

May 10th, 2018

Suppliers Partnership for the Environment 2nd Quarter Meeting

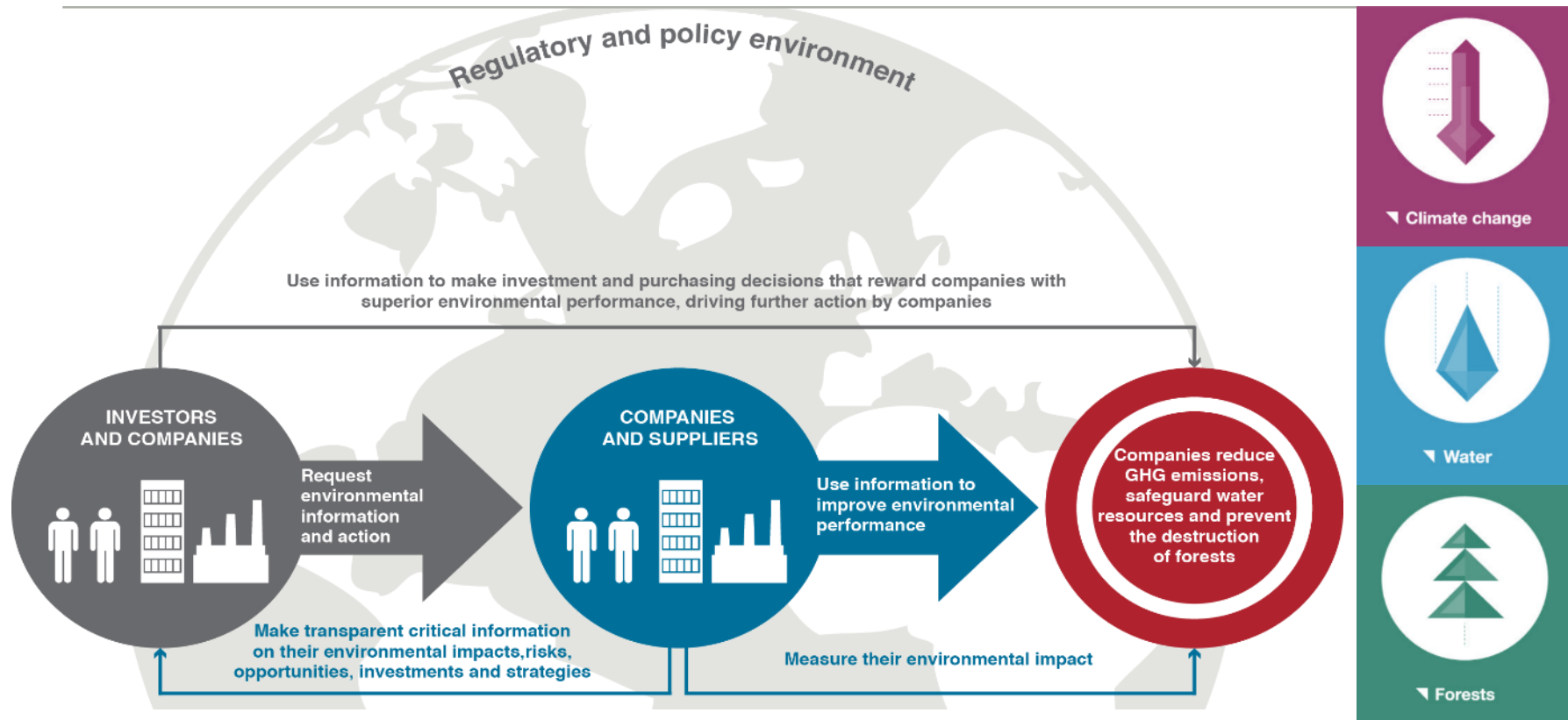
CDP Supply Chain and the Automotive Industry

George Hodge, Director, Corporate Engagement and Strategic Partnerships,
CDP North America

Agenda

- ▼ Introduction
- ▼ Driving Disruption report findings
- ▼ Engaging suppliers through CDP Supply Chain

CDP model



2018 CDP Questionnaires:

▼ Climate Change

Key areas:

- ▼ Governance
- ▼ Risks and opportunities
- ▼ Strategy
- ▼ Targets
- ▼ Energy
- ▼ Climate-related metrics
- ▼ Carbon Pricing

Supplier module – allocation, Action Exchange, & collaboration

▼ Forests

Key areas:

- ▼ Current state
- ▼ Procedures
- ▼ Governance and Strategy
- ▼ Risks and opportunities
- ▼ Implementation and Linkages
- ▼ Verification and Challenges

Forest risk commodities:

- ▼ Timber
- ▼ Palm oil
- ▼ Cattle production
- ▼ Soy

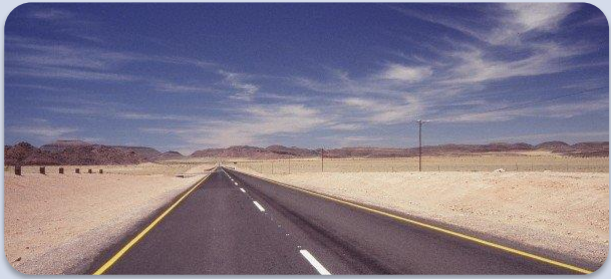
▼ Water

Key areas:

- ▼ Context
- ▼ Business impacts
- ▼ Procedures
- ▼ Risks and opportunities
- ▼ Facility-level accounting
- ▼ Governance and Strategy
- ▼ Targets and Linkages

Supplier module – product intensity, risk, and collaboration

CDP New Disclosure Platform – Auto Sector questionnaire



Sector Clusters

Energy
Transport
Materials
Agriculture

- ▼ Transport Services and Transport OEMS
- ▼ TCFD alignment
- ▼ SME questionnaire
- ▼ Additional climate-related metrics

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The transport sector accounts for 22% of global CO2 emissions, and road transport accounts for 77% of that proportion.

Source: International Energy Agency ,Energy Technology Perspectives 2017

Driving Disruption

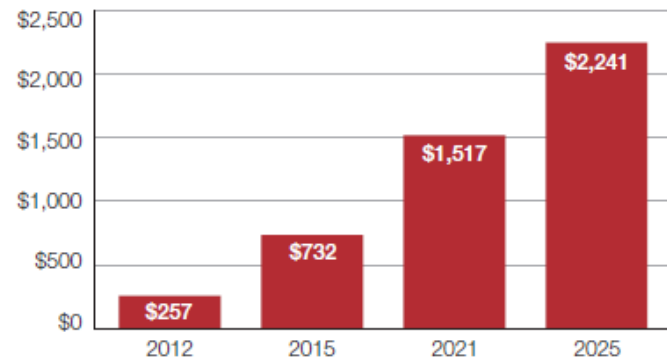


- ▼ Reveals that the industry must adapt rapidly to address technological disruption and environmental regulation or risk falling behind.

Key report findings: Earnings risks

- ▼ OEMs are at **risk of missing fleet emissions targets**
- ▼ **Tightening fuel consumption regulations and new energy vehicles (NEV) mandates in China present significant challenges**
- ▼ OEMs will face **tougher fleet emissions testing**
- ▼ **CO2 compliance cost** for internal combustion engine vehicles are expected to **double by 2021**

Average CO₂ compliance cost per vehicle

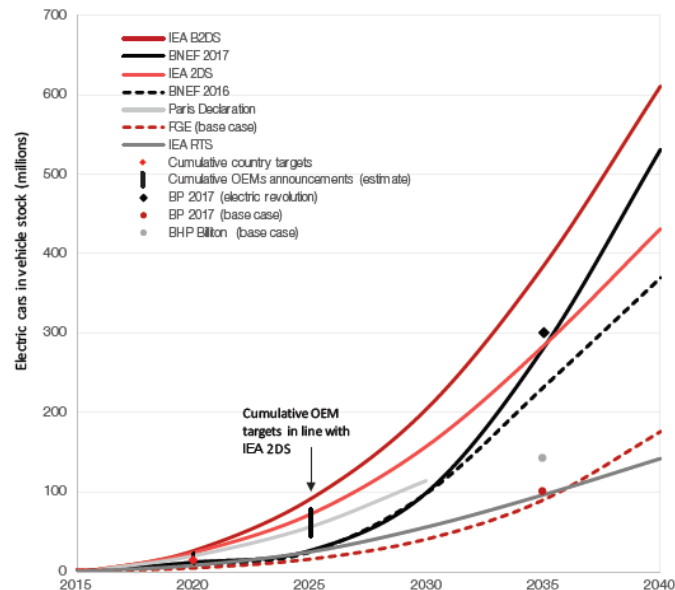


Source: CDP estimates, ICCT, Goldman Sachs, IHS, HSBC

Key report findings: Opportunities

- ▼ Rise of **advanced vehicles**
- ▼ **Rise of autonomous driving vehicles (ADVs) and mobility as a service (MaaS)** will change the sector
- ▼ **Li-ion battery prices continue to fall** and we expect **price parity from 2022**
- ▼ Increase in **company target announcements** surrounding **electric vehicles**
- ▼ Companies sourcing **more renewable energy**

Deployment scenarios for electric cars to 2040

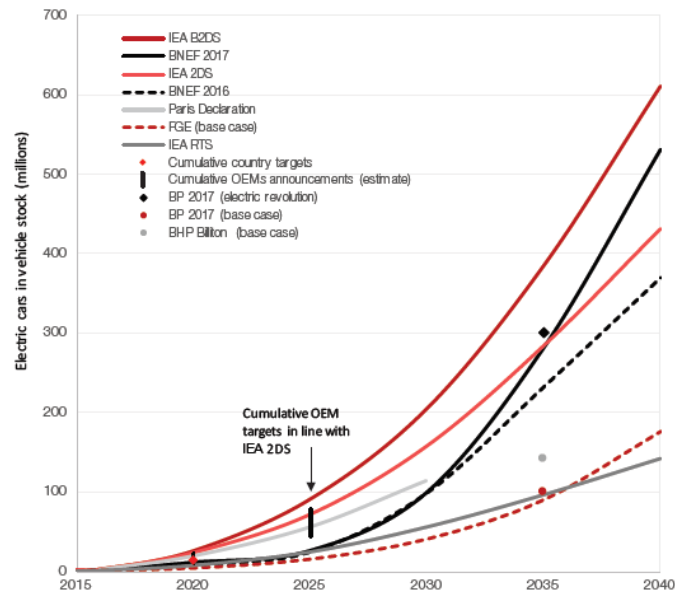


Source: IEA Global EV Outlook 2017, BNEF NEO 2016/17, FGE, BP Energy Outlook 2017

Key report findings: Opportunities

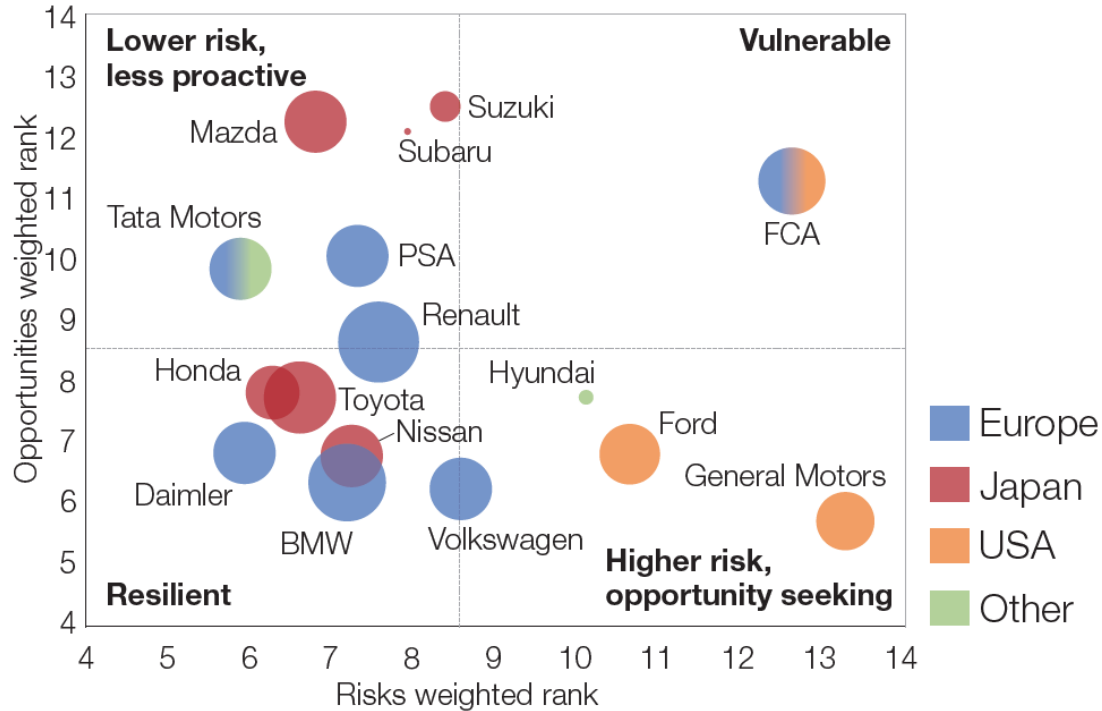
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Opportunity vs. Risk



Bubble size: Larger bubble = stronger performance on climate governance & strategy

US\$790bn
in market capitalization

79%
of global passenger
vehicle market

Climate governance and strategy

- ▼ The **use of Life-Cycle Analysis** to assess emissions from ‘well to wheel’ is **well-established** within the industry
- ▼ **7 companies** have committed to or support long term **Science Based Targets**; however, **3 auto manufacturers** have yet to set **Scope 3 emissions reduction targets**.
- ▼ European companies lead on **governance** with a greater focus on **climate linked remuneration and climate expertise at board level**.

SBTI Commitments

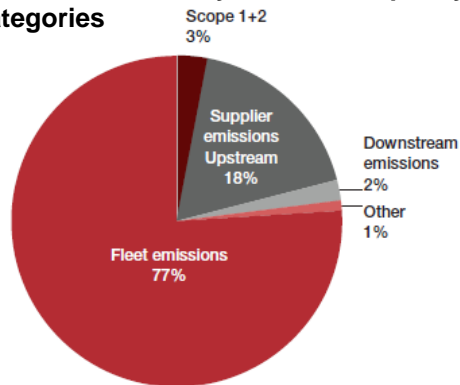


Suppliers

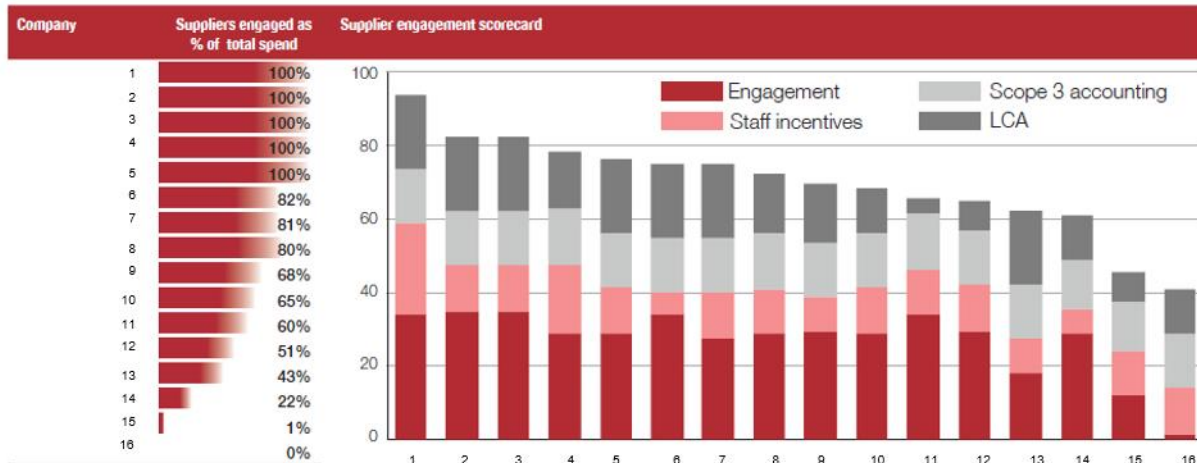


Supplier emissions and supplier engagement

Automotive industry emissions split by categories



(i) Based on OEM's responses to CDP's 2017 questionnaire.
Source: CDP



Source: CDP, company reports

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Climate, water and forests risks are acutely impacting supply chains. CDP works with customers and suppliers to reduce these risks.

2018 supply chain members: 118 companies with over US\$3 trillion in combined purchasing power, requesting over 10,000 suppliers



2017 supply chain members: 9 Auto Members requesting over 1000 suppliers



Automotive industry suppliers asking their suppliers – Tier 2+



2018 Supply Chain water members: 7 industry leaders asking suppliers for their water information





Companies reported **3,770**
water risks that threaten their
license to operate, the security of their
supply chains, or their ability to grow

“According to our site classification, there are 53 facilities which are exposed to water risks. Considered water risks that are listed in our site classification: flash floods, tsunamis, river floods.”

**BMW Supplier ,
2017 Disclosure**



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**BMW Supplier ,
2017 Disclosure**

Deforestation in supply chains – rubber and cattle

Up to
80%

Well recognised commodities linked to deforestation

of deforestation is linked to agriculture, notably the production of four key commodities – **cattle products, palm oil, timber products and soy.**



Rubber: New commodity being assessed

Increasing threats of deforestation in Southeast Asia due to growing global demand for **rubber.**



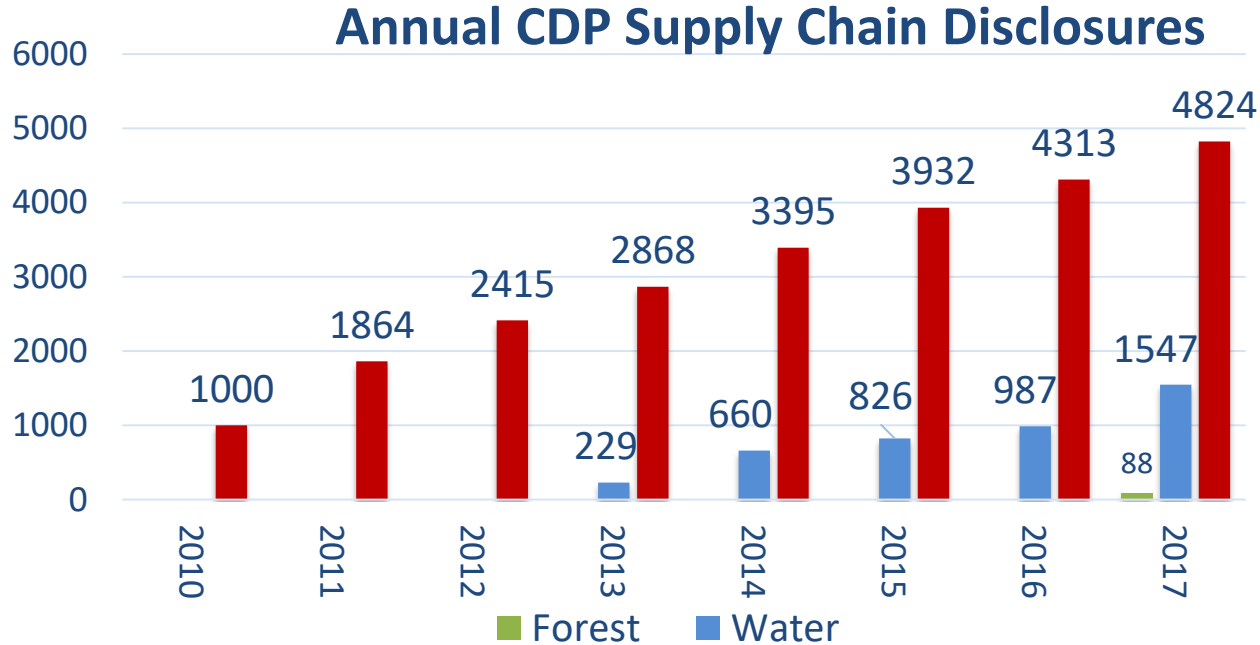
Leather

Cattle products such as beef, leather and tallow are a major driver of global deforestation, particularly in Latin America.



Source: <http://www.bbc.com/news/science-environment-32350985>

Scale of CDP's supply chain program



Global Emissions Reductions and Cost Savings

Global Highlights

- Suppliers reported 4,818 projects that resulted in savings.
- Almost half of the top 100 projects were related to energy efficiency.
- The majority of the projects (57%) had a payback of less than 3 years

Suppliers disclosed reductions equivalent to

551 million tonnes

of CO₂ with associated cost savings of

US\$14 billion

GHG emissions reductions equating to

118 million passenger cars
driven for one year

Over one third of reported emissions reduction projects resulted in savings of at least

US\$100,000

<https://www.cdp.net/en/research/global-reports/global-supply-chain-report-2017>

<https://www.cdp.net/en/research/global-reports/global-supply-chain-report-2018>

A practical roadmap for effective supplier engagement

Year 1: Establish Foundation

I want to understand the carbon impact in my supply chain in a standardized format

- ❖ Identify strategic suppliers
- ❖ Encourage supplier disclosure
- ❖ Partner with procurement team
- ❖ Develop key supplier KPIs

Year 2: Build Supplier Capacity

I want to improve my suppliers performance and report publicly to investors and customers

- ❖ Expand supplier list
- ❖ Introduce KPIs and emission targets to suppliers
- ❖ Integrate sustainability metrics into supplier scorecards
- ❖ Collaborate with suppliers to identify GHG reduction opportunities

Year 3: Improve Performance

I want to collaborate with suppliers to drive emissions reductions and report this to stakeholders

- ❖ Improve year-over-year supplier performance
- ❖ Report progress re targets to investors and customers.
- ❖ Include primary data in scope 3 inventories
- ❖ Begin active collaboration on emission reduction Initiatives

Why engage your suppliers?

US\$12.4 billion Savings

Are your suppliers taking advantage (or aware) of these opportunities?

Scope 3 Emissions

Scope 3 emissions and setting your science-based emissions reduction target requires primary data.

Strategic relationships

Shifting relationships based primarily on price toward more collaborative and productive partnerships.

Strategic planning

CDP gives suppliers the framework they need to plan for the future, making your supply chain stronger and more resilient.

Risk Mitigation

Take effective action on managing and mitigating supply chain climate and water risk.

Thank you.

George Hodge, Director, Corporate Engagement and Strategic Partnerships,
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Automotive Industry

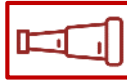
- ▼ virtually all automotive companies in the world are members



- ▼ each manages own supply chain relationships, but benefits from collaboration, unified asks on common suppliers
- ▼ Great response rate (81% avg. for Climate Change), over 1000 tier 1 suppliers engaged, high performance by suppliers

Ford beyond four walls

Ford's journey



2003

First automaker to establish Code of conduct for human rights, working conditions, environmental stewardship, and CSR for both its own operations and its suppliers.

2010

Joined the CDP Supply Chain Program to better understand the greenhouse gas (GHG) emissions and water use of our supply base. Suppliers surveyed now represent about 80% of production spend.

2014

Launched PACE program to improve supplier capabilities and facilitate continued emissions reductions.

Building supplier capacity: Five-Step PACE process



“Once we started evaluating our suppliers’ footprint, we realized that we needed to do something to reduce it.”

Mary Wroten, Senior Manager of Ford’s Global Supply Chain Sustainability Program

Source: Ford Sustainability Report 2016/17, George Washington University Case Study, <https://provost.gwu.edu/ford-beyond-four-walls>

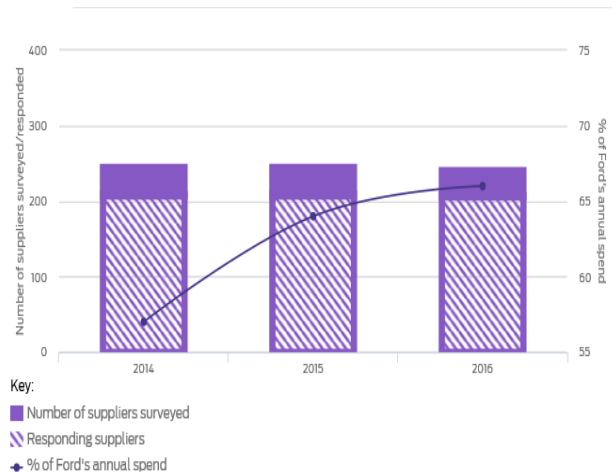
Source: Ford Sustainability Report 2016/17, George Washington University Case Study, <https://provost.gwu.edu/ford-beyond-four-walls>

Ford beyond four walls

Supplier selection

The selection of suppliers invited to participate is based on a combination of:

- The GHG or water intensity of their activities or the commodities they supply
- The geographic footprint of operations, including those in water-stressed regions
- The strategic nature of their relationship with Ford



High response rate (2017):

- **Climate change: 83%**
- **Water: 75%**

Results:

The number of Ford suppliers integrating climate change into their business strategies and those reporting water-related targets continues to increase. In 2016:

- 82% integrated climate change into their business strategy (2015: 78%)
- 64% reported a water-related target or goal (2015: 41%)
- 64% reported having an emissions reduction target (2015: 66%)

“We realize that we have influence beyond our four walls and that any challenges or opportunities we have related to energy or greenhouse gas (GHG) emission reductions extend to our supply chain as well.”

– Sherry Mueller, Supply Chain Sustainability, Environmental Program Lead, Ford Motor Company.

Source: Ford Sustainability Report 2016/17, George Washington University Case Study, <https://provost.gwu.edu/ford-beyond-four-walls>

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How do members use CDP supply chain data

- ▼ Drive change in your supply chain
- ▼ Set targets (including Science-based Targets)
- ▼ Track against supply chain KPIs
- ▼ Integrate primary data into scope 3
- ▼ Standardize environmental metrics for supplier scorecards, code of conduct, contract language
- ▼ Mitigate risks
- ▼ Realize efficiencies
- ▼ Identify collaborative opportunities

The ongoing data obtained through the CDP survey will continue to help us identify “hotspots” for GHG emissions and water use. Once we understand which of our suppliers or commodities have the largest GHG and water footprints, we intend to work with them to achieve reductions.



***Ford Sustainability
Report 2015***