

# SECOND PARTY OPINION

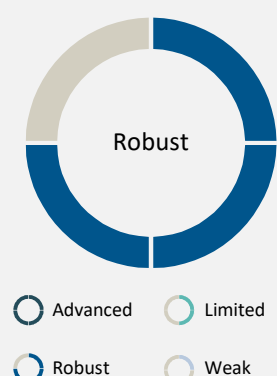
## on the sustainability of Denso's Sustainability Bond Framework

V.E is of the opinion that Denso's Framework is aligned with the four core components of the Green Bond Principles 2021 ("GBP"), Social Bond Principles 2021 ("SBP") and Sustainability Bond Guidelines 2021 ("SBG")



### Framework

#### Contribution to Sustainability:



	Weak	Limited	Robust	Advanced
Expected impacts	[Robust]			
ESG risks management	[Robust]			

#### SDG Mapping



#### Characteristics of the Framework

Green and Social Project Categories	⇒ Advanced Safety System ⇒ Clean Transportation ⇒ Renewable Energy
Project locations	Japan
Existence of framework	Yes
Share of refinancing	0%
Look back period	N/A

### Issuer

#### Controversial Activities

The Issuer appears to not be involved in any of the 17 controversial activities screened under our methodology:

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> Alcohol              | <input type="checkbox"/> Fossil fuels industry | <input type="checkbox"/> High interest rate lending | <input type="checkbox"/> Pornography             |
| <input type="checkbox"/> Animal welfare       | <input type="checkbox"/> Coal                  | <input type="checkbox"/> Human embryonic stem cells | <input type="checkbox"/> Reproductive medicine   |
| <input type="checkbox"/> Cannabis             | <input type="checkbox"/> Gambling              | <input type="checkbox"/> Military                   | <input type="checkbox"/> Tar sands and oil shale |
| <input type="checkbox"/> Chemicals of concern | <input type="checkbox"/> Genetic engineering   | <input type="checkbox"/> Nuclear power              | <input type="checkbox"/> Tobacco                 |
| <input type="checkbox"/> Civilian firearms    |  |   |  |

#### ESG Controversies

Number of controversies	7
Frequency	Occasional
Severity	High
Responsiveness	Reactive

### Coherence

Coherent
Partially coherent
Not coherent

We are of the opinion that the contemplated Sustainability Bond Framework is coherent with Denso's strategic sustainability priorities and sector issues and that it contributes to achieving the Issuer's sustainability commitments.

## Key findings

V.E is of the opinion that Denso's Framework is aligned with the four core components of the GBP and SBP.

### Use of Proceeds –aligned with GBP & SBP

- Eligible Categories are clearly defined. The Issuer has communicated the nature of the expenditures, the eligibility criteria and location of all Eligible Projects, as well as the eligibility criteria for the Advanced Safety Systems and Clean Transportation Systems, including target populations when relevant.
- The Environmental and Social Objectives are clearly defined, these are relevant for all the eligible categories and set in coherence with sustainability objectives defined in international standards.
- Expected Benefits are clear, these are considered relevant and measurable for the Eligible Categories. The Issuer will report on the benefits of the Energy Efficiency and Renewable Energy Categories, and only on the sales figures for the Advanced Safety Systems and Clean Transportation Categories due to the nature of activity of the company (B2B). An area for improvement consists of committing to quantify the benefits of Advanced Safety Systems and Clean Transportation Categories and quantifying separately the benefits of the Energy Efficiency and Renewable Energy Categories.
- The Issuer has committed to not have refinancing.

### Evaluation and Selection –aligned with GBP & SBP

- The process for Project Evaluation and Selection has been clearly defined by the Issuer. It is considered well-structured. The roles and responsibilities are clearly defined. The Process will be publicly disclosed in the Framework.
- Eligibility criteria for project selection have been clearly defined. Although, the eligibility criteria of the Energy Efficiency Category could be further specified.
- The process applied to identify and manage potentially material E&S risks associated with the projects is publicly disclosed in the SPO and considered robust for all projects. It combines monitoring, identification and corrective measures (see detailed analysis on pages 17-19).

### Management of Proceeds -aligned with GBP& SBP, and with the best practices identified by V.E

- The Process for the Management and Allocation of Proceeds is clearly and detailed. It is publicly available on Denso's website.
- The allocation period for the bond's proceeds will be 24 months or less.
- Net proceeds of the Bond will be placed in a segregated account and attested in a formal internal process.
- Information on the intended types of temporary placement for the balance of the unallocated net proceeds is publicly disclosed.
- The Issuer has committed that as long as the Bond is outstanding, the balance of the tracked net proceeds will be periodically adjusted to match allocations to Eligible Projects made during that period.
- The Issuer has provided information on the procedure that will be applied in case of project divestment, postponement or ineligibility and it has committed to reallocate divested proceeds to projects that are compliant with the framework within 24 months.

### Reporting - aligned with GBP & SBP

- The Issuer has committed to report on the Use of Proceeds annually, until full allocation and on a timely basis in case of material developments. The report will be publicly available until bond maturity.
- The reporting will cover relevant information related to the allocation of Bond proceeds. The Issuer will report on the benefits of the Energy Efficiency and Renewable Energy Categories, and only on the sales figures for the Advanced Safety Systems and Clean Transportation Categories due to the nature of activity of the company (B2B). An area for improvement consists of committing to quantify the benefits of Advanced Safety Systems and Clean Transportation Categories and quantifying separately the benefits of the Energy Efficiency

and Renewable Energy Categories. The Issuer has also committed to report on material developments/controversies related to the Eligible Projects.

- The Issuer has not committed to disclose the methodology and assumptions used to report on environmental/social benefits of the Eligible categories.
- External auditor will verify the tracking and allocation of funds as well as on the environmental/social benefits of the Energy Efficiency and Renewable Energy Categories until full allocation and in case of material changes.

## Contact

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# SCOPE

V.E was commissioned to provide an independent opinion (thereafter “Second Party Opinion” or “SPO”) on the sustainability credentials and management of the Sustainability Bonds<sup>1</sup> (“Bonds”) to be issued by Denso (the “Issuer”) in compliance with the Denso-Sustainability Bond Framework (the “Framework”) created to govern their issuance.

Our opinion is established according to V.E’s Environmental, Social and Governance (“ESG”) exclusive assessment methodology and to the latest version of the ICMA’s Green Bond Principles (GBP) and Social Bond Principles (“SBP”) voluntary guidelines (referred together as the “GBP & SBP”), both edited in June 2021.

Our opinion is built on the review of the following components:

- Framework: we assessed the Framework, including the coherence between the Framework and the Issuer’s sustainable development commitments, the Bond’s potential contribution to sustainability and its alignment with the four core components of the GBP and SBP 2021.
- Issuer: we assessed the Issuer’s management of potential stakeholder related ESG controversies and its involvement in controversial activities<sup>2</sup>.

Our sources of information are multichannel, combining data (i) gathered from public sources, press content providers and stakeholders, (ii) from V.E’s exclusive ESG rating database, and (iii) information provided from the Issuer, through documents and interviews conducted with the Issuer’s managers and stakeholders involved in the Bonds issuance, held via a telecommunications system.

We carried out our due diligence assessment from June 4, 2021 to June 29, 2021. We consider that we were provided with access to all the appropriate documents and interviewees we solicited. To this purpose we used our reasonable efforts to verify such data accuracy.

## Scope of External Reviews supporting the Framework

<input checked="" type="checkbox"/>	Pre-issuance Second Party Opinion	<input type="checkbox"/>	Independent verification of impact reporting
<input type="checkbox"/>	Independent verification of funds allocation	<input type="checkbox"/>	Climate Bond Initiative Certification

<sup>1</sup> The “Sustainability Bond ” is to be considered as the bond to be potentially issued, subject to the discretion of the Issuer. The name “Sustainability Bond ” has been decided by the Issuer: it does not imply any opinion from V.E.

<sup>2</sup> The 17 controversial activities screened by V.E are: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Coal, Fossil Fuels industry, Unconventional oil and gas, Gambling, Genetic engineering, Human embryonic stem cells, High interest rate lending, Military, Nuclear Power, Pornography, Reproductive Medicine and Tobacco.

# COHERENCE

Coherent
Partially coherent
Not coherent

We are of the opinion that the contemplated Framework is coherent with Denso's strategic sustainability priorities and sector issues and that it contributes to achieving the Issuer's sustainability commitments.

Climate Change has deemed the most critical challenge for the road transport sector as they are one of the main contributors to greenhouse gas emissions. According to the International Energy Agency (IEA), transportation is responsible for 24% of direct CO2 emissions from fuel combustion, of which road vehicles account for nearly three-quarters of the transport CO2 emissions. The materiality of the issue appears to increase in the future given emission regulations are tightening across the world. In this context, the electrification technology is considered to be indispensable for the improvement of the fuel efficiency of vehicles and the promotion of zero-emission vehicles.

Moreover, automobile safety is of utmost concern amongst consumers, governments, and the industry, as evident from regulatory efforts and acceleration of innovations. According to the World Health (WHO), road traffic injuries are the leading cause of death among the ages of 5 and 29. Furthermore, 93% of the road fatalities occur in low and middle-income countries, while they account for approximately 60% of the world's vehicles. The World Forum for Harmonization of Vehicle Regulations (WP.29) offers a unique framework to allow the market introduction of innovative vehicle technologies, whilst continuously improving global vehicle safety. Global NCAP's 2030 main agenda prioritizes the acceleration of progress towards zero negative health impacts of road transport. Moreover, EU revised its General Safety Regulation (GSR) focusing on accident avoidance, pedestrian, and cyclist protection in order to decrease the annual number of road accidents and deaths.

Environmental issues have been identified as material for Denso's sustainability management and relevant targets have been set based on the result of environmental scenario analysis.

Denso's Eco Vision 2025 adopts three targets: "Energy 1/2," "Clean x 2," and "Green x 2," collectively referred to as "Target 3", all aimed to be achieved by fiscal year 2026:

1. Energy 1/2: Reduce CO2 emissions by half through the use of technologies that resolve issues related to global warming, energy, and resources.
2. Clean x 2: Halve the impact of environmentally hazardous substances and the amount of waste we generate.
3. Green x 2: Improve the fuel efficiency of cars, greenify plants and surrounding areas, and enhance employees' environmental awareness.

One of the major ways in which Denso strives for a carbon-neutral society is with their efforts to improve EVs, by improving driving distance and battery life and shortening the amount of time it takes to charge the battery. These efforts include specific targets to improve driving distance by 25%, reducing charging time by one-third, and increase battery life by 20%.

Under the strategy "peace of mind", Denso focuses their efforts to realize a society with safe mobility and reduced traffic accidents by accelerating the development and promotion of products related to advanced safety and automated driving technologies. Furthermore, under the strategy "Inspiring", DENSO will develop products related to connect cars.

By creating a Sustainability Bond Framework to finance or refinance Eligible Projects falling under the three social and green Eligible Categories, Denso coherently aligns with its sustainability strategy and commitments, and addresses the main issues of the sector in terms of sustainable development.

# FRAMEWORK

The Issuer has described the main characteristics of the Bonds within a formalised Sustainability Bond Framework which covers the four core components of the GBP and the SBP 2021 (the last updated version was provided to V.E on June 25, 2021). The Issuer has committed to make this document publicly accessible on Denso's website, in line with good market practices.

## Alignment with the Sustainability Bond Principles

### Use of Proceeds



The net proceeds of the Bonds will exclusively finance or refinance, in part or in full, projects falling under three Green and Social Project Categories ("Eligible Categories"), as indicated in Table 1.

- Eligible Categories are clearly defined. The Issuer has communicated the nature of the expenditures, the eligibility criteria and location of all Eligible Projects, including target populations when relevant.
- The Environmental and Social Objectives are clearly defined, these are relevant for all the eligible categories and set in coherence with sustainability objectives defined in international standards.
- Expected Benefits are clear, these are considered relevant and measurable for the Eligible Categories. The Issuer will report on the benefits of the Renewable Energy Category, and only on the sales figures for the Advanced Safety Systems and Clean Transportation Categories due to the nature of activity of the company (B2B). An area for improvement consists of committing to quantify the benefits of Advanced Safety Systems and Clean Transportation Categories.
- The Issuer has committed to not have refinancing.

#### BEST PRACTICES

⇒ The issuer has transparently communicated that there will no refinancing.

Table 1. V.E' analysis of Eligible Categories, Sustainability Objectives and Expected Benefits as presented in the Issuer's Framework

- Nature of expenditures: R&D, manufacturing, acquisition/purchasing
- Location of Eligible Projects: Japan

ELIGIBLE CATEGORIES	ELIGIBLE SUB-CATEGORIES DESCRIPTION	TARGET POPULATION	SUSTAINABILITY OBJECTIVES AND BENEFITS	V.E'S ANALYSIS
Advanced Safety System	<p>Financing of new or existing expenditures or investments in advanced safety and automated driving components</p> <ul style="list-style-type: none"> <li>- R&amp;D: Technological development that will contribute to improving the performance of following components related to advanced safety and automated driving: front millimeter wave radar, front side millimeter wave radar, rear side millimeter wave radar, front image sensor, rear camera, sonar, DSM (Driver Status Monitor), airbag system, cruise control, ABS (Anti-lock Braking System), peripheral monitoring ECU, laser radar.</li> <li>- Capital investment: To expand production of the above products.</li> </ul>	Drivers, passengers, vulnerable road users including pedestrians, bicycles, motorcycles.	<p><u>Safe Mobility</u></p> <p>Reduce traffic accidents</p>	<p>The Eligible Projects are clearly defined. The Issuer has communicated the nature of the expenditures, the eligibility criteria and the location of Eligible Projects.</p> <p>The target population is clear and relevant for all the Eligible Projects. R&amp;D will be carried out for each target population and safety feature based on assumption of different accident scenes (i.e. front collision, crosswalk, etc) in order to advance the technology and efficacy.</p> <p>The social objective is clearly defined, it is considered relevant and set in coherence with sustainability objectives defined in international standards.</p> <p>The social benefits are clear, they are considered relevant, although the Issuer has only committed to provide the sales figures and qualitative reporting on the progress of R&amp;D related to this category. An area for improvement is to quantify the social benefits.</p>






ELIGIBLE CATEGORIES	ELIGIBLE SUB-CATEGORIES DESCRIPTION	SUSTAINABILITY OBJECTIVES AND BENEFITS	V.E'S ANALYSIS
Clean Transportation	<p>Financing of new or existing R&amp;D or capital expenditures in the below components that will be integrated to BEV (battery electric vehicle), FCV (fuel cell vehicle) and e-VTOL(electric vertical take-off and landing)<sup>3</sup>.</p> <ul style="list-style-type: none"> <li>- R&amp;D: Development of technologies that contribute to improved fuel efficiency, lighter weight and cost performance including inverters (PCU), motor generators, and battery ECUs, which are essential for electric vehicles.</li> <li>- Capital investment: To expand production of the above products.</li> </ul>	<p><u>Climate Change Mitigation</u></p> <p>Reduction of CO2 emission</p>	<p>The Eligible Category is clearly defined. The issuer has communicated the nature of the expenditures, the eligibility criteria and the location of Eligible Projects.</p> <p>CAPEX expenditures are exclusively for components dedicated to BEV, FCV and e-VTOL. Furthermore, e-VTOL is a type of aircraft that uses electric power to hover, take off, and land vertically, fueled by battery and motor.</p> <p>The environmental objective is clearly defined, it is considered relevant and set in coherence with sustainability objectives defined in international standards.</p> <p>The environmental benefits are clear, they are considered measurable and relevant. Although the Issuer has only committed to provide the sales figures related to this category in the reporting. An area for improvement is to quantify the environmental benefits.</p>
Monozukuri (Manufacturing)			
Renewable Energy	<p>Below efforts contribute to the target of achieving electricity neutrality by 2025 and carbon neutrality by 2035.</p> <p>Increase Use of Renewable Energy</p> <ul style="list-style-type: none"> <li>- Acquisition of renewable energy (Solar PV, Onshore Wind)</li> </ul>	<p><u>Climate Change Mitigation</u></p> <p>Reduction of CO2 emission</p>	<p>The Eligible Category is clearly defined. The issuer has communicated the nature of the expenditures and the location of Eligible Projects. The Issuer has declared that it will purchase renewable energy using Power Purchase Agreements and Renewable Energy Certificates.</p> <p>The environmental objective is clearly defined, it is considered relevant and set in coherence with sustainability objectives defined in international standards.</p> <p>The environmental benefits clear, they are considered measurable and relevant.</p>

<sup>3</sup>[DENSO and Honeywell Aerospace extend partnership to develop electric propulsion units for urban air mobility - eVTOL Insights](#)



## SDG Contribution

The Eligible Categories are likely to contribute to 5 of the United Nations' Sustainable Development Goals ("SDGs"), namely:

ELIGIBLE CATEGORY	SDG	SDG TARGETS
Advanced safety system		3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
Renewable Energy		7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Advanced safety system		9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Clean Transportation		
Advanced safety system		11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
Clean Transportation		13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
Renewable Energy		

## Evaluation and Selection of Eligible Projects



- The process for Project Evaluation and Selection has been clearly defined by the Issuer. It is considered well-structured. The roles and responsibilities are clearly defined. The Process will be publicly disclosed in the Framework.
- Eligibility criteria for project selection have been clearly defined by the Issuer for all Eligible Categories.
- The process applied to identify and manage potentially material E&S risks associated with the projects is publicly disclosed in the SPO and considered robust for all projects. It combines monitoring, identification and corrective measures (see detailed analysis on pages 19 - 22).

### Process for Project Evaluation and Selection

- For the purpose of the Bonds, relevant departments will liaise to carry out key decisions. This includes representatives of following departments:
  - Finance Office, Accounting Department
  - Business planning
  - Technology
  - Production
  - Quality
  - Sales
- These departments are responsible for:
  - Selection of projects that aligns with Denso's target to achieve 50% reduction of CO2 by 2025 as well as 2030 long term policy
  - Executing the final decision in regard to selection of eligible project. The Finance Office will make the final decision based on discussion with all of the departments mentioned above.
  - Ensure appropriate selection of projects for R&D and capital investment
  - Selection of projects based on consultation with experts of environment and safety technology
  - Monitoring of the compliance to the eligibility criteria
  - Reporting of sustainability benefits of the eligible projects
- The traceability and verification of the selection and evaluation of the projects is ensured throughout the process:
  - Monitoring will be carried out annually by the Issuer to ensure that the Eligible Projects are aligned with the eligibility criteria and to monitor potential ESG controversies throughout the life of the Bond(s). If a case of non-compliance is found, the Issuer has committed to reallocate the proceeds to another Eligible Project.
  - In case an ESG controversy arises, the department related to the controversy as well as the ESG department will be the responsible for discussing the appropriate responses. The status and responses to the controversy will be reported to the CRO (chief risk officer) for appropriate action. All controversy will be reviewed annually and communicated to external reviewer.
  - The decision-making process will be traceable through internal meeting minutes.

### Eligibility Criteria

The process relies on clear eligibility criteria (selection and exclusion), overall relevant to the environmental and social objectives defined for the Eligible Categories.

- The selection criteria are based on definitions in Eligible Categories defined Table 1 in the Use of Proceeds section.
- The exclusion criteria are explicitly defined as per below:
  - Clean Transportation category will exclude all projects except for BEV, FCEV, and e-VTOL.
  - Advanced Safety System will exclude investments in technology development and product expansion without contribution to improved safety of vehicles.

#### BEST PRACTICES

- ⇒ The Issuer reports that it will monitor compliance of selected projects with eligibility criteria specified in the Framework throughout the life of the instrument and has provided details on content, frequency, duration and on procedure adopted in case of non-compliance

## Management of Proceeds

Not Aligned	Partially Aligned	Aligned	Best Practices
			<ul style="list-style-type: none"> <li>• The Process for the Management and Allocation of Proceeds is clearly defined and detailed. It is publicly available on Denso's website.</li> <li>• The allocation period for the bond's proceeds will be 24 months or less.</li> <li>• Net proceeds of the Bond will be placed in a segregated account and attested in a formal internal process.</li> <li>• Information on the intended types of temporary placement for the balance of the unallocated net proceeds is publicly disclosed.</li> <li>• The Issuer has committed that as long as the Bond is outstanding, the balance of the tracked net proceeds will be periodically adjusted to match allocations to Eligible Projects made during that period.</li> <li>• The Issuer has provided information on the procedure that will be applied in case of project divestment, postponement or ineligibility and it has committed to reallocate divested proceeds to projects that are compliant with the framework within 24 months.</li> </ul>

## Management Process

- Upon receipt, the net proceeds will be managed by the relevant departments and held in a dedicated account for Sustainability bond proceeds.
- Proceeds will be tracked using the internal control system by the department responsible for the eligible projects throughout the life of the bond.
- Documents related to management of proceeds will be managed according to Denso's accounting standards as well as document management rules.
- Proceeds will be allocated within 2 years and will be managed in cash and cash equivalents until allocation to Eligible Projects. The Issuer has committed not to invest temporarily unallocated net proceeds in GHG intensive activities or controversial activities. As per exclusion criteria in Evaluation and Selection of Eligible Projects, unallocated funds will not be allocated to projects that are not explicitly included in Table 1 in the Use of Proceeds.

### BEST PRACTICES

- ⇒ The allocation period is 24 months or less.
- ⇒ The Issuer has committed not to invest temporarily unallocated net proceeds in GHG intensive activities or controversial activities.
- ⇒ The Issuer has provided information on the procedure that will be applied in case of project divestment or postponement and it has committed to reallocate divested proceeds to projects that are compliant with the bond framework within 24 months.

## Monitoring & Reporting

Not Aligned	Partially Aligned	Aligned	Best Practices
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- The Issuer has committed to report on the Use of Proceeds annually, until full allocation and on a timely basis in case of material developments. The report will be publicly available until bond maturity.
- The reporting will cover relevant information related to the allocation of Bond proceeds. The Issuer will report on the benefits of the Renewable Energy Category, and only on the sales figures for the Advanced Safety Systems and Clean Transportation Categories due to the nature of activity of the company (B2B). An area for improvement consists of committing to quantify the benefits of Advanced Safety Systems and Clean Transportation Categories. The Issuer has also committed to report on material developments/controversies related to the Eligible Projects.
- The Issuer has not committed to disclose the methodology and assumptions used to report on environmental/social benefits of the Eligible categories.
- External auditor will verify the tracking and allocation of funds as well as on the environmental/social benefits of the Renewable Energy Categories until full allocation and in case of material changes.

### Indicators

The Issuer has committed to transparently communicate at Eligible Category level, on:

- Allocation of proceeds: The indicators selected by the Issuer to report on the allocation of proceeds covers all the relevant information

REPORTING INDICATORS
⇒ Allocated amounts by Eligible Projects
⇒ Amount of unallocated proceeds
⇒ Description of allocated projects

The Issuer has declared that there will be no re-financing and that co-financing is non-applicable.

- Environmental and social benefits: The indicators selected by the Issuer to report on the environmental and social benefits are partially clear and relevant.

ELIGIBLE CATEGORIES	BENEFITS INDICATORS	
	OUTPUTS AND OUTCOMES	IMPACT INDICATORS
Advanced safety system	<ul style="list-style-type: none"> <li>- Sales percentage increase (YoY)</li> <li>- Quality reporting on the progress of R&amp;D</li> </ul>	N/A
Clean Transportation	<ul style="list-style-type: none"> <li>- Sales percentage increase (YoY)</li> </ul>	N/A
Renewable Energy	N/A	<ul style="list-style-type: none"> <li>- CO2 emissions reduced</li> </ul>

Areas for improvement:

- Committing to disclose the methodology and assumptions used to report on environmental benefits of the Eligible Categories at least to investors-bondholders
- Define clear and relevant indicators to report on environmental/social benefits of all Eligible Categories.

#### BEST PRACTICES

⇒ The Issuer has committed to report on material development related to the projects, including ESG controversies.

## Contribution to sustainability

### Expected Impacts

The potential positive Impact of the eligible projects on environmental and social objectives is considered to be robust.

ELIGIBLE CATEGORY	EXPECTED IMPACT	ANALYSIS
Advanced Safety System	ROBUST	<p>The Eligible Projects will bring overall positive impacts in Japan where Denso operates through R&amp;D and capital investments for the advanced safety components of cars including for the automated driving cars. These components include front millimeter wave radar, front image sensor, rear camera, sonar, DSM (Driver Status Monitor), airbag system.</p> <p>Denso will conduct product development based on the assumption of different accident scenes (Rear-end collision /Backing up, Intersections, Frontal collision, etc.) for each target population group (pedestrians, cars, motorcycles and vulnerable pedestrians). These efforts go beyond the legal requirements of countries and vehicles with Denso's DN sensors have received high scores in various countries where preventative safety assessments are conducted (Euro-NCAP, J-NCAP, etc.).</p> <p>Given that traffic accidents are leading cause of death for children and young adults aged 5-29 years, advancement of safety features for different accident situation will contribute to decreasing such tragedies.<sup>4</sup></p> <p>Furthermore, Denso performs advanced technology research including key AI technologies for automated driving. Receiving the highest rating of five stars from the European evaluation institution Euro NCAP in 2016 for these efforts is a testament to the success of such sophisticated research and the further developments to come.</p> <p>Lastly, given the rising trend of autonomous driving system and the concerns around its safety, improvement of the safety features has become ever more imperative.<sup>5,6,7</sup></p> <p>Overall, we consider the potential social impact of this category to be robust, whilst acknowledging the challenges in making automated driving safe and to acquiring public trust.<sup>8,9</sup></p>
Clean Transportation	ADVANCED	<p>The Eligible Projects will bring overall positive impacts in Japan where Denso operates through R&amp;D and manufacturing of inverter (PCU), motor generator and battery ECU.</p> <p>Vehicle types included in this project are limited to BEV, FCEV and e-VTOL. These are vehicles without scope 3 CO<sub>2</sub> emission which will help to reduce automobile industry's emission reported to be three-quarters of the entire transportation industry. e-VTOL will be powered by battery and motor.</p> <p>Components included in the project are referred to as the 3-core technology for EVs and Denso's goal is to improve their fuel efficiency and power costs.</p> <p>IEA in the "Global EV outlook 2021" underscores that one of the top five barriers for EV adoption is the capital cost of EVs. Affordability of EVs will lead to reduction of CO<sub>2</sub> emission and contributes to Japan's target to reduce 46% CO<sub>2</sub> by 2030 and Denso's target to halve CO<sub>2</sub> by 2026.</p> <p>It is worth noting the purpose of e-VTOL being included in this project. As explained in research conducted by Japan's Ministry of Economy, it is estimated that the size of the market for "flying cars" in 2030 will be 9 trillion yen worldwide and 650 billion yen in Japan, just for those related to human transportation. With the concerns surrounding over population and road congestion as well as the resulting air pollution, Japanese government explains that these advancements can help reduce traffic congestion for commuters in cities as well as connect communities in remote locations to improve disaster response options.<sup>10,11</sup> Instead of an engine, Denso confirms that electric motor and inverter will power the e-VTOL and will leverage its findings from the R&amp;D to further advance BEV and FCEV component technology. Of note, V.E has no</p>

<sup>4</sup> [Road traffic injuries \(who.int\)](https://www.who.int/news-room/fact-sheets/detail/road-traffic-injuries)

<sup>5</sup> <https://unece.org/DAM/trans/doc/2020/wp29grva/GRVA-05-48e.pdf>

<sup>6</sup> [Background: Advanced Driver Assistance Systems \(canada.ca\)](https://www.canada.ca/en/transportation/13001/advanced-driver-assistance-systems-background.html)

<sup>7</sup> [ensuringamericanleadershipav4.pdf \(transportation.gov\)](https://www.transportation.gov/sites/dotgov/files/2017/04/ensuring-american-leadership-pav4.pdf)

<sup>8</sup> [Automated Driving Systems: A Vision for Safety \(nhtsa.gov\)](https://www.nhtsa.gov/sites/nhtsa/files/2017/04/automated-driving-systems-a-vision-for-safety.pdf)

<sup>9</sup> [NHTSA-2020-0106-0617 attachment 1 \(1\).pdf](https://www.nhtsa.gov/sites/nhtsa/files/2020-01/2020-0106-0617-attachment-1-1.pdf)

<sup>10</sup> [1220\\_004a.pdf \(meti.go.jp\)](https://www.meti.go.jp/eng/press/2020/04/1220_004a.pdf)

<sup>11</sup> [Where Will Flying Cars Take Us? Japan Develops World's First Air Mobility Roadmap / METI Ministry of Economy, Trade and Industry](https://www.meti.go.jp/eng/press/2020/04/1220_004a.pdf)

ELIGIBLE CATEGORY	EXPECTED IMPACT	ANALYSIS
		<p>visibility on what kind of future safety and legal regulations might apply to these new technologies.</p> <p>Overall, we consider the potential environmental impact of this category to be robust/advanced, while acknowledging the challenges ahead for achieving a safety as well as public acceptance for e-VTOL.</p>
Renewable Energy	ADVANCED	<p>The Eligible Projects will bring overall positive impacts in Japan where Denso operates through acquisition of solar PV and wind energy.</p> <p>Given the global shift towards EV cars and the need to reduce the scope 1 &amp; 2 emission by incorporating renewable energy in the manufacturing process as well as for battery energy source, this category will play a key role in advancing these missions.<sup>12</sup></p> <p>Further usage of renewable energy for their manufacturing process will contribute to reduction of CO2 emission and contribute to the target of achieving electricity neutrality by 2025 and carbon neutrality by 2035. The Issuer will use Power Purchase Agreements and Renewable Energy Certificates to ensure the traceability of the acquisition of renewable energy.</p> <p>Overall, we consider the potential environmental impact of this category to be advanced.</p>
OVERALL ASSESSMENT	ADVANCED	

<sup>12</sup> [Electric vehicles \(EV\) \(irena.org\)](https://www.irena.org/)



## ESG Risks Identification and Management systems in place at project level

The identification and management of the environmental and social risks associated with the Eligible Projects are considered robust.

	ELIGIBLE CATEGORIES		
	ADVANCED SAFETY SYSTEM	CLEAN TRANSPORTATION	RENEWABLE ENERGY
Environmental Management System	X	X	X
Eco-design and end-of-life impact	X	X	X
Environmental Impact from energy use	X	X	N/A
Environmental Impact Assessment	X	X	X
Fundamental human and labour rights	X	X	X
Health and safety of the workers and users	X	X	X
Quality working conditions	X	X	X
Integration of environmental and social factors in supply chain	X	X	X
Security and safety of end user	X	X	X
Business ethics	X	X	X
OVERALL ASSESSMENT	Robust	Robust	Robust

### Environmental Management System

Denso is ISO 14001 certified and in 2019 they pledged their support for Task Force on Climate-related Financial Disclosures (TCFD).

Denso has carried out scenario analysis regarding the impact of climate change on our businesses and the opportunities and formulated the Eco Vision to serve as a long-term environmental policy to help them promote their environmental management. Target 3 are to be achieved under the Eco Vision by 2026 and includes:

1. Energy ½: Reduce CO2 emissions by half through the use of technologies that resolve issues related to global warming, energy, and resources
2. Clean x 2: Halve the impact of environmentally hazardous substances and the amount of waste we generate
3. Green x 2: Improve the fuel efficiency of cars, greenify plants and surrounding areas, and enhance employees' environmental awareness

### Eco-design and end-of-life impact

Denso reports to evaluate the environmental impacts of each product through its product lifecycle, including end of life use and disposal of products, and only those that meet its internal criteria can move to the next product development phase. There is also a dedicated product development guideline for products that have relatively large environmental impacts.

### Environmental impact from energy use

The environmental Manual (6.2 Environmental Targets and Planning to Achieve Them) sets environmental targets that must be met by each department in order to achieve DENSO Eco Vision 2025. The progress of these targets will be measured when feasible. The environmental manager shall promote the "Annual Environmental Action Plan for each department" and implement the following operational management procedures: "8.1.1 Operational Management" during development and design, "8.1.2 Operational Management" during facility design, "8.1.3 Management of significant environmental aspects", "8.1.4 Management of noise, vibration, and odor generation prevention", "8.1.5 Management of chemical substances", "8.1.6 Management of fluorocarbon gas", "8.1.7 Waste management", "8.1.8 Resource conservation and recycling", "8.1.9 Energy conservation", "8.1.10 Forest management", "8.1.11 Operational management for external contractors" "8.1.12 Operational management for suppliers", "8.1.13 Operational management for outsourced resident contractors (including spin-off companies)".

### Environmental Impact Assessment

Denso complies to the "Environmental Manual (6.1.2 Environmental Aspects)" to identify the environmental impact of the overall business activities of the development, design, production activities and services of automotive parts and other products that can be managed or can be influenced, taking into account the life cycle perspective, and determine the significant environmental aspects that have or may have a significant impact on the environment are determined.

In addition, the Environmental Manual "6.1.4.1 Addressing Significant Environmental Aspects" manages the significant environmental aspects with focus through objectives and implementation plans, competence or awareness, communication, operational management, emergency response, monitoring, measurement, analysis and evaluation.

### Fundamental human and labor rights

Denso declares to respect human rights according to the international standards including the Universal Declaration of Human Rights and the UN Guiding Principles on Business and Human Rights. Policies and measures are implemented for promoting corporate conduct that takes into consideration responsibilities such as legal compliance, protection of human and labor rights, the environment, and business ethics, both in their own operations and in those of their suppliers. "Supplier Sustainability Guidelines" are strictly followed to protect labor rights. Its roughly 6,100 suppliers are requested to carry out procurement in line with the content of these guidelines.

Denso recognizes that conflict minerals represent one of the most significant social issues within the supply chain and makes regular revisions to their Supplier Sustainability Guidelines in light of this issue. All suppliers are requested to carry out an investigation into conflict minerals.

### Health and safety of the workers and users

"Basic Philosophy on Safety, Health and Environment" established by Denso in 1969 is designed to improve health and safety throughout Global Denso based on the policy of "Creating a safe and comfortable workplace is the best way to achieve both respect for people and high productivity." Physical and mental health is the source of vigorous work and is essential for the happiness of employees and their families.

Safety, Health, and Environmental Management Regulations (Regulation No. 0301) have been designed to prevent occupational accidents, health hazards, explosions and fires, and environmental pollution associated with our business activities. Basic policies, targets, risk assessments, workplace activity plans, activity implementation, and evaluation follow-up systems are incorporated into this regulation.

#### Quality of working condition

Denso establishes a working environment in order to promote diversity and inclusion. All employees, regardless of age, gender, or nationality can play an active role and is promoting efforts to encourage the growth of its employees' individual capabilities.

The Global Diversity & Inclusion Committee has been established to promote and oversee the progress and it consists of executives, representatives of each region, and other members, in addition to a promotion committee system in each region.

With the anticipated growth in aging population in Japan, Denso has also revised their human resource system for reemployment of employees over 60.

#### Integration of environmental and social factors in supply chain

Denso has determined the Supplier Sustainability Guidelines and shares these guidelines with its roughly 6,100 suppliers, requesting that they carry out procurement in line with the content of these guidelines. Suppliers are also requested to assess their own CSR practices through self-diagnostic sheets. When necessary, Denso employees are responsible for CSR procurement visit suppliers to conduct assessments, hold dialogues, and recommend improvements. When beginning transactions with a new supplier, Denso concludes a basic transaction contract that addresses issues such as compliance, protection of human rights, environmental conservation, and occupational safety. Denso has formulated the Group's Green Procurement Guidelines based on the Group's basic environmental policy, Eco Vision. These guidelines are explicitly stated as per below:

1. Establish an environmental management system
2. Manage and reduce environmentally hazardous substances
3. Reduce CO<sub>2</sub> Emissions within Logistics Activities, reducing packing material usage
4. Improve environmental performance

#### Security and safety of the end-users

Denso acquired ISO/TS16949 certification and ensures security and safety of their products by following their basic policy which includes: (1) thorough implementation of the "quality first" principle, (2) quality assurance at the source stage, and (3) promotion of quality control with the participation of all employees, in order to promote customer-first product manufacturing. Denso has established technical centers in Japan, the U.S., Germany, Thailand, China, India, and Brazil to provide the best products according to the characteristics of each region in the world and have a global system for quality testing and evaluation. Initial Flow Management Rules (Rule No. 0202) is implemented to ensure design quality, early process stabilization, and advance understanding of quality in the market. Product Security Implementation Guidelines (Regulation No. 042006) is implemented to provide secure products and systems to the market.

#### Business ethics

Denso Global Anti-Bribery Policy and Anti-bribery compliance committee ensures thorough compliance with anti-bribery regulations and engaging in educational activities with the employees. "Antitrust Law Compliance Rules (Rule No. 0806) is established to ensure compliance with antitrust laws in Japan and overseas in sales, purchasing, production, technological development, business combinations, and all other operations and transactions in which Denso is involved. Denso has established an internal antitrust law compliance system and takes actions based on this system to ensure transparency.

Dialogue with regulatory authorities is promoted and policy proposals are made through Denso's membership in Keidanren, Japan Auto Parts Industries Association, and other organizations, and contribute to a sustainable society by participating in public-private projects (i.e., Smart Mobility Challenge Promotion Council = a project by METI and MLIT).

# ISSUER

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Denso engages in the manufacture of automobile parts, such as thermal systems, powertrain control systems, information and safety systems, electronic systems and small motors. Denso is also engaged in industrial equipment, such as automatic recognition systems, factory automation equipment, as well as cooling and air-conditioning-related products, in addition to daily-life related equipment. The Company was founded in 1949 and is headquartered in Aichi, Japan.

## Management of ESG Controversies

As of today, Denso is facing seven stakeholders related ESG controversies, linked to one of the six domains we analyse:

- Business Behaviour in the criterion: “Anti-competitive Practices”

Frequency: On average, the controversies are considered “occasional”, more frequent than the sector average which is “isolated”.

Severity: The severity of their impact on both the company and its stakeholders is considered “high”, in line with the sector average.

Responsiveness: Denso is overall “reactive”, in line with the sector average.

## Involvement in Controversial Activities

The Issuer appears to be not involved in any of the 17 controversial activities screened under our methodology, namely: Alcohol, Animal welfare, Cannabis, Chemicals of concern, Civilian firearms, Coal, Fossil Fuels industry, Unconventional oil and gas, Gambling, Genetic engineering, Human embryonic stem cells, High interest rate lending, Military, Nuclear Power, Pornography, Reproductive Medicine and Tobacco.

The controversial activities research provides screening of companies to identify involvement in business activities that are subject to philosophical or moral beliefs. The information does not suggest any approval or disapproval on their content from V.E.

# METHODOLOGY

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In V. E's view, Environmental, Social and Governance (ESG) factors are intertwined and complementary. As such they cannot be separated in the assessment of ESG management in any organisation, activity or transaction. In this sense, V.E provides an opinion on the Issuer's ESG performance as an organisation, and on the processes and commitments applicable to the intended issuance.

Our Second Party Opinions (SPOs) are subject to internal quality control at three levels (Analyst, Project Manager and Quality Reviewer). If necessary, this process is complemented by a final review and validation by the Expertise Committee and Supervisor. A right of complaint and recourse is guaranteed to all companies under our review, following three levels: first, the team in contact with the company; then the Executive Director in charge of Methods, Innovation & Quality; and finally, V.E's Scientific Council. All employees are signatories of V. E's Code of Conduct, and all consultants have also signed its add-on covering financial rules of confidentiality.

## COHERENCE

Scale of assessment: not coherent, partially coherent, coherent

This section analyses whether the activity to be financed through the selected instrument is coherent with the Issuer's sustainability priorities and strategy, and whether it responds to the main sustainability issues of the sector where the Issuer operates.

## ISSUANCE

### Alignment with the Green and/or Social Bond Principles

Scale of assessment: Not aligned, Partially aligned, Aligned, Best Practices

*The Framework has been evaluated by V.E according to the ICMA's Green Bond Principles - June 2021 ("GBP") and/or the Social Bond Principles - June 2021 ("SBP"), and on our methodology based on international standards and sector guidelines applicable in terms of ESG management and assessment.*

#### Use of proceeds

The definition of the Eligible Projects and their sustainable objectives and benefits are a core element of Green/Social/Sustainable Bonds and Loans standards. V.E evaluates the clarity of the definition of the Eligible Categories, as well as the definition and the relevance of the primary sustainability objectives. We evaluate the descriptions of the expected benefits in terms of relevance, measurability and quantification. In addition, we map the potential contribution of Eligible Projects to the United Nations Sustainable Development Goals' targets.

#### Process for evaluation and selection

The evaluation and selection process is assessed by V.E on its transparency, governance and relevance. The eligibility criteria are assessed on their clarity, relevance and coverage vs. the intended objectives of the Eligible Projects.

#### Management of proceeds

The process and rules for the management and the allocation of proceeds are assessed by V.E on their transparency, traceability and verification.

#### Reporting

The monitoring and reporting process and commitments defined by the Issuer are assessed by V.E on their transparency, exhaustiveness and relevance, covering the reporting of both proceeds' allocation and sustainable benefits (output, impact indicators).

## Contribution to sustainability

Scale of assessment: Weak, Limited, Robust, Advanced

V.E's assessment of activities' contribution to sustainability encompasses both the evaluation of their expected positive impacts on environmental and/or social objectives, as well the management of the associated potential negative impacts and externalities.

### Expected positive impact of the activities on environmental and/or social objectives

The expected positive impact of activities on environmental and/or social objectives to be financed by the Issuer or Borrower is assessed on the basis of:

- i) the relevance of the activity to respond to an important environmental objective for the sector of the activity; or to respond to an important social need at country level.
- ii) the scope of the impact: the extent to which the expected impacts are reaching relevant stakeholders (i.e. the issuer, its value chain, local and global stakeholders); or targeting those populations most in need.
- iii) the magnitude and durability of the potential impact of the proposed activity on the environmental and/or social objectives (capacity to not just reduce, but to prevent/avoid negative impact; or to provide a structural/long-term improvement).
- iv) only for environmental objectives, the extent to which the activity is adopting the best available option.

### Activities' ESG risk management

The identification and management of the potential ESG risks associated with the eligible projects/activities are analysed on the basis of V.E's ESG assessment methodology, international standards and sector guidelines applicable in terms of ESG management and assessment.

## ISSUER

### Management of stakeholder-related ESG controversies

V.E defines a controversy as public information or contradictory opinions from reliable sources that incriminate or make allegations against an issuer regarding how it handles ESG issues as defined in V.E ESG framework. Each controversy may relate to several facts or events, to their conflicting interpretations, legal procedures or non-proven claims.

V.E reviewed information provided by the Issuer, press content providers and stakeholders (partnership with Factiva Dow Jones: access to the content of 28,500 publications worldwide from reference financial newspapers to sector-focused magazines, local publications or Non-Government Organizations). Information gathered from these sources is considered as long as it is public, documented and traceable.

V.E provides an opinion on companies' controversies risks mitigation based on the analysis of 3 factors:

- **Frequency:** reflects for each ESG challenge the number of controversies that the Issuer has faced. At corporate level, this factor reflects on the overall number of controversies that the Issuer has faced and the scope of ESG issues impacted (scale: Isolated, Occasional, Frequent, Persistent).
- **Severity:** the more a controversy is related to stakeholders' fundamental interests, proves actual corporate responsibility in its occurrence, and have caused adverse impacts for stakeholders and the company, the higher its severity is. Severity assigned at the corporate level will reflect the highest severity of all cases faced by the company (scale: Minor, Significant, High, Critical).
- **Responsiveness:** ability demonstrated by an Issuer to dialogue with its stakeholders in a risk management perspective and based on explanatory, preventative, remediating or corrective measures. At corporate level, this factor will reflect the overall responsiveness of the company for all cases faced (scale: Proactive, Remediate, Reactive, Non- Communicative).

The impact of a controversy on a company's reputation reduces with time, depending on the severity of the event and the company's responsiveness to this event. Conventionally, V.E's controversy database covers any controversy with Minor or Significant severity during 24 months after the last event registered and during 48 months for High and Critical controversies.

### Involvement in controversial activities

17 controversial activities have been analysed following 30 parameters to screen the company's involvement in any of them. The company's level of involvement (Major, Minor, No) in a controversial activity is based on:

- An estimation of the revenues derived from controversial products or services.
- The specific nature of the controversial products or services provided by the company.

## V.E'S ASSESSMENT SCALES

Scale of assessment of Issuer's ESG performance or strategy and financial instrument's Contribution to sustainability		Scale of assessment of financial instrument's alignment with Green and/or Social Bond and Loan Principles	
Advanced	Advanced commitment; strong evidence of command over the issues dedicated to achieving the sustainability objective. An advanced expected impact combined with an advanced to robust level of E&S risk management & using innovative methods to anticipate new risks.	Best Practices	The Instrument's practices go beyond the core practices of the ICMA's Green and/or Social Bond Principles and/or of the Loan Market Association's Green Loan Principles by adopting recommended and best practices.
Robust	Convincing commitment; significant and consistent evidence of command over the issues. A robust expected impact combined with an advance to robust level of assurance of E&S risk management or an advanced expected impact combined with a limited level of assurance of E&S risk management.	Aligned	The Instrument has adopted all the core practices of the ICMA's Green and/or Social Bond Principles and/or of the Loan Market Association's Green Loan Principles.
Limited	Commitment to the objective of sustainability has been initiated or partially achieved; fragmentary evidence of command over the issues. A limited expected impact combined with an advanced to limited level of assurance of E&S risk management; or a robust expected impact combined with a limited to weak level of assurance of E&S risk management; or an advance expected impact combined with a weak level of assurance of E&S risk management.	Partially Aligned	The Instrument has adopted a majority of the core practices of the ICMA's Green and/or Social Bond Principles and/or of the Loan Market Association's Green Loan Principles, but not all of them.
Weak	Commitment to social/environmental responsibility is non-tangible; no evidence of command over the issues. A weak expected impact combined with an advanced to weak level of assurance of E&S risk management or a limited expected impact with a weak level of assurance of E&S risk management.	Not Aligned	The Instrument has adopted only a minority of the core practices of the ICMA's Green and/or Social Bond Principles and/or of the Loan Market Association's Green Loan Principles.

## Statement on V.E' s independence and conflict-of-interest policy

Transparency on the relation between V.E and the Issuer: V.E has executed five audit missions for Denso (Second Party Opinion) until so far. No established relation (financial or commercial) exists between V.E and the Issuer. V.E's conflict of interest policy is covered by its Code of Conduct, which can be found at <http://vigeo-eiris.com/wp-content/uploads/2018/07/Code-of-Conduct-Vigeo-Eiris-EN.pdf>.

This opinion aims at providing an independent opinion on the sustainability credentials and management of the Bond, based on the information which has been made available to V.E. V.E has neither interviewed stakeholders out of the Issuer's employees, nor performed an on-site audit nor other test to check the accuracy of the information provided by the Issuer/Borrower. The accuracy, comprehensiveness and trustworthiness of the information collected are a responsibility of the Issuer/Borrower. The Issuer/Borrower is fully responsible for attesting the compliance with its commitments defined in its policies, for their implementation and their monitoring. The opinion delivered by V.E neither focuses on the financial performance of the Bond/Loan, nor on the effective allocation of its proceeds. V.E is not liable for the induced consequences when third parties use this opinion either to make investments decisions or to make any kind of business transaction. Restriction on distribution and use of this opinion: The deliverables remain the property of V.E. The draft version of the Second Party Opinion by V.E is for information purpose only and shall not be disclosed by the client. V.E grants the Issuer/Borrower all rights to use the final version of the Second Party Opinion delivered for external use via any media that the Issuer/Borrower shall determine in a worldwide perimeter. The Issuer/Borrower has the right to communicate to the outside only the Second Party Opinion complete and without any modification, that is to say without making selection, withdrawal or addition, without altering it in any way, either in substance or in the form and shall only be used in the frame of the contemplated concerned bond/loan(s) issuance. The Issuer acknowledges and agrees that V.E reserves the right to publish the final version of the Second Party Opinion on V.E' website and on V.E' internal and external communication supporting documents.



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