

- Bridgestone 3.0 Journey -

Roadmap toward becoming a resilient "excellent" Bridgestone

August 31, 2022 Member of the Board Global CEO and Representative Executive Officer Shu Ishibashi



### Today's agenda

- 1. Bridgestone's Mission, Vision and Corporate commitment
- 2030 Long Term Strategic Aspiration Bridgestone 3.0 Journey -Roadmap toward becoming a resilient "excellent" Bridgestone

## **Mission**

**Serving Society with Superior Quality** 

## **Bridgestone 3.0 Journey**

## **Vision**

2050

Bridgestone continues to provide social value and customer value as a sustainable solutions company.

Bridgestone 3.0
Third Foundation

Announcement of Mid-Long Term Business Strategy "Sustainability at the core of management & business"



2021

Corporate Transformation (CX):
Mid Term Business Plan (2021-2023): Return to a "strong" Bridgestone capable of adapting to change

"Tackle past negative legacies without delay"

"Focus on execution & delivering results for immediate issues"

"Lay foundations for future growth"

Rebuilding earning power

Strategic growth investment

2022

Close to becoming a "strong" Bridgestone capable of adapting to change



### **Corporate commitment**

## **Bridgestone E8 Commitment**

Axis to drive management while earning the trust of future generations

8 Bridgestone-like vectors for transformation



2030 Long Term Strategic Aspiration - Bridgestone 3.0 Journey -

1<sup>st</sup> step of "Third foundation" Bridgestone 3.0 toward Bridgestone's 100th anniversary in 2031

Roadmap toward becoming a resilient "excellent" Bridgestone

### Why is the "2030 Long Term Strategic Aspiration" required now?













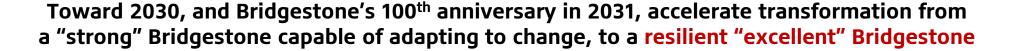
"Turbulent change" in business environment, "Change becomes commonplace"

"Transform change to opportunity"

# 2030 Long Term Strategic Aspiration Present "Roadmap toward becoming a resilient 'excellent' Bridgestone"

Establish management structure & practices in which the global management team ensures "unwavering management" following the roadmap, while also responding to change flexibly & agilely

- Clarify management strategy, direction of resource allocation and capital allocation toward 2030
- Engage new partners and create new value as a resilient "excellent" Bridgestone that is both robust and capable of transforming change to opportunity amidst change that is becoming more commonplace
- Even in turbulent times, the "mobility of people & objects" will not change Bridgestone will respond to change, and continue "supporting the mobility of people & objects"



### 2030 Long Term Strategic Aspiration: 3 pillars

# Enhance corporate value as a resilient "excellent" Bridgestone by creating and balancing social and customer value, and gaining new competitive advantage

- Focus on premium business & solutions business which can create "new premium"
- Establish business models with high certainty (accelerate growth of premium tire business and solutions business that leverages premium tire business's strengths)
- Sustainability vs. business growth, customization of tire performance vs. productivity improvement & cost optimization across value chain
  - Simultaneously create value that can sometimes be contradictory -

### As a resilient "excellent" Bridgestone, aim for the 100th anniversary and the next stage

• Fulfill our responsibility to every stakeholder (nature, society, customer, employee, supplier, investor, local community, etc.)

### Survive in a VUCA\* world, and stay resilient \*Volatility, Uncertainty, Complexity, Ambiguity

• Establish management structure, abilities and practices capable of responding to changes in the business environment with agility

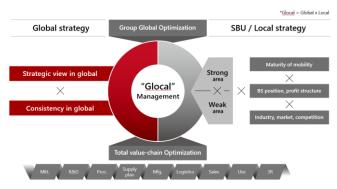


### 2030 Long Term Strategic Aspiration: New management structure

2020: Corporate transformation Mid Term Business Plan (2021-2023)

#### "Glocal" management

- Total optimization globally & across value chain
- Deploy local strategies adapted to each region/market, based on global strategy



Build foundations for a new "glocal & portfolio management"

Evolve to a "strong" Bridgestone capable of adapting to change

Mid Term Business Plan (2024-2026)

Establish new "glocal & portfolio management" - Flexible & agile management

Mid Term Business Plan (2027-2029) Further evolve new "glocal & portfolio management"

#### 4 business portfolio management

- Passenger car tire : Premium tire & solutions business
- Truck & bus tire: Premium tire & solutions business
- Specialties tire (OR AC AG MC\*):
   Premium tire & solutions business
- Diversified products & Exploratory
   business \*OR: Off-the-road tires, AC: Aircraft tires, AG: Agricultural tires,

Regional & market characteristics x 4 business portfolio

2024 2026

2030: 1<sup>st</sup> step of "Third foundation" Bridgestone 3.0 completed

2031: 100th anniversary of founding

**2027 2029 2030** 

Establish management structure & practices in which the global management team ensures "unwavering management" following the roadmap, while also responding to change flexibly & agilely

"Roadmap toward becoming a resilient 'excellent' Bridgestone"

2020 2021

2023

## 2030 Long Term Strategic Aspiration: New business portfolio



Passenger car tires (PS): New premium in the EV era - ENLITEN business strategy

Premium tire business + Retail & service solutions business



Truck & bus tires (TB): New premium in the circular business era - ENLITEN business strategy

Premium tire business + Tire-centric solutions business + Mobility solutions business



Specialties tire (OR AC AG MC\*): Realize a circular business model

- MasterCore business strategy (OR), etc.

**Premium tire + Tire-centric solutions business** 

\*OR: Off-the-road tires, AC: Aircraft tires, AG: Agricultural tires, MC: Motorcycle tires



Diversified products & Exploratory business: Sharply focus on areas where Bridgestone's core competencies can be leveraged

	2022	_	2030	
Revenue	4,000 B JPY level	_	Over 5,000 B JPY level  Growth level equal to moving up approx. 50 positions in Fortune Global 500	Expand scale  2: 484 <sup>th</sup> (2021) → 430 <sup>th</sup> level (2030)
Adj. operating profit	450 B JPY level		Over 800 B JPY level	Enhance earning power
Adj. operating profit margin	11%		over 15%  Exceed Japanese standards to reach global level (Avg. AOP*1 for all industries: 8.6% (Japanese companies), 14.8% (U.S. comp	Reinforce quality anies) for 2021)
ROIC	9%		12% level  Exceed Japanese standards to reach global level (Auto parts manufacturing industry*2 (26 companies with revenue above 1,0)	Reinforce quality 00 B JPY) Avg. ROIC: 9.7% for 2021)
ROE	10%		Reach top level among Japanese companies, and a global level (ROE <sup>-3</sup> for key companies in all industries: 6.3% in Japan, 12.1% in Europe, 1	Reinforce quality 7.9% in U.S., for 2019)

**Talent creativity** 

Trial from 2023

### **Introduce from Mid Term Business Plan (2024-2026)**

<sup>\*3</sup> Source: Ministry of Economy, Trade and Industry's secretariat material on "Inauguration of a Study Group on Dialogues that Contribute to Long-term Corporate Management and Investment for Creation of Sustainable Corporate Value (the "SX Study Group")" (May 2020)



<sup>\*1</sup> Source: Article in Nikkei (July 27, 2022) \*2 Source: SPEEDA Database

FX assumption : 2023 : 1USD – 125JPY, 2024 onwards : 1USD – 120JPY

### Mid-term environmental target

"Milestone 2020" (established in 2012)

CO<sub>2</sub> reduction target (vs. 2005):

Reduce more than the CO<sub>2</sub> emitted in manufacturing

- Reduce 35% of CO<sub>2</sub> emissions in manufacturing process (per revenue)



**Achieved** 



**Reduction of CO<sub>2</sub> emissions** 

Milestone 2030

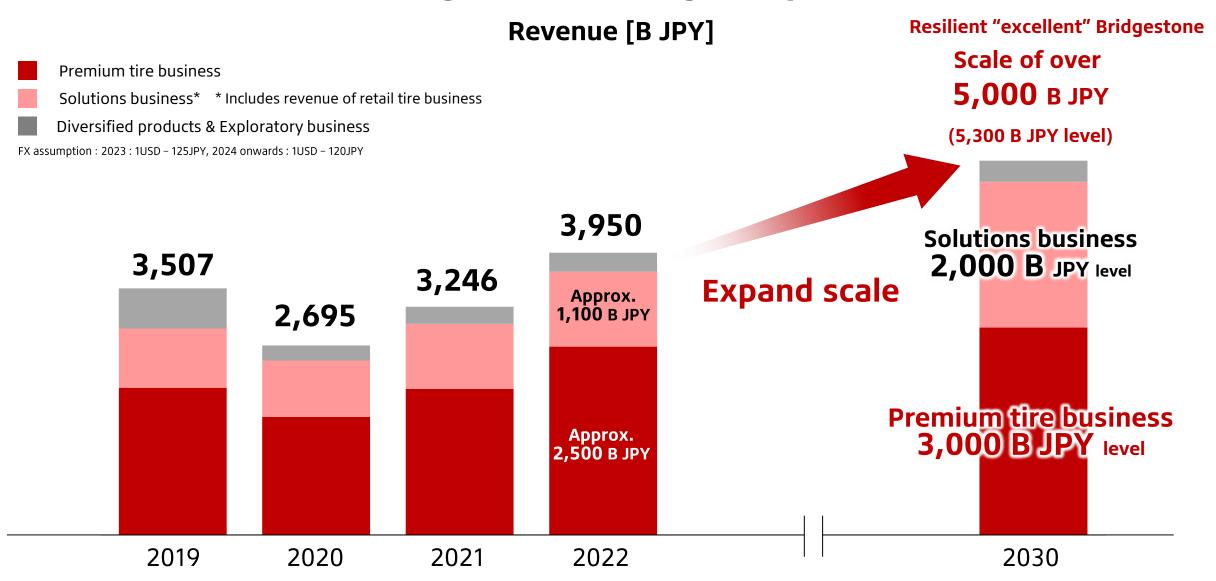
**50%** (vs. 2011, Scope 1 & 2)

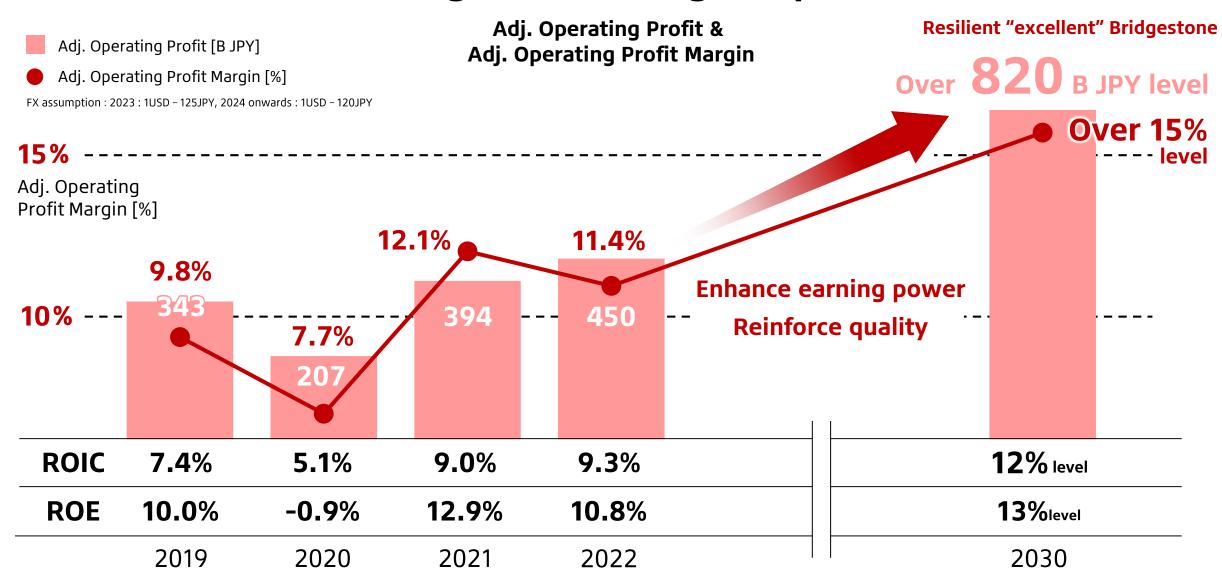
Recycled & renewable material ratio

40%

2050

Carbon neutrality
100% Sustainable material

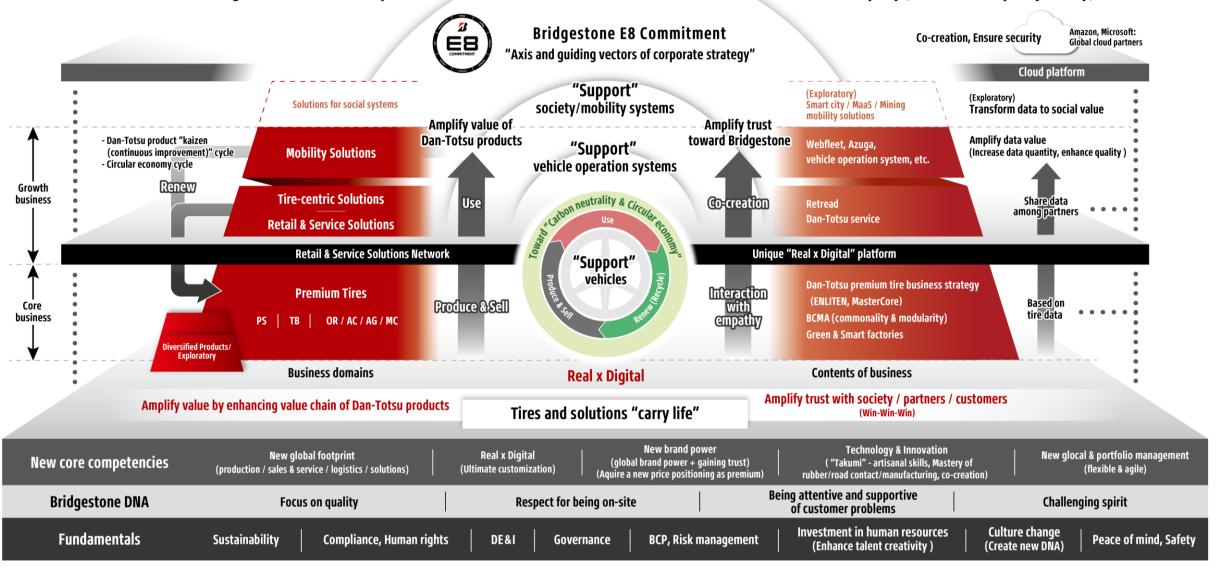




### 2030 Long term strategic aspiration: Strategic map

#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey)

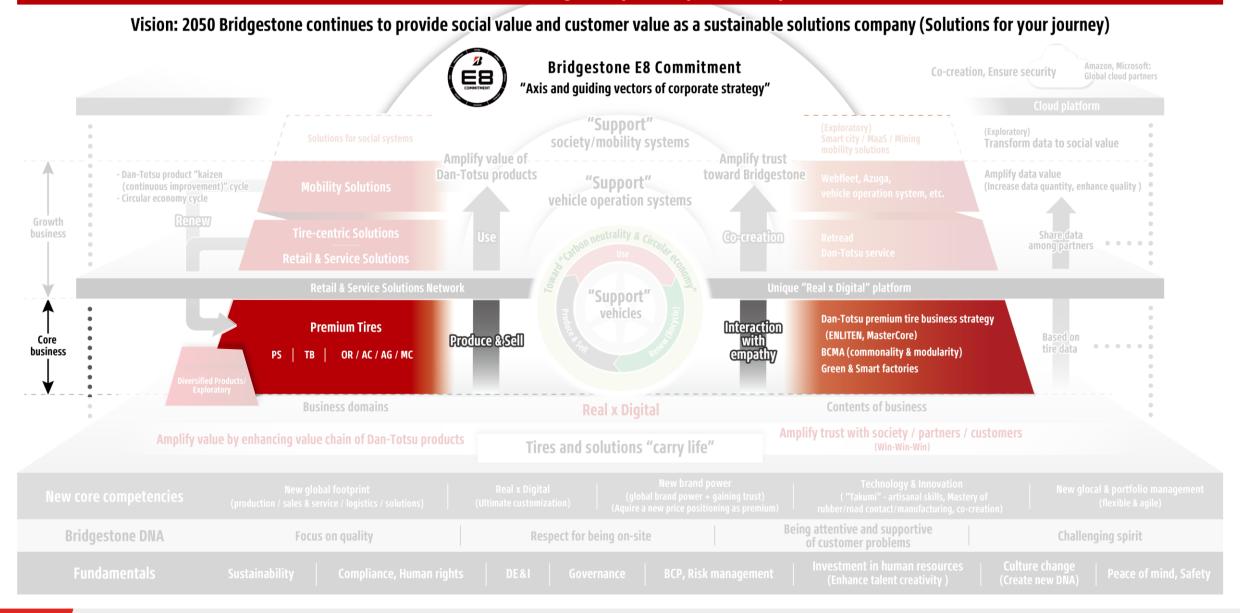




## **Premium Tire Business**

### 2030 Long term strategic aspiration: Strategic map

#### **Mission: Serving Society with Superior Quality**





### **Strategy outline: Premium tire business**

Mid Term Business Plan (2021-2023) Return to a "strong" Bridgestone Mid Term Business Plan (2024-2026)
From volume to value

Mid Term Business Plan (2027-2029)
New "premium tire business portfolio management"

Premium business strategy focused around high rim diameter tires for passenger cars, truck & bus / mining tires

- Close to achieving Mid Term
  Business Plan (2021-2023)
  Toward a "strong" Bridgestone capable of adapting to change
- Complete laying foundations to enhance premium and evolve with solutions business

#### Create "new premium"

#### "New premium" 1st stage

- ENLITEN (Tires for passenger cars (PS), light trucks (LT) and truck & bus (TB))
- MasterCore (Off the road tires for mining vehicles (OR))

#### ■ From volume to value Increase productivity

- Investment to increase production of premium tires:
   Maximize leverage of production capacity in existing plants for premium tires
- Shift production from GU zone to premium segment
- Upgrade existing plants to Green & Smart factories (Including enhancing existing factories)
   Drive Green & Smart operations

#### **■** Complete focus on premium tire business

- Acquire a new premium brand position
  - Gain trust and empathy by Bridgestone E8 Commitment activation
  - 2024: Re-activate global motorsport activities

#### "New premium" 2<sup>nd</sup> stage

- ENLITEN & MasterCore

Ratio of ENLITEN & Mastercore in 2030: approx.100% (of totals sales volume)

Continue reinforcing premium tire segment

### Elevate ENLITEN & MasterCore to an even stronger "premium"

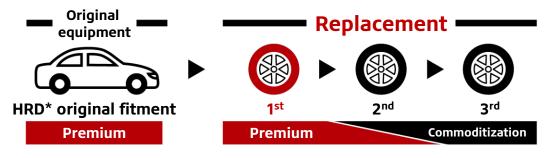
- Evolve premium tire business by leveraging solutions business and service solution network
- Build a circular business model coordinating with the solutions business
- Reinforce new "premium tire business portfolio management"



Full-scale introduction of BCMA (commonality & modularity):
Improve productivity, optimize cost and reduce break-event point, ultimate customization

**Drive shift to Green & Smart factories** 



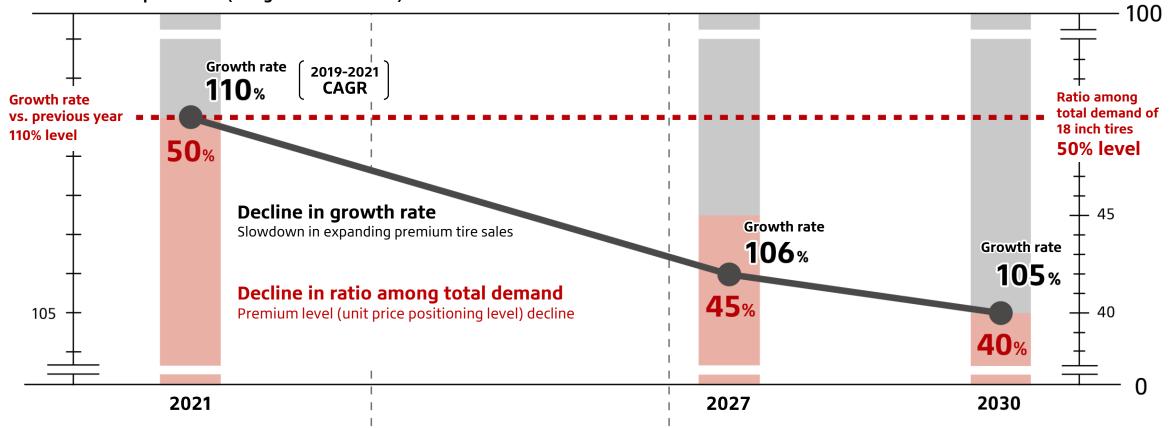


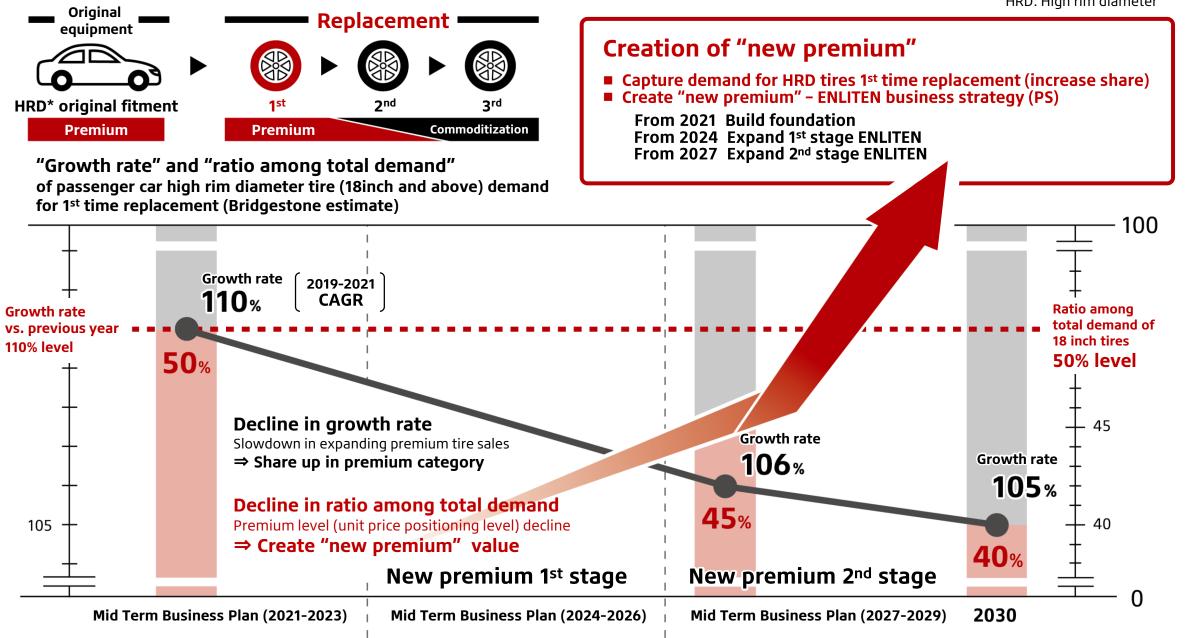
"Growth rate" and "ratio among total demand" of passenger car high rim diameter tire (18inch and above) demand for 1st time replacement (Bridgestone estimate)

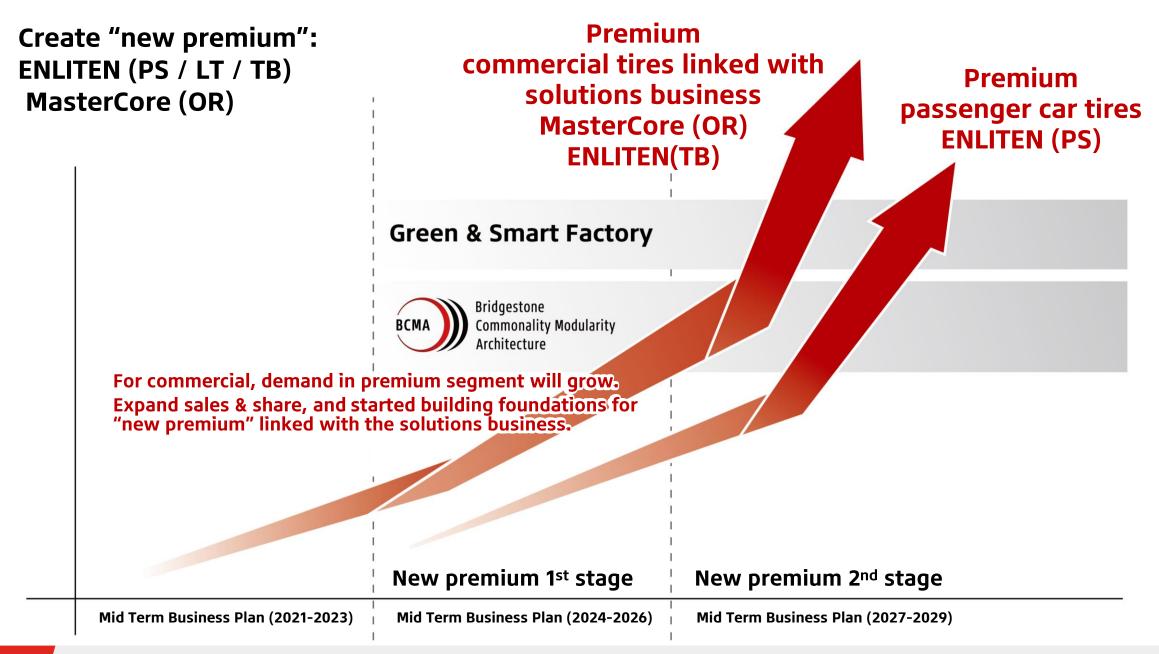
### Why is the creation of a "new premium" needed?

Overall demand for passenger car high rim diameter tires will grow, but demand growth for 1<sup>st</sup> time replacement (premium) will slowdown

A "new premium" is required to be resilient









Create "new premium": ENLITEN (PS / LT / TB)
MasterCore (OR)

Premium
commercial products linked
with solutions business
MasterCore (OR)
ENLITEN(TB)

Premium consumer product ENLITEN (PS)

Provide new value to customers
Gain trust and enhance appropriate price positioning through its value being recognized by customers



Strategic enhancement of price positioning 2<sup>nd</sup> Stage

Strategic enhancement of price positioning 1st Stage

New premium 1st stage

New premium 2<sup>nd</sup> stage

Mid Term Business Plan (2021-2023)

Mid Term Business Plan (2024-2026)

Mid Term Business Plan (2027-2029)



## Simplification & differentiation







Share between products, simplify

**Customize performance, differentiate** 

Modules 1 & 2: Improve efficiency of development process & supply chain, realize productivity improvement & cost optimization

Module 3: Customize performance flexibly & agilely per market/customer, and differentiate

BCMA adoption rate in 2030 (for passenger car and truck & bus tires) Approx. 100%



## Simplification & differentiation

Energy
Ecology
Efficiency
Economy

- Create value across entire value chain -

Product strategy R&D Procurement Production Manufacturing Logistics Sales Use 3R

- Cost optimization & lower environmental impact by improving efficiency of development process
- Agile new product development & sales through shortened development process (reduced lead time from planning to sales)
- Procurement cost optimization through standardization of raw material

- Contribution to both sales & cost through flexible production allocation (realize global optimization)
- Productivity & quality improvement, cost optimization and lower environmental impact by improving efficiency of production process
- Speed up response to changes in sales plans through shared components & modules between products

- Increase customer satisfaction through "ultimate customization"
- Optimize inventory through improved flexibility in production
  - Optimize cost of logistics & inventory, lower environmental impact
  - Reduce back orders (shortages)
  - Avoid missing out on sales opportunities

"Improve productivity, optimize cost  $\Rightarrow$  reduce break-even point" vs. "ultimate customization" for each customer/market Contribute also to sustainability through resource-saving, improving resource productivity, reducing  $CO_2$  emissions, etc. across the value chain

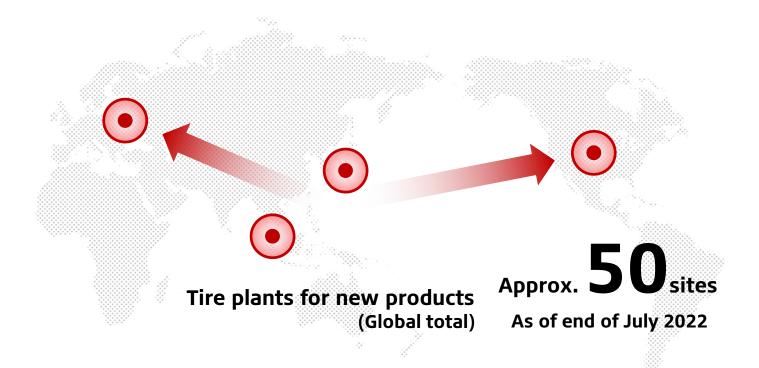


Aim for simultaneously creating value that can be contradictory



## **Global Tire Footprint (Manufacturing)**





While keeping "local production for local sales" as a basic concept, aim for global optimization by ensuring flexibility
Leverage Japanese and Asian plants as global premium tire supply sites

# Reinforce structure to produce premium products

Replace equipment to produce high rim diameter tires for passenger cars /

Establish manufacturing structure to adapt to ENLITEN technology, reinforce MasterCore, and other premium products for truck & bus tires, and motorcycle tires

"Local production for local sales" ratio (aspiration) - Global -

Passenger car tires

**95**%

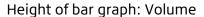
Truck & bus tires

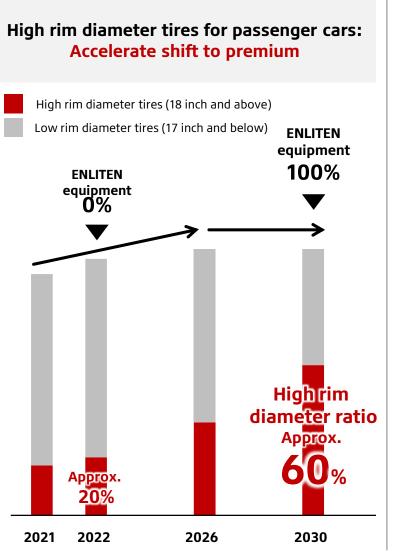
**85**%

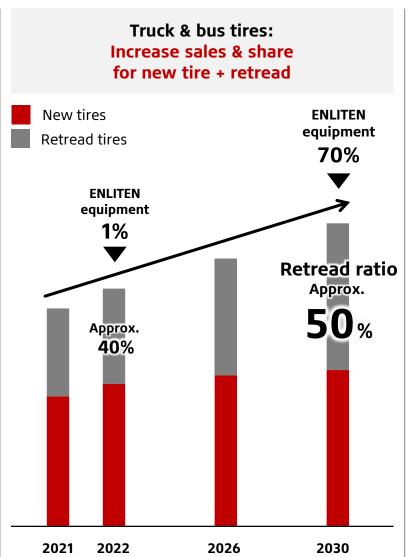
## Make investment for Green & Smart factories and operations

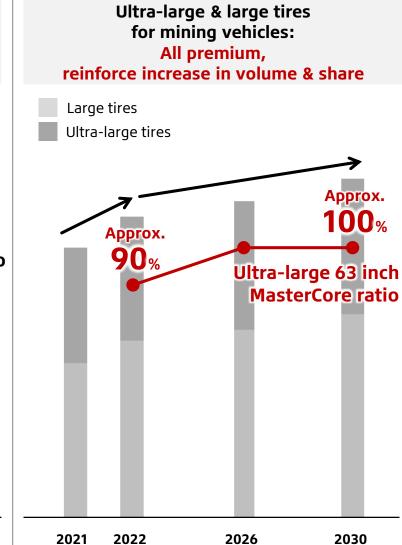
Balance CO<sub>2</sub> emission reduction, improvement in resource productivity & labor productivity by suru-raku at manufacturing (less burden in manufacturing) with business growth

### From volume to value: Premium tire sales expansion in replacement













Passenger car tire

New premium in EV era

Evolve the value from "ENLITEN" technology, achieving both environmental and driving performances and contributing to expanding the driving distance of EVs, to products and business model

2030

ENLITEN product : approx. 90 products

ENLITEN equipment %: approx. 100%



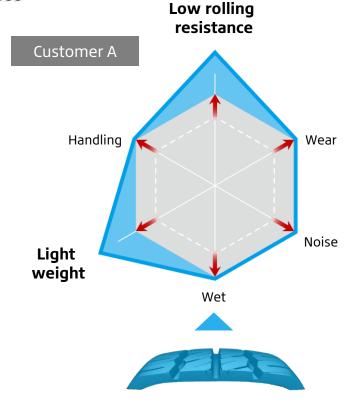


Technology & product: Provide product customized to each market and customer usage conditions

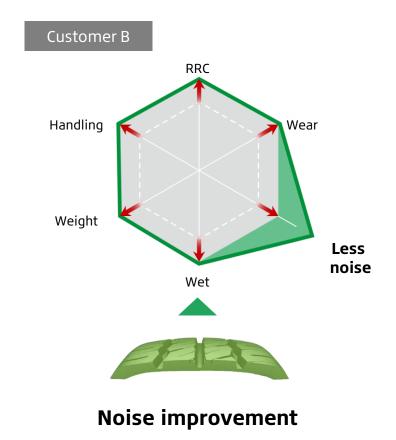
### Ecology Efficiency Economy

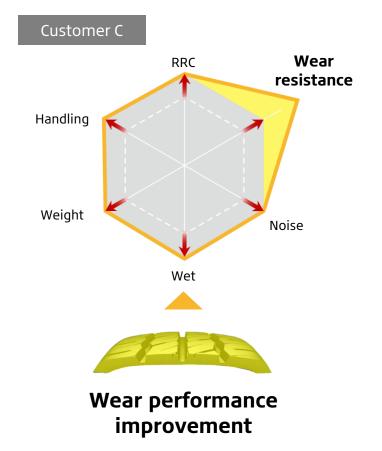
### "Ultimate customization" optimized to fit EVs





Light weight/
Rolling resistance improvement







### Create new value as "New premium in EV era"



# Change of social environment

Increase of SDGs request
Striker environment regulation
Improvement of energy efficiency by
electrification





# Change of vehicle architecture

From distributed architecture to integrated architecture
Separated development of hard and soft

### **Drive electrification & software first development**



### The value required for tires has changed: Customize to the performance optimized to fit EVs

Significant improvement of driving range and electricity consumption by improving tire rolling resistance

Ensuring space for battery in vehicles • Lighter vehicle weight • Cost optimization • Improvement of space utility

Improving development efficiency and flexibility to respond to soft development

Shift from tailor-made tire development according to the hardware, to tire development that realize both efficiency and ultimate customization

Bring out the maximum driving experience of the vehicle Support to create vehicle by our across value chain





### 2030 Long term strategic aspiration: Strategic map

#### Mission: Serving Society with Superior Quality

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey) **Bridgestone E8 Commitment** Co-creation, Ensure security "Axis and guiding vectors of corporate strategy" 'Support' society/mobility systems Transform data to social value Amplify value of Amplify trust Dan-Totsu products toward Bridgestone Amplify data value Dan-Totsu product "kaizen "Support" vehicle operation systems Circular economy cycle "Support" vehicles Real x Digital Amplify trust with society / partners / customers Tires and solutions "carry life" Technology & Innovation **New core competencies** ("Takumi" - artisanal skills, Mastery of rubber/road contact/manufacturing, co-creation) Being attentive and supportive **Bridgestone DNA** Respect for being on-site **Challenging spirit** Focus on quality





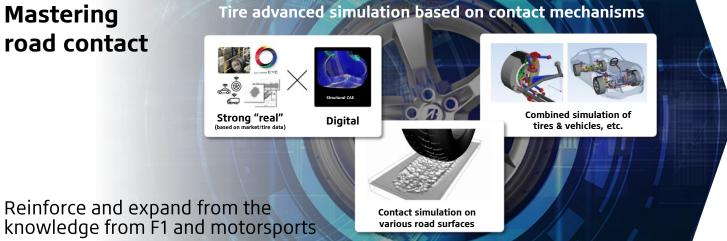
### **Technology & innovation**



Mid Term Business Plan (2024-2026)

Mastering Double network rubber rubber Realizing both fuel efficiency and Precise polymer Composite design times more durable vs. conventional ECOPIA material) Reinforce and utilize materials informatics (start from 2010)

Mastering road contact



Mid Term Business Plan (2027-2029)

- Double network rubber : Implement in MasterCore (OR) 2<sup>nd</sup> stage
- Drive to develop sustainable materials Cure less / Sulfur free: Rubber which easily recycle Design sustainable multi-scale polymer composite by managing, creating and returning chemical boning

2030

Multi-scale composite design (from atoms to a tire for sustainability)

Realize digital twin which can reproduce tire conditions in market by incorporating complex real road contact mechanisms and tire/vehicle transient characteristics\*

\*Behavior before conditions become stable, such as force generated in tires, deformation, etc.

2030

Digital twin through mastering road contact to monitor tire in market on a real time basis

## Technology & innovation "Mastering manufacturing": Green & Smart factory

Energy Ecology



**Green factory** 

Mid Term Business Plan (2021-2023) Mid Term Business Plan (2024-2026)

Electrification of the manufacturing equipment energy source (mainly curing process)

Replace thermal energy to electric energy Combine with renewable energy and reduce CO<sub>2</sub> emission

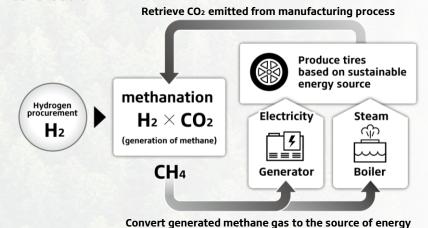
Drive to introduce renewable energy (electricity)
Renewable energy ratio (plan)
2022 24%, 2023 over50%

Proof-of-Concept experiments in Japanese model plant (Kitakyushu plant)

Mid Term Business Plan (2027-2029)

Manufacturing converting CO<sub>2</sub> emitted in factory to energy

Drive manufacturing leveraging methanation through co-creation



Implementation of Green factory model plant
Global model 4 plants: Americas • Europe • Asia • Japan

Maximize value with minimum sustainable resources

2030

CO<sub>2</sub> emission

50% reduction (vs 2011) (Scope 1 & 2)

Renewable energy (electricity)

Aim for 100%



2050 Carbon neutrality

2030 Recycled & renewable material ratio 40%

2050 100% Sustainable material

## Manufacturing keeping on renewing tires to raw material and circulating resource (Utilization of sustainable raw material)

- Develop material which can increase recycled & renewable material ratio : Align with ENLITEN business strategy, product strategy (incl. retread)
- Drive recycle business, reinforce to utilize renewable material : Natural rubber business, guayule business

## Technology & innovation "Mastering manufacturing": Green & Smart factory

**Efficiency Empowerment** 



**Smart factory** 

Mid Term Business Plan (2021-23)

**Mid Term Business Plan** (2024-26)

**Mid Term Business Plan** (2027-29)

Automate control of manufacturing process which is Bridgestone's strong "real", fostered through producing Dan-Totsu products (MasterCore, REGNO, POTENZA)

Drive automation of each process

Drive to introduce digital / sensing technology and AI control

Evolution and expansion of sensing technology cultivated by Bridgestone unique state-of-the-art tire building system "FXAMATION"

Convert tacit knowledge to explicit knowledge (expand to other process)

Connect by digital and build manufacturing digital platform Creation of new value such as enhancing quality and productivity

Implementation of Smart factory model plant

Global model 8 plants Americas / Europe / Asia / Japan Passenger car / Truck & bus tire factory

"Strong" real ("Takumi" - artisanal skills) × digital Mastering manufacturing

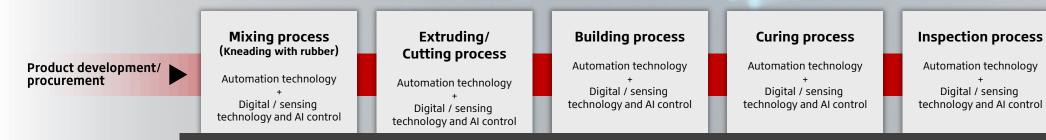
2030

Challenge toward global superior / uniform quality & ultimate "circle"

> Product accuracy (circularity) 30% up

Less skills/High efficiency Labor productivity 130%

#### Connect across value chain and create new value (next generation's manufacturing platform) Aspiration in 2030



Connect across factory process: Manufacturing digital platform - MES\*

\*Manufacturing Execution System

Digital / sensing



Logistics/ Sales



Growth enabler of premium tire business and solutions business

**Retail & service solutions network** 

Passenger car

**Retail & service solutions business** 



#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey) **Bridgestone E8 Commitment** Amazon, Microsoft: Co-creation, Ensure security Global cloud partners "Axis and guiding vectors of corporate strategy" **Cloud platform** 'Support' (Exploratory) society/mobility systems Transform data to social value Amplify value of **Amplify trust** Dan-Totsu products toward Bridgestone Amplify data value Dan-Totsu product "kaizen "Support" (Increase data quantity, enhance quality) (continuous improvement)" cycle vehicle operation systems Circular economy cycle among partners **Retail & Service Solutions Network** Unique "Real x Digital" platform "Support" vehicles Based on tire data Real x Digital Amplify trust with society / partners / customers Tires and solutions "carry life" Being attentive and supportive **Bridgestone DNA** Respect for being on-site **Challenging spirit** Focus on quality



## Retail & service solutions network/ Cloud platform





Start collaboration globally from 2022

#### Collaboration with Amazon and Microsoft

600

**Passenger Car Network** 

Approx. **18,200** sites



**Truck & bus Network** 

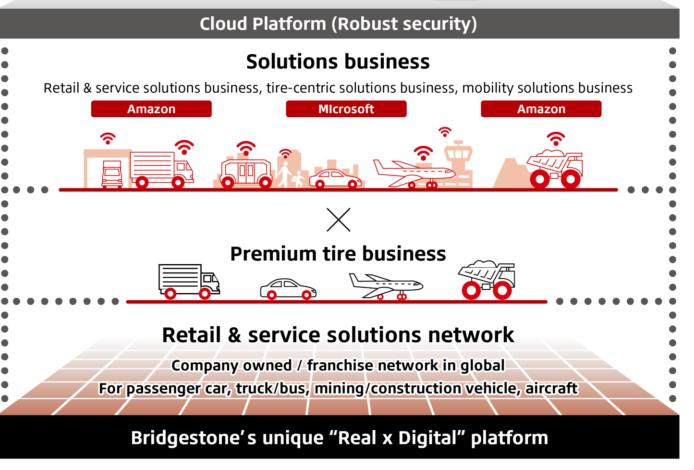
Approx. **6,800** sites



**Mining Vehicle Network** 

Approx. 130 sites

As of the end of 2022 June



Amplify data value (Increase data quantity, enhance quality)



Sha<mark>re d</mark>ata (Based on tire data)

Amplify trust with society/ partners/customers (Win-Win-WIn)



New premium in circular business era linked with premium tire business

## **Tire-centric solutions business**

- ENLITEN business strategy (TB)
- Mining solutions with MasterCore at the core
- Aviation solutions

#### Mission: Serving Society with Superior Quality

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey) **Bridgestone E8 Commitment** Co-creation, Ensure security "Axis and guiding vectors of corporate strategy" "Support" society/mobility systems Transform data to social value Amplify value of Amplify trust toward Bridgestone Dan-Totsu products Amplify data value Dan-Totsu product "kaizen "Support" continuous improvement)" cycle vehicle operation systems Circular economy cycle Renew **Tire-centric Solutions** business Use Co-creation Retread Dan-Totsu service **Retail & Service Solutions** "Support" vehicles Real x Digital Amplify trust with society / partners / customers Tires and solutions "carry life" Being attentive and supportive **Bridgestone DNA** Respect for being on-site **Challenging spirit** Focus on quality





**Truck & bus tires** 

New premium in circular business era



#### Maximize each tire value

through the one integrated approach with retread by using up each tire asset till the end of life



Through close alignment with mobility solutions and recycle,

Create a society where tire value "circulates"

## Realize circular economy

2030

**ENLITEN** product #: approx. **90** products

ENLITEN equipment %: approx. 70%

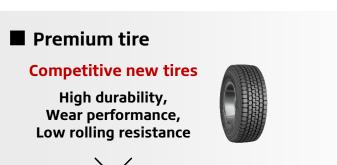




#### Establish the circular business model:



Maximize tire value by using up each tire asset till the end of life through the one integrated approach with Dan-Totsu product and retread





#### Case for retreads

High durability cases which maximize # of retread



#### Contribute to reduce environmental burden

new tire × 3 vs Fuel efficient new tire + Retread tire × 2

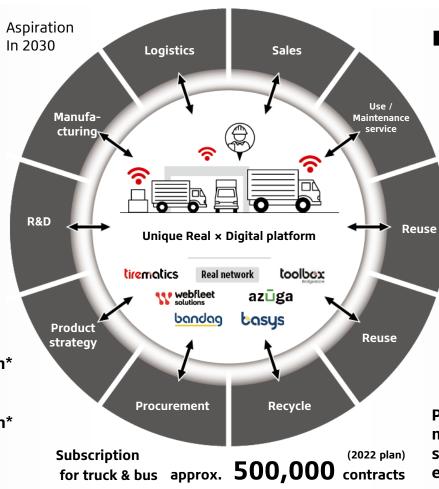
Resource productivity (Efficient use of resource)

50% reduction\*

Greenhouse gas emissions (calculated based on CO2 emissions)

48% reduction\*

\* Calculated based on Tire LCCO2 Calculation Guideline Ver 2.0 (The Japan Automobile Tyre Manufacturers Association, Inc.), example - Truck & Bus tire (275/80R22.5)



■ Provide solutions leveraging tire data

## tirematics

Tire monitoring system (air pressure & temperature) Understand customer's tire conditions deeply



Database of customers and tire information Analyze customer's usage conditions deeply



Retread tire process management system Productive retread tire manufacturing



Provide the subscription package including maintenance services that customer can use tire safer, longer, more proper and efficient according to each customer's situation of use

Expand to ENLITEN - light truck tires, passenger car tires (commercial use) as the circular business model



Tires for mining vehicles

New premium

MasterCore



## New premium Dan-Totsu product Bridgestone MasterCore









More payload (Tire payload) Load pressure resistance

**Bridgestone** conventional product

> Less breakdown (Durability)

Separation resistance

#### Improve customized performances without sacrificing others

Able to customize the same tire to each customers' operation conditions/plans and mine layout



**Durability** / Longer tire life

114

Vehicle speed

100

**Payload** 

106

Result of testing in an iron ore mine (Australia)

or

#### Vehicle speed

105

**Durability / Longer tire life** 

**Payload** 

100 100

Result of testing in a gold mine (Mexico)

or

Active in 77 mines (As of July 2022)

2030 MasterCore ratio

63 inch Close to 100%



#### **Payload**

112

**Durability / Longer tire life** 

100 100

Vehicle speed

Result of testing in a copper mine (U.S.)

\*Performance index with Bridgestone conventional tire as 100 (Bridgestone analysis)



## **New premium** Mining solutions with MasterCore at the core

Propose solutions optimal for each customer with MasterCore at the core. Contribute to maximizing efficiency and economic value in mining operations.

**Efficiency Extension Economy** 







MasterCore 77 Mines active in

Network 134 Sites

Reinforce coordination with on-site service by Otraco

"Digital"

■ Leveraging digital tools, understand tire usage & vehicle operating conditions

⇒ Propose a better way to use tires (load, speed, etc.) adapted to each mining vehicles' operations

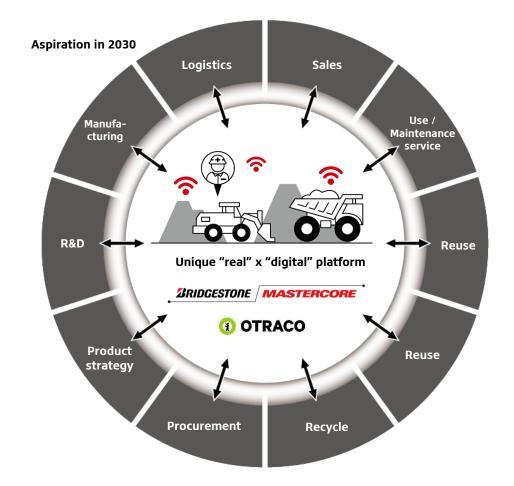
Predict tire demand according to customers' operation plans

⇒ Propose efficient tire inventory plans & operations. Contribute to the optimization of mining operations.

■ Work on realizing repair, retread and recycle, and take on the challenge of establishing a circular business model

**Promote & expand** long term contracts which include solutions

**Solution contract** (As of July 2022)





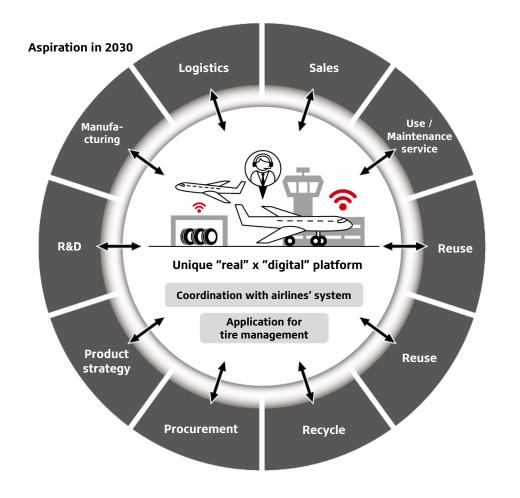


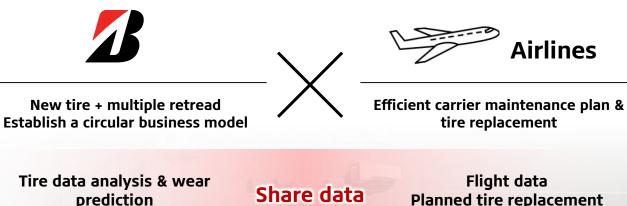
## Pioneering circular business model, a strategic starting point



## **Aviation solutions**

Business model that amplifies value by leveraging tire data to improve resource efficiency





Management of each tire
(Share tire inventory information with airlines)

Efficiently maintain optimal inventory
levels together with customers

Also collaborating with system vendors

Efficient tire inventory plan & reduction of maintenance manpower

By amplifying data value, maximize tire asset value

Contribute to maximizing efficiency & economic value of airlines' operations.

Also contribute to sustainability.



**Support vehicle operation systems** 



# Truck and bus Mobility solutions business



#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey) **Bridgestone E8 Commitment** Co-creation, Ensure security "Axis and guiding vectors of corporate strategy" "Support" society/mobility systems Transform data to social value Amplify value of Amplify trust toward Bridgestone Dan-Totsu products Amplify data value Dan-Totsu product "kaizen Webfleet, Azuga, "Support" **Mobility Solutions** vehicle operation system, etc. vehicle operation systems Circular economy cycle "Support" Real x Digital Amplify trust with society / partners / customers Tires and solutions "carry life" Being attentive and supportive **Bridgestone DNA** Respect for being on-site **Challenging spirit** Focus on quality



## **Mobility solutions business**



Contribute to the growth of truck and bus premium tires business and the establishment of circular business model Expand customer base and enhance fleet solutions which amplifies the value of tire data and mobility data



800,000 vehicles

**No.1 Position in Europe** 

Increase synergy with premium tire and tire-centric solutions



Evolve into a service & solutions that combines premium tire, tire data and vehicle data



Premium tire

X Tire related service solutions



Vehicle (fleet)

Bridgestone offers the service with "One contract & One invoice" as "One team

#### **Create synergy**

- Product/Service : Joint utilization of line-up
- Operation: Joint procurement, best practice sharing
- Technology: Resource efficiency through joint development, etc.



200,000

Scale up in North America, the largest market for mobility solutions, leveraging the synergy with Webfleet solutions

Promote enhancement in Europe, Americas, and Australia

#### Arvento Mobile Systems A.Ş.

Agreed on acquisition by BRISA, Bridgestone's affiliated company (Turkey) Connected vehicles at the end of 2021 : Approx. 650,000 vehicles



Global expansion of Webfleet Solutions Aiming for the leading position in each region



#### **Strategy outline: Solutions business**

Mid Term Business Plan (2021-2023) Return to a "strong" Bridgestone

■ Determine synergies with premium tires biz, profitability and growth

Close to achieving 21MBP Toward "strong" Bridgestone capable of adapting to change

potential by each business

 Complete laying foundations to enhance premium and evolve with solutions business Mid Term Business Plan (2024-2026)
Build the foundation to accelerate the solutions business

Mid Term Business Plan (2027-2029)
Expand & grow solutions business rapidly

#### **■** Expand investment in solutions business

- Execute strategically with the determined business
Build a foundation for the rapid expansion of solutions
business for 2027 and onwards

 Expand solutions business rapidly leveraging strength of premium tire business

#### **Retail & service solutions network**

Strengthen expansion of the network as our growth enabler

#### Retail & service solutions business

#### Passenger car

- UX Amplify customer experience value
- · Enhance mobile van service and EV charging stations
- Enhance subscription model

#### **Tire centric solutions business**

Truck & bus: ENLITEN business strategy (TB)

- Retread: "as a Bridgestone's core"
  - · Invest in reinforcement of retread
  - Strengthen synergy with the premium tire business and mobility solutions business

Mining: Solutions with MasterCore at the core

Aviation: solutions: Pioneering circular business model, starting point of solutions strategy

#### **Mobility solutions business**

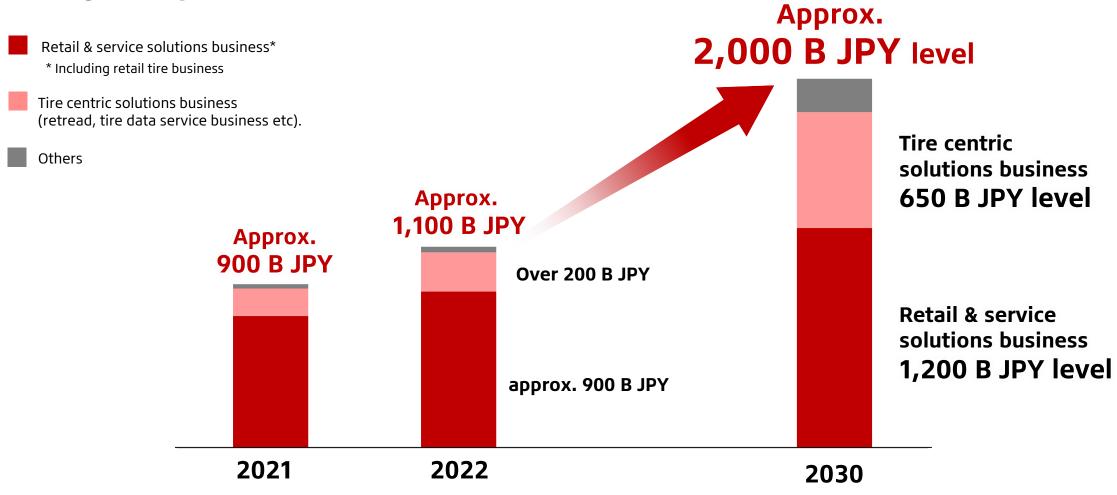
Truck & bus: Contribute to premium tire biz growth and establishment of circular business model

- Expand premium tire's customer base with Webfleet & Azuga
- Extend the "Fleetcare" concept globally



## Revenue by each solutions business

## Expand solutions business leveraging strength of premium tire business



## Respond to new mobility - Build mobility ecosystem



Build a extensive ecosystem from the premium tire business to the solutions business and sustainability

	Venture Capital	Strategic investment & Partnership	
	Autotech Ventures	May mobility  Autonomous driving technology development, U.S	Kodiak Robotics  Autonomous long-haul trucking technology development, U.S.
Mobility solutions Business	Iris Capital (Europe)	TIER IV  Autonomous driving technology development, Japan	<b>Tyrata</b> Tire sensor/data management service provider, U.S.
	The Westly Group	REACH service provider for fleets (Notice dealer when vehicle breaks down), U.S.	Car IQ  Automobile related payment platform provider, U.S.
Retail & service solutions business		Wrench Yoshi  Mobile vehicle maintenance Mobile vehicle maintenance service provider, U.S. service provider,	enance EV charging
Premium tire business		TireHub ** Joint company with Goodyear  Retail provider of Passenger car and light truck tires, U.S.	
Exploratory business Sustainability	<b>KKR</b> (U.S.)	LanzaTech  Development of technology for recycling used tire to synthetic rubber, U.S.	Delta Energy  Development of technology for recycling used tire to carbon black, U.S.



## **Diversified products business**

#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey) **Bridgestone E8 Commitment** Co-creation, Ensure security "Axis and guiding vectors of corporate strategy" 'Support' society/mobility systems Transform data to social value Amplify value of Amplify trust Dan-Totsu products toward Bridgestone Amplify data value Dan-Totsu product "kaizen "Support" vehicle operation systems Circular economy cycle "Support" vehicles iversified Products **Exploratory** Real x Digital Amplify trust with society / partners / customers Tires and solutions "carry life" Being attentive and supportive **Bridgestone DNA** Focus on quality Respect for being on-site **Challenging spirit** 



## **Diversified products business**

Sharply focus on areas where Bridgestone's core competencies can be leveraged and promote premium and solutions

### Business

Support operations in various industries

Hydraulic/high performance hose Rubber track

support lifestyles that prioritize

safety and peace of mind Plastic piping

Seismic isolation

Support the shift to EV from the ground up

Air spring (U.S.)

Support sports life and mobility life that inspires excitement and spreads joy

Sports Go

Golf ball Golf club

Cycle Power assisted bicycle bicycle



**Extension** 

Ease

**Energy** 

**Emotion** 

#### **Core competence**

Technology core mastering forming hybrid polymer

Strong brand power fostered by long history and track record

Premium product power (high performance, high added value)

Ability to make proper technological proposal based on Genbutsu-Genba and customer focus























## Sustainability business model

Produce and sell ~ Use ~ Renew
Build a circular business model from raw material

Carbon neutrality Circular economy



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# Sustainability business model Realize carbon neutrality and circular economy

Recycled & renewable material ratio

2021:37%

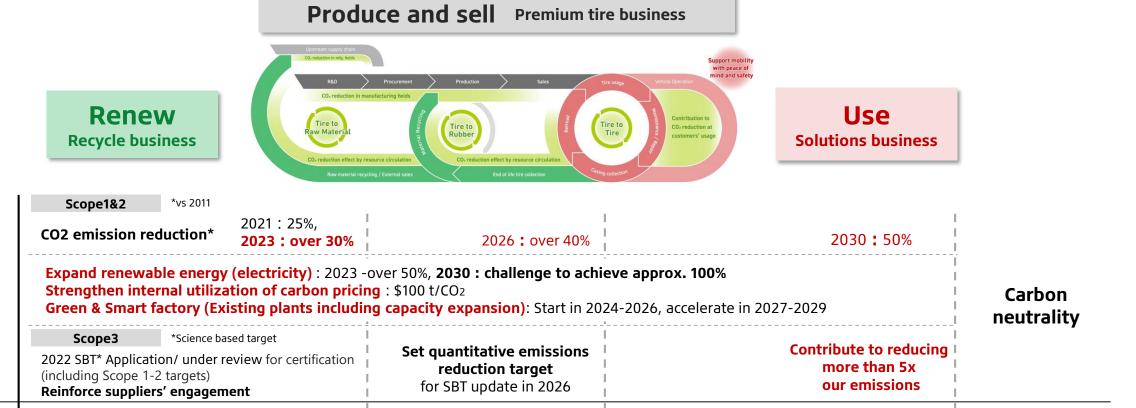
2023: over 37%

2022:37%

**Mid Term Business Plan** 

(2021-2023)





Develop material to improve Recycled & renewable material ratio:

Alignment with ENLITEN business strategy and product strategy (including retread)

Promote recycle business, strengthen renewable material:

Mid Term Business Plan

(2024-2026)

Natural rubber business, Guayule business



100%

Sustainable

material

2050

**Recycled & renewable** 

material ratio

40%

2030

**Mid Term Business Plan** 

(2027-2029)

Carbon

neutrality

Circular

economy

# Build Sustainability business model Circulate from raw material: Leverage biotechnology and forming hybrid polymer technology





#### Natural rubber business

3 natural rubber plantations
(Liberia and Indonesia)

Investment in planting
(2 natural rubber plantations in Indonesia)



#### **Guayule business**

Invest mainly in the U.S.

Diversify natural rubber sources

Aim for commercialization in 2026 through co-creation with partners



#### **Recycle business**

Technology and business
model that "Renew" tires to
raw material
Promote mainly in Japan and
the U.S. based on co-creation

Synthetic rubber Carbon black, Steel etc



#### **Natural rubber business**

Bridgestone group's natural rubber plantation (3 sites)

Operate the natural rubber plantation business over 90 years (1926~)

Yield increase with the consistent planting of rubber trees Achieved a profitable adjusted OP in 2021

Dimension: Approx. 480 square kilometers

Investment in planting of rubber trees including elite trees which grow fast (2022~)

Dimension: Sumatra - Approx. 170 square kilometers Kalimantan - Approx. 40 square kilometers

Sumatra Kalimantan



Energy Ecology Empowerment



#### **Carbon neutrality**

- Maintain approx. 5.9M tons of CO<sub>2</sub> fixation
- Introduce fast-growing elite trees
   (Improve productivity and increase yield efficiency)
- Increase in CO<sub>2</sub> absorption and fixation through new planting on a devastated land

#### **Circular economy**

Strengthen the supply of sustainable renewable material supporting premium tire business and Dan-Totsu products

Promote reinforcement of Bridgestone natural rubber plantation and establishment of sustainable natural rubber business across the entire industry

Contribute to the realization of the sustainability business model

## Continue social contribution activities staying close to local community

- Impart technology of productivity improvement developed for our own plantation
- · Open its health care facility to local community
- · Provide land for school facility, etc.

(examples in Indonesia)

Contribute to a society that ensures accessibility and dignity for all



Liberia

## Promote guayule business

Co-create with partners and build an ecosystem Inject resources globally and drive the business centering on the U.S.

2012~2022 Total investment amount Approx. 13 B JPY

2022 -2025 Total investment amount **5** B JPY

Energy
Ecology
Empowerment

Enhance sustainable raw material procurement and expand new green land

Accelerate open innovation and co-creation, aiming for commercialization in 2026 Scale up for production and business toward 2030

#### Diversification of natural rubber sources

Enhancement & diversification of renewable materials
Reduce risk of natural rubber supply & price soaring

#### Growable in arid zones with little water

Expand new green land and contribute to increased CO2 absorption "Conserve Water Resources"

Contribute to sustainable production of natural rubber with co-creation partners and local community

1940's: Development activity of tires derived from Guayule by Firestone

2012: Official re-launch of R&D activities

2013: Establishment of guayule R&D farm in Arizona (U.S.)

2014: Establishment of the Biorubber Process Research Center in Arizona (U.S.)

2015: Completion of first tires made from guayule-derived natural rubber

2018: Selected as recipient of research grant from USDA \*1 National Institute for Food and Agriculture

2022: Awarded department of energy grant to advance guayule natural rubber research
Opening of the Advanced Tire Production Center in Akron, U.S.,
production facility of sustainable race tires for the INDYCAR® SERIES
Introduction of race tire derived from guayule, debut as the
alternate race tire at the Big Machine Music City Grand Prix in Nashville, U.S.
Investment to establish commercial operations for planting and harvesting guayule at scale
Collaboration and partnering with local U.S. farmers and Native American tribes to
increase capacity of up to 25,000 additional acres of farmland for planting and harvesting activities.

#### Co-create to date:

- with Local NGO Environmental Defense Fund: Promote initiatives to convert to harvest guayule, which requires less water, in order to deal with water shortage (U.S.)
- with Versalis: Cooperation toward commercialization (U.S.)
- with NRGene: Advanced guayule research (U.S. & Japan)
- with Kirin Holdings: Development of new technology for improving guayule-derived natural rubber productivity (Japan)



## Bridgestone's Recycle business

**Used tire = "resource"** 

"Renew" tires to raw material

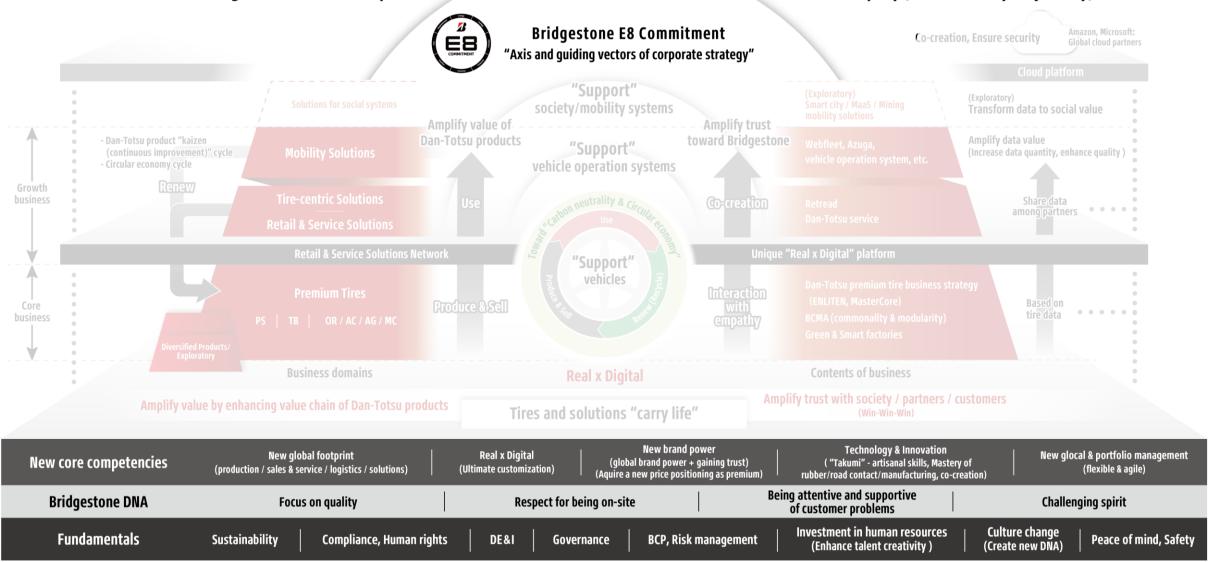
Create a society where tire value "circulates"

Preserving the environment for future generations through the recycling of tires

**Together with you** 

#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey)





## New brand power

Global brand power + gaining trust

Acquire a new price positioning as premium brand

**Bridgestone E8 Commitment Global motorsports** 



#### **Mission: Serving Society with Superior Quality**

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# Acquire a new position as premium brand Strengthen global motorsports activity



#### **Bridgestone 1.0**

**Bridgestone 2.0** 



#### **Bridgestone 3.0**



further challenge for "sustainable motorsports"

#### 2024 Re-activate global motorsports activity

Support motorsports culture development through inspiring excitement and spreading joy to the world of mobility

Continue to provide "Driving Excitement" in 10 years, 20 years





# Talent creativity Corporate culture change Create new DNA

#### Mission: Serving Society with Superior Quality

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## Enhance talent creativity - talent strategy aligned with business strategy

**Empowerment** 



Mid Term Business Plan (2021-2023) Return to a "strong" Bridgestone

Have driven initiatives on HRX as critical management issue since 2020 in gradual execution applying PDCA cycle, still need to be improved

- Expand top managements town hall meetings
- Develop talents having potential to be top management in next generation (Bridgestone Next100)
- Promotion female managers (with mentor system by executives)
- Promote new workstyles (Remote, free address, Promotion of ABW)
- · Simple and lean organization

Further strengthen management structure by appointing a Vice President and Senior Officer for talent creativity enhancement as of 1st Jan, 2023

#### Mid Term Business Plan (2024-2026)

New premium 1st stage

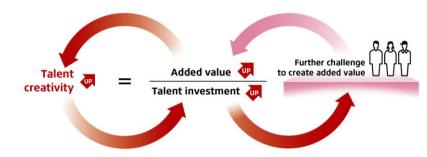
Complete building the foundation of premium biz Build the foundation to accelerate determined solutions biz

#### ■ Talent creativity - New Global management KPI -

Introduce in addition to Revenue, Adjusted OP ratio, ROIC, ROE

- Consistently aim to increase business productivity and create added value
- Execute initiatives globally to realize both growth of Bridgestone and individuals working at Bridgestone and create added value

#### Reinforce talent investment and increase added value ⇒ Create a virtuous cycle of value creation



Provide opportunity and program to create added value aligned with business strategy, and for individual talent growth.

Continue to increase added value aligned with business strategy to increase corporate value and develop various opportunities for diverse talents to "shine" through spreading experience and gaining confidence of individuals.

#### Mid Term Business Plan (2027-2029)

New premium 2<sup>nd</sup> stage

Enhance new premium biz portfolio management Expand & grow solutions business rapidly

■ Build new corporate culture and DNA

 Toward a talent group which can create new business value and support business portfolio

#### ■ Global culture change in line with Bridgestone E8 Commitment

- Drive E8 commitment activation globally
- Promote initiatives to deal with the problems specific to Bridgestone, to the region and also global common improvement items

**BRIDGESTONE** 

## **Enhance Talent creativity**

Various opportunities for diverse talents to "shine" in Bridgestone's broad business portfolio





























Diversified products



## **Strategic resource**

(Strategic investment • strategic expenses)

# Strategic resource (Strategic investment & expenses)

2022-2030 2,800B JPY level

2022-2023 plan

Approx. 490 B JPY level

Lay foundations to enhance premium and evolve with solutions business

Mid Term Business Plan (2021-23)

Approx. 620 B JPY level

Mid Term Business Plan (2024-2026)

Approx. 1,200 B JPY level

Focus on injecting resource for expansion of determined solutions biz

Continue building premium tire biz foundation Start enhancing green & smart factories Mid Term Business Plan (2027-2029) & 2030

approx. **1,100B JPY** 

Shift to mainly Green & Smart factory and sustainability related investment

Continue to invest determined solutions business

\_\_\_\_\_

Mid Term Business Plan (2027-2029)

Approx. 800 B JPY level

Premium tire business Approx. 1,200 B JPY level

60% Green & Smart factory
Sustainability related

40%

Enhancement of premium tire production

**Solutions business** 

Approx. 1,100 B JPY level

Expansion and reinforcement of retail & service solutions network / business and tire centric solutions business

IT • foundation
Diversified products
Exploratory business

Approx. 500 B JPY level



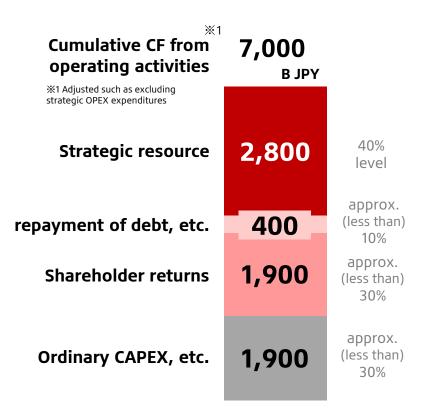
# Direction of capital allocation Shareholder returns

## **Direction of capital allocation**

#### With 2030 Long Term Strategic Aspiration as a roadmap,

- Secure necessary internal reserves to make strategic resource investment to create and balance new social & customer value and gain the competitive advantage
- Also, aim for "maintaining an appropriate financial position" and "conducting shareholder returns"

#### 2022~2030 Cumulative CF • capital allocation



#### Strategic resource (2022~2030) : approx. 2,800 B JPY

Premium tire business: approx. 1,200 B JPYSolutions business: approx. 1,100 B JPY

■ IT / foundation / diversified products &exploratory business : approx. 500 B JPY

#### "Maintaining an appropriate financial position"

While securing financial health level, balancing out capital efficiency and maintaining financial position to realize 2030 Long Term Strategic Aspiration

Securing stability	Capital efficiency · Capital cost
<ul> <li>Net D/E Ratio 2022 0.05 level (plan)</li> <li>2030 Less than 0.3 level</li> </ul>	ROE: 2022 10% (plan) <b>2030 13% level</b>
<ul> <li>Consolidated 2022 Less than 60% level (plan)</li> <li>equity ratio 2030 Target 60% level in mid-long term</li> </ul>	ROIC: 2022 9% (plan) 2030 12% level
Maintaining and enhancement of rating by credit rating agencies	2022 : Moody's: A2, S&P: A, R&I:AA+

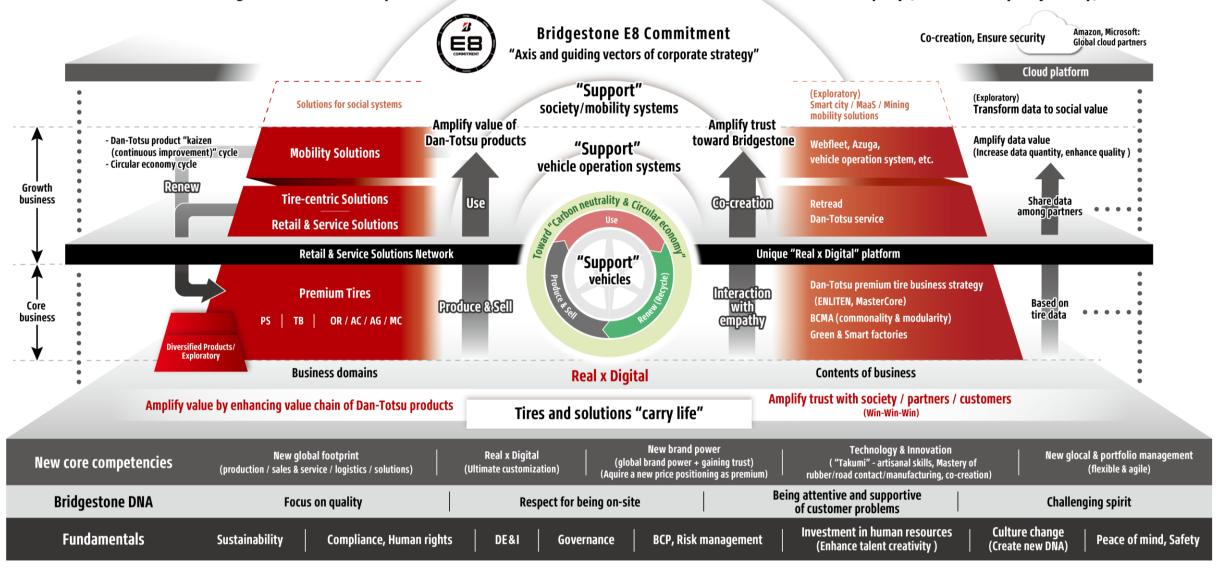
#### "Enhancement of shareholder returns" "Agile capital management"

Dividend policy: Increase dividend amounts stably and continuously
Dividend payout ratio: 2022 40% ⇒ **2030 50% level**Consider acquisition of treasury stock agilely by reviewing comprehensively from the internal reserves for strategic resource and financial health level



#### **Mission: Serving Society with Superior Quality**

Vision: 2050 Bridgestone continues to provide social value and customer value as a sustainable solutions company (Solutions for your journey)



#### **Strategy outline: Summary**



2015-2019

Decline in profit and profit share within the industry  $\Rightarrow$  "We will not survive unless we stay responsive and strong"

2020 the Third foundation

#### **Bridgestone 3.0 Journey**

Mid Term Business Plan (2021-2023)

## Return to a "strong" Bridgestone capable of adapting to change

- "Tackle past negative legacies without delay"
- "Focus on execution & delivering results for immediate issues"
- "Lay foundations for future growth"

Mid Term Business Plan (2024-2026)

Mid Term Business Plan (2027-2029)

## Focus on premium business and solutions business which create "new premium"

- Premium tire biz "From volume to value"
- Solutions biz Build the foundation to accelerate the determined solutions business

- Enhance new premium tire business portfolio management
- Expand and grow rapidly solutions business leveraging strength of the premium tire business
- Diversified products and exploratory biz -Sharply focus on areas where Bridgestone's core competencies can be leveraged

#### 2030 Become a resilient "excellent" Bridgestone

Amplify trust and value through coordination of premium tire, solutions and diversified products and exploratory business

Talent group which can create new business value and support business portfolio / Build new corporate culture and DNA





## **Bridgestone 3.0 Journey**

Pursue both social and customer value creation, and enhance corporate value.

Pursue both sustainability and corporate growth.

Confronting & overcoming various challenges and obstacles, Bridgestone will continue advancing.



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