About the Transition Pathway Initiative
About TPI and this slide set

TPI is a global initiative led by Asset Owners and supported by Asset Managers

Aimed at investors, it assesses companies’ progress on the transition to a low-carbon economy, supporting efforts to address climate change

Established in January 2017, TPI is now supported by more than 30 investors with over £8.2/$10.7 trillion AUM

Using companies’ publicly disclosed data, TPI:

• Assesses the quality of companies’ management of their carbon emissions and of risks and opportunities related to the low-carbon transition, in line with the recommendations of TCFD

• Assesses how companies’ planned or expected future Carbon Performance compares to international targets and national pledges made as part of the 2015 UN Paris Agreement

• Publishes the results via an open-access online tool:
  www.transitionpathwayinitiative.org
TPI Partners

The Grantham Research Institute on Climate Change and the Environment, a research centre at the London School of Economics and Political Science (LSE), is TPI’s academic partner. It has developed the assessment framework, provides company assessments, and hosts the online tool.

FTSE Russell is TPI’s data partner. FTSE Russell is a leading global provider of benchmarking, analytics solutions and indices.

The Principles for Responsible Investment (PRI) provides a secretariat to TPI. PRI is an international network of investors implementing the six Principles for Responsible Investment.
We would like to thank our Research Funding Partners for their ongoing support to the TPI and their enabling the research behind this report and its publication.
TPI Design Principles

Company assessments are based only on publicly available information: *disclosure-based*

Outputs should be useful to Asset Owners and Asset Managers, especially with limited resources: *accessible and easy to use*

Aligned with existing initiatives and disclosure frameworks, such as CDP and TCFD: *not seeking to add unnecessarily to reporting burden*

Pitched at a high level of aggregation: *corporation-level*
Overview of the TPI Tool

TPI’s company assessments are divided into 2 parts:

1. **Management Quality** covers companies’ management/governance of greenhouse gas emissions and the risks and opportunities arising from the low-carbon transition.

2. **Carbon Performance** assessment involves quantitative benchmarking of companies’ emissions pathways against the international targets and national pledges made as part of the 2015 UN Paris Agreement, for example limiting global warming to below 2°C.

Both of these assessments are based on company disclosures.
TPI’s Management Quality framework is based on 16-17 indicators, each of which tests whether a company has implemented a particular carbon management practice. These 16-17 indicators are used to map companies on to 5 levels/steps. The data are provided by FTSE Russell.
TPI's Carbon Performance Assessment tests the alignment of company targets with the Paris Agreement goals, using the same approach as Science-Based Targets.

TPI uses 3 benchmark scenarios:

1. *Paris Pledges*, consistent with emissions reductions pledged by countries as part of the Paris Agreement (i.e. NDCs)

2. *2 Degrees*, consistent with the overall aim of the Paris Agreement, albeit at the low end of the range of ambition

3. *Below 2 Degrees*, consistent with a more ambitious interpretation of the Paris Agreement’s overall aim

Benchmarking is sector-specific and based on emissions intensity.
Latest results: Management Quality of Automobile Manufacturers
Management Quality level

Level 0: Unaware
Level 1: Awareness
Level 2: Building capacity
Level 3: Integrating into operational decision making
Level 4: Strategic assessment

- **5 companies**: Daimler, Fiat Chrysler, Ford, Mazda, Toyota
- **9 companies**: BMW, General Motors, Groupe PSA, Honda, Hyundai, Nissan, Renault, Subaru, Volkswagen
- **4 companies**: Mitsubishi
- **2 companies**: Ferrari, Geely, Kia, Suzuki
- **1 company**: Brilliance, Tesla
Management Quality level

Automobile manufacturers’ average Management Quality score is 2.5, putting the average company in this sector midway between “Building capacity” (Level 2) and “Integrating into operational decision making” (Level 3).

Autos is the second-best performing sector in the TPI database on Management Quality, behind electricity.

6 out of 21 companies are on Levels 0 and 1, while 14 out of 21 companies are on Levels 3 and 4: behind the average, companies in the autos sector divide into two classes on Management Quality, leaders and laggards.

Tesla’s poor rating on Management Quality is a direct consequence of an absence of appropriate climate change disclosures, and contrasts with its best-in-class Carbon Performance (see below).

No company satisfies all Management Quality criteria: there are not yet any 4* automobile manufacturers.
Management Quality: indicator by indicator

Most companies do the basics; fewer take the more advanced steps. We see this general pattern in all TPI sectors.

More than 80% of automobile manufacturers have a policy commitment to act, explicitly recognise climate change as a business risk/opportunity, have some form of emissions reduction target and disclose their operational emissions.

It is particularly notable that more than 80% have set a quantitative emissions reduction target.

Only Nissan undertakes climate scenario planning.

Only BMW and GM disclose an internal carbon price.
Latest results: Carbon Performance of automobile manufacturers
Automobile manufacturers’ Carbon Performance versus the benchmarks

Most automobile manufacturers’ current fleet emissions are not aligned with the benchmarks.

But in 2020, 8 out of 10 companies with targets would have a fleet emissions intensity below the Paris Pledges benchmark and 6 of these would be aligned with the most ambitious 2C High Efficiency benchmark.

Only 2 companies have a target to reduce their fleet emissions intensity in 2030:
- Mazda is aligned with the Paris Pledges
- Nissan is aligned with 2C Avoid-Shift-Improve

Tesla’s fleet is zero emissions (on a Tank-to-Wheel basis) throughout.

<table>
<thead>
<tr>
<th>Company</th>
<th>New vehicle average carbon emissions (gCO2/km, NEDC)</th>
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<tbody>
<tr>
<td>BMW</td>
<td>159</td>
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<tr>
<td>Brilliance</td>
<td>174</td>
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<tr>
<td>Daimler</td>
<td>166</td>
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<td>Ferrari</td>
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<td>Fiat Chrysler</td>
<td>174</td>
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<tr>
<td>Ford</td>
<td>155</td>
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<tr>
<td>Geely</td>
<td>151</td>
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<tr>
<td>General Motors</td>
<td>163</td>
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<tr>
<td>Groupe PSA</td>
<td>135</td>
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<td>Honda</td>
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<td>Hyundai</td>
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<tr>
<td>Kia</td>
<td>152</td>
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<tr>
<td>Mazda</td>
<td>143</td>
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<tr>
<td>Mitsubishi Motors</td>
<td>153</td>
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<tr>
<td>Nissan Motors</td>
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<tr>
<td>Renault</td>
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<td>Subaru</td>
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<td>Suzuki</td>
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<tr>
<td>Tesla</td>
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<tr>
<td>Toyota</td>
<td>142</td>
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<tr>
<td>Volkswagen</td>
<td>153</td>
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<tr>
<td>2 Degrees</td>
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<tr>
<td>(High Efficiency)</td>
<td>147</td>
</tr>
<tr>
<td>2 Degrees</td>
<td></td>
</tr>
<tr>
<td>(Avoid-Shift-Improve)</td>
<td>147</td>
</tr>
<tr>
<td>Paris Pledges</td>
<td></td>
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</tbody>
</table>

Key:
- Aligned with 2C (High Efficiency)
- Aligned with 2C (Avoid-Shift-Improve)
- Aligned with Paris Pledges
- Not aligned
The largest manufacturers (in terms of sales) tend not to be aligned with the Paris benchmarks.
Companies with targets have lower emissions than companies without targets.

Companies without targets

Companies with targets
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