on these materials, and that everyone reach their own judgment.