



Supplement to Standards Outcome Report

Transportation

This is a supplement to the Standards Outcome Review report for the Transportation sector, prepared for the SASB Standards Council meeting on March 25, 2014. This supplement contains detailed feedback from SASB Industry Working Groups (IWG) for this sector. The Standards Outcome Review report addresses these comments, and based on a review of the comments and additional research, the SASB Standards Development team will put forward for a 90-day public comment period (PCP) on April 17, 2014, accounting standards for the eight industries in the Transportation sector.

Section 1

This section provides the percentage of IWG members that determined each issue in an industry, for all eight industries, to be material. Green bars indicate that the IWG respondent agrees that the issue is material, red bars indicate that the IWG respondent disagrees, and orange bars indicate that the IWG participant considers that the issue maybe material, but has substantial reservations. These responses determine which issues the SASB Standards Development team investigates further in greater detail to present material issues for public comment.

Section 2

Section 2 lists all the comments received during the IWG, including: the industry, disclosure topic¹, question type on the survey, interest group, suggested disclosure topic where IWG members suggested adding a topic, or response to whether an issue presented to the IWG is considered material, and detailed comments.

Comments related to issues on which there was IWG consensus regarding materiality will be considered when creating issue descriptions for the sustainability accounting standards, and revising industry briefs.

Comments related to other issues have been considered when revising or eliminating issues as being material, as discussed in the Standards Outcome Review report.

Comments related to suggestions for new issues have been considered when adding material issues to an industry, as discussed in the Standards Outcome Review report.

All other comments relate to industry definitions, SASB's overall approach, and IWG participation experience, and will be considered for process improvements.

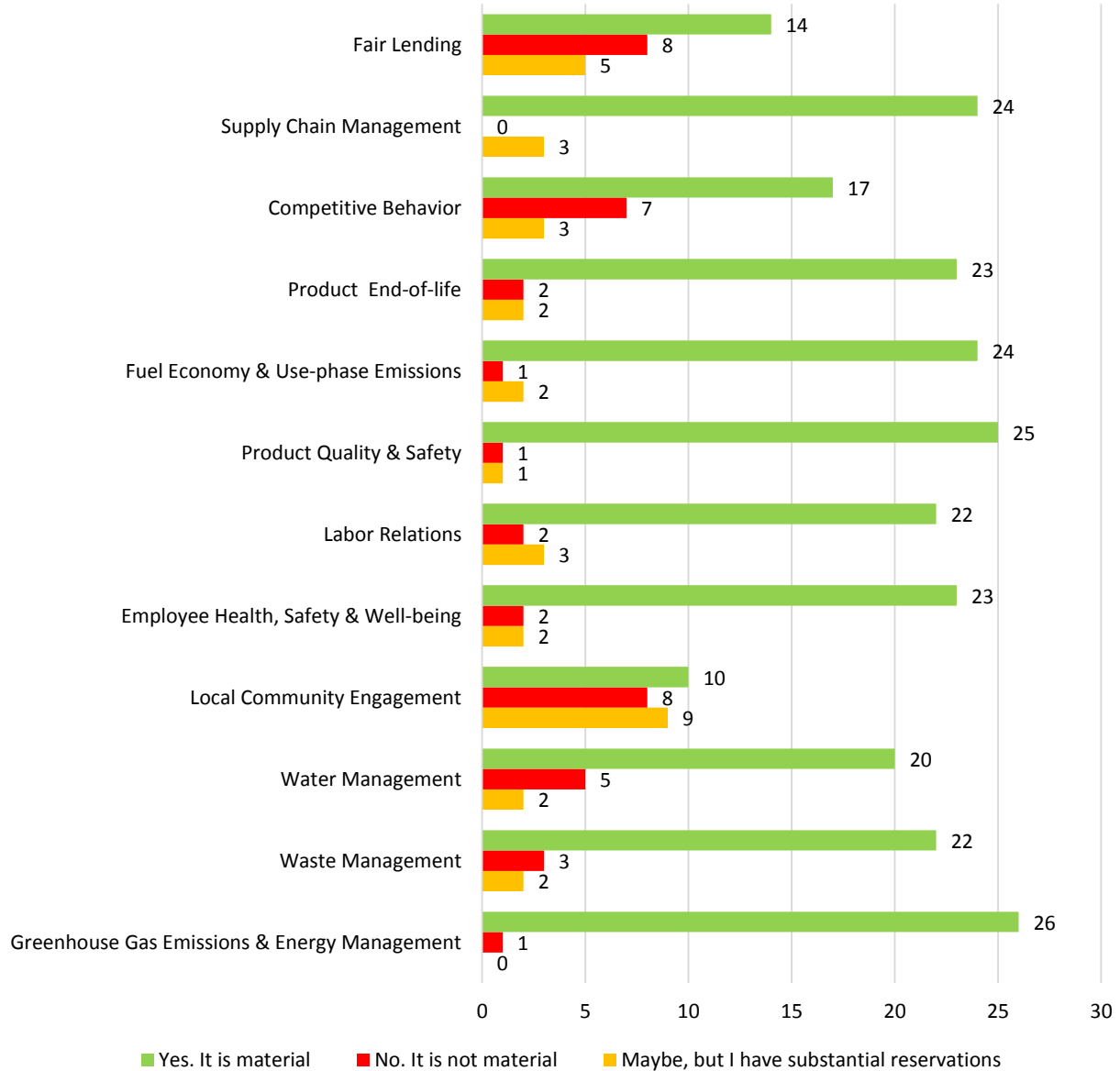
¹ In cases where general comments were made that related to a sustainability topic already presented by SASB for an industry, these comments have been mapped back to the topic.



Section 1 - IWG Assessment of Materiality

In your opinion are the following material sustainability issues to the given industry?

Automobiles



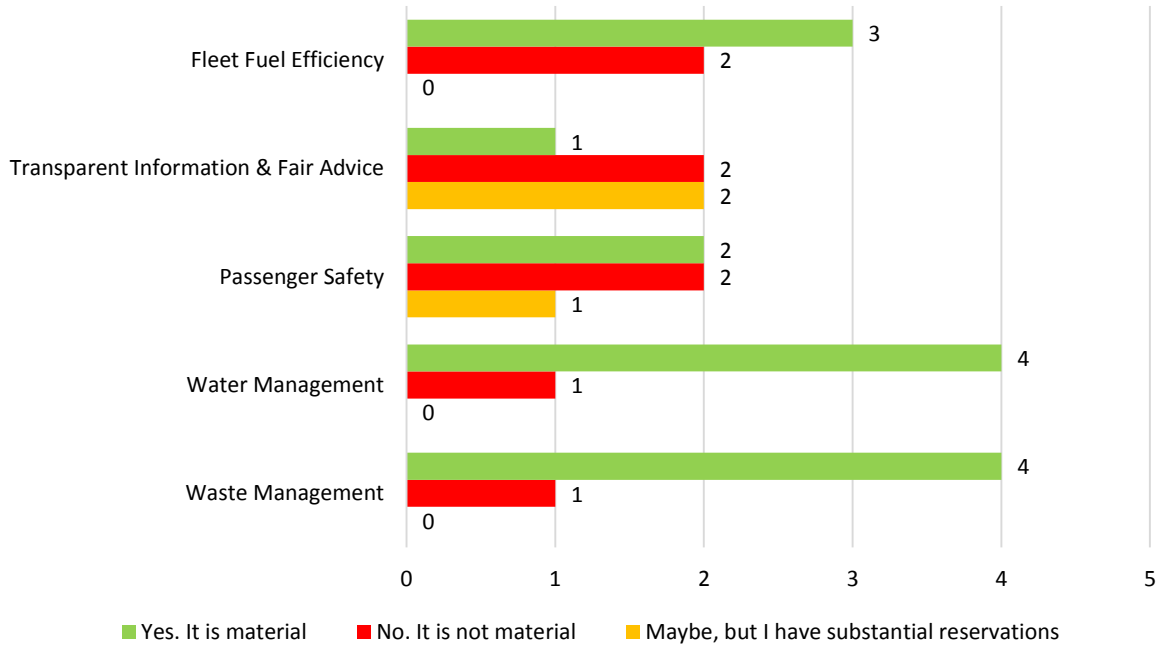


Auto Parts

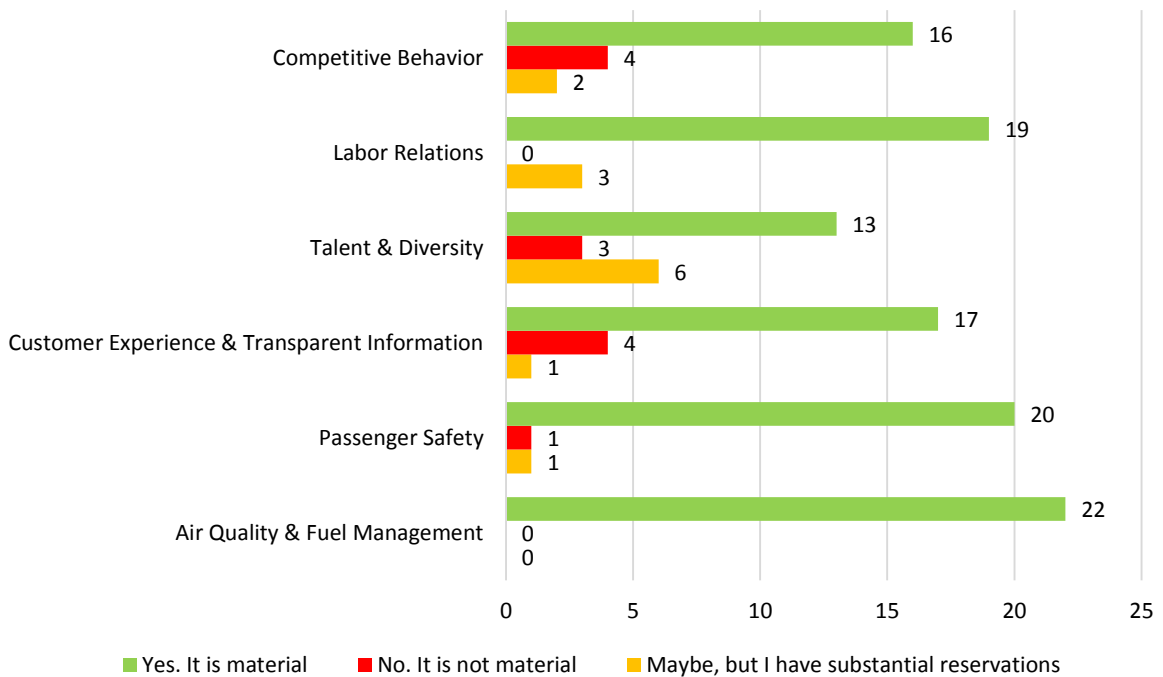




Car Rental & Leasing

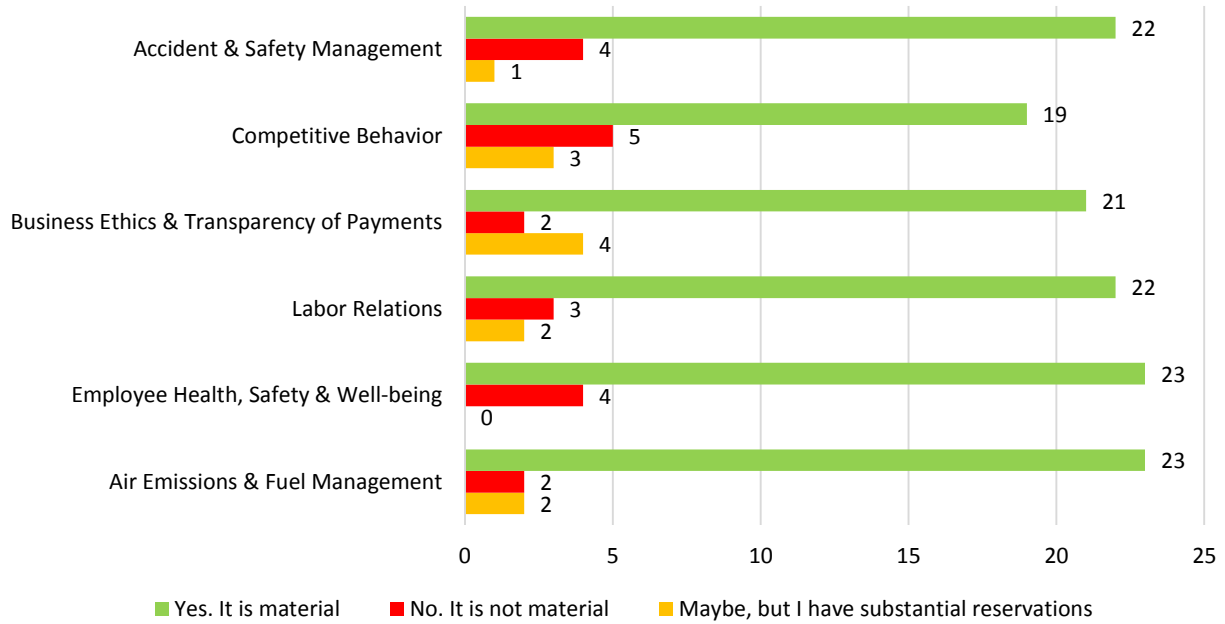


Airlines

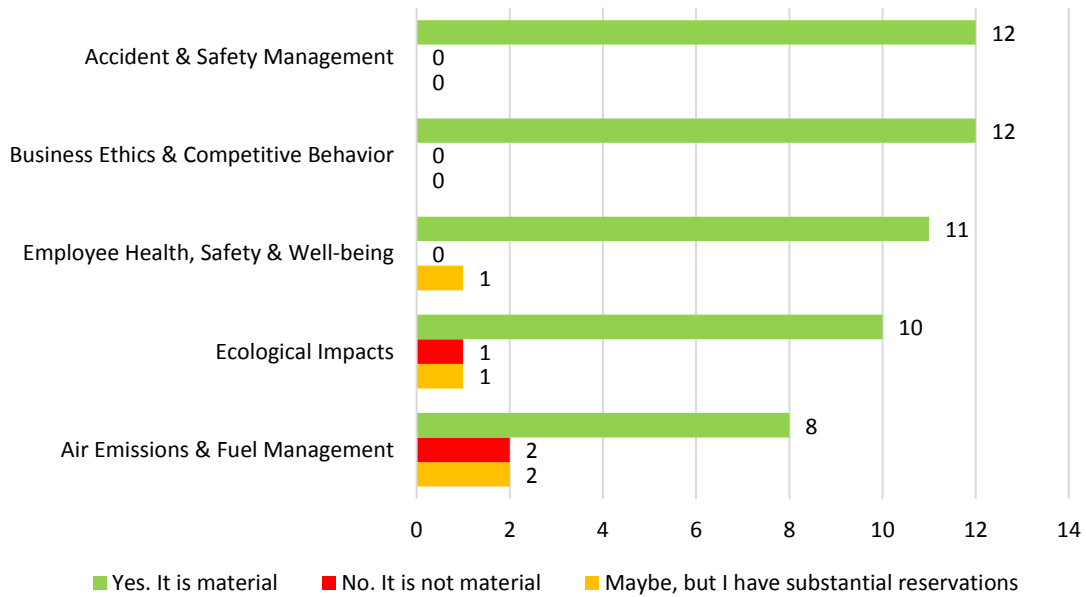




Air Freight & Logistics



Marine Transportation

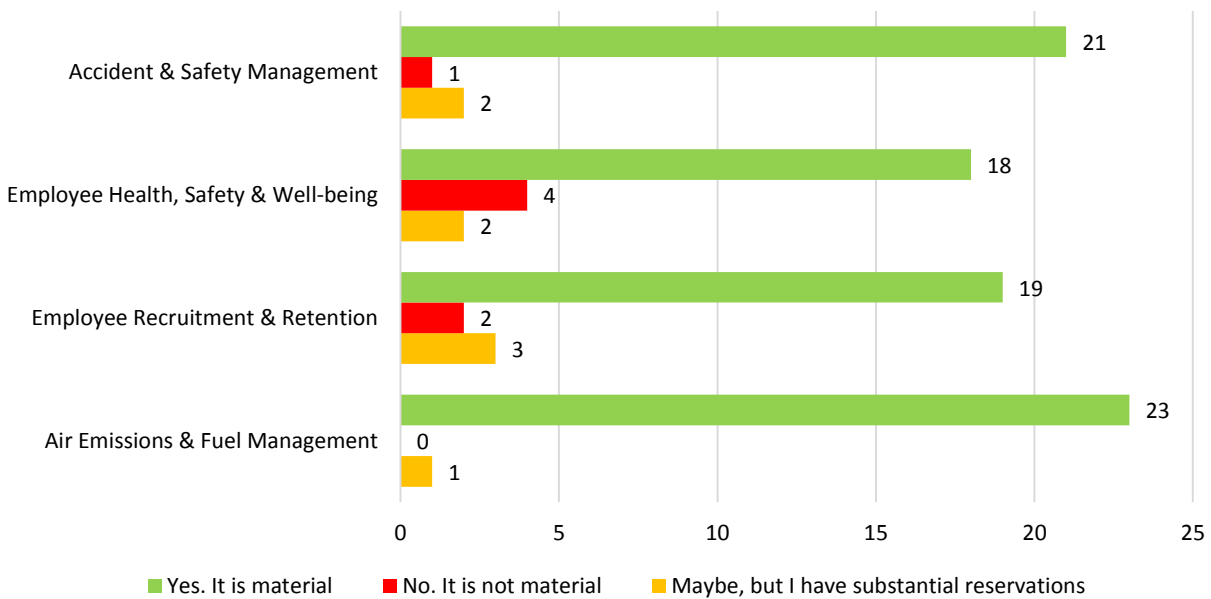




Rail Transportation



Road Transportation





Section 2 - IWG Comments on Disclosure Issues

Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Air Freight & Logistics	Accident & Safety Management	Material issue?	Corporation	No	Similar to our response on Employee Health & Safety, we don't think that Accident & Safety Management is a material issue from an investor perspective, unless the reporting company has a particularly poor performance record in this area. And if that's the case, the reporting would likely have to disclose any significant fines, lawsuits or other related risks in their 10-K filings anyway.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	Yes	these are part of labor relations/human capital management issues that ultimately drive employee health, wellness and happiness, and therefore bottom line productivity on the revenue side. needless to say - lawsuits etc drive costs
Air Freight & Logistics	Accident & Safety Management	Material issue?	Corporation	Maybe	A catastrophic accident could have a material effect, but the likelihood of a major catastrophe is remote. Smaller-scale accidents are certainly significant to the parties involved, but they don't have a material impact upon the company.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	informs the investor of the general quality of management of the co. properly addressing these issues is an indication of the overall quality of how the company is managed.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	Yes	Any company that operates a trucking fleet faces the potential for material one-time extraordinary costs relating to accidents.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	potential for increased financial liabilities
Air Freight & Logistics	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	insurance costs, operating costs, reputation,
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	No	Most 3PL firms and employees are not exposed to the dangers of the goods they deal with. I'm not sure why the example from Conway Truckload was given in the report given that there is a separate survey for road transportation companies, which Conway TL would fall under.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	http://www.alcoa.com/sustainability/en/info_page/operations_soc_health_zip.asp
Air Freight & Logistics	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Accident and Safety has a direct impact on insurance rates increases and environmental risk.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	Yes	http://www.hse.gov.uk/logistics/ports-logistics-sector.pdf
Air Freight & Logistics	Accident & Safety Management	Material issue?	Corporation	Yes	Indication of quality of management and related claim risks.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	No	I believe that managers are already inclined to focus on safety for purely economic reasons and I feel it is evidenced by the impressive reduction in claims/accidents over the last 20 years. New regulations are again just adding incremental costs to service providers and will do little to change behavior but will ultimately pick winners and losers in the market, which I do not believe is the intention.
Air Freight & Logistics	Accident & Safety Management	Material issue?	Corporation	Yes	hsv already commented
Air Freight & Logistics	Accident & Safety Management	Material issue?	Market Participant	No	Because few logistics companies are actual operators, this is important, but not as material to investors
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Corporation	Maybe	While we think that discussion around fuel management is material from an investor perspective, as it speaks to cost efficiencies and preparedness against potential fuel cost volatility, the other aspects of this issue (e.g. Scope 1 emissions, NOX/SOX/PM emissions, etc.) don't necessarily merit discussion on 10-K filings as they don't present a clear impact on future business revenues and profitability for all companies in this sector. In addition, this sector has significant regulatory oversight when it comes to air quality and pollution standards, and therefore this sub-issue does not merit additional disclosure from an investor perspective. In fact, given the different investor-specific materiality impacts of both the "Air Quality" and "Fuel Management" issue topics, we believe they should be kept separate in the Transportation IWG for future deliberations.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	http://www.carbonwarroom.com/sites/default/files/reports/Unlocking%20Fuel%20Saving%20Technologies%20in%20Trucking%20and%20Fleets%20(Carbon%20War%20Room).pdf



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	highly fuel-intensive industry that accounts for 13% of global GHG emissions. accounts for 9% of global GDP - industry must be prepared to meet the challenges and take advantages of the opportunities from regulatory constraints - else could materially put the company at a disadvantage relative to peers http://www.dhl.com/content/dam/Local_Images/g0/New_aboutus/green_solution/GreenSolutions/study_towards_sustainable_logistics.pdf
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	It's a fuel-intensive business and a capital-intensive business. Emissions regulations affect capital cost and fuel used.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	No	All monitoring and cap and trade programs seem to be a failure, and I believe only a true carbon tax (tax oil or natgas based on carbon emissions) that impacts consumers of goods not producers of goods will be effective. I believe measuring carbon at the producer level are the type of activities that will just delay reform.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	carbon equates to \$'s. efficiency measures will impact long term financial results.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Primarily impacts GHG.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Logistics companies has a significant opportunity to provide fuel management services to clients. Companies that excel can increase market share.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	The fuel management portion of this flows directly to the bottom line. The air quality component may become more important if governments enact regulations that impair logistics companies ability to operate. These disclosures would be less relevant for non-asset based third party logistics providers who do not own the vehicles that emit harmful gases. However, since their business model depends on transportation provided by parties they contract with, 3PLs have indirect exposure to harmful emissions and share responsibility in maintaining the environment. If emissions standards change dramatically, 3PL's ability to find capacity for shippers could be impaired.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	The transportation industry directly impacts the air quality when the vehicles used are not currently practicing lower pollution emission systems. By including the measurement criteria the owners are going to benefit from the investment in current practices which reduce the negative impacts on air quality.



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Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Regulatory and cost pressure, which is likely to increase further and tighten globally
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Carbon reduction is a first "we care" indication of management to contribute to a better environment but shows future vision as well to reduce dependency of costly carbon fuels by cheaper and cleaner alternatives
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	Maybe	I believe that increased regulation surrounding diesel fuel and emissions containment will continue to infuse additional costs into the cost for power. The additional cost for replacement power has already burdened small and mid-sized companies to the point that they are unable to replace at a one for one ratio suggesting that the industry will face capacity shortages in the intermediate term. Also, in order to maintain the more expensive fleet, overall transportation prices will have to increase and those companies that are unable to secure the higher rates will be left behind.
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	There is a wealth of content for example on the EPA site for the human cost of particulate pollution - what if China went to natural gas instead of coal and conventional fuel for transportation with its emerging infrastructure - there is recent data in the public domain that suggest that hundreds of thousands of deaths are due to particulate pollution in China
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Market Participant	No	Logistics companies by definition, utilize other people's assets primarily, and thus, would be low impact polluters
Air Freight & Logistics	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Globally the postal companies within their IPC Association are benchmarking their CO2 and fuel management measures
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Corporation	Maybe	While we certainly think that business ethics can have a material impact from an investor perspective for our sector in general, we think that companies faced by significant risks, fines and legal action related to business ethics violations would be required to disclose that information anyway in the Risk Factors sections of their 10-K filings and therefore it's not necessarily something that needs to be included in SASB reporting for all companies in the sector.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	Yes	business ethics and transparency is material to any and every industry - this is the moral fabric on which the marketplace is built - it is what facilitates trust in the marketplace - when this is violated and breaks down, it will soon come to light - resulting in a breakdown of the industry and destruction of shareholder value and economy-wide value - as evidenced by the banking and housing/mortgage industries role in the recent financial crisis



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Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Yes	I see this point as one of the most crucial when conducting business globally, particularly in emerging markets which are experiencing a boom in all major industries requiring logistics as an enablement (e.g. mining, construction, etc)
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Corporation	Maybe	It's an important issue, but it's not likely that infractions will have a long-term effect on valuation. For example, Johnson & Johnson is regularly in the news regarding ethics issues, yet they seem to be doing OK financially...customers don't seem to be deserting them.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	No	Relative to other industries, and in the context of current regulatory and legal standards, this did not feel material.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Maybe	similar thought as above.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	Yes	The global nature of operations makes the air freight and logistics industry unusually exposed to foreign ethics/corruption, with material fines imposed accordingly.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Yes	potential for increased financial liabilities
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Yes	rising public attention to issues of financial transparency, e.g. recent survey of UK public opinion by the Institute of Business Ethics/ Ipsos MORI, showing fare payment of tax/avoidance is most pressing issue business needs to address http://ethicalperformance.com/article/8098?utm_source=Master+List&utm_campaign=b9dc2adfd0-Latest+CSR+eNew+29+Nov&utm_medium=email&utm_term=0_92af8574fc-b9dc2adfd0-5751913
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Yes	http://about.bankofamerica.com/en-us/global-impact/csr-report.html?cm_mmc=EBZ-CorpRep_-_Google-PS_-_corporate%20social%20responsibility_-_CSR%20Report-Corporate%20Social%20Responsibility#fbid=A4fAuDDRVP9



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Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Public Interest & Intermediary	Maybe	Sarbane's Oxley must be used as the indicator of this issue rather than duplicate existing methods which produce the results to indicate this practice exist. Enforcement of the SOX penalties makes more sense than adding another layer.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	Yes	Logistics provider operate globally, including sensitive countries with high corruption risks. Given time sensitivity of shipments, incentives to act contrary to business ethics standards i.e. to clear customs faster to avoid (further)delays etc. is higher relative to other industries. Transparency over payments (incl. lobbying activities) came up at AGMs last year, i.e. for UPS which indicates increasing shareholder concern.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Corporation	Yes	risk on corruption and law enforcements to companies
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	No	I believe the industry already does a good job of this.
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Corporation	Yes	the "right to operate" is material in this buisness, and it is cheaper and quicker to gain access in many places around the world the wrong way verses the right way in the field of logistics
Air Freight & Logistics	Business Ethics & Transparency of Payments	Material issue?	Market Participant	Yes	Because many logistics companies transact internationally, issues such as money laundering and transfer pricing have the ability to lead to legal liability
Air Freight & Logistics	Competitive Behavior	Material issue?	Corporation	Maybe	Similar to our response on Business Ethics, while we certainly think that competitive behavior can have a material impact from an investor perspective for our sector in general, we think that companies faced by significant risks, fines and legal action related to competitive behavior violations would be required to disclose that information anyway in the Risk Factors sections of their 10-K filings and therefore it's not necessarily something that needs to be included in SASB reporting for all companies in the sector.
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	Yes	in general, industries that are highly concentrated, such as logistics, are vulnerable to collusion behavior - such as on price fixing - which is illegal - and therefore costly to the industry if caught



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Air Freight & Logistics	Competitive Behavior	Material issue?	Corporation	No	I don't feel the case was well made in the Brief as to why it should be considered material.
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	No	Relative to other industries, and in the context of current regulatory and legal standards, this did not feel material.
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	Maybe	i have a general presumption that the DOJ will adequately manage antitrust issues and i dont anticipate that there will be any material info that companies will be able to disclose.
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	Yes	Price fixing fines in the freight forwarding industry have clearly been material.
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	potential for increased financial liabilities
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	greater public scrutiny
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	No	For UPS and FedEx, the competitive environment is relatively well understood by investors. The investment community is already aware of the possibility for collusive practice between airfreight and ground players. The 3PL space is generally competitive and fragmented enough to create pricing competition, despite the DoJ fine in 2010. This is particularly true in freight brokerage, where the top 10 players control only 43% of the ~\$45 billion US market.
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	http://www.alcoa.com/sustainability/en/info_page/operations_soc_health_zip.asp
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	No	Competitive Behavior encourages lower prices and therefore maintains a balance in cost. The only time the competitive behavior is material would be when the cost savings are going hinder reducing air quality.
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	Yes	http://www.reuters.com/article/2012/03/27/us-eu-freightforwarders-idUSBRE82Q0WC20120327
Air Freight & Logistics	Competitive Behavior	Material issue?	Corporation	Yes	the way the company behaves (hostile take overs or strategic partnerships for example)shows the other side of the financial results booked and can be a good indication of the sustainability of the company itself in terms of managerial performance and acceptance of stakeholders with associated business risks.
Air Freight & Logistics	Competitive Behavior	Material issue?	Corporation	Maybe	I am not sure how this will be implemented and how the standards would be met by each company. (Comparable)



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Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	No	I think competition is a positive to any market.
Air Freight & Logistics	Competitive Behavior	Material issue?	Corporation	Yes	Competative behavior is critcal in this space - international trade restrictions can cripple this industry and so can unfair trade practices - goverments in several parts of the world support parcel delivery fixed costs with mail revenues and even though they are in some cases billions of dollars in the red they continue to compete with unfair advantages in waht is suppose to be a "free market", some use political favortism to promote an uneven playing field in a very competative markets. The EU restricted a major deal in Europe last year that goes against free trade and open competative market principals in logistics. Competition, Free trade and open markets have always proven to produce the best service and the best price for consumers - logistics is no different
Air Freight & Logistics	Competitive Behavior	Material issue?	Market Participant	Yes	many logistics companies are users of other people's assets, but are important market price setters
Air Freight & Logistics	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	This is linkedin to unethical behaviour
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Corporation	No	We don't think that Employee Health & Safety is a material issue from an investor perspective, unless the reporting company has a particularly poor performance record in this area. And if that's the case, the reporting would likely have to disclose any significant fines, lawsuits or other related risks in their 10-K filings anyway.
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Yes	similar comments as labor relations
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Corporation	No	Not likely that any single event would have a lasting effect upon company performance or valuation. Something like an airplane crash would be covered under the category of Accident & Safety Management.
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	it offers qualitative information that will inform an investor of potentially very significant financial implications (workers comp, self insurance, etc).
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	It can impact company productivity. Lack of a safe environment can lead to financial liabilities.



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Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	leading indicator of safer workplace = reduced accidents and incidents, reductions across a number of financial impact areas, large global employer (scale)
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Market Participant	No	UPS and FedEx employees are exposed to safety risks, but non-asset 3PL employees are generally not exposed to safety risks.
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	http://www.alcoa.com/sustainability/en/info_page/operations_soc_health_zip.asp
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	ISO 14001 ISO 9001 both are International standards which all companies are expected to practice and re-certify by-annually. Involving Employees and acquisition of feedback from employees including their well being with preventative health practices are the primary reason for incorporating gyms in most corporate facilities. Promoting wellness through preventative practices proves the organization has applied the principles versus merely communicating the messages.
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Yes	Critical to maintain operational efficiency and to attract, motivate and retain employees.
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Corporation	Yes	The quality of Incident management(prevention) is the first indication of quality of management
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Corporation	Yes	The industry is equipment intensive and therefore has a high risk of exposure - so safe driving practices as an example can have a material impact on cost, longevity, employee satisfaction, legal exposure and long term viability of the enterprise
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Market Participant	No	While logistics companies do depend on their employees, because many of them are low on the manufacturing side, and are primarily a service-based industry, it is less relevant
Air Freight & Logistics	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	Many occupations within the logistics industry have a high stress factor, low physical movement and are dangerous. Example: TNT is a leader in the DJSI: http://www.tnt.com/corporate/en/site/home/about_us/corporate_responsibility/whatwedo.html



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Air Freight & Logistics	Labor Relations	Material issue?	Corporation	Maybe	While Labor Relations might be a material issue for our sector in general, we think that companies faced by significant risks related to Labor Relations would be required to disclose that information anyway in the Risk Factors sections of their 10-K filings and therefore it's not necessarily something that needs to be included in SASB reporting for all companies in the sector.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	http://www.greenbiz.com/blog/2012/02/16/apple-and-foxconn-sustainable-labor-must
Air Freight & Logistics	Labor Relations	Material issue?	Market Participant	Yes	as long-term investors, pension funds must consider the gamut of stakeholders in a company/industry that are long-term value drivers. in the logistics industry that is labor intensive, labor relations can affect the successful and efficient execution of company/industry strategies and operations. it is therefore important that cordial labor relations be fostered to drive employee sense of fairness and belonging and therefore productivity. this is a very global industry - it is important to manage and report on labor relations, not just in the U.S., but also on its global operations - especially in emerging markets where labor laws are more lax and labor abundance fosters an environment of potential labor abuse - the backlash can be brutal - as seen in the garment industry in Bangladesh
Air Freight & Logistics	Labor Relations	Material issue?	Corporation	Yes	A work stoppage can affect financial performance and cause customers to defect to competitors.
Air Freight & Logistics	Labor Relations	Material issue?	Market Participant	No	We are entering a era of human light workplace, every year human labor becomes less and less material.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	additional qualitative information on the quality of the relationship with collective bargaining groups. this will inform investors on the significant impact it can have on labor costs and growth potential for the transportation co.
Air Freight & Logistics	Labor Relations	Material issue?	Market Participant	Yes	UPS's history with the Teamsters (specifically the 1997 strike and freight diversions to competitors ahead of subsequent contract negotiations) is a great example of the potential materiality here.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	Supply chain disruptions are a major concern for shippers. Therefore carriers and logistics service providers that have poor labor relations will likely have their market limited.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	short term operating costs, longer term reputational impact will hit cost of capital and other impact areas



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Air Freight & Logistics	Labor Relations	Material issue?	Market Participant	No	Most 3PLs are not unionized, and labor relations are not typically thought of as an issue by investors. UPS is the player with significant exposure, but they disclose relations with their unionized employees already (see pg. 12 of http://www.sec.gov/Archives/edgar/data/1090727/000109072713000033/ups-9302013x10q.htm). Most investors would not find labor relations material for 3PLs, as the risk of a "walk-out" or strike is relatively low.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	An example, a well run distribution center = low overtime & reduced ghg emissions.
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Maybe	Labor Relations may not be a materiality factor as their are many Federal labor practices and reporting that would reduce the value of including this component in the new requirement. Would lower the value of the components which are vital to the work.
Air Freight & Logistics	Labor Relations	Material issue?	Corporation	Yes	notify employees' representatives and relevant government authorities of major changes in our operations as required by law, failures to do so has highrisk for interrupts to productivity and services/product delivery to customers and as such to profitability = revenue/costs
Air Freight & Logistics	Labor Relations	Material issue?	Corporation	Yes	Look at the safe driving practices of UPS over its history, its susscess is profound and iconic to its brand
Air Freight & Logistics	Labor Relations	Material issue?	Market Participant	No	While labor relations are important, few of these companies are unionized, and thus are less subject to labor strife
Air Freight & Logistics	Labor Relations	Material issue?	Public Interest & Intermediary	Maybe	Not sure if this is not covered by EHS
Airlines	Air Emissions & Fuel Management	Add Issue	Public Interest	radative forcing and water vapor	The impact of GHG emissions from aviation is much greater than just the CO2 associated with the burning of fossil fuels because of the level in the atmosphere at which it is released and the impact of water vapor.
Airlines	Air Emissions & Fuel Management	Comment on Brief	Market Participant	D.N.A. - Comment on Brief	There was no mention of the extra climate change impact of global flights across the Arctic, yet this what part of a proposed metric.
Airlines	Air Emissions & Fuel Management	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	The industry brief focused on fuel/energy and really briefly mentioned air quality issues. It might be worth exploring more if air quality should be a seperate section and either get more attention or removed.
Airlines	Air Emissions & Fuel Management	Inaccuracy	Corporation	D.N.A. - Inaccuracy	Failure to discuss Arctic Circle technical instructions.



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Airlines	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Public perception and cost meet in this issue.
Airlines	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Fuel management is material as our single largest operating cost, however air quality (while related) does not currently have a material financial impact, nor is it in our control.
Airlines	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	The potential financial impact on airlines of a significant cost of carbon is clear. So much so, it is viewed by some countries such as China as a point of national security resulting in threats of trade retaliation. The link between fuel consumption and GHG emissions is also clear.
Airlines	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Fuel is significant from financial perspective (typically 30-40% of costs). Additionally, material from environmental perspective (aviation emissions > 2% of total emissions)
Airlines	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Air travel is a major source of emissions. Attention to environmental impact has increased significantly in recent years.
Airlines	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Air quality is one of the items that has become more and more important to people. Governments are requiring better air quality from planes and autos. It is better for the industry to be proactive in disclosing metrics for Air Quality and Fuel Management.
Airlines	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	To provide a sense of the scale of international aviation operations in 2012, 1,715 airlines operated more than 23,000 aircraft and used 3,750 airports. Globally, flights produced 689 million tonnes of CO2 in 2012 (ATAG 2012). In the past decade, air passenger traffic has increased by 70% and it is projected to at least double by 2030 (ICAO 2012a).
Airlines	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	You captured the issues fairly well in your issue brief. Note that IATA is not the only entity that has committed to carbon neutral growth from 2020. Airlines for America is part of the worldwide aviation coalition supporting this goal. See, for example, our press statement on the outcome of the recent ICAO Assembly: http://www.airlines.org/Pages/A4A-Approves-ICAO-Climate-Change-Resolution.aspx



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Airlines	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	because air emissions can significantly affect the financial performance of airlines by means of fines charged by environmental authorities in case of non-compliance with applicable legislation. It is well known in the airline industry that aircraft fuel is the largest operating expense. In November, Delta airlines reported that fuel cost exceeds salaries by more than \$300 million annually. Therefore, minimizing aircraft fuel consumption is of major importance for investors in the airline industry. Source: http://www.fool.com/investing/general/2013/11/08/delta-air-lines-hitting-on-all-cylinders-despite-h.aspx
Airlines	Air Emissions & Fuel Management	Other Comments	Corporation	D.N.A. - Other Comments	The metrics need the most work. Some are meaningless (e.g., total NOx, SOx and PM -- these impact local air quality -- absolute numbers are meaningless without locality-specific information; also, totals tell you nothing-- the total for a small airline will be different than the total for a big airline, so what?) Total/absolute numbers without respect to an airline's size, amount of operations, etc do not provide meaningful information (for example, total energy consumed is meaningless if you do not know the size of the overall operations it supports). Some proposed metrics, like "arctic circle emissions" have no basis. Whereas some of the single metrics might be okay, in various places you've proposed multiple metrics for a single factor, making the combined metrics objectionable. For example, voluntary and involuntary passenger-flights bumped might be okay, but average per-passenger compensation is not relevant or appropriate.
Airlines	Community Relations	Add Issue	Public Interest	Local community impact	For hubs airlines are active, local communities benefit from employment opportunities airlines offer and business opportunities for local enterprises. On the other hand negative impacts include noise and fuel dumps.
Airlines	Competitive Behavior	Material issue?	Corporation	Maybe	People value transparency, safety and the 'personality' of the brand, however they expect fees with everyone these days.
Airlines	Competitive Behavior	Material issue?	Public Interest & Intermediary	Maybe	Similar to Safety, Competitive Behavior has highly regulated and monitored for a long time. Because the focus is placed on good governance, Directors and Officers of airlines take it very seriously. Assuming a major breakdown of controls, the impact would likely fall more on management rather than the company itself. Unlike recent fines to tech sector companies, airlines rarely suffer similar consequences. The one exception is in the area potential merger & acquisition. Although not a fine, failure to move forward on such deals can have a material impact on investors.
Airlines	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Airlines are closely monitoring each other and copying behaviors. Competitive advantage drives economic performance



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Competitive Behavior	Material issue?	Public Interest & Intermediary	No	I do not know enough about this issue.
Airlines	Competitive Behavior	Material issue?	Corporation	No	Traffic data from the Department of Transportation (http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=264&DB_Short_Name=AirCarrierSummary) shows that between 2002 and 2012, the largest carriers (AA, UA, DL, WN, US) have shown flat growth while several new airlines, including Frontier, Spirit and Allegiant have more than doubled in size. Other medium sized airlines, such as Alaska and Hawaiian have had double digit increases. This data does not indicate an industry that is uncompetitive or has significant barriers to entry. In addition, finding only 1 examples of a US antitrust suit that has not been settled, and which the airline may eventually win, does not indicate that this is a pervasive problem (the example of the Emirates suit is not relevant to US carriers since US carriers cannot sell tickets between Australia and the UAE). The discussion of slots in the Competitive Behavior section of the Brief is not material to this issue. There are only a handful of slot constrained airports in the US. Certain airports establish slots due to capacity constraints and due to pressure from local communities to avoid noise. Airport authorities control how many slots are allocated, not airlines. New airlines can have access to slots by purchasing them from incumbent airlines.
Airlines	Competitive Behavior	Material issue?	Market Participant	Yes	With relatively few major players, significant barriers to entry, and a high profile for the industry, the likelihood of continued regulatory scrutiny is high.
Airlines	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Competitive behavior is something that the Airline Industry needs to greatly monitor. With the various alignments of companies, there is a greater chance of collusion or other anti-trust issues that will negatively impact the perception of the company and industry.
Airlines	Competitive Behavior	Material issue?	Market Participant	No	The evidence would seem to indicate that any practices that would be deemed collusive or predatory do not have significant / material financial impact on companies. The example provided concerning US Airways and its 13 percent share price drop seems more about merger premiums being backed out on news of Justice Department lawsuit. Absent that example, the fines associated with "collusive" practices don't seem material.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Competitive Behavior	Material issue?	Corporation	No	Mergers and Alliances are a fact. They are very mature -- meaning that this industry knows how to do these things. The instances where there may be a violation of antitrust rules are very rare. In any event, if they rise to materiality as a financial matter, they already are reported under existing rules and protocols. The "evidence" of the U.S. DOJ case regarding the US Airways-American merger is not compelling. That case was providentially brought, without relevant support and was settled under terms that the industry expected. See. e.g., http://www.forbes.com/sites/airchive/2013/11/14/the-winners-and-losers-of-the-us-airways-american-merger/
Airlines	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	I would give a lower importance to this issue, although I would still consider it material for airlines. The level of materiality given to this aspect will highly depend on the competitive environment in which the airline operates. In the European market where several low-cost or hybrid airlines operate the competition is very high. Moreover, there is also an additional competition with road transport and railways. Such market is very dynamic and air passengers tend to be very sensitive to price variation and to new market entrants. Therefore, every airline shall consider this an important aspect to consider in their business, mainly in Europe and in the US.
Airlines	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	My congratulations to the entire SASB team for leading such a massive endeavor in, for the most part, uncharted areas. The orientation file and webinars were informative, IWG process was well coordinated and very "user-friendly" and the industry brief/research was comprehensive, precise, relevant and forward-looking. Sustainability accounting standards are becoming increasingly important and necessary to all stakeholders. Indeed, I look forward to seeing more activity in the area(s) of environmental, social and governance (ESG) compliance.
Airlines	Congratulatory Comments	Other Comments	Corporation	D.N.A. - Other Comments	The brief was well documented and well researched. One thing the overall view and brief missed is the importance of branding as it relates to sustainability and CSR. There is a strong relation between how much people 'like' your treatment of these issues and how effective they perceive your actions to be.
Airlines	Customer Experience & Transparent Information	Material issue?	Corporation	Maybe	At the end of the day, people still need to get where they are booking a ticket to. People will fly if they have to, as long as it is safe.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Customer Experience & Transparent Information	Material issue?	Corporation	Yes	May not be material across the industry.
Airlines	Customer Experience & Transparent Information	Material issue?	Market Participant	No	Customer Experience is not a material issue as it is more of a subjective outcome. Either customers know what their airline provides and accept it as their business model or else their expectations are not met in which case either the airline is lowering its standards or the passengers expectations or too low/high. It stands to reason that that transparent information allows passengers to make the best choices possible which of course is a consideration for customer satisfaction but does not necessarily have to be viewed as material to the airline.
Airlines	Customer Experience & Transparent Information	Material issue?	Public Interest & Intermediary	No	Customer Experience and Transparency are viewed on a very temporal basis. Any material impact would be derived more from perceptions rather than well defined standards. In addition, the emerging regulations seem to have relatively minor financial impacts and enforcement appears more reactive than systematic.
Airlines	Customer Experience & Transparent Information	Material issue?	Public Interest & Intermediary	Yes	customer experience drives economic performance, which is crucial in low margin industry
Airlines	Customer Experience & Transparent Information	Material issue?	Market Participant	Yes	http://hausercenter.org/iri/wp-content/uploads/2010/05/IRI_Combined_KPI.pdf
Airlines	Customer Experience & Transparent Information	Material issue?	Market Participant	Yes	Cost-cutting and "innovative" revenue-raising practices have hurt airlines' reputations and reduced public trust in their integrity.
Airlines	Customer Experience & Transparent Information	Material issue?	Public Interest & Intermediary	No	Though this is a great selling point. It should not be a requirement for investors to know. In my opinion, this can be voluntary information. Customer Experience and Transparent Information can be seen in shrinking or growing revenues in reference to the industry.
Airlines	Customer Experience & Transparent Information	Material issue?	Public Interest & Intermediary	No	In this case, it is hard to differentiate between the airport vs. airline.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Customer Experience & Transparent Information	Material issue?	Corporation	Yes	Customer experience is important in this highly competitive industry. U.S. airlines are losing market share to their foreign competitors over this issue. Here is a link to one of the many articles on this: http://www.usatoday.com/story/travel/2013/12/01/road-warriors-foreign-us-airlines/3798847/ Note - i believe 'transparency' is an overstated term here. It is a less critical factor. Airlines are REQUIRED to be transparent. The GDS issue your point out in your industry brief is not an airline issue. It is a GDS issue.
Airlines	Customer Experience & Transparent Information	Material issue?	Public Interest & Intermediary	Yes	I would place these two issues separated since "Transparent information" is of high relevance for investors, while improving customer experience can be considered of highest relevance for business travellers. Due to their high frequency of flights and sometimes tight schedule, they are usually much more demanding in terms of added-value offered by airlines, which includes special care throughout the whole flying experience. Considering that business travellers are of high importance for every airline due to high prices they pay for flight tickets (sometimes five times higher than the price of a flight ticket in economy class), the lack of attention given to this issue may significantly affect the financial performance of airlines and consequently, the perception of investors. A recent survey conducted by Deloitte LLP ("Rising above the Clouds: Charting a course for renewed airline consumer loyalty") revealed that 72 percent of high-frequency business travelers participate in multiple programs, and over one-third participate in four or more programs. There continues to be a lack of customer centricity, relevancy and engagement in the airline industry; as their programs and focus on the experiences are lacking for the individuals. See more at: http://loyalty360.org/resources/article/the-challenge-to-create-loyalty-and-relevancy-in-the-airline-industry#sthash.5cWXEbFp.dpuf
Airlines	Does not apply	Add Issue	Corporation	Regulatory issues and challenges	(i.e. National Airline Policy)
Airlines	Does not apply	Add Issue	Public Interest	Materials and Supplies	Much like the traditional built environment how you build something matters. How are the materials sourced? Are they toxic? Are they recyclable, reusable, compostable, etc? Is the food locally sourced?
Airlines	Does not apply	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	Less inaccurate than more vague language. Old v Young airlines, etc



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Airlines	Industry definition	Add Issue	Public Interest	Aircraft utilization and load factor	<p>The most basic metric for an airline is aircraft utilization. This is a measure of the average number of hours that each aircraft is flying in each 24 hour period. Planes that are flying are probably making money. Planes that are sitting on the ramp, whether undergoing maintenance, suffering delays due to weather or waiting for crews to fly them are not making money. Utilization is a statistic that varies from carrier to carrier and is normally considered a closely guarded corporate trade secret and is not tracked by government. Part of the "art" in running an airline is keeping utilization high.</p> <p>Load Factor: The next most important metric for an airline is the Load Factor, which measures the percentage of available seats that are filled during a specific period. In 2007 load factors for major airlines ranged from 72-84%. In 2008 U.S. airlines averaged a Load Factor of 79.74% on domestic flights and 78.74% on International flights. http://www.wikinvest.com/industry/Airlines</p>
Airlines	Labor relations	Material issue?	Corporation	Yes	Unions or the threat there of, that do not work with the airline to improve culture and profitability dramatically impact the quality of the company as an investment.
Airlines	Labor relations	Material issue?	Public Interest & Intermediary	Maybe	Labor relations are a traditional financial risk are disclosed on the current 10k.
Airlines	Labor relations	Material issue?	Public Interest & Intermediary	Yes	Labor relations and Talent & Diversity are closely linked (via supply and demand). The trend will be to spend more on preparing for demographic, political, and social pressures. For an industry that operates on such small margins, there will be material positive impacts on those airlines that are proactive and effectively address coming human capital shortages – and negative impacts on those who don't.
Airlines	Labor relations	Material issue?	Public Interest & Intermediary	Yes	A lot of strikes in the aviation industry (globally)
Airlines	Labor relations	Material issue?	Market Participant	Yes	The workforce is highly unionized and customary practices evolved in past decades that present major challenges today for longer-established airlines.
Airlines	Labor relations	Material issue?	Public Interest & Intermediary	Maybe	In my opinion, Labor Relations should be reported in certain circumstances. If there is a strike that requires the cancellation of flights or something along those lines. I don't believe that it should be a required metric to be disclosed.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Labor relations	Material issue?	Market Participant	Maybe	Considering the issues being faced by the airline industry, I'm not certain whether "labor relations" rises to the level of materiality required for disclosure under this effort. I suppose as an investor I would like some data on how employees are classified, how many employees per classification, years left on contract, history of labor disputes. However, I'd like to have air quality & fuel management, passenger safety, and customer experience provided first.
Airlines	Labor relations	Material issue?	Corporation	Yes	You captured this in your industry brief fairly well. Also note that through the bankruptcies flowing from the industry losses from 9/11 and the sustained U.S. economic downturn, labor contracts were renegotiated, typically with reduced salaries for various categories of workers. In the post-bankruptcy era and with the economic situation beginning to turn around, labor will use its power to try to increase salaries and labor benefits.
Airlines	Labor relations	Material issue?	Public Interest & Intermediary	Yes	This is of high importance in every market where the airline operates but mainly where strong labor and trade unions are present. This is very much the case of UK, US, France, Germany, and also some developing countries like Brazil. Strong labor and trade unions may claim for rights that incur in major increase in costs with salaries and benefits for employees, while also result in strikes which in turn brings major financial losses for airlines.
Airlines	Passenger Safety	Material issue?	Corporation	Yes	Safety is always first in the industry - always.
Airlines	Passenger Safety	Material issue?	Public Interest & Intermediary	No	Passenger Safety is highly regulated and consistent among carriers.
Airlines	Passenger Safety	Material issue?	Public Interest & Intermediary	Maybe	Passenger Safety has been a top concern of airlines for many years. The safety record has clearly been improving on a normalized basis due to better equipment, technology, training, maintenance, etc. This trend is likely to continue. Although one accident can certainly be material or even catastrophic, airlines have built in various risk management practices (e.g., insurance, liability protections, etc.) to mitigate most outcomes.
Airlines	Passenger Safety	Material issue?	Market Participant	Yes	Passenger safety is very high profile for this industry, because incidents are rare but large (and hence receive much more attention than a similar safety record would if incidents were more common but smaller).
Airlines	Passenger Safety	Material issue?	Public Interest & Intermediary	Yes	Passenger Safety is in the foremost of all travelers mind. The costs associated with crashes can be substantial especially when mechanical failure or pilot error are discovered. There can be a large liability to the public as well as a loss of goodwill.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Airlines	Passenger Safety	Material issue?	Public Interest & Intermediary	Yes	Like all mass transit, aviation is safer than driving. Unfortunately, heavy media coverage of the few fatal incidents causes people to become nervous because the safety of the plane is largely outside their control. Therefore, this has huge reputational/economic risks long after any kind of accident.
Airlines	Passenger Safety	Material issue?	Corporation	Yes	Safety is the number one issue for airlines and passengers. As pointed out in your issue brief, the accidents due to pilot fatigue, training, etc, undermine not only individual airlines but the larger industry.
Airlines	Passenger Safety	Material issue?	Public Interest & Intermediary	Yes	This issue seems of clear importance for every airline since every aircraft cost millions of dollars as well as eventual compensations that might be imposed on airlines resulting from air passenger injuries or death during their flight experience. Therefore, passenger safety and the avoidance of aircraft accident is of highest importance for every airline.
Airlines	SASB Approach	Comment on Brief	Corporation	D.N.A. - Comment on Brief	It appeared that rather than providing an objective view of the industry that was used to determine metrics, the metrics were determined and data was found to support the metrics. The brief captured some recent events in the industry, but did not capture many forward trends that will be more relevant in the future.
Airlines	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	Since most of this information is disclosed or required in one form or another (FAA or DOT regulations), not sure how meaningful this is to disclose via Form 10-K.
Airlines	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	The IWG was a bit more than 4 hours, if we were to ask for feedback from other groups within the company (Investor Relations and Legal) that had more visibility to the 10-K filing. As general feedback: - All of the issues addressed here are considered material. However, the metrics seem to either be information we would already address in our Corporate Responsibility Report or items we would already report in the 10-K if there were incidences/fines/issues that were deemed material to Delta for that financial year. Due to the need for 10-K to be filed in early February and most year end data for emissions etc not available and calculated until end of January/early February, most of the information is more appropriate to be discussed in further detail in a sustainability report.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Airlines	Several Issues	Inaccuracy	Corporation	D.N.A. - Inaccuracy	<p>1) Missed the fact that passenger aircraft also typically carry freight (in addition to passenger luggage).</p> <p>2) Page 3 - what is the basis for saying that airlines have "relatively high carbon intensity?" Relative to what? Airlines have one of the best, if not the best, fuel efficiency record of all industry sectors.</p> <p>3) Page 4 - IPCC does not say that "around six percent of greenhouse gases come from aviation." Aircraft emissions account for approximately 2% of man-made greenhouse gas emissions.</p> <p>4) page 5 - IATA is not the only aviation association supporting carbon neutral growth from 2020. Airlines for America is in a worldwide aviation coalition in which IATA and all other participants support the goal. See http://www.airlines.org/Pages/A4A-Appraises-ICAO-Climate-Change-Resolution.aspx</p> <p>5) Page 8 - the summary of the "transparent information" issue is not accurate or balanced. Airlines provide all required data. The GDS companies like Orbitz are unrelated (separate) businesses that profit off of the airlines. They take data that airlines publish and use it in their sales. They get this data for free. They want more data for free. It is wrong to assert this as an airline failing. See http://www.airlines.org/Pages/Coalition-letter-to-Secretary-LaHood-regarding-Global-Distribution-Systems-(GDS).aspx</p> <p>6) As noted in my survey answers, I believe the paper significantly overstates the "competitive behavior" issue. The airlines know how to deal with alliances and mergers. The fact that the DOJ brought a legal challenge to the US Airways-American merger is not a representative example -- as the documents in the filing and outcome confirm.</p> <p>7) Page 19 - the proposed "arctic circle" emissions metric has no basis.</p>



Airlines	Several Issues	Inaccuracy	Corporation	D.N.A. - Inaccuracy	<p>On page 1, the definition for low cost carriers is incorrect. Most fly to large domestic airports and their fares are almost always matched by full service carriers. I think it is more accurate to say they have more limited route networks and compete for leisure travelers (or generally have a simplified fare structure).</p> <p>On page 3, the ETS description says it covers flights to and from European countries. It really covers all flights arriving from or departing to European countries (this includes international flights but the definition as written only includes intra-EU flights).</p> <p>On page 3, the estimate of the ETS cost (0.5%) is very misleading and is a biased assessment of the cost. It assumes a \$4 cost per allowance while the EU's own estimates range from \$30 to \$50.</p> <p>On page 3, the reference to the American/US lawsuit is dated and was settled and many industry experts believe it was due to the DOJ's weak case. On page 3, the phrase "the airline industry must continue to improve safety standards" should be restated to "the airline industry must continue to maintain high safety standards." There is no safer means of transportation than air transport. The A4A website shows there has not been a fatality since 2010.</p> <p>On page 4, it states that aviation is responsible for 6% of GHG emissions. I believe the IPCC report is closer to 2% (it may be the Stern report, which is more than 7 years old, that says 6%). According to the Pew Center paper "GHG Emissions from Aviation and Marine Transport" dated Dec 2009, aviation AND marine transport represent only 3% of total GHG emissions. Also, on p4 you reference the EPA's data that shows transportation represents 27% of US GHGs and aviation is 6.1% of that, or only 1.65% of total emissions. There is no way that aviation emissions from the rest of the world can be that much higher.</p> <p>On page 4, the reference to emissions at altitude should be deleted, or a footnote should be provided to reference the page in the IPCC report where this is stated.</p> <p>On page 4, it states that the ETS covers airlines based in the EU. This is incorrect. All airlines that fly to or from the EU are part of the ETS.</p> <p>On page 6 it suggests that carbon offsets could help raise revenue. This is misleading since 100% of the funds from an offset go to purchase the offset.</p> <p>On page 6, the airline safety data is very misleading. US carriers make almost 8 million flights per year and according to the NTSB database, there was only 1 accident with fatalities since 2008 for scheduled airlines. The 1.3 per million stat suggests 6 accidents with fatalities annually.</p> <p>On page 7, there is no support to your conclusion that more training will reduce accidents. Please remove or provide a footnote from a credible source.</p> <p>On page 8, the British Airline Pilot survey is not a credible source since they have a financial incentive to negotiate for increased rest periods. Please remove.</p> <p>On page 10, it says "inherent dangers of air travel". There are inherent dangers in all travel and in any activity. This reference should be removed.</p>
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Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
					On page 12, it is inaccurate to claim that "alliances are controversial". Please remove. On page 13, it is mentioned that US Airways stock fell 13% on news of the DOJ antitrust suit. To properly balance this, it should be mentioned that that US Airways stock is up over 120% since announcement of the merger.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	Maybe	I do not think that this might be useful to a potential investor. How do you measure it? What is the cost of this? What are the benefits?
Airlines	Talent & Diversity	Material issue?	Corporation	Maybe	With minor exceptions, the industry offers relatively high paying jobs for the level of work, risk and time. Talent is always important, but not material.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	No	The brief sites this being already covered by the current 10k.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	Yes	Labor relations and Talent & Diversity are closely linked (via supply and demand). The trend will be to spend more on preparing for demographic, political, and social pressures. For an industry that operates on such small margins, there will be material positive impacts on those airlines that are proactive and effectively address coming human capital shortages – and negative impacts on those who don't.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	Maybe	Don't believe it's a critical aspect for majority of stakeholders.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	No	This does not seem to be as material as other issues. Would not rank it in the high/high column, unless talent retention is really an issue in this industry.
Airlines	Talent & Diversity	Material issue?	Market Participant	Maybe	This appears to be more driven by political considerations than any real materiality for investors.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	No	I feel that Talent and Diversity is an important issue, there are limitations. As stated in the article, the talent pool is not as diverse as it could be meaning that the staff will not be diverse. This kind of hiring and retaining practices can be voluntary, but not required.
Airlines	Talent & Diversity	Material issue?	Market Participant	Maybe	The evidence would seem to support the importance of maintaining and growing an airline company's pool of "talented" pilots as the demand for these will likely be growing. However, I don't think that other classifications of employees present this level of materiality and likely do not need disclosure on how the issues of talent and diversity are being considered and managed.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Airlines	Talent & Diversity	Material issue?	Corporation	Maybe	I think Talent should be bundled with Labor Relations as a workforce issue. Yes, pilot and other potential labor shortages are material, as your issue brief suggests. However, I do not believe the evidence is there to support "diversity" being a material factor to investors at this time. Thus, I think Diversity should be dropped and "Talent" or "Workforce" should be grouped with Labor Relations.
Airlines	Talent & Diversity	Material issue?	Public Interest & Intermediary	Yes	I would also consider this aspect material but not as high as the first three aspects mentioned in the previous page. Most of airlines are operating with flights to foreign countries and investing in diversity by hiring and giving opportunity to local employees can provide a valuable insight of market penetration. Investing in talent attraction and retention is of major importance in highly competitive markets like in Europe and in US where innovative ideas and process towards more effective operations become valuable assets to explore.
Auto Parts	Business Ethics & Transparency of Payments	Add Issue	Corporation	Governance and business ethics	ethical business practices
Auto Parts	Competitive Behavior	Material issue?	Market Participant	Maybe	Auto industry is a competitive industry
Auto Parts	Competitive Behavior	Material issue?	Corporation	Maybe	I just do not see how CB is material, we all strive for best product at the lowest cost with no defects. Really need to see why others feel this is material.
Auto Parts	Competitive Behavior	Material issue?	Corporation	No	In my opinion competitive behavior is what determines a companies economic viability and is key to the operational survival of a company.
Auto Parts	Competitive Behavior	Material issue?	Corporation	Maybe	varies across markets and locations, hard to measure proactively. But it can have a materila effect if lines are crossed.
Auto Parts	Competitive Behavior	Material issue?	Market Participant	Yes	this is a bid intensive, contract drive industry where unethical or ethical behavior makes a big difference
Auto Parts	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Competitive behavior is a driving factor in industry.
Auto Parts	Competitive Behavior	Material issue?	Corporation	Maybe	AIAG does not address competitive issues, therefore, I cannot comment on this question.
Auto Parts	Competitive Behavior	Material issue?	Corporation	Yes	Anti-competitive behavior can lead to huge fines (industry brief could be updated with the recent fine charged to Toyo in the US). Pirelli has extensive internal ethical and whistleblowing policies in place for avoidance of this and other unethical behavior.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Congratulatory Comments	Other Comments	Corporation	D.N.A. - Other Comments	The industry brief was excellent! It provided a thorough analysis and was able to be very specific about materiality.
Auto Parts	Does not apply	Add Issue	Market Participant	Fleet emissions/ sustainable products	Only include if these issues are not covered under "Product Stewardship". Fleet emissions regulations will become material in the EU and USA soon.
Auto Parts	Does not apply	Add Issue	Corporation	Raw material transparency in the supply chain	material composition of products in the supply chain
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Public Interest & Intermediary	Yes	The workers in this industry are subject to hazards which could cause personal injury or loss of life. Employee health, safety and well being is also very heavily regulated by Federal, state and local governments.
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Corporation	Yes	On the factory floor, there is no separation, good production, good quality, and good HS&E go hand in hand. The systems focus, the skills training, and metrics are all critical to a sustainable company. If your employees are not well, not safe and not motivated, that is a material problem.
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Corporation	Yes	The potential for negative impact to operations can be significant.
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Corporation	Yes	No business can shrt-shrift the well-being of their employees for long and survive to compete.
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Market Participant	Yes	similar as above, this is a manufacturing intensive industry
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Public Interest & Intermediary	Yes	As mentioned, employee safety is essential to attracting workers. Additionally, Lean Six Sigma programs recognize that an unsafe environment is costly & wasteful.
Auto Parts	Employee Health, Safety and Wellness	Material issue?	Corporation	Yes	Employee health, safety and well-being brings productivity to an industry and risks in this area can lead to costs: financial, social and reputational. See page 148 in Pirelli's Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Energy Management	Material issue?	Market Participant	Maybe	Industry is energy intensive. Rising energy prices are a concern.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Energy Management	Material issue?	Corporation	Yes	Looking at this through the Deming principles, to waste energy or to use inefficiently is one of the 7 forms of waste
Auto Parts	Energy Management	Material issue?	Corporation	Yes	Cost of energy is growing at alarming rates, and is already considered a significant cost of doing business as well as a competitive advantage if a company can make significant reductions in usage and cost.
Auto Parts	Energy Management	Material issue?	Corporation	Maybe	The magnitude of the issue can vary widely depending on product lines, locations, etc. At present this is mostly a financial / efficiency issue which reflects management focus on efficiency.
Auto Parts	Energy Management	Material issue?	Market Participant	Yes	Auto parts is a manufacturing intensive industry, energy used in production is an important input cost
Auto Parts	Energy Management	Material issue?	Public Interest & Intermediary	No	Energy management is important; however, to the consumer or investor it is reflected in product costs.
Auto Parts	Energy Management	Material issue?	Corporation	Yes	Energy management is critical, and measurable, and is an area where efficiencies can be clearly demonstrated. Link to Pirelli reporting (see page 104 on energy management): http://www.pirelli.com/mediaObject/corporate/common/cda/fy-2012/PIRELLI-2012_Sustainability_Report/original/PIRELLI-2012_Sustainability_Report.pdf Link to Pirelli targets for 2017/2020 (see slide 12): http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Labor Relations	Material issue?	Public Interest & Intermediary	No	Use of non-unionized labor. Especially given the pressures to reduce costs of products. Labor is one of the highest cost components and to be competitive, these cost must be decreased to the extent possible.
Auto Parts	Labor Relations	Material issue?	Market Participant	Yes	Labour relation issues pose serious reputational, operational and financial risks (see Maruti Suzuki Manesar case in 2012)
Auto Parts	Labor Relations	Material issue?	Corporation	Yes	Same as above, if your employees are not well, not safe and not motivated, that is a material problem. A work force not in line with management's objectives can not be sustained.
Auto Parts	Labor Relations	Material issue?	Corporation	Yes	It goes to business continuity - large cost, large potential effects.
Auto Parts	Labor Relations	Material issue?	Market Participant	Yes	labor costs and labor relations are key to maintaining a good working environment that is direct link to quality and pricing
Auto Parts	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	In addition to the threat of work stoppages caused by labor problems, labor relations have an effect on quality. http://www.qualitydigest.com/inside/quality-insider-column/us-labor-quality-issue.html#



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Labor Relations	Material issue?	Corporation	Yes	AIAG does not address these issues, therefore, I am not in a position to comment on them.
Auto Parts	Labor Relations	Material issue?	Corporation	Yes	Labor Relations is material both for human rights and productivity reasons. As the SASB Auto Parts Industry Brief points out on page 9, however, "... the bargaining power of labor unions may affect companies' liquidity and solvency ratios through increases in wages and pension benefits payables as an outcome of negotiations." This is not necessarily a "sustainable" outcome, particularly for the workers themselves. See Pirelli's focus on labor relations on page 141 of our Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Local Community Engagement	Add Issue	Corporation	Community Involvement & Development	Excerpted from ISO-26000: Community involvement is an organization's proactive outreach to the community. It is aimed at preventing and solving problems, fostering partnerships with local organizations and stakeholders and aspiring to be a good organizational citizen of the community. It does not replace the need for taking responsibility for impacts on society and the environment. Organizations contribute to their communities through their participation in and support for civil institutions and through involvement in networks of groups and individuals that constitute civil society. Community involvement also helps organizations to familiarize themselves with community needs and priorities, so that the organization's developmental and other efforts are compatible with those of the community and society. An organization might become involved through, for example, participation in forums established by local authorities and residents' associations or by creating such forums. Some traditional or indigenous communities, neighbourhood associations or Internet networks express themselves without constituting a formal "organization". An organization should be aware that there are many types of groups, formal and informal, that can contribute to development. An organization should respect the cultural, social and political rights of such groups.
Auto Parts	Product End-of-life	Material issue?	Market Participant	Yes	Regular framework is strict and will likely become stricter. Furthermore, there is competition on-going regarding the use/development of sustainable materials.
Auto Parts	Product End-of-life	Material issue?	Corporation	Yes	The perfect example here is e-waste. We all generate, do not know what to do with it, and it is a cost to world. Companies do not see the loss of raw materials that must be further extracted from higher risk areas. As an industry to be sustainable, it needs an effective ELV program.
Auto Parts	Product End-of-life	Material issue?	Corporation	Yes	Product take-back implications will be significant, in particular when one considers that there over 1 B cars in operation.
Auto Parts	Product End-of-life	Material issue?	Corporation	Maybe	varies widely depending on the product - many auto parts never see the light of day individually
Auto Parts	Product End-of-life	Material issue?	Market Participant	Yes	product end of life is most important for the upstream vehicle but clearly an issue for related components and parts



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Product End-of-life	Material issue?	Public Interest & Intermediary	Yes	as mentioned, there are raw material shortages and the cost of mining or producing these materials is significant. I believe that remanufactured products can reduce these costs and use of raw materials. www.APRA.org
Auto Parts	Product End-of-life	Material issue?	Corporation	Yes	Anyone who has seen piles of old tires lying around polluting the environment knows this is a material issue in the tire industry, particularly now that governments have made producers responsible and can charge fines for non-compliance. See page 92 for Pirelli's discussion of this topic in our Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Product Quality and Safety	Material issue?	Public Interest & Intermediary	Yes	A well-publicized actual or perceived problem with product quality and/or safety has the potential to completely destroy the reputation and thus business of an auto manufacturer especially if they are small to medium sized with limited resources to counter market the negative publicity.
Auto Parts	Product Quality and Safety	Material issue?	Market Participant	Yes	Product recalls pose serious reputational and financial risks
Auto Parts	Product Quality and Safety	Material issue?	Corporation	Yes	On the factory floor, there is no separation, good quality and good HS&E go hand in hand. The systems focus, the skills training, and metrics are all critical to a sustainable company.
Auto Parts	Product Quality and Safety	Material issue?	Corporation	Yes	Product safety issues can be substantial in addition to a substantial impact on the reputation of a company.
Auto Parts	Product Quality and Safety	Material issue?	Corporation	Yes	One word: plaintiffs
Auto Parts	Product Quality and Safety	Material issue?	Market Participant	Yes	product quality and safety (in addition to cost/pricing) is a key competitive differentiator
Auto Parts	Product Quality and Safety	Material issue?	Public Interest & Intermediary	Yes	"Transportation Department of U.S. slapped a fine of \$17.35 million on Toyota due to late response regarding a defect in its vehicles to safety regulators as well as late recall of those vehicles. From http://www.zacks.com/stock/news/101627/Toyota-Recalls-Prius-and-Lexus .
Auto Parts	Product Quality and Safety	Material issue?	Corporation	Yes	Product quality and safety is fundamental for consumers and material for investors due to rewards for good quality and risks/costs in case of bad quality. In tires, safety is the no. 1 issue and very material (it can mean life or death). See page 68 in Pirelli's Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Auto Parts	Product Stewardship	Add Issue	Public Interest	Design for remanufacturing.	Remanufacturing can save up to 85% of raw material costs and 55% on energy costs.
Auto Parts	Product Stewardship	Add Issue	Public Interest	Research, development and innovation	The use of natural gas in mobile applications such as passenger vehicles and medium/heavy duty commercial trucks is growing rapidly due to long-term operational savings associated with the lower cost of natural gas compared to gasoline or diesel fuels.
Auto Parts	Product Stewardship	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	The statements on the "popularity of electric cars" impacting the demand for traditional technology are a bit overstated. Our projections show the global hybrid and electric vehicle share to reach 6% by 2020, up from 2% today. At the same time, total car sales are projected to increase so the demand for traditional technology will continue to exist as the demand for more alternative technologies increases.
Auto Parts	Product Stewardship	Material issue?	Corporation	Yes	This is really the same as above. The perfect example here is e-products. We all generate, do not know what to do with it, and it is a cost to world. Companies do not see the loss of raw materials that must be further extracted from higher risk areas. How can we reduce the use of scarce materials? How do we engineer more effective components with less toxicity and less raw material. As an industry to be sustainable, it needs an effective PS program.
Auto Parts	Product Stewardship	Material issue?	Corporation	Yes	CO2 emission standards will continue to drive innovative costs.
Auto Parts	Product Stewardship	Material issue?	Corporation	Yes	I include all aspects, from materials through end-of-life in this category. Growing populations will continue stressing supply chains
Auto Parts	Product Stewardship	Material issue?	Market Participant	Yes	important in terms of maintaining quality and oversight which is the link to the customer (typically an OEM)
Auto Parts	Product Stewardship	Material issue?	Corporation	Yes	The environmental benefits of a product, such as fuel savings, and the environmental costs of a product, such as CO2 emissions, are material financially as well as environmentally. See page 84 of Pirelli's Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	I am concerned about approaching sustainability "accountability" through a market segment approach as a "first cut" at SASB. I'm not an accountant so have limited understanding of how these things develop. However it seems to me that a much simpler and more generic approach would be more valuable and more likely to be adopted.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Supply Chain Management	Add Issue	Public Interest	Human rights in the supply chain	Working conditions should be considered for whether it needs to be elevated within supply chain management or be its own topic given the risks that exist within deep supply chains with suppliers in locations for violations of human rights and the OEMs (the auto parts company's customers) low tolerance for issues.
Auto Parts	Supply Chain Management	Add Issue	Corporation	supply chain security	security of goods transported
Auto Parts	Supply Chain Management	Add Issue	Corporation	Resource Productivity	Resource Productivity refers to revenues per materials used. Business' ability to decouple revenues and materials is becoming critical with increased populations' demands on natural resources.
Auto Parts	Supply Chain Management	Material issue?	Market Participant	Yes	Carmakers heavily depend on suppliers, thus, strong supply management is crucial.
Auto Parts	Supply Chain Management	Material issue?	Corporation	Yes	Plain and simple, 85% of many companies spent is supply chain!
Auto Parts	Supply Chain Management	Material issue?	Corporation	Yes	Supply Chain issues can result in substantial costs, organizational reactivity, reputation and ability to secure future business as well as impacting current business relationships.
Auto Parts	Supply Chain Management	Material issue?	Corporation	Maybe	I include this in product stewardship
Auto Parts	Supply Chain Management	Material issue?	Market Participant	Yes	Very, very important since suppliers often have a complex supply chain...any issue can lead to liability or loss of a customer
Auto Parts	Supply Chain Management	Material issue?	Public Interest & Intermediary	No	although important to a company's bottom line, supply chain management is primarily related to costs.
Auto Parts	Supply Chain Management	Material issue?	Corporation	Yes	The supply chain for the auto parts industry is extensive and has cost implications ranging from the costs of deforestation to the costs of mineral scarcity, as highlighted in the SASB brief. The supply chain is also an excellent opportunity for companies to demand best practices. There are various issues in supply chain management that can be monitored and are material for investors. See page 70 of the Pirelli Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Given that several manufacturers of auto parts are small to medium sized operators, it is critical for them to address water management as well as waste management to offset substantial and continuing pressures from automotive OEM's to reduce the prices they pay to suppliers.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Waste Management	Material issue?	Corporation	Yes	There are tremendous financial and legal impacts to improper waste handling and disposal. During business purchase/sale, the due diligence process goes into tremendous detail on this topic and a great deal of goodwill can be lost due to poor procedures.
Auto Parts	Waste Management	Material issue?	Corporation	Maybe	This is mostly an efficiency issue, and usually not financially material in our businesses. There is a risk avoidance aspect which seems to be fairly well inculcated at present.
Auto Parts	Waste Management	Material issue?	Market Participant	Yes	Waste metal, oil, etc. is a byproduct of the manufacturing process, can create an environmental or plant hazard
Auto Parts	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Improper disposal of wastes, can cause incredible financial damage to a company..
Auto Parts	Waste Management	Material issue?	Corporation	Yes	Waste management is also an area where efficiencies can be clearly demonstrated. It is material due to both financial and environmental costs. See page 111 of Pirelli's Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf and targets on slide 12 here: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Auto Parts	Water Management	Material issue?	Public Interest & Intermediary	Yes	Given that several manufacturers of auto parts are small to medium sized operators, it is critical for them to address water management as well as waste management to offset substantial and continuing pressures from automotive OEM's to reduce the prices they pay to suppliers.
Auto Parts	Water Management	Material issue?	Market Participant	Maybe	Industry is water intensive
Auto Parts	Water Management	Material issue?	Corporation	Yes	Water management is about to be the environmental and social challenge of this century. Population growth, growth in water poor regions, and contamination all make this a critical issue.
Auto Parts	Water Management	Material issue?	Corporation	Yes	WBCSD Water tool identifies the growing number of areas that currently or may be water stressed by 2025. Given the growing cost of water (6% average yearly cost increases in 2011), we would consider water to be material.
Auto Parts	Water Management	Material issue?	Corporation	Maybe	The magnitude of the issue can vary widely depending on product lines, locations, etc. In most cases it is not financially material within our business.
Auto Parts	Water Management	Material issue?	Market Participant	Maybe	This is not a water intensive industry in my view
Auto Parts	Water Management	Material issue?	Public Interest & Intermediary	Yes	The United States is struggling to repair the damage from earlier abuses and current abuses of the watershed.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Auto Parts	Water Management	Material issue?	Corporation	Yes	Water, in certain areas of the world and globally, is becoming an area of risk for industry and for humanity. Although water is generally cheap, the risk factor makes it a material issue for investors. See page 110 in Pirelli's Sustainability Report: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf and targets on Slide 12 here: http://pid2013.iwebcasting.it/assets/files/sustainability.pdf
Automobiles	Competitive Behavior	Material issue?	Public Interest & Intermediary	No	not more or less than in other sector!
Automobiles	Competitive Behavior	Material issue?	Corporation	Maybe	While considerable laws exist that have impact on the industry, such as anti-trust laws and dealer franchises laws, in our opinion the competitive behavior issue is very steady-state and predictable.
Automobiles	Competitive Behavior	Material issue?	Market Participant	No	secondary issue (if reference to business ethics... maybe yes depending on the location)
Automobiles	Competitive Behavior	Material issue?	Public Interest & Intermediary	Maybe	The issue is not clear, as all businesses should thrive for competitive behaviour to succeed, i.e. to thrive to seek competitive benefits or advantages. The automotive industry does not seem to be influenced by more than average competitive behaviour, because the differences between the products are rather small. The differences between the OEMs are more a result of the management capabilities - VAG has clearly better management than GM, etc. It could be argued that the anti-competitive behaviour is a problem in the industry, because the standards and the OEM requirements make it difficult to enter the business.
Automobiles	Competitive Behavior	Material issue?	Public Interest & Intermediary	Maybe	I firmly believe that Competitive Behavior is a material issue, but I don't know if further disclosure would be material to a reasonable investor.
Automobiles	Competitive Behavior	Material issue?	Market Participant	Yes	The required metrics are clearly material for investors.
Automobiles	Competitive Behavior	Material issue?	Market Participant	No	Competitive behavior is less of an important consideration from a materiality standpoint (though competition may continue to increase with regulation and globalization of the industry)
Automobiles	Competitive Behavior	Material issue?	Market Participant	Yes	Investors need transparency on anti-competitive penalties and practices
Automobiles	Competitive Behavior	Material issue?	Market Participant	No	because the definition of competitive behavior is too broad.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Undermining fair competition increases OEMs' exposure to regulatory and reputational risk.
Automobiles	Competitive Behavior	Material issue?	Market Participant	Yes	very important in a highly competitive industry with a history of poor competitive behavior
Automobiles	Competitive Behavior	Material issue?	Corporation	No	If the evidence and value impacts outlined in the briefing document are not enough to make this issue material under current SEC rules and by "reasonable investors," than I don't think this is material from a sustainability point of view.
Automobiles	Competitive Behavior	Material issue?	Market Participant	Yes	Antitrust behaviors delays innovation by discouraging it, which itself is a long-term risks by distorting the real market value of the products. It also unfairly disadvantage consumers with excessive pricing and triggers a large-scale regulatory action with huge fines.
Automobiles	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Risks associated with market perception of OEMs will increasingly be of value over time - fines associated with market interference
Automobiles	Competitive Behavior	Material issue?	Corporation	No	This one seems a bit outside the box for Sustainability
Automobiles	Competitive Behavior	Material issue?	Corporation	No	Looking for items that are in direct control of company.
Automobiles	Competitive Behavior	Material issue?	Corporation	No	This relates to the design of the product and not to the sustainability of the process or product
Automobiles	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	Thanks for the opportunity to participate in the survey. The survey was very comprehensive and detailed. I look forward to our continued engagement. Kind regards Aarti
Automobiles	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	The overall survey was well organized and carefully structured to include relevant material issue topics.
Automobiles	Congratulatory Comments	Other Comments	Corporation	D.N.A. - Other Comments	Industry brief was extremely well done. I was very impressed. The IWG process appears to be very robust. The survey was complete and allowed good amount of subjective verbal input.
Automobiles	Does not apply	Add Issue	Public Interest	Air emission	Costly solution to reduce air emission, city restriction for use, etc.
Automobiles	Does not apply	Add Issue	Corporation	Human Rights and Working Conditions in the Supply Base	All "environmental" sustainability issues address but light on the "social" issues.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Does not apply	Add Issue	Market Participant	controversies analysis	"reality check" indicators to validate what is disclosed by the company vs. the reality
Automobiles	Does not apply	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	A few minor typos; nothing substantive.
Automobiles	Does not apply	Other Comments	Market Participant	D.N.A. - Other Comments	All of the indicators are based on data reported by the companies... however the reality might be different, so I will include other sources of info to balance those results (i.e. Media, NGOs...)
Automobiles	Employee Health, Safety & Well-being	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	No	already monitored and Under control
Automobiles	Employee Health, Safety & Well-being	Material issue?	Corporation	Yes	The auto industry employs millions of workers worldwide, and their health and well-being are clearly important to the industry's success.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	accident / supply chain management have a direct impact on production
Automobiles	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	Yes	Health and safety has good metrics, and is easily comparable. Because the industry is not high risk, but has the industrial risk profile, the issue is important. Since the OEMs are known brands, any issues with bad employee health and safety would hamper their marketing efforts.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	Yes	This is an issue that could potentially have a short-term financial impact on the company that is not adequately disclosed in the financials. That being said, I do not believe that any disclosure in addition to what is currently required would be material to the traditional reasonable investor.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	This is a significant component of this industry and these metrics are relevant for investors.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	Employee retirement and health benefits for many auto companies are high risk. Pensions in this sector are often underfunded, though some companies have moved towards addressing this issue (engaging in pension buyouts by transferring some of their pension to an insurance company). Increasing awareness of these pension obligations relative to the size of the company and funded status is important.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Maybe	Question the financial importance of the metric
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	In a mfg intensive environment, with large workforces, this is important
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	In the auto-industry with individual specific cases such as pervasive overwork in the case of Japan, resulted in overwork deaths including suicides have been a major problems. Such as the case of the leaked internal communication from suppliers to Toyota Motor to avoid further pressure to workers for the production increase tied to the deterioration of the product quality in mid to late 2000s, which resulted in a series of lawsuits, reputational disasters as well as the large-scale recalls. Lack of sufficient wages and benefits in various manufacturing factories in China led to a series of worker protests, which resulted in factory shutdown. Similar situation has been occurring in the US such as California, Kentucky, or EU states such as Italy among other areas of operations. Some of the labor-related problems such as the cases of Suzuki and Honda in India resulted in violence, which further resulted in the operational disruption. To summarize, employee H&S as well as well-being could resulted in serious quality concerns, operational disruptions, regulatory actions, lawsuits (as in the brief) as well as reputational problems.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	Yes	engaging workers is critical for ongoing success in the market place and can greatly increase the ability of the OEM to move forward more progressive vehicles into the market place
Automobiles	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	No	US employees are protected by numerous local and national laws & rules. The challenge is offshore but the bottom-line is management is responsible for providing a safe workplace.
Automobiles	Employee Health, Safety & Well-being	Material issue?	Market Participant	Yes	Aging population, esp. in developing countries. At the same time, challenges to hire qualified people i.e. engineers. Employee health more and more important to retain aging work force and ensure that productivity doesn't decline
Automobiles	Employee Health, Safety & Well-being	Material issue?	Corporation	Yes	Material due to cost, reputation, license to operate, workforce retention
Automobiles	Employee Health, Safety & Well-being	Material issue?	Corporation	Yes	Health and safety is critical to the successful operation of a plant



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Employee Health, Safety & Well-being	Material issue?	Corporation	No	There is little can be
Automobiles	Employee Recruitment & Retention	Add Issue	Public Interest	Human capital - Development/ retention	Talent is critical to automotive companies ability to innovate and sustain. The extremely long development cycles required for product development reduce the ability to respond quickly to change, therefore, OEMs need have to top talent to innovate far in advance of a 'need' to capture competitive advantage.
Automobiles	Fair Lending	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Fair Lending	Material issue?	Public Interest & Intermediary	No	already monitored and under control.
Automobiles	Fair Lending	Material issue?	Corporation	No	Relative to other issues, fair lending is not as material
Automobiles	Fair Lending	Material issue?	Market Participant	No	secondary issue
Automobiles	Fair Lending	Material issue?	Public Interest & Intermediary	Maybe	Even if the scope of the standard is to serve a US investor, the US cases of fair lending problems should not be exaggerated, because the motor industry groups listed in the US have a large share of their sales outside the USA, and the fair lending is not such an issue in most parts of the world.
Automobiles	Fair Lending	Material issue?	Market Participant	Yes	Because financing is an integral element of a large proportion of auto sales, risks in this area are material risks for firms. Practices such as mark-ups have not been subject to the scrutiny in the past that might be expected in the future, as all aspects of financial services are being held to ever greater scrutiny.
Automobiles	Fair Lending	Material issue?	Market Participant	No	Post-2008 relaxed lending practices can be under scrutiny, and regulations in this space should hold industry participants sufficiently accountable, but if only certain considerations should be chosen as most important, this should not be one of them
Automobiles	Fair Lending	Material issue?	Market Participant	Yes	Investors need Transparency into risk assumed by the finco
Automobiles	Fair Lending	Material issue?	Market Participant	No	because fair lending is extremely affected by economic situation that companies can not control.
Automobiles	Fair Lending	Material issue?	Public Interest & Intermediary	Maybe	While Fair Lending is important, it does not in my mind rise to the same level as other issues I identified as material.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Fair Lending	Material issue?	Market Participant	Yes	lending practices can create or destroy value
Automobiles	Fair Lending	Material issue?	Corporation	No	Like competitive behavior, if this is not material now, not sure why it should be considered material from a sustainability point of view.
Automobiles	Fair Lending	Material issue?	Market Participant	Yes	It's particularly relevant for the US like, multi-racial societies with history of discrimination in terms of access to capital/finance. There is a clear litigation risks with large-scale damages while reputational risks are also very high.
Automobiles	Fair Lending	Material issue?	Public Interest & Intermediary	No	There are many options in the market place for vehicle finance while it is recognized that the quality of customer interaction across the relationship engagement can affect vehicle sales
Automobiles	Fair Lending	Material issue?	Public Interest & Intermediary	Maybe	Funding drives performance (increased emissions). http://www.frbatlanta.org/pubs/financialupdate/13q2_loan_officer_survey.cfm
Automobiles	Fair Lending	Material issue?	Market Participant	Maybe	Haven't come across this issue yet in automotive industry yet. Haven't seen any evidence how this can negatively effect long term stock performance.
Automobiles	Fair Lending	Material issue?	Market Participant	No	Fair lending is less an issue in the industry.
Automobiles	Fair Lending	Material issue?	Corporation	Yes	Lending is a material portion of our business
Automobiles	Fair Lending	Material issue?	Corporation	No	Plain and simple, this is outside the controllable boundry
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Public Interest & Intermediary	Yes	consumption as a key element of consumer choice
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Corporation	Yes	90+% of the life cycle assessment for CO2 is in the use phase of our product. GHG and fuel economy continues to be a core for regulatory actions, product investment decisions, and consumer behavior management. It is the single most important issue on the list.
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Market Participant	No	not a direct material issue
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Public Interest & Intermediary	Maybe	The figures are not reliable, as the standards seem to be allow showing better rates than the reality is. The AA article from February 2013 summarizes the key points: http://www.theaa.com/motoring_advice/fuels-and-environment/official-fuel-consumption-figures.html



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Public Interest & Intermediary	Maybe	Due to the volatility in the energy markets, I believe that there could be dramatic short-term swings in the demand for fuel-efficient vehicles. Therefore, textual disclosure for those potential benefits/risks for which the financials would not be adequate could be helpful.
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Market Participant	Yes	As public attention continues to be focused on environmental issues, this is an area where the auto industry will be expected to make substantial improvement. These metrics are necessary for investors to gauge each firm's progress.
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Market Participant	Yes	Investors need transparency on standardized fuel economy and emissions data
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Public Interest & Intermediary	Yes	Fuel economy is material because it implicates regulatory risk (e.g. new CAFE regs), climate risk (due to significant contribution of road transport to climate change) as well as competitiveness (increased interest on the part of consumers and businesses in saving money, especially in areas suffering from the economic downturn as well as those comprising the large and growing market in developing countries).
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Market Participant	Yes	key attribute of the product
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Corporation	Yes	Use phase emissions, in particular, CO2 emissions, likely make up 90+% of a companies scope 1, 2, and 3 carbon footprint. Regulations on FE & use-phase emissions are becoming more and more stringent all over the world. Auto companies not competitive in this area will have difficulty complying with the regulations and may have to make changes to their product offerings in the marketplace to comply that will adversely impact their profitability. In addition, customers are placing a higher value on FE and products that are not competitive in FE will have more difficulty meeting customer requirements
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Market Participant	Yes	Given the carbon life cycle of the vehicle and its contribution to accelerating climate change, it's clearly material. As in the brief, vehicles with low efficiency would lose long-term competitiveness as well, not only cost effectiveness for consumers, but could be for producers for using less materials and avoiding additional regulatory risks. For investors, fleet's fuel economy might be a single most important indicator for automobile yet most companies are failed to disclose meaningful data.
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Public Interest & Intermediary	Yes	See comment on use-phase emissions being counted under GHG emissions.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Corporation	Yes	Parallel on the product side to energy management and conservation on the operations side -- this is impact that people understand and is material for automobile sector
Automobiles	Fuel Economy & Use-phase Emissions	Material issue?	Corporation	Yes	Fuel economy and GHG emissions are one in the same. Addressing use phase emissions (non GHG/criterion pollutants) are important and should be addressed.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	Yes	GGE in use phase under strict regulation. GGE as key for customer
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Corporation	Yes	Including the auto industry's supply base, there is a major industrial footprint worldwide. Additionally, the core issue is clearly air quality (carbon emissions from our vehicles, primarily); so the manufacturing process is also an important part of the story.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Market Participant	Yes	current and upcoming regulation / existence of a CO2 price (quotat)
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	Yes	CO2 footprints have rather good metrics, and comparing is easy. Energy management is material, and requires more work, as it should be for the entire product life cycle instead of just the OEM energy management.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	No	There is not adequate evidence of this issue's financial impact on the industry that would justify further reporting requirements. The financial impact will be sufficiently shown in the financials, and the inclusion of text describing the potential long-term benefits/detriments will be of little use to investors. The traditional reasonable investor that is concerned with financial returns over social or environmental impact would not find such information material to an investing decision.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Market Participant	Yes	This is a subject of wide attention (albeit controversial). Clear metrics will allow concerned investors to understand each company's practices and competitiveness.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Market Participant	Yes	The amount of emissions and energy usage is substantial in the industry - disclosure of the magnitude of each by company would be meaningful
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Market Participant	Yes	Tight Monitoring Government Environmental Policies, and International Activities or Treaties
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	Yes	Climate risk poses a significant risk to OEM manufacturing processes through severe weather impacts; given OEM's significant contribution to GHG emissions, they need to minimize such emissions.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Market Participant	Yes	Vehicles create GHG, this is a material issue
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	Yes	Carbon constraints on economies will be forthcoming - the greener a car companies model fleet, the less adversely impacted its sales will be over time. Transportation, and in particular, light duty vehicles, are significant sources of GHG emissions. There is also a risk of market reductions in private vehicle use and vehicle miles travelled which will materially impact car manufacturers and their major suppliers. The push across the industry for both low emission and high mileage vehicles is a case in point of getting ahead of the regulatory curve for both CAC and GHG emissions. There is a major battle internationally for gaining market leadership in green vehicles, including those that run on alternative fuels and those that get remarkably high mileage. The success of Tesla and the growing availability of BEVs and PHEVs speaks to the importance of this trend and ultimate driver.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Public Interest & Intermediary	Yes	Consider including post-sale vehicle emissions as a separate metric under this issue, rather than under Business Innovation. Arguably the industry's impact on this topic is far more heavily weighted to consumer use of the product, rather than manufacturing footprint for each vehicle.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Corporation	Yes	Personally believe it is most productive to focus on energy management / energy conservation as GHG comes along for the ride and Energy is a direct, tangible cost



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Corporation	Yes	Given the carbon footprint of the auto sector, this is THE most important issue to challenge.
Automobiles	Greenhouse Gas Emissions & Energy Management	Material issue?	Corporation	Yes	Climate change is here
Automobiles	Industry definition	Add Issue	Public Interest	New use (medium to long term)	Medium to long-term and beyond regulation, changing or foreseeable consumer trends? For Individuals (new budgetary decision, new adopters, etc)? For companies (fleet, shared fleet, cost per km approach, etc.), For governments (access restriction, public mobility solutions) this into consideration of global trends (air pollution, urbanization)
Automobiles	Industry definition	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	In the industry summary, there are statements to the effect that OEMs only have influence over Tier 1 suppliers. The OEMs design decisions and relative position of strength in the value chain allows for more influence than the current brief describes.
Automobiles	Industry definition	Other Comments	Corporation	D.N.A. - Other Comments	For a global auto company, there are difficulties with a US-focused approach.
Automobiles	Labor Relations	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	strong union power in the industry
Automobiles	Labor Relations	Material issue?	Corporation	Maybe	Generally over the past two-plus decades, the industry has successfully managed its relationships with the workforce, agreeing to contract terms with no major disruptions or financial ramifications. However, more recent events such as the unique negotiations necessitated by the economic meltdown, may suggest that labor relations is becoming more material.
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	secondary issue
Automobiles	Labor Relations	Material issue?	Public Interest & Intermediary	Maybe	Labour relations in very large, well known groups are always complex, as any bad relations might affect the sales of the products. However, the perception is wildly variable in different markets, and appropriate metrics are missing.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	As a heavily unionized industry, labor relations are a fundamental component of managing in this industry. (I am however concerned that the proposed metric of "% retirees receiving pension benefits" may be a political statement rather than a genuine investor need, and it may not be an appropriate metric to include.)
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	The unions and labor negotiations highly prevalent in this sector must be taken into consideration
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	Unionized industry - needs transparency from both sides - labor and management
Automobiles	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	Labor costs (e.g. pensions) clearly had a major impact on US OEMs.
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	Union vs non union, an important issue
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	Please refer to the comments for Employee H,S&W. Some labor relations case such as the case of Philippine Toyota (firing union members), which results in almost a decade-long disputes and the case resulted in the litigation went to the Supreme Court while the company's action resulted in the recommendation of the ILO regarding the incompliance with the ILO core convention. similarly, anti-union activities in the US by foreign manufacturers have been targeted by Major union campaigns. Similar to the previous section on the safety and well-being, the issue could results in operational disruption, reputational problems as well as lawsuits.
Automobiles	Labor Relations	Material issue?	Public Interest & Intermediary	No	I dont think this is material differentiator across the OEMs. The key going forward will be to influence product design that reduces the need for labour in assembly.
Automobiles	Labor Relations	Material issue?	Public Interest & Intermediary	No	Labor will do what they are told. Management is reasonable for emissions and water consumption.
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	Examples: Impacts of strikes in i.e. South Africa or Korea
Automobiles	Labor Relations	Material issue?	Market Participant	Yes	Especially in Emerging Markets, labour issue are relatively common and can impact the company's operations and reputation (see Maruti Suzuki case in 2012).
Automobiles	Labor Relations	Material issue?	Corporation	Yes	Labor constitutes a material cost of production



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Labor Relations	Material issue?	Corporation	Yes	Without effective labor relations, there is no ability to successfully produce or sustain
Automobiles	Local Community Engagement	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	No	low impact, availability of human resources
Automobiles	Local Community Engagement	Material issue?	Corporation	No	While the industry strongly encourages community support as a way of demonstrating its leadership and commitment, on a comparative basis other issues are much more material.
Automobiles	Local Community Engagement	Material issue?	Market Participant	No	secondary issue
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	No	Local community engagement is difficult to measure and currently practically impossible to compare, so the decision usefulness is very limited. Also, local community engagement in emerging countries is far more important than in developed countries, which makes the issue even more complex.
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	No	There is not adequate evidence of this issue's financial impact on the industry that would justify further reporting requirements. The financial impact will be sufficiently shown in the financials, and the inclusion of text describing the potential long-term benefits/detriments will be of little use to investors. The traditional reasonable investor that is concerned with financial returns over social or environmental impact would not find such information material to an investing decision.
Automobiles	Local Community Engagement	Material issue?	Market Participant	Maybe	The specific concern is to do with the metric "average distance of shipping". It seems a more tenuous link to see this metric as material for investors than most of the other proposed metrics.
Automobiles	Local Community Engagement	Material issue?	Market Participant	No	I do not believe this disclosure meets a threshold of materiality or measurability that would enhance our investment decision making process.
Automobiles	Local Community Engagement	Material issue?	Market Participant	Maybe	As manufacturing migrates to different geographic areas, the communities within which plants have shut down need to be supported and sustained (this may be necessary even sooner because of the industry move from DM to EM).



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Local Community Engagement	Material issue?	Market Participant	Maybe	Not material business impact
Automobiles	Local Community Engagement	Material issue?	Market Participant	Yes	Sometimes, local communities option goes against manufacturer's management policy, and sustaining good relationships with them are extremely important for companies, and in some cases, the community will provide better idea and suggestion for their living environment that companies can easily miss or be ignored..
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	Maybe	While clearly a very important issue, I don't think this topic passes the thresholds described in the materiality lens on evidence of financial impact and potential for systematic disruption. I believe it is valuable for companies to manage this issue from a reputation/citizenship perspective, however, I don't believe that investors would make decisions on this basis and I don't believe there is evidence that customers have responded to impacts of plant closures or plant operations in a manner that has had impact on car sales. I also don't think the metric on average distance from assembly to point of sale fits here.
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	Maybe	Local community engagement is critical from a reputational risk standpoint.
Automobiles	Local Community Engagement	Material issue?	Market Participant	Yes	Workforce often unionized, apprenticeship programs, link to community reflects on company, brand image and ability to hire
Automobiles	Local Community Engagement	Material issue?	Corporation	No	Local Community Engagement is definitely important to an automobile company, but even if a company does not reach out to the community in which it operates, the likelihood that it will have a material impact on the company is very low.
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	No	I think this is a byproduct of great design and well executed manufacturing and not an issue on its own
Automobiles	Local Community Engagement	Material issue?	Public Interest & Intermediary	Maybe	This is also a tough topic because communities views can shift very quickly.
Automobiles	Local Community Engagement	Material issue?	Market Participant	Maybe	More material for other industries.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Local Community Engagement	Material issue?	Market Participant	Maybe	Disputes with local communities are not common in the industry.
Automobiles	Local Community Engagement	Material issue?	Corporation	Yes	Addressing one of the "social" side of sustainability and is becoming more relevant.
Automobiles	Local Community Engagement	Material issue?	Corporation	Maybe	local communities can have tremendous impact on the siting of plants, their operations, and closure
Automobiles	New Issue	Add Issue	Corporation	Volatile Organic Carbon (VOC) emissions	Automotive painting and use of adhesives are large sources of VOCs. They are regulated and permits for VOC emissions are required
Automobiles	Product End-of-life	Add Issue	Public Interest	Product life cycle management	The life cycle material, energy use, and emissions are important for any consumer goods, and even more for products using non-renewable sources of energy and being responsible for large parts of greenhouse gas emissions.
Automobiles	Product End-of-life	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Product End-of-life	Material issue?	Public Interest & Intermediary	Yes	strictly regulated in most countries, opportunities for recycling in a context of scarce resources
Automobiles	Product End-of-life	Material issue?	Corporation	No	In the US there is a huge 3rd party network for addressing end-of-life usage. In Europe, current regulations manage end-of-life. Compared to other more important issues, end-of-life is not as material.
Automobiles	Product End-of-life	Material issue?	Market Participant	Yes	regulation in place / economies of scale
Automobiles	Product End-of-life	Material issue?	Public Interest & Intermediary	Yes	Life cycle management (of which this is a key issue) is a major topic for large consumer goods with limited life time and continuous energy consumption and toxic emissions. The metrics are not too good to make objective comparisons, however, the recent research and guidance seem to promote applicable guidelines in the near future. Moving toward LCSA from LCA improves the metrics development, too. For this development, see for instance the article of Zamagni, Pesonen and Swarr in The International Journal of Life Cycle Assessment: LIFE CYCLE SUSTAINABILITY ASSESSMENT: FROM LCA TO LCSA.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Automobiles	Product End-of-life	Material issue?	Public Interest & Intermediary	No	There is not adequate evidence of this issue's financial impact on the industry that would justify further reporting requirements. The financial impact will be sufficiently shown in the financials, and the inclusion of text describing the potential long-term benefits/detriments will be of little use to investors. The traditional reasonable investor that is concerned with financial returns over social or environmental impact would not find such information material to an investing decision.
Automobiles	Product End-of-life	Material issue?	Market Participant	Yes	Same comments apply as for waste management (above).
Automobiles	Product End-of-life	Material issue?	Market Participant	Maybe	Question whether this is the responsibility of the automaker
Automobiles	Product End-of-life	Material issue?	Market Participant	Yes	treatment of scrap and end of life product important
Automobiles	Product End-of-life	Material issue?	Public Interest & Intermediary	Yes	The Product End of Life has significant material consequences in the automobile industry. The automobile industry makers has a responsibility to the general public that its product has minimal harmful effects on the environment from the initial point that the product is produced until the point that the product has reached the end of its useful life (cradle to grave) concept. It is important that the automobile industry properly exercise its due diligence from cradle to grave to minimize financial "material" exposure in potential litigation associated with end of life impact to consumers and general public.
Automobiles	Product End-of-life	Material issue?	Public Interest & Intermediary	Yes	In addition to environmental impacts of EOL waste, consider including the following, similar to e-waste as cars become "smarter" mobile devices: (i) environmental impacts from waste disposal; (ii) brand/reputation impacts; (iii) protection of confidential consumer information (e.g., from GPS and onboard smart electronics); (iv) material value of recycled/recovered components (e.g., metals, printed circuits, etc.).
Automobiles	Product End-of-life	Material issue?	Corporation	Yes	This might be a Maybe at this juncture, particularly for motorcycles versus automotive due to the differences with respect to regulatory risk.
Automobiles	Product End-of-life	Material issue?	Corporation	Yes	Becoming increasingly more relevant. Key will be defining acceptable measure of End of Life that can be consistently used across the industry.
Automobiles	Product End-of-life	Other Comments	Public Interest	D.N.A. - Other Comments	The Industry Brief was very well done; in the future, I think the new US CAFE/GHG standards merit some discussion given their impact on OEMs.
Automobiles	Product End-of-life	Other Comments	Market Participant	EV Battery Recycling	EV's battery re-cycling program or government policy will be gradually important for the industry and analysts. So, if we have more detail ESG on this, it will be great.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Product Quality & Safety	Material issue?	Public Interest & Intermediary	Yes	recall and safety issues as key for brand image and sales
Automobiles	Product Quality & Safety	Material issue?	Corporation	Yes	Such events as safety recalls and 3rd party critiques can have a major impact on vehicle sales. Alternatively, continued high quality and 3rd party endorsements can lead to price premiums among the market.
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	product recall = material financial impact on companies revenues
Automobiles	Product Quality & Safety	Material issue?	Public Interest & Intermediary	Yes	The products can be dangerous and lethal, which makes safety and consequently product quality a key issue. There are good metrics and comparisons of the car models, for instance by TÜV.
Automobiles	Product Quality & Safety	Material issue?	Public Interest & Intermediary	Yes	This is an issue that could potentially have a short-term financial impact on the company that is not adequately disclosed in the financials. That being said, I do not believe that any disclosure in addition to what is currently required would be material to the traditional reasonable investor.
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	An surprised this is not seen as an existing requirement! (Exception: the Kelley's Blue Book statistic is US-centric and not sufficiently robust to seem to truly belong here.)
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	Recall issues need measurable transparency
Automobiles	Product Quality & Safety	Material issue?	Public Interest & Intermediary	Maybe	I agree with all of the points in the brief and the inclusion of this topic in the material topics. I question whether the Kelley Blue Book is the authoritative source to prescribe in the actual metric and believe that further research and evaluation would be required to find the best comparable indicator for costs of ownership in the context of vehicle quality.
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	quality and safety are the main attributes of the product



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	From a major Ford's safety issues to Toyota Motor's recent quality disaster, safety is among the most critical issues for auto industry. This is partly because consequences would directly implicate the life of customers and also because of the firms use the same components across the number of models/years, thus the volume and cost of recall grow exponentially. After-recall litigation is significant, such as the case of Toyota Motor in the US for brake and possible electronics problems resulted over \$1 billion settlement.
Automobiles	Product Quality & Safety	Material issue?	Public Interest & Intermediary	No	Future product manufacturing is slowly transition back to the US (improved quality is expected). As imports decrease GHG emissions & water consumption will be (should) addressed when selecting new manufacturing & logistics strategies.
Automobiles	Product Quality & Safety	Material issue?	Market Participant	Yes	Impact of product recalls i.e. recall costs, fines, litigation risks, reputational risks
Automobiles	Product Quality & Safety	Material issue?	Corporation	Yes	Material in terms of cost and reputation
Automobiles	Product Quality & Safety	Material issue?	Corporation	Maybe	this relates to competition and not to sustainability
Automobiles	Product Stewardship	Add Issue	Public Interest	Technical roadmap (medium term)	Investment strategy (Micro, Mild, Full, Plug-in Hybrids, Range extended EV, EV - ICE optimisation - Weight reduction) - Batteries - Etc.
Automobiles	Product Stewardship	Add Issue	Corporation	Product Innovation, Inventions, Patents	The automotive industry is going through a significant transformation toward connected, networked, electrified vehicles. If an automotive company does not have a "pipeline" of innovations/inventions in these areas, then its long-term viability is questionable. If I was a "reasonable investor," I would want to know that the company is forward thinking and is capable of remaining competitive in a rapidly changing industry.
Automobiles	Product Stewardship	Add Issue	Public Interest	Innovation and New Product Development	Indicators of a company's technological, product and process-based innovation capabilities to design less resource intensive vehicles



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	SASB Approach	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	<p>The briefing was overall good and helpful, rather than categorizing as "inaccurate", I have couple comments. Many of which I already made in the comments in previous parts in the survey.</p> <p>-Given the fact one person drafted the briefing, I understand that certain limitation is unavoidable.</p> <p>- I was wondering if analysts consult with experts in key areas upon drafting. If analysts already do consults, it has to be done more before published it and used it for survey.</p> <p>-Given the fact that auto uses identical parts globally with global supply chain, having international or global perspectives would be crucial, such as product recalls to assess the material impact on companies, which is crucial to identify the patterns. Tracking only in the US might not help.</p> <p>-While it is difficult, the brief should acknowledge some issues are interconnected and cannot just be dissected as an isolated issues.</p>
Automobiles	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	Items that are material to the automobile sector will not necessarily be material to an individual company or to related sectors (e.g., motorcycles) so clarity on what MUST versus SHOULD or COULD be disclosed, reported, measured, etc. important.
Automobiles	Supply Chain Management	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Yes	reversing the balance of power between carmakers and supplier, innovation mainly come from suppliers. pressure on raw material suppliers
Automobiles	Supply Chain Management	Material issue?	Corporation	Yes	The industrial footprint among the supply base is immense, especially when considering the multiple tiers that support the industry. Furthermore, because of the difficulty for OEMs to have full transparency down to the raw materials (often 3-4 levels down), there is risk of disruption (or such issues as human rights issues) that as yet remain as salient risks. Such regulatory actions as the Conflict Minerals law are evidence of supply chain risk becoming increasingly important to the auto sector.
Automobiles	Supply Chain Management	Material issue?	Market Participant	Yes	more and more reliability on supply chain in the production chain... if not well managed/controlled = product recall (see above)



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Yes	Because of the scale of the business and the oligopoly of OEM, the suppliers are more or less in the mercy of the OEM rules and requirements. Those requirements usually cover issues beyond the product quality, as the supplier must comply with logistics, ERP interface, returns, etc. rules unilaterally set by the OEMs. The specialized nature of the industry makes it difficult to find other customers, and thus the supply chain management has both social influence (the OEMs can ruin a supplier easily if they wanted) and also sustainability issue, as the OEMs have the power to guide the supplier operations. However, asking the suppliers to comply with all possible rules, regulations and standards does not help, but creates another box-ticking exercise.
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Maybe	Due to the volatility in the world markets, I believe that there could be dramatic short-term swings in global supply chain issues. Therefore, textual disclosure for those potential risks for which the financials would not be adequate could be helpful.
Automobiles	Supply Chain Management	Material issue?	Market Participant	Maybe	The issues that are listed under the proposed metrics are issues that would seem to be potential key risks - so they ought to be disclosed IF they are material. However, in cases where there is no exceptional circumstance, it is not clear that these "discussions" provide useful information.
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Yes	The OEMs play a significant role in the environmental impacts of their supply chain and their products in use as they design the vehicles. It is difficult to consider comparable quantitative metrics due to the effort and level of modeling required but Honda's disclosure of emissions illustrates the significance: http://world.honda.com/environment/report/global/ghg/ .
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Yes	Given that most of a vehicle's energy footprint is attributable to suppliers, it is critical to address their footprint. In addition, suppliers' handling of critical resources like conflict minerals and rare minerals and metals as well as human rights issues implicate OEM's bottom line and reputation.
Automobiles	Supply Chain Management	Material issue?	Market Participant	Yes	Supply chain absolutely critical to the final product
Automobiles	Supply Chain Management	Material issue?	Market Participant	Yes	Building and maintaining a stable long-term relationship with suppliers is the key factor for any manufacturers, but it is particularly crucial for the industries with vast supply chains such as Auto. The scale of product-related problems makes the traceability, quality assurance as well as stable supply critical factors for auto manufacturers. Since the product defects can result in a major recalls as well as affecting customers lives, proper supply chain management is essential for any auto companies.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Supply Chain Management	Material issue?	Public Interest & Intermediary	Yes	Given than 75% of costs reside in the supply chain and the overall inportance of product design in maintaining competitive position in the marketplace.
Automobiles	Supply Chain Management	Material issue?	Corporation	Yes	Supply Chain impact is material for environmental impact across entire company value chain.
Automobiles	Supply Chain Management	Other Comments	Public Interest	D.N.A. - Other Comments	General comment- it is difficult to compare suppliers across many countries.
Automobiles	Survey comment	Other Comments	Public Interest	D.N.A. - Other Comments	I'll like to send documents for deep snalysis to the transportation team
Automobiles	Waste Management	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	No	few waste in production phase, mainly a end-of-life question
Automobiles	Waste Management	Material issue?	Corporation	Maybe	While waste management is an important factor with our plants, the industry is not a huge generator of waste due to the high recyclability and reuse of materials left over after final production; most plants are nearly 0% waste-to-landfill.
Automobiles	Waste Management	Material issue?	Market Participant	No	secondary issue
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Waste management is material because there is a limited number of self produced parts, and they are easily counted. Because of the large volumes, waste is a real issue.
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	No	There is not adequate evidence of this issue's financial impact on the industry that would justify further reporting requirements. The financial impact will be sufficiently shown in the financials, and the inclusion of text describing the potential long-term benefits/detriments will be of little use to investors. The traditional reasonable investor that is concerned with financial returns over social or environmental impact would not find such information material to an investing decision.
Automobiles	Waste Management	Material issue?	Market Participant	Yes	As environmental impact becomes an ever greater source of public concern, more attention will be paid to industries who pollute. The auto industry will be expected to improve in this regard.
Automobiles	Waste Management	Material issue?	Market Participant	Yes	Scope and scale of the industry members - global reaching companies



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Reducing and recycling waste is directly tied to cost savings
Automobiles	Waste Management	Material issue?	Market Participant	Yes	Treatment of waste in the mfg process is clearly important
Automobiles	Waste Management	Material issue?	Corporation	Yes	The more waste a company generates per unit, the less efficient of a company they are. Also indicates how well designed a vehicle is and efficient it's manufacturing processes are.
Automobiles	Waste Management	Material issue?	Market Participant	Yes	There have been various cost reduction opportunities by reuse/recycling by reducing waste, which could also reduce waste management costs while capitalizing the reused materials as well as removing material costs by streamlining production processes.
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	Yes	The 25% of car weight that is landfilled is a design challenge with significant payback to the car company that can significantly shrink this volume by converting it into new products, recovering it energy value or simply designing it out of the waste stream to begin with. See Amory Lovin's book on reinventing fire and the possibilities for low impact private vehicles
Automobiles	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Waste to steam presents an excellent future opportunity for improvement- http://www.covantaenergy.com/what-we-do/energy-from-waste.aspx
Automobiles	Waste Management	Material issue?	Market Participant	Yes	http://www.veoliaenvironmentalservices.co.uk/Main/Services/For-business/Services-by-sector/Automotive/
Automobiles	Waste Management	Material issue?	Corporation	Yes	Material due to regulatory risk and cost impact if not managed well (including scrap generation)
Automobiles	Waste Management	Material issue?	Corporation	Yes	Waste management is becoming increasingly significant as the industry has tackled many more prominent (i.e. GHG emissions) issues.
Automobiles	Waste Management	Material issue?	Corporation	Yes	From e-waste to industrial waste to post consumer waste, there are significant natural resources tied up in these streams
Automobiles	Water Management	Add Issue	Corporation	Wastewater discharge amount and quality	The disclosure topic, Water Management, as written captures water returned to watershed, but it is not clear if this includes industrial waste water discharged to a municipality and it does not capture the quality of the waste water discharged.
Automobiles	Water Management	Material issue?	Corporation	Maybe	Compare to other issue, this seems not substantial.
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	No	already monitored and Under control



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Water Management	Material issue?	Corporation	No	While water is extremely important in the environmental, health, and human rights conversations, relative to other industries the auto sector is not a major influence.
Automobiles	Water Management	Material issue?	Market Participant	No	secondary issue
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	No	Water is not such a key issue than in water intensive industries, such as agriculture, paper & pulp or energy production, but just one of the minor issues - important, but not material. Also, the metrics for water consumption is largely missing, and there is no good scale for reliable comparisons. For the data see for instance the recent article of Jiménez Cisneros in Nature 502, (31 October 2013).
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	No	There is not adequate evidence of this issue's financial impact on the industry that would justify further reporting requirements. The financial impact will be sufficiently shown in the financials, and the inclusion of text describing the potential long-term benefits/detriments will be of little use to investors. The traditional reasonable investor that is concerned with financial returns over social or environmental impact would not find such information material to an investing decision.
Automobiles	Water Management	Material issue?	Market Participant	Yes	The proposed metrics are clear and relevant, allowing investors to identify whether water management practices are competitive or a source of risk.
Automobiles	Water Management	Material issue?	Market Participant	Yes	Processes in vehicle production are water intensive - the impact should be measured
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	Yes	Water supplies are shrinking given climate change and increasing population; as a critical resource for OEM manufacturing processes, its use is material.
Automobiles	Water Management	Material issue?	Market Participant	Maybe	I am not sure that water is a significant input
Automobiles	Water Management	Material issue?	Corporation	Yes	Water management disclosure should include not only the water per unit product (efficiency measure), but also disclosure of where the company is operating a facility in a water stressed (measure of risk). In addition, the cost of water is expected to rise over time.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Automobiles	Water Management	Material issue?	Market Participant	Yes	While water footprint in auto is tend to be neglected and reporting has not been sufficient, it partially attributes to their indirect use and lack of accounting its entire life-cycle including its supply chain, and clear future constraints of water resources made it clear needs for water footprint accounting as we have seen in ISO14046 . Aside from that, based on Carnegie Mellon University study, it takes about 39,000 gallons of water to produce the average domestic car (US), including the tires. Major water uses in the automotive manufacturing industry include surface treatment and coating, paint spray booths, washing/rinsing/hosing, cooling, air conditioning systems and boilers.
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	Yes	increasing frequency and likelihood of water scarcity and flooding associated with climate change - many areas of US will be adversely affected. There are risks to supply chains as well related to infrastructure flooding (Thailand flooding in 2011 was very material to both Honda and Toyota production levels). The US has recently undertaken a risk assessment of its energy infrastructure related to climate change. Annual costs associated with a changing climate have been in excess of \$100 billion a year over the past two years
Automobiles	Water Management	Material issue?	Public Interest & Intermediary	Yes	Water is a difficult topic because it generates limited cost savings.
Automobiles	Water Management	Material issue?	Market Participant	Yes	http://www.veoliawaterst.com/industries/automotive/
Automobiles	Water Management	Material issue?	Corporation	Yes	actually I started with Maybe for this one because it is not a significant issue currently for US operations and so far quite manageable for operations outside the US, but that is a near-term view and water scarcity and water quality will become increasingly more challenging issues even in the developed world
Automobiles	Water Management	Material issue?	Corporation	Yes	Preservation of preservation of fresh water and water management is probably second to GHG emissions for the auto sector to address.
Automobiles	Water Management	Material issue?	Corporation	Yes	Water scarcity is growing as the population grows



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Automobiles	Water Management	Other Comments	Public Interest	D.N.A. - Other Comments	While the standards obviously have required much work and surveys, and thus have relevant points regarding the automotive industry, they somehow lack the key points of the auto industry, and fail to recognize missing or incomplete metrics. As an example, water management is not a key factor in auto industry, if compared to truly water intensive industries, such as agriculture, paper and pulp, and energy production. Water is just one part of the total resources management. I would say that some essential materials necessary to produce a car have much larger ESG importance, such as the rare earth metals, of which the mining and supply do not stand daylight too well. Also, in water management the guide example between Toyota and Tata, i.e. Tata using four to six times as much water per unit as Toyota would require further study to review where the differences originate. I suspect that the counting methods difference makes a large part of it. And last, being an accountant and auditor, the comparability and audit issues have somewhat light touch, even if they are paramount when issuing comprehensive standards.
Car Rental & Leasing	Fleet Fuel Efficiency	Material issue?	Public Interest & Intermediary	No	Fleet fuel efficiency is a great advertising motto for the company. The problem is that if a company is not using fuel efficient cars, the impact to the company is not as great as if there was some damage to other people or the environment. This should not be considered material until 2016 if a company is not complying with the laws that require more fuel efficiency mandated to be 54.5 mpg by 2025.
Car Rental & Leasing	Fleet Fuel Efficiency	Material issue?	Public Interest & Intermediary	Yes	A fuel efficient fleet is critical to drawing customers, whose interest stems both from growing concern about environmental issues and saving money on fuel costs.
Car Rental & Leasing	Fleet Fuel Efficiency	Material issue?	Corporation	Yes	Note that most large rental companies have hundreds of thousands of cars. If ZEV, PZEV data is not currently being tracked, it could require extensive internal resources to report on this data. Also, revised standards for GHG and Smog ratings have only been required at the Federal level for 2013 models and newer. It could be a few years before rental fleets are fully converted to 2013 models and newer, especially for value brands which typically hold many older vehicle models. Also note that although high fuel economy vehicles are desirable to many customers, the consumer demand for alternative fuel vehicles, other than hybrids, is lagging. Additionally, AFVs have higher purchase prices and often rental companies cannot apply for rebates; and do not enjoy the fuel cost savings these vehicles provide - this savings is passed directly onto the customer, while the higher operating cost lies with the rental company.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Car Rental & Leasing	Fleet Fuel Efficiency	Material issue?	Corporation	No	This is possibly the biggest error in your brief. The fuel efficiency of a particular vehicle is of interest to SOME customers, as discussed below; the fuel efficiency of our FLEET is irrelevant to customers; and investors care about whether our fleet is diversified enough and sized to meet customer demand with good utilization. Fleet fuel efficiency, we know from years of experience as a public company, is not a significant investor concern. With respect to consumers, based on our experience, the customers who care significantly about fuel efficiency are a relatively small minority who are looking to do anything and everything they can to minimize the cost of travel. Environmental issues have limited impact on customers' decision making, according to our research. That's why the number of gas/electric hybrids in our fleet has gone DOWN over the past few years, the lack of demand. Ditto electric vehicles, which are also not in demand. It's important to note that there are very different dynamics at work when people are renting a car for a business or leisure trip compared with securing a vehicle for their home day-to-day use. People who have saved all year for a vacation may splurge on a fancy vehicle to enhance their time off while opting for a plug-in hybrid for their driveway to minimize their emissions. Business travelers also frequently have different needs (more luggage, different weather conditions, multiple adult passengers) when they are traveling compared to their day-to-day needs in their home lives.
Car Rental & Leasing	Passenger Safety	Material issue?	Public Interest & Intermediary	Yes	I am looking at the issues as something that, if adversely advertised, will have a negative impact on the company. If cars are shown to be defective and the company knows about it, lawsuits will arise. Especially when dealing with companies whose products can kill the users does it become important to disclose that they are using the safest cars, etc.
Car Rental & Leasing	Passenger Safety	Material issue?	Public Interest & Intermediary	Maybe	Not sure how this relates to sustainability outside of waste from accidents (i.e., crashed vehicles).
Car Rental & Leasing	Passenger Safety	Material issue?	Public Interest & Intermediary	Yes	Passenger safety is critical to maintaining company reputation and viability
Car Rental & Leasing	Passenger Safety	Material issue?	Corporation	No	Inclusion of passenger safety is outside of car rental ESG/sustainability key areas of interest and materiality. Safety equipment is material to OEMs and compliance with safety regulations fall under current 10-K reporting. Recommend removal of this section.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Car Rental & Leasing	Passenger Safety	Material issue?	Corporation	No	The vehicle rental companies that account for the vast majority of this industry's revenue all buy vehicles new, so their fleets are populated by vehicles that must adhere to the most recent safety regulations and standards. With very rare exceptions, the safety record of the car rental industry with respect to safety recalls is outstanding. In the meantime, proposed legislation is therefore aimed at the safest, best maintained cars, and does not contemplate all other fleet operators, including government fleets, commercial delivery fleets, private sector company cars, school buses, all of those vehicles are not subject to legislation and so this matter is material to those fleet operators for that reason.
Car Rental & Leasing	Transparent Information and Fair Advice	Material issue?	Public Interest & Intermediary	Maybe	Having transparent information and fair advice is great for a company to provide to their customers. I'm having trouble seeing what information would be provided to the stakeholders in the annual reports. Would a company have to provide the number of instances where they have not provided fair advice and transparent information? Again, I believe that this should be a selling point of the companies rather than a mandatory disclosure.
Car Rental & Leasing	Transparent Information and Fair Advice	Material issue?	Public Interest & Intermediary	Maybe	Not sure how this relates to sustainability, outside of the other areas that I would assume would include transparency in reporting.
Car Rental & Leasing	Transparent Information and Fair Advice	Material issue?	Corporation	No	Outside of car rental sustainability KPIs - SASB guidance should be limited to ESG metrics.
Car Rental & Leasing	Transparent Information and Fair Advice	Material issue?	Corporation	No	We disagree with the conclusions in your industry brief about this section. New consumers who may not have rented or leased a vehicle can be confused by the way pricing is presented, but the vast majority of consumers understand that base prices are no more the entire price than restaurant menu items represent the final total for a meal. Every purchase involves taxes and fees and consumers understand that. The way the rental car industry presents prices has been reviewed and approved by a number of attorneys general and is an industry standard procedure in place for many years that does not create significant customer service problems. Again, this is an area that is important to us as a company and to our customers, but it is not a material issue for a reasonable investor.
Car Rental & Leasing	Waste Management	Material issue?	Public Interest & Intermediary	Yes	Waste management is one of those issues where negative outcomes from accidents could be detrimental to the company. If one of the underground gasoline tanks ruptures, the impact to the community could be great and the fines could be substantial.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Car Rental & Leasing	Waste Management	Material issue?	Corporation	Yes	Waste management in a retail setting is often quite complicated to monitor and manage. Recommend defining the scope, ie, general recycling, waste oils, tires, etc and leaving latitude for companies to report according to their operations. The specific Waste Management metrics are not aligned with the environmental compliance (fuel tanks). This is a risk already covered in traditional 10-K reporting.
Car Rental & Leasing	Waste Management	Material issue?	Corporation	No	Relative to other industries, e.g., manufacturing, we do not account for a significant amount of solid or liquid waste, and there are at present no issues with respect to improper disposal.
Car Rental & Leasing	Water Management	Material issue?	Public Interest & Intermediary	Yes	Water management, along with waste management should be required for disclosure. It is one of those issues which would negatively impact a company if they do not conserve water.
Car Rental & Leasing	Water Management	Material issue?	Public Interest & Intermediary	Yes	Water management is an area of increasing concern and will be affecting companies' bottom lines more and more.
Car Rental & Leasing	Water Management	Material issue?	Corporation	Yes	Material issue, but should be limited to aspects of operational control. The metrics as written are more aligned with a manufacturing facility vs retail car rental.
Car Rental & Leasing	Water Management	Material issue?	Corporation	No	The industry has voluntarily moved to effective recycling and non-water-based vehicle cleaning solutions. The amount of water used is a fixed correlation with fleet size and vehicle utilization, it is not something where demand fluctuates unpredictably or where resources are not already properly managed.
Car Rentals	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	Industry brief was excellent, as was IWG process. Thank you.
Car Rentals	Energy Management	Add Issue	Corporation	Energy Management	Most rental companies have a large real estate portfolio in terms of rental locations (both airport and non-airport) and multiple corporate offices. Thus, energy consumption is a significant yearly spend and driving efficiency best practices leads to both positive financial returns and environmental savings. It also is directly linked to a Company's GHG inventory. Recommended metrics: Energy & GHG Management: % energy reduction YOY (electricity, Natural Gas and GHG) Total MWh (electricity), kWh/transaction Total MJ or MMbtu, MJ/transaction Total GHG emissions (metric tonnes) MW renewable energy use/production, % increase YOY Add qualitative description of policy and approach to sustainable and responsible energy management



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Car Rentals	Several Issues	Inaccuracy	Corporation	D.N.A. - Inaccuracy	<p>"...sustainability issues will drive competitiveness..." No. Since market demand is not driven by environmental considerations, none of the items in these bullet points really affects customer demand or brand loyalty. Again, different for leasing vs. renting.</p> <p>"Lower accident rates...will strengthen a company's reputation." No. Rental car accidents are overwhelmingly due to operator error and not vehicle problems. Lower accident rates are therefore primarily a reflection of where vehicles are rented and who is renting them. Companies that offer rental vehicles to younger consumers in the northeast U.S. during winter are going to experience much higher accident rates compared with a company in the southwest with a higher minimum age, with the fleet having minimal impact.</p> <p>Proposed safety recall legislation isn't going to much impact because that legislation reflects the way the major rental car companies are handling recalls currently. Most of the industry voluntarily moved to a higher standard and is supporting the legislation precisely because most companies have adopted these practices as being appropriate to protect consumers and believe that smaller, independent car rental companies ("mom-and-pop shops") should also operate in this manner.</p>
Car Rentals	Several Issues	Inaccuracy	Corporation	D.N.A. - Inaccuracy	<p>Environmental compliance is material, however overstated in impact from a financial perspective regarding fuel tanks. EPA and other dept regulations are common practice for publicly traded companies, this is an unlikely area to produce significant investor issues as compliance and due diligence are highly controlled, monitored and represent a very small spend for a multi-national company.</p> <p>Regarding value of fuel efficient fleets - note that many alternative fuel vehicles are more expensive than their gasoline equivalents and although there is customer interest in high fuel economy, there is a lag in alternative fuel vehicle demand. Additionally, fuel savings and rebates are not viable to most commercial rental fleets, thus making AFVs more expensive to operation in absence of customer demand.</p> <p>Note recommendations for metric changes - some metrics are not accurate measures of car rental operations and area of interest, specifically transparent information and Passenger Safety.</p>



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Logistics	Air Emissions & Fuel Management	Add Issue	Corporation	Scope 3 Emissions	Most large logistics providers have partners - DHLs footprint is 25% scope 1 and 75% scope 3, many others are about half and half - some don't report well enough to know. Without comprehensive scope threshold that is assured & verified - you have no idea what the climate impact is of a transportation provider
Logistics	Air Emissions & Fuel Management	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	- On page 5, it says "companies will likely be forced to... their intermodal fleets." 'Intermodal' is usually a term used when talking about freight that is shipped over more than one mode in the process of transportation (e.g. starts on a truck and is then moved by rail) to its final destination, so I think that it was used slightly out of context. - Conway Truckload should probably be included in the road transportation group, not the logistics group (pg. 12)
Logistics	Air Emissions & Fuel Management	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	The case for LNG trucks (highlighted through the UPS story) was misleading. It noted a 40% cost savings from fuel but had no mention of the capital or operational costs associated with natural gas vehicles.
Logistics	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	You are doing a great job of running the process - the brief was well put together and I'm looking forward to participating as the process continues.
Logistics	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	Process was well designed, and I enjoyed participating, even if I disagreed with some measures. We appreciate your efforts to increase disclosures.
Logistics	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	The process was very effective.
Logistics	Does not apply	Add Issue	Public Interest	Business growth linkage	Linking operational performance & ghg (or water consumption) is the logical next level metric.
Logistics	Does not apply	Add Issue	Corporation	Previously mentioned scope 3 emissions - its really GHG emissions	per the standards - should be assured/verified/comprehensive
Logistics	Does not apply	Other Comments	Market Participant	D.N.A. - Other Comments	None on this section
Logistics	Industry definition	Add Issue	Public Interest	Information logistics	Management of information related to commerce goods or services and the logistics handling delivery within a region. Information as an asset, has not been addressed.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Logistics	Industry definition	Add Issue	Market Participant	technological change could threaten the industry's core business	web link below suggests that there are significant threats and opportunities from technological change to the industry: "The shift from printed to electronic documentation will significantly decrease volumes in physical transportation. However, the examples of hybrid mail and E-Postbrief show that logistics companies can become the natural catalyst to shape and influence this process."
Logistics	New Issue	Other Comments	Market Participant	Political Contributions	with the SEC now considering disclosure of political contributions as a material factor, and big players active in the field (fedex for instance - maybe the group could investigate whether this is a material metric for the industry to report on
Logistics	SASB Approach	Inaccuracy	Corporation	D.N.A. - Inaccuracy	I just want to comment on the tone - you need to realize that there are many companies that have taken early action on a host of topics you are trying to engage, both in actions and in transparency. Unfortunately, those that market the best have looked better than those in many cases that manage the best - it is clear that you are trying to address some of that. But you could take a more positive approach to some of this, to try to focus on the best in class reporting to drive the sector in the right direction, some of this feels like you are setting traps
Logistics	SASB Approach	Other Comments	Public Interest	D.N.A. - Other Comments	need for clarity of role of stakeholder based assurance process in support for descriptive elements of metrics and 'Auditability'. Whilst data verification is a critical element, stakeholder assurance can help identify risk and financial opportunity. Timeline for financial impacts needs defining - danger that standards will rely too heavily on the basis that if there is little or no short term financial impact the issue is immaterial. Recommend increased clarity on time of financial impacts from issue. SASB v2 could consider introducing improved method of assessing time to impact. There remains a need for an individual organisation to assess its own material impacts. SASB standards help simplify and support this but do not provide a full picture of material issues at the organisational level as this is informed by context.
Logistics	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	We (FedEx) are only submitting one set of consolidated responses to both the Air Freight & Logistics and Road Transportation feedback surveys. I think that perhaps each IWG company should only be allowed to submit one set of responses to this feedback process in order not to over-represent any one participating company's opinion in the process.
Logistics	SASB Approach	Other Comments	Public Interest	D.N.A. - Other Comments	Please note that determining auditability of the accounting metrics is not possible with only the knowledge of the title of the metric and without knowledge of the underlying data management systems that support the accurate and complete calculations of these indicators. It is also difficult to determine without a known audit trail of information and the potential evidence available. Because it was required to put an answer here in order to proceed with the section, I put a "no" in every case.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Logistics	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	There is a fair amount of concern in the space on how aggressive this process is - concern deals with how constructive this can be vrs what issues it may cause - again an opportunity to consider how to lift the positive
Logistics	Survey comment	Comment on Brief	Corporation	D.N.A. - Comment on Brief	Not available to me
Logistics	Survey comment	Inaccuracy	Corporation	D.N.A. - Inaccuracy	Not available to me
Logistics	Survey comment	Other Comments	Corporation	D.N.A. - Other Comments	For user-friendliness of completing the questionnaire, it would be nice to have a summary page, where the user could reference a particular section of the questionnaire quickly.
Logistics	Survey comment	Other Comments	Public Interest	D.N.A. - Other Comments	Great approach. I would have been consistent if I was provided all survey questions before the survey.
Logistics	Survey comment	Other Comments	Corporation	D.N.A. - Other Comments	Better availability of the industry brief
Marine Transportation	Accident & Safety Management	Material issue?	Corporation	Yes	quality of management, claims
Marine Transportation	Accident & Safety Management	Material issue?		Yes	Exxon Valdez
Marine Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	This could be considered overlapping slightly with the previous material issue of safety and well being of seafarers, however I think what is meant here is operational safety which could be a better way of wording this material issue.
Marine Transportation	Accident & Safety Management	Material issue?	Corporation	Yes	The resources companies invest in safety management and accident prevention return to them many times their investment. Public data to support this is difficult to find.
Marine Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	potential claims, carbon use efficiency,
Marine Transportation	Air Emissions & Fuel Management	Material issue?		Maybe	I think fuel management is material. I'm not sure air quality is one of the most material issues facing marine transport. According to the literature you provided, Marine Transport only accounts for 3% of global GHGs. My feeling is that this industry won't be targeted in terms of GHG emissions. Spills, groundings, species introduction seem to be far more of a worry.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Marine Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Maybe	Air Quality/emissions to air is ok, it covers NOx, SOx, GHG and PM although fuel management is more of a mitigation strategy i.e. energy efficiency rather than a material issue.
Marine Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	The high cost of fuel, compliant with US State regulations as well, is a material issue. This includes the high costs of investing in fuel alternatives, such as cold ironing. http://www.americanshipper.com/Main/News/Port_of_Long_Beach_ready_for_cold_ironing_rule_55554.aspx , and http://www.broward.org/Port/MasterPlan/Documents/PTI%20Cold%20Ironing%20Economics.pdf
Marine Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	No	these issues are regulated by international bodies and companies would not exist if they were not in compliance, therefore these issues are satisfied prior to investment decisions.
Marine Transportation	Air Emissions & Fuel Management	Other Comments	Corporation	D.N.A. - Other Comments	Some of our customers are becoming more interested in their own sustainability programs and are looking at the carbon footprint of bringing their products from manufacture to market. Ocean transportation is a significant part of that carbon footprint so we are also facing pressure from these customers to increase fuel efficiency. This stimulus is in addition to the regulatory pressure and financial benefits. The Clean Cargo Working Group was formed 10 years ago because major retailers wanted a good methodology for reporting carbon efficiency from ocean transport.
Marine Transportation	Business ethics & Competitive Behavior	Material issue?	Corporation	Yes	claims, corruption, reputation damage, business relationship damage
Marine Transportation	Business ethics & Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Although not as material as the others highlighted mainly because enforcement and consequence of this is not as severe as GHG emissions or safety management, this is still one of the 5 material issues for the sector.
Marine Transportation	Business ethics & Competitive Behavior	Material issue?	Corporation	Yes	Illegal price fixing has long been an issue in the marine transportation sector.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Marine Transportation	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	I recently conducted a benchmark assessment of the top 10 container shipping companies on their sustainability reporting performance. After reading your report and reviewing your material issues I was reassured to know that the material issues you identified were the same/or similar to those I identified. I appreciate the opportunity to be involved in this important process.
Marine Transportation	Does not apply	Add Issue	Public Interest	Transparency	Customers and stakeholders will increasingly expect maritime shipping companies to disclose their ESG performance.
Marine Transportation	Does not apply	Add Issue	Corporation	Corporate Citizenship & Corporate Social Responsibility	Eventhough Business Ethics & Competitive Behavior is a good topic, Corporate Citizenship & Corporate Social Responsibility are more in alignment with Sustainability. Corporate Citizenship: The contribution that a company makes in global society through its core business activities, its social investment programs, and its engagement in public policy (Future 500). Corporate Social Responsibility: Operating a business in a manner that meets or exceeds the ethical, legal, commercial and public expectations that society has of business (Business for Social responsibility). Sustainability: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland Commission – 1987).
Marine Transportation	Ecological impacts	Material issue?	Corporation	Yes	pollution claims
Marine Transportation	Ecological impacts	Material issue?	Corporation	Yes	The impacts laid out in the brief under this category are valid but I think are better termed Water Quality Impacts
Marine Transportation	Ecological impacts	Material issue?	Public Interest & Intermediary	Maybe	For me ecological impacts covers a multitude of different material issues including aquatic nuisance species transfer (Ballast water management), emissions to air (Climate Change), hazardous materials from ship recycling (Waste management), oil spills etc. Air Quality for example could be considered an ecological impact.
Marine Transportation	Ecological impacts	Material issue?		Yes	Oceans are increasingly vulnerable to industry's poor practices.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Marine Transportation	Ecological impacts	Material issue?	Corporation	Yes	When comparing marine transportation companies with each other the material aspects are non-compliance with applicable rules, as well as leading indicators showing innovative or advanced compliance actions allowing cost savings or compliance well beyond requirements that reduce risk of non-compliance or incident. Otherwise all companies have to comply with the applicable regulation. This is true for all material issues. However, when comparing marine transportation to other transportation sectors or investments, then as a whole, these ecological impacts are material issues. In addition to the issues listed in Marine Transportation industry brief, biofouling has high potential to become a costly issue in the near future. The state of CA is working on draft regulations in this area: http://www.dnvusa.com/industry/maritime/publicationsanddownloads/publications/newsletters/technical_regulatory/2012/uscg_requirements_to_fouling_maintenance_in_the_ballast_water_management_plan.asp .
Marine Transportation	Ecological impacts	Material issue?	Public Interest & Intermediary	No	these issues are regulated by international bodies and companies would not exist if they were not in compliance, therefore these issues are satisfied prior to investment decisions.
Marine Transportation	Ecological Impacts	Other Comments	Corporation	D.N.A. - Other Comments	On the ecological impacts, I believe biofouling will be more of a material issue than acoustic pollution. I provided a link earlier on California state proposed regulation in this area. As far as I know, there is no proposed rulemaking on acoustic pollution yet.
Marine Transportation	Employee Health, Safety & Well-being	Material issue?	Corporation	Yes	Claims and productivity
Marine Transportation	Employee Health, Safety & Well-being	Material issue?		Maybe	I recognize that marine transport has one of the highest non-fatal occupational injury ratios in major transportation industries, but my experience has been that this type of ratio can include a wide spectrum of injuries that are often considered minor in nature. I would be more concerned if there were evidence of a significant level of serious injuries or fatalities. I also know that most of the loading and unloading is automated which reduces the exposure.
Marine Transportation	Employee Health, Safety & Well-being	Material issue?	Public Interest & Intermediary	Yes	Recent adoption of the Maritime Labour Convention makes this topic extremely relevant



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Marine Transportation	Employee Health, Safety & Well-being	Material issue?	Corporation	Yes	Employee Health, Safety and Wellbeing is a leading indicator of costs. By reducing injuries, legal, medical and lost time costs are reduced by far more than the investment made in reducing injuries. Much of this information is confidential and printed material on the Dupont loss control triangle is available. (http://www.asse.org/professionalsafety/docs/BerndFreibottArticle.pdf) The Brief mentioned that high numbers of near misses is an indicator of high costs. Alaska Tanker Company, and Dupont, take a different view of near misses. When captured and addressed, the number of near misses become a leading indicator of an active safety culture.
Marine Transportation	Industry definition	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	Just a minor thing: the second paragraph of the industry summary refers to 48 and 53 foot containers as being the standardized sizes. This is true for US domestic intermodal; however 20 and 40 feet are the international (i.e. marine) standardized sizes.
Marine Transportation	Industry definition	Other Comments	Corporation	D.N.A. - Other Comments	The Research Briefing on Marine transportation should also look at shoreside activities such as Shipyards, Marine Terminals and Stevedore operations. Also need to look at U.S. Tug and Ship Assist Operations. This could be some good information to assist you with the survey.
Marine Transportation	SASB Approach	Comment on Brief	Corporation	D.N.A. - Comment on Brief	Background on selection of accounting metric methodologies.
Marine Transportation	SASB Approach	Other Comments	Market Participant	D.N.A. - Other Comments	There seems to be quite a few areas of potential materiality surrounding marine transportation: air emissions, hazardous waste discharge, invasive species introduction, fossil fuel use, energy consumption, worker health & safety. It was somewhat difficult trying to isolate which of these were most material and most in need of disclosure. It would have been easy to say everything was material and needed to be disclosed. Because of that, I was less inclined to say that specific organizational codes and ratios needed to be calculated and provided. I instead felt that the metrics needed to be provided and that the user can apply whatever ratios or algorithms are considered necessary.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Marine Transportation	Several Issues	Inaccuracy	Corporation	D.N.A. - Inaccuracy	<p>P 2 - NESHAPs/NSPS don't apply to ships. I don't think CERCLA does either or at least I've never heard of it being applied to ships.</p> <p>P 4 - SOx is NOT a greenhouse gas. The only NOx that is a GHG is nitrous oxide (N2O) and that, if present at all in exhaust, is insignificant portion. SOx, NOx, and PM are significant criteria pollutants that are of concern for the ocean transportation industry but they are not GHG.</p> <p>Page 4 - "VOCs are a precursor to PM2.5" Where did that come from?</p> <p>Page 4 - US government regulation of GHG from shipping is limited to Marpol. Regulations regarding sulfur content of fuels is intended to address criteria pollutants. Retrofits also required to meet NOx standards also a criteria pollutant.</p> <p>Page 5 - should clarify in discussion of low sulfur fuel standards the difference between requirements globally and in Emission Control Areas.</p> <p>Page 5 - Sentence about CERCLA fines doesn't fit.</p> <p>Page 5 - Invasive species are not spread from ballast water exchange. That is a method used to prevent spread of invasive species.</p> <p>Page 6 - paragraph about dunnage is inaccurate. Material in containers is never disposed of by the ship. Containers are sealed entire time on board.</p> <p>Page 6 - section regarding bilge water fines should be prefaced with a statement along the lines of: There have now been dozens of prosecutions for illegally discharging bilge water, so-called magic pipe cases, with fines in excess of a million dollars.</p> <p>Page 11- should clarify that Hong Kong Convention is from IMO.</p>
Marine Transportation	Several Issues	Other Comments	Public Interest	D.N.A. - Other Comments	<p>1) Recommend to come up with a measure of transparency as well.</p> <p>2) Would it be possible to include emerging, not yet material issues in the standards? For example, wrt maritime shipping, here are a few emerging issues: ship and container life cycle design; ship recycling; role in local socio-economic development including measures to support trade access for under-served markets, producers and regions; stakeholder relations; impacts on ocean and coastal health</p>
Marine Transportation	Supply Chain Management	Add Issue	Corporation	Supplier and contractor management	Prevention to move sustainability issues to other parties
Marine Transportation	Survey comment	Comment on Brief	Corporation	D.N.A. - Comment on Brief	not available to me
Marine Transportation	Survey comment	Inaccuracy	Corporation	D.N.A. - Inaccuracy	not available to me



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Accident & Safety Management	Inaccuracy	Corporation	D.N.A. - Inaccuracy	While not a big deal, the discussion of safety characterized the rail industry's focus on safety as a recent development. The fact is railroads have been very focused on improving safety since around 1996.
Rail Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Accident and safety concerns are associated with three distinct class of individuals - employees of railroad, contractors and other working at rail facilities and individuals not associated with rairoading activities. Derailment/accidents often involve a larger group of nonrailroad individuals and attract press. With crude via rail and use of LNG and more hazardous material, the possibility of a greater impact is increased. In the past there has been talk about rerouting hazardous materials around urban centers which could make rail less competitive.
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Several reasons. First is "headline risk" in that any time there is a derailment that a company is implicated in, the company faces negative publciity. Second is the financial impact of fines, cleanup, etc. Third is the regulatory fallout after the incident. Here is an example: http://www.thestar.com/news/canada/2013/08/15/lac_megantic_cp_rail_rejects_demand_to_pay_for_cleanup.html
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Safety makes sense. Accidents ruin lives, costs carriers money and become bottlenecks and therefore create inefficiencies.
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Obvious link with financial performance, either on an episodic basis re accidents, but also culturally within the companies. i.e. It's no coincidence that the railroad's with the most entrenched safety culture also tend to have the highest operating margins. Safety -> Efficiency -> Profitability.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Rail Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Quoting from a 2012 report produced by my organization, PODER: "In 2010 Vale acquired railway rights to 756 kilometers from the Ferrosur Roca company – controlled by Camargo Correa, a Brazilian group – to transport potassium from Mendoza to its final destination at the Port of Bahía Blanca in Buenos Aires. The total investment designated for this project is USD 828 million and 118 round trips per year are anticipated. In June 2011 the municipal court in Rincón de los Sauces de Neuquén halted construction of the corresponding works based on errors and omissions in the Environmental Impact Study (EIS) presented by Vale in 2010. According to the court, the railway project failed to present studies on the vibrations to be produced by the 5,000 metric tons shipped daily. Nor were there sections on safety conditions during the construction of the project over a two-year period, or on the amount of time operations would be maintained. It is important to add that Vale did not consult IDENESA or YPF regarding the potential effects from the train's movements on the pipelines, electric cables, and other infrastructure in the municipality. Another important point emphasized by the court is the lack of "clarity and precision" regarding the effects on air quality from transporting potassium chloride and machinery through Neuquén." "El periódico del Rincon. n.p. 26 April 2010. Accessed: 30 December 2011. < http://www.elperiodicoderincon.com.ar/ >. "Desestiman el recurso presentado por la empresa Vale." 8300 web. n.p. 7 July 2011. Accessed: 30 December 2011. < http://www.8300.com.ar >. "Impensado: potasio por 50 años." Diario Rio Negro. n.p. 20 December 2011. Accessed: 21 December 2011. < http://www.rionegro.com.ar/diario/rn/nota.aspx?idart=774491&idcat=34382&tipo=2 >. "EXPEDIENTE N° 807/11." Rincón de los Sauces. n.p. 5 July 2011. Ibid.
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Affects other issues, like community relations.
Rail Transportation	Accident & Safety Management	Material issue?	Corporation	Yes	Like all industries involved with heavy machinery safety is a critical issue for freight railroads. Poor safety results are harmful to employees, can make certain shippers reluctant to use your service (e.g., chemical companies) and are costly.
Rail Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Poor accident and safety management can lead to an excessive re-regulation of rail freight operations and be a constraint to rail freight expansion in response to rail's potential as a more fuel-efficient and less carbon-intensive mode of freight haulage.
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Crude by rail derailments have led government authorities to suggest retrofitting all crude-by-rail tank cars (DOT-111s), which it has been estimated could cost the rail industry more than \$1 billion (http://www.huffingtonpost.com/2013/07/09/dot-111-oil-tank-cars_n_3568287.html).



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	This is the most material sustainability risk for the rail industry. Safety performance is a core element of any UK rail business strategy as it cross cuts all elements of running an efficient and profitable railway.
Rail Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Safety and accidents are a material cost for railroads
Rail Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Each accidental death in the Railway industries hits the news headlines, and leaves a negative impression on the public.
Rail Transportation	Air Emissions & Fuel Management	Add Issue	Public Interest	Energy and Climate Change	Please refer to the Network Rail report on the potential impact of Climate Change: The UK's rolling stock is powered by electricity and diesel, both of which will have fluctuating cost which will impact profitability. How organisations source and safe guard power should be a key consideration.
Rail Transportation	Air Emissions & Fuel Management	Add Issue	Public Interest	Greenhouse gas emissions reduction	Rail freight has great potential to reduce the greenhouse gas emissions (GHG) per ton-mile for freight haulage compared to motor freight. Public policy in the future will increasingly focus on GHG reduction and favor industries that can contribute to this aim.
Rail Transportation	Air Emissions & Fuel Management	Add Issue	Market Participant	Fleet obsolescence	Perhaps it is already implied in the Air Quality & Fuel Management category, but fleet obsolescence (i.e., age, compliant features, replacement costs) may be a material issue.
Rail Transportation	Air Emissions & Fuel Management	Add Issue	Public Interest	Technological breakthroughs	Any new innovative technologies that could reduce fuel consumption, reduce harmful emissions, improve operational safety etc will help improve the sustainability of Railways.
Rail Transportation	Air Emissions & Fuel Management	Add Issue	Public Interest	Fuel Loss	This could be part of fuel management issue. Railroads should minimize fuel loss during fueling operations.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	In my view, this is the single greatest area of opportunity for railroads. Fuel efficiency has a material impact on capital expenditures and ongoing operating expenses. Air emissions of pollutants are significant and area already heavily regulated, with the threat of fines and fees for mismanagement. Finally, total fuel usage as an industry is staggering to many observers. Yes, I believe these three factors (and others) would be deemed material to the average, reasonable investor.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	While railroads have made great strides in efficient use of the fuel, they still have a significant carbon foot print - estimated at 35 million metric tons. As other other industries shift more towards rail as a mode of transportation, barring changes in fuel use, the carbon foot print of rail will increase. Historically, significant fuel loss has taken place during fueling of locomotives. Overtime new nozzles have been devised and fuel management systems have been developed to account for fuel received and fuel delivered to locomotives. Lost fuel is an economic loss as well as represent a potential future source for environmental liabilities. An accounting of fuel received and fuel delivered to locomotives would be indicative of a company's focus on economic efficiency, minimizing impacts to environment a culture of safety and resource conservation among its employees.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	I feel that fuel management, and in particular fuel costs are material, more so that air quality.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Fuel management can improve profitability. The less fuel they use, the better assuming volume is constant.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	No	I don't believe that pollution measurement (and cap) at the producer will be the ultimate solution to curbing the externalities of carbon. And ultimate a carbon tax on fossil fuels will be required to make a function market place, where costs are distributed correctly to the end user.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	The obvious link here with greenhouse emissions, capex spent on increasingly expensive fuel efficient locomotives, and the huge fuel expense incurred by the railroads, all of which are material.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Potential air and water pollutants are financial and social liabilities, and affect other factors like community relations. Air quality effects of customers and suppliers also are relevant (brief already cites coal air pollution and regulation affecting demand for freight hauling, the best example of this).
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	I do not think Air Quality is material yet. It may get there. I marked the item as material because fuel management is material.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Rail freight is well-positioned as an energy-efficient mode to benefit from future shifts away from energy and carbon-intensive motor freight hauling.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	No	low carbon footprint and highly fuel efficient.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	GHG emissions have become a topic of interest in the rail industry and through legislation. The rail industry has been looking at more efficient locomotives and have implemented start/stop devices and other operating changes to not only reduce emissions but also be more fuel efficient. Considering the cost of fuel for the rail industry, this has been a great focus.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	As the report noted, on the revenue side there are opportunities to gain additional share from truck given the relative fuel efficiency of trains vs. truck. However, there is still potential impacts from increased regulation around diesel consumption, and a shift towards natural gas powered locomotives would have a significant impact on both capex and operating expenses.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Ongoing ecological management is important in the UK but potentially less so than in the US. There is a significant amount of electric rolling stock with a reduced risk of pollution from fuel spills.
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Railroads are large users of fuel
Rail Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	There is an increasing public awareness about the long-term health effects of diesel emissions. This is world-wide and is showing itself in increasing tougher regulations for both road and non-road vehicles in the USA, Canada, Europe, India, Japan, Australia, etc. Gasoline (petrol) car engines underwent a similar stringent regulations in the past 3 decades; the attention has now turned to Diesel engine emissions (NOx and PM) and especially the tiny Particulate Matters (PM) that penetrate into the respiratory system. See the following weblinks: Internationally: http://www.dieselnet.com/standards/ USA: http://www.epa.gov/otaq/locomotives.ht USA: http://www.clean-diesel.org Europe: http://ec.europa.eu/environment/air/transport/index.htm Europe: http://ec.europa.eu/enterprise/sectors/mechanical/documents/legislation/emissions-non-road/index_en.htm India: http://www.dieselnet.com/standards/in/ Japan: http://www.env.go.jp/ Australia: http://www.dieselnet.com/standards/au/
Rail Transportation	Air Emissions & Fuel Management	Other Comments	Corporation	D.N.A. - Other Comments	I thought some of the survey questions grouped issues in a way that made responses difficult. A good example is "Air Quality & Fuel Management." As the brief notes, fuel management is an issue for freight railroads in terms of profitability. Use of diesel also has consequences for air quality. Putting the two together makes it difficult to address both issues.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Community Relations	Material issue?	Market Participant	No	Community relations encompasses a number of issues and opportunities which, by themselves or in the aggregate, are not material to most investors. The metrics that potentially could be rolled into this category are also likely to be redundant with those of others, and I fear that skeptics would consider some of the metrics to be "squishy" and difficult to quantify and verify (i.e., outreach efforts, etc.)
Rail Transportation	Community Relations	Material issue?	Public Interest & Intermediary	Yes	Most urban centers experience rail operations. New rail infrastructure also is mostly associated with urban centers. Most urban centers have deaths at railcrossing. Derailments have been an issue.
Rail Transportation	Community Relations	Material issue?	Market Participant	No	doesn't impact operational cost directly
Rail Transportation	Community Relations	Material issue?	Market Participant	No	I hate to sound cynical, but when deaths are not the company's fault I do not see investors focusing on them. Especially compared to incidents the company is responsible for described in the Accident management section
Rail Transportation	Community Relations	Material issue?	Market Participant	No	It becomes an issue only when there is a crossing issue or when an accident occurs.
Rail Transportation	Community Relations	Material issue?	Market Participant	No	It has limited impact on revenue and earnings.
Rail Transportation	Community Relations	Material issue?	Market Participant	Yes	Grade crossing and potential hazmat accidents are clearly material. Grade separation projects can also be very expensive (i.e. material) from a capex perspective. Traffic congestion caused by long and frequent trains is also an issue that must be managed with communities.
Rail Transportation	Community Relations	Material issue?	Public Interest & Intermediary	Yes	Zónta, Márcio. "Mais um acidente na estrada de ferro Carajás." Justiça nos Trilhos. 20 October 2011. Accessed: 21 November 2011. < http://www.justicanostrilhos.org/ >. Zónta, Márcio. "Foi um trem que passou na minha vida". Brasil de Fato. 27 January - 2 February 2011. Accessed: 10 December 2011. < http://www.brasildefato.com.br/ >.
Rail Transportation	Community Relations	Material issue?	Market Participant	Yes	Can affect network fluidity and capex. For example, if communities along the EJ&E were somehow to effectively lobby to demand CN invest an extraordinary amount in noise reduction or grade crossing elimination, a project benefiting the broader rail industry and even the nation's transportation fluidity could have been NPV negative for CN, the investor.
Rail Transportation	Community Relations	Material issue?	Corporation	Maybe	Community Relations in general I do not think is material. It is only material in the context of an event such as a train derailment.
Rail Transportation	Community Relations	Material issue?	Market Participant	No	While there is certainly impact to communities relating to rail yards, crossings, etc., there is little evidence that exposure is any more material than average in regards to sustainability.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Community Relations	Material issue?	Public Interest & Intermediary	Yes	The quality of community relations affects the potential to expand rail freight operations to capitalize on the rail mode's more energy-efficient, less carbon-intensive operations compared to motor freight.
Rail Transportation	Community Relations	Material issue?	Market Participant	No	It is a public company without a significant responsibility to the community. They own the land that the roads are on whereas trucks are on public roads. The legal system provides a means for liability cases.
Rail Transportation	Community Relations	Material issue?	Corporation	Yes	Communities are becoming more vocal and knowledgeable and can have an influence on how a project proceeds
Rail Transportation	Community Relations	Material issue?	Market Participant	Yes	Given that rails go through people's backyards, the rails' social license to operate is very important, and events like Lac Megantic and the 2009 spill in Cherry Valley, IL (http://www.schumer.senate.gov/Newsroom/record_print.cfm?id=345520) lower the level of trust between the rail industry and communities.
Rail Transportation	Community Relations	Material issue?	Public Interest & Intermediary	Yes	In the UK, community relations play a key role in the maintenance and operation of rail infrastructure. The proximity of private land to existing railways and future developments requires careful stakeholder management by organisations such as Network Rail. Without this, there are potential reputational impacts. A significant challenge for rail industry, and material risk, relates to public interactions with the track. Rail fatalities are a particular area of concern for rail management companies and the need to educate communities on rail safety remains a priority.
Rail Transportation	Community Relations	Material issue?	Market Participant	Maybe	While rail relationships with their communities is important, I am not sure it is relevant to investors
Rail Transportation	Community Relations	Material issue?	Public Interest & Intermediary	Maybe	Railways usually have a positive impact in linking communities, improve social mobility, opportunities and thus social justice. Therefore most infrastructure investment plans get approved. This is why I do not believe Community relations is a material issue.
Rail Transportation	Competitive Behavior	Add Issue	Public Interest	Ticket pricing	If not covered by 'competitive behaviour' the area of ticket pricing should be considered a material issue for rail firms - particularly in the UK. Headlines are made annually when firms introduce above inflation ticket price rises. The impacts on the wider economy are also being raised by ministers.
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	No	Portions of this category may be redundant with those in Air Quality & Fuel Management, with particular respect to regulatory fees and fines. Further, I must question to what extent would any metrics in this area be redundant with present SEC disclosure requirements around legal/regulatory risks and pending litigation?
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	Yes	I guess I feel like the labor relations, this mostly needs to be communciated when there is an issue or something is changing that could impact pricing/profitability



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	No	Competitive behavior is only an issues when rails are seen as charging too much for services for shippers with little competitive choices.
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	Yes	Obviously the potential government imposed fines for anti-competitive behavior, as we've seen in the past.
Rail Transportation	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	"U.S. Says Union Pacific Trains Move Drugs Across Border" http://online.wsj.com/news/articles/SB123742489945279423
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	Yes	Anticompetitive behavior risks greater regulator intervention, which long run could constrain profit and consequently, investment, thereby depriving the public of full benefits of this fuel, labor, and ecologically efficient transportation mode.
Rail Transportation	Competitive Behavior	Material issue?	Corporation	Yes	Competitive Behavior has two aspects. The first is the usual competition versus competing transportation providers, usually trucking companies but also other railroads and barge in some instances. The other is regulatory. Railroads have some degree of exemption from anti-trust statutes that enables them to exclude other railroads from commercial use their tracks. Shippers frequently challenge this in front of the STB and recently Congress (Senator Rockefeller) has put forth legislation to force freight railroads to allow other railroads to provide commercial service on their lines, often referred to as "open access."
Rail Transportation	Competitive Behavior	Material issue?	Public Interest & Intermediary	No	Competitive behavior has been greatly supported by deregulation in both the rail and truck freight modes. Thus, anti-competitive behavior, while it still exists, is a diminished factor in the freight industry.
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	No	captive customers.
Rail Transportation	Competitive Behavior	Material issue?	Public Interest & Intermediary	No	Although the pricing of train tickets is a contentious area in the UK, the issue - as described in the research brief - is not material for the rail industry here. I would suggest looking at ticketing transparency in more detail. There has been a significant movement amongst stakeholders in the UK to protest or oppose rail fare increases that are significantly above inflation.
Rail Transportation	Competitive Behavior	Material issue?	Market Participant	Yes	Compoetitive behaviors in the rail industry could invite regulations if small shippers complain loud enough
Rail Transportation	Competitive Behavior	Material issue?	Public Interest & Intermediary	Yes	Privatisation of rail industry in the UK and other countries, has shown how important competitive behaviour is in attracting business.
Rail Transportation	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	I thought the rail report was relatively balanced and proposed reasonable reporting requirements. I am excited to be a part of the IWG process!



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	These types of issues are hard to capture and measure, but your staff did a commendable job developing metrics and disclosures.
Rail Transportation	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	Thank you for the opportunity to participate.
Rail Transportation	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	SASB staff is to be commended for the excellent brief.
Rail Transportation	Congratulatory Comments	Other Comments	Market Participant	D.N.A. - Other Comments	I found the industry brief to be very informative and helpful.
Rail Transportation	Does not apply	Add Issue	Corporation	Access to debt and equity capital	With a significant amount of physical assets railroads have material annual capital investment requirements. Access to capital can be necessary to fund these requirements if internal cash flow is not sufficient.
Rail Transportation	Does not apply	Comment on Brief	Market Participant	D.N.A. - Comment on Brief	It was mostly background information which I knew. Would like to know more about the issues that were asked in survey.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	While the individual risks associated with an ecological issue (i.e., derailment and spill) can be quite high, collectively I see little evidence that the aggregate effect in this area would be fully material to the average, reasonable investor. Further, the probability of such an issue occurring in an ecologically sensitive area are low.
Rail Transportation	Ecological Impacts	Material issue?	Public Interest & Intermediary	Maybe	Few new facilities or tracks are being constructed. Most of new construction activities are in urban areas with minimal ecological assets. Once in a while such as bridge replacement projects or track rehabilitation work, railroads encounter ecological issues. A more interesting insight would be what are railroads doing to enhance ecological value of their real estate - reforestation.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	doesn't impact operational cost directly
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	The described ecological impacts are never something I have focused on in my analysis. I consider these impacts somewhat part of a normal course of business. The fines described in this section, for example, aren't large enough to be material
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	Because investors are interested in rails for what they do, not how they impact the environment. They must deal with some ecological issues when expanding.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	It has limited impact on revenue and earnings.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	Yes	Primarily the release of coal dust and the potential release of more hazardous materials through spills/accidents, either within terminals or along right-of-way.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Rail Transportation	Ecological Impacts	Material issue?	Public Interest & Intermediary	Yes	Duplicação da Estrada de Ferro Carajás.” Imirante-globo. n.p. 26 September 2011. Accessed: 15 November 2011. < http://imirante.globo.com >. “Parte de obra em ferrovia é paralisada por atingir quilombos.” Defensoria Pública da União. Brasília. 23 September 2011. Accessed: 21 November 2011. < http://www.dpu.gov.br/ >.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	Yes	Can affect liabilities or other factors like Community Relations.
Rail Transportation	Ecological Impacts	Material issue?	Corporation	No	I see this as similar to Community Relations in that it is not a material issue other than in the context of an event.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	No	Relative to other industries (energy production, other transportation), ecological impact does not seem to be material, especially when scaled (on a ton-mile basis, for example) relative to trucking.
Rail Transportation	Ecological Impacts	Material issue?	Public Interest & Intermediary	Yes	Public policy in the US and world-wide will be increasingly focused on carbon-reduction in the coming years. Rail is well-positioned as an energy-efficient and less carbon-intensive mode to take freight haulage market share away from trucking. This will both support an important public policy objective and benefit investors in the rail mode.
Rail Transportation	Ecological Impacts	Material issue?	Corporation	Maybe	In terms of materiality, I believe the other items are more material. I do believe that it is critical to know if the railroads pass through these areas but consider it is more from an "accident" perspective
Rail Transportation	Ecological Impacts	Material issue?	Public Interest & Intermediary	Yes	Ecological impacts are of particular concern for new railway developments. With a number of significant construction projects under way in the UK e.g. Cross Rail and potential HS2, there is significant stakeholder interest - particularly from wildlife groups. Ongoing ecological management is important in the UK but potentially less so than in the US. There is a significant amount of electric rolling stock with a reduced risk of pollution from fuel spills. I would suggest that sustainable procurement, waste management and climate change should be also considered as material.
Rail Transportation	Ecological Impacts	Material issue?	Market Participant	Yes	Railroads have terminals and fueling stations, any of which can cause meaningful liability
Rail Transportation	Ecological Impacts	Material issue?	Public Interest & Intermediary	Maybe	The ecological impacts of railways are secondary, and can be managed with good engineering design. Furthermore, the ecological impact of transporting hazardous materials is a common problem to ALL modes of transport, and not unique to rail industry.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Industry definition	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	On page 2, there is a paragraph that says "exports [of coal] to Asia, Europe and South America should remain healthy and provide continued demand for rail freight services", it is unclear whether or not this refers to coal exports. If so, it is debateable whether the export coal environment will provide a continued end market for thermal or metallic coal given that the US is a swing producer on the global coal markets. Markets for export thermal and metallic are volatile.. In the first paragraph on column 2 of page 9, "loses" should be "losses".
Rail Transportation	Industry definition	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	Not sure this was inaccurate, but there was at least one point not substantiated by references to outside sources. See p. 3 pertaining to sustainability-related risks and opportunities and rail attractiveness relative to trucking.
Rail Transportation	Industry definition	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	The Industry Summary measures the industry in dollar terms. Due to the nature of freight transport, ton-miles, or revenue ton-miles are a better measure.
Rail Transportation	Industry definition	Other Comments	Public Interest	D.N.A. - Other Comments	The rail freight industry will become increasingly important in the future as a cost-effective, energy-efficient, and less carbon-intensive mode of freight haulage. Public policy will favor rail modernization and will support a shift from motor to rail freight haulage on both economic and environmental grounds.
Rail Transportation	Industry definition	Other Comments	Public Interest	D.N.A. - Other Comments	It would be good to include case studies of particular countries where their Rail Transportation Industry has been scrutinised from the point of view of sustainability. Furthermore, Rail Transportation Industry is already one of the most sustainable forms of public transport, in terms of gas emissions per mile per person. I suggest to generate subdivisions of this industry (e.g. freight, passenger (commuter), subway (or metro), tram, etc) to be able to delve into and differentiate specific issues with each sub-category, as relevant actions for each to improve sustainability will be different, and cannot be covered under one general survey. Minor point: Please correct typo on the word "Transportation" on the title of these pages.
Rail Transportation	Labor Relations	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	Page 8 mentions using lasers, ultrasound, and vibration-measuring technology without context. For example, using laser measurement as safety enhancing inspections of rolling stock. As written, it seems like an incomplete expression.
Rail Transportation	Labor Relations	Material issue?	Market Participant	No	I do believe that this area is marginal in its materiality to average, reasonable investors. Because this category could include safety data, which is quantitative and verifiable, and because safety data is often cited as a leading indicator of management efficacy, I think this is an area that is worthy of additional scrutiny.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	Railroads are and will remain a union house. Health and safety and railroad retirement will remain as issues for labor unions.
Rail Transportation	Labor Relations	Material issue?	Market Participant	Maybe	I would call this borderline material. I guess the only reason I'm on the fence is that these issues aren't surprises, they take years to unwind. So I guess maybe that means they are material to be discussed in the beginning rather than waiting until the end
Rail Transportation	Labor Relations	Material issue?	Market Participant	Yes	Railroads are heavily unionized, strikes have a negative impact on revenues and eps.
Rail Transportation	Labor Relations	Material issue?	Market Participant	Yes	Labor is the railroad's biggest individual expense line item.
Rail Transportation	Labor Relations	Material issue?	Market Participant	Yes	Labor relations are essential to keeping the railroad functioning continuously and profitably. Absent profit, the rail cannot fund pensions nor invest in low emissions locomotives or other projects to improve fuel economy.
Rail Transportation	Labor Relations	Material issue?	Corporation	Yes	Labor is a significant expense for freight railroads, large railroad employees are represented by unions generally across the entire line staff and labor relations have often been contentious.
Rail Transportation	Labor Relations	Material issue?	Public Interest & Intermediary	No	Deregulation and competitive pressures have reduced the potential for work disruptions, strikes or lockouts, to in turn disrupt the national economy or reduce the economic value of the rail mode.
Rail Transportation	Labor Relations	Material issue?	Market Participant	No	labor unions will persist.
Rail Transportation	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	Given the heavily unionised rail workforce in the UK, labour relations are a significant risk area for rail employers. There have been numerous instances of strike threats in the UK, particularly in the London region.
Rail Transportation	Labor Relations	Material issue?	Market Participant	Yes	Rails are highly unionized companies that endure strikes periodically
Rail Transportation	Labor Relations	Material issue?	Public Interest & Intermediary	Yes	In many countries around the world, worker unions hold much power and can dictate the image and future viability of a railway operator.
Rail Transportation	New Issue	Add Issue	Public Interest	Illicit Activities, Corruption, Terrorism, Drug Trafficking	This article is just one indication: "U.S. Says Union Pacific Trains Move Drugs Across Border" http://online.wsj.com/news/articles/SB123742489945279423



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	New Issue	Add Issue	Market Participant	Relationship with Shipping Community	Related to the anti-competitive behavior described in the "Leadership and Governance" section, I wonder if the pricing practices should be tied to the "Social Capital" category as well, given that "access to products and services" and "affordability" are components within the social capital category? For example, farmers have been known to have qualms with the rails and have at times argued that they be government services, so the relationship that rails have with the agricultural community could evolve over time.
Rail Transportation	New Issue	Add Issue	Public Interest	Disposal of railroad ties and spikes etc.	Railroads dispose close to 25 million ties per year ; most of them treated by creosote. Disposal of ties remain issue. Use of ties which lengthen their life such borate pretreated ties should reduce tie disposal problems. Also, with lesser amount of creosote in these ties they can be more amenable for use in energy production. One of the railroads noted that they recovered millions of dollars in salvaging rail spikes.
Rail Transportation	New Issue	Add Issue	Corporation	Customer relations	Large freight railroads move a lot of traffic under shipper contracts. Good relationships are essential to negotiating positive rate and service contracts
Rail Transportation	SASB Approach	Other Comments	Public Interest	D.N.A. - Other Comments	Please note that determining auditability of the accounting metrics is not possible with only the knowledge of the title of the metric and without knowledge of the underlying data management systems that support the accurate and complete calculations of these indicators. It is also difficult to determine without a known audit trail of information and the potential evidence available. Because it was required to put an answer here in order to proceed with the section, I put a "no" in every case.
Rail Transportation	Several Issues	Other Comments	Public Interest	D.N.A. - Other Comments	As you can tell, I have three areas of comment that bear mention in an industry where these issues or viewpoints are traditional ignored: <ol style="list-style-type: none"> 1. Illicit activity, especially insofar as rail infrastructure is used by organized crime for trafficking purposes. 2. More disclosure about all employees - directly hired or sub-contracted - and their collective bargaining relationships. 3. Going beyond company self-reporting to report on community and civil society observations of material and other issues concerning the railway and its stakeholders.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Rail Transportation	Several Issues	Other Comments	Market Participant	D.N.A. - Other Comments	<p>Generally well done and seems comprehensive. Many of my concerns were addressed as I read through the brief.</p> <p>a. For any metric, I prefer quarterly disclosure, and a history of the past several years provided upon initial disclosure, such as five years of quarterly history. Of course, we analysts always want as much data as possible. For railroads in particular, the past five years held significant changes in volume trends, so this would be particularly informative.</p> <p>b. For many metrics, expressing numerator and denominator is extremely helpful. Including in a reporting table such scaling factors as gross ton miles, revenue ton miles, etc helps to set the context for comparing between railroads and also year over year at individual railroads.</p> <p>c. For railroads that operate in multiple nations, providing information to compare the full network to other railroads' full network would be useful. For example, CP reporting just its U.S. operating information would have limited utility.</p> <p>d. A couple of spelling errors could be corrected to improve professionalism of the survey: 1. Transportation was misspelled in the header of every page of the industry survey. 2. During the survey, under Normalization Factors, the common term "EBITDA," or earnings before interest, tax, depreciation, and amortization, was misspelled as EBIDTA</p>
Rail Transportation	Supply Chain Management	Add Issue	Market Participant	Supply Chain Management	The overwhelming majority of intermodal terminals in the U.S. are owned by the major freight railways. Some have outsourced the operations of these terminals (e.g. management of handling equipment) to service suppliers. Outsourcing is driven by cost saving opportunities but labour issues in the supply chain can result in ad-hoc problems with service quality. These can result in reputational damage and lower customer satisfaction. They still need to ensure that there are no issues in terms of product damage, loss or theft, or delays in delivery.
Rail Transportation	Survey comment	Comment on Brief	Market Participant	D.N.A. - Comment on Brief	The brief did not specifically address several of the issues that were included in the survey.
Rail Transportation	Water Management	Add Issue	Public Interest	Water Management	Water use is of concern and it will become more critical with time. CSX reported that they use 1.4 million K gallons of water. Certainly there has to be opportunities to reduce this consumption.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Accidents have human and financial implications which can impact the financial strength of a company
Road Transportation	Accident & Safety Management	Material issue?	Corporation	Yes	Safety affects not only drivers, but also society uninvolved in trucking, such as parties subject to damage from spills or highway drivers who can be injured or killed by oversize vehicles.
Road Transportation	Accident & Safety Management	Material issue?	Corporation	Maybe	How frequently a company has accidents and how sever they are impacts financial performance, and insurance and healthcare costs
Road Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Road transportation is one of the major causes of road traffic accidents which in turns leads to serious injuries and fatalities. The subcontracted nature of the industry however hides much of the true level of accidents as major transport companies tend to only report on the accidents that occur within their own operations. This leads to under-reporting of the true impact of accident and safety management in the companies value creating operations.
Road Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	A true 'no-brainer'. No employer should relax their scrutiny in any manner that fails to prevent any form of injury to their employees, third parties or third party property.
Road Transportation	Accident & Safety Management	Material issue?	Corporation	No	Similar to our response on Employee Health & Safety, we don't think that Accident & Safety Management is a material issue from an investor perspective, unless the reporting company has a particularly poor performance record in this area. And if that's the case, the reporting would likely have to disclose any significant fines, lawsuits or other related risks in their 10-K filings anyway.
Road Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	Drivers are currently monitoring their CSA record, companies should be monitored on their compliance and internal reporting of Accident & Safety Management.
Road Transportation	Accident & Safety Management	Material issue?	Corporation	Maybe	Accidents are significant to the parties involved, but it's hard to imagine an incident having a material impact upon a company's overall profitability or sales.
Road Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Unsafe driving has significant potential for increased financial liabilities.
Road Transportation	Accident & Safety Management	Material issue?	Market Participant	Yes	In addition to the human cost of accidents, the government's more close monitoring and publication of safety performance will affect truckers ability to attract business as well as increase costs. This is both a revenue and cost issue.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	Again, no ideas on links, but I imagine that insurance reports are likely to produce what you need, as well as what's covered in trade publications.
Road Transportation	Accident & Safety Management	Material issue?	Public Interest & Intermediary	Yes	I think that this is perhaps the weakest tie in to sustainability. Accidents are clearly an issue for this industry and affect its sustainability, but the issue is less clearly a sustainability related one in my mind. On the other hand, from an investors' point of view, accidents = costs and risk and that is important to me, so the relative performance of members of the industry is important.
Road Transportation	Air Emissions & Fuel Management	Add Issue	Public Interest	Greenhouse gas emissions (GHG)	Motor freight is a significant contributor to greenhouse gas emissions nationwide. Public policy will increasingly favor less carbon-intensive industries, in this case rail over motor freight, unless motor freight retrofits to substantially less carbon-intensive operations.
Road Transportation	Air Emissions & Fuel Management	Comment on Brief	Corporation	D.N.A. - Comment on Brief	How does sulfur dioxide come to pay in the transportation industry (that was one of the pollutants proposed to track)
Road Transportation	Air Emissions & Fuel Management	Inaccuracy	Public Interest	D.N.A. - Inaccuracy	In the environmental regulatory section, there was a discussion of National Emission Standards for Hazardous Air Pollutants and New Source Performance Standards. These do not apply to "mobile sources" such as trucks in the road transportation sector; only to stationary sources such as terminals. It is the Pipeline and Hazardous Materials Safety Administration that regulates hazardous materials.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Since trucks are less efficient than other modes namely rails, its good to measure.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Both factors pertain to industry pollution that affects broader society.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Truck freight has a significant disadvantage in fuel economy and greenhouse gas emissions compared to the rail freight industry.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Since the clean air act of 1990, there have been a series of tightening environmental standards affecting industry coal burn and mercury levels, pollutants such as CO2, NOx and particulate matter, increasing use of alternative fuels such as electric and natural gas to power vehicles. Any company's plans to do so can affect public perception, ability to compete in markets and capital spending



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	The road and air networks of transport companies produce significant emissions including but not exclusively Carbon Monoxide, SOX and NOX. Not all jurisdictions have air quality requirements in place meaning in many locations
Road Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Degrading air quality questions the viability of the industry's social licence to operate; both variables can have a marked impact of variable operating costs; and fuel management is essential to ensuring reliable operating performance.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Maybe	While we think that discussion around fuel management is material from an investor perspective, as it speaks to cost efficiencies and preparedness against potential fuel cost volatility, the other aspects of this issue (e.g. Scope 1 emissions, NOX/SOX/PM emissions, etc.) don't necessarily merit discussion on 10-K filings as they don't present a clear impact on future business revenues and profitability for all companies in this sector. In addition, this sector has significant regulatory oversight when it comes to air quality and pollution standards, and therefore this sub-issue does not merit additional disclosure from an investor perspective. In fact, given the different investor-specific materiality impacts of both the "Air Quality" and "Fuel Management" issue topics, we believe they should be kept separate in the Transportation IWG for future deliberations.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Regulations are certainly playing a major role in converting to fuel efficient vehicles. But customers (of Transportation Carriers and Logistics) are also seeking this information and choosing their carrier based on this reporting. I believe this is material for compliance reasons as well as customer decision making.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Corporation	Yes	Fuel is germane to the business model. What happens with air quality regulations or the availability of certain fuels (or the cost thereof) can significantly affect a company's viability.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Fuel is the top cost for many road freight companies.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Market Participant	Yes	Government regulations have shown no signs of easing. Trucking companies will continue to be faced with higher costs as a result of regulation.
Road Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Fuel management is related to financial costs. Air quality is related to public costs. Both are material to shareholders.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Road Transportation	Air Emissions & Fuel Management	Material issue?	Public Interest & Intermediary	Yes	Related to above, diesel exhaust may become a larger issue in the future. It is implicated in several health conditions. See the following URLs: http://www.oehha.ca.gov/public_info/facts/dieselfacts.html http://cfpub2.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060#Download http://www.cancer.org/cancer/cancercauses/othercarcinogens/pollution/diesel-exhaust If GHG regulation or a carbon tax is adopted, it will further erode the road transportation industry's competitive position vis a vis rail. It is stated: In terms of carbon emissions, rail movement is somewhere between two and five times more energy efficient than road transport. Rail's share of transport GHG emissions is 2%, while rail's market share is 6% (passenger) and 10% (freight). See http://www.therailengineer.com/2013/08/27/rails-carbon-footprint/
Road Transportation	Business Ethics & Transparency of Payments	Add Issue	Corporation	Corruption	Express Delivery services sell speed of pick-up and delivery of customer packages. When cross border movements of goods there is a risk in many locations for unfair and in cases corruption of facilitation payments being made to custom officials. The WEF Partnering Against Corruption Initiative (PACI) has been focused on this for some years. Examples of litigation has also been confirmed with Palipina case in 2011.
Road Transportation	Congratulatory Comments	Comment on Brief	Public Interest	D.N.A. - Comment on Brief	I had to select no just because there was not an alternative option like "for the most part" or something to that tune. The brief was excellent and provided all necessary data in particular for the trucking sector, but since I have also been interested in discussing the passenger mass transit road transportation sector, this is why I had to resort to additional supplementary materials besides the excellent Brief. That's it. The research effort into the brief is outstanding.
Road Transportation	Congratulatory Comments	Other Comments	Public Interest	D.N.A. - Other Comments	The exercise so far has been highly professional. Very impressive



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Does not apply	Add Issue	Public Interest	I'd add "Business Model & Innovation" to this list-- specifically "Long Term Viability of Business Model". Also, within "Social Capital", I'd add "Communications & Engagement" and possibly "New Markets".	These issues are overlapping and mutually reinforcing. Reason being that you need innovative strategies to attract and retain high-quality employees (human capital) that do their job well and without accidents / risks. You also need innovative strategies for energy efficiency / fossil fuel reduction / fleet replacement (long term viability of business model). Moreover, an "innovative" culture can foster better public communication, which (a) can attract potential candidates (along the lines of "trucking is cool; truckers deliver the nation's needs, even after natural disasters when railways and airports are down") and (b) can build heightened awareness of the "ESG" premium a given company has, thus building community goodwill--and shareholder satisfaction. These are part of the "Human Capital" materiality issues already included.
Road Transportation	Does not apply	Add Issue	Market Participant	True cost	An attempt should be made to measure True Cost against some type of comparable standard for external factors like road use, government subsidies that create competitive imbalances that fuel unsustainable industries
Road Transportation	Does not apply	Add Issue	Market Participant	Global competition	Pay scale, accident & safety management, employee health, safety & well being of competing companies
Road Transportation	Does not apply	Other Comments	Market Participant	D.N.A. - Other Comments	First survey - look to provide more feedback in future surveys
Road Transportation	Does not apply	Other Comments	Market Participant	D.N.A. - Other Comments	Transportation more than any other sector presents an opportunity for the government to put its money where its regulation is. All government vehicles should be tracked and monitored in every way shape and form to provide the data for this sector.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Maybe	If drivers are unhealthy they might be deemed risks under regulations CSA.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Market Participant	No	Although employee health is a serious and important issue, I don't believe that this impacts revenue or earnings growth for trucking companies.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	Yes	Driver health and life expectations are profoundly worse than for average U.S. males, making trucking a concern for our culture. Safety affects highway drivers, generally in much smaller more vulnerable vehicles than trucks.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	Yes	Poor results for employee health, safety, and well-being, if sustained, may result in significant re-regulation of the motor freight industry.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	No	While safety is an issue of concern, the impact on financial statements is somewhat limited, except as it pertains to healthcare premiums
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Yes	Road transportation can lead to accidents which results in death. Due to the global nature of this industry this is emerging as growth in Brazil, China and India in particular. The sub-contractor nature of the road transportation part of the industry also hides many of the issues in the unreported supply chain. In many parts of the world, transport sector workers are the major spreaders of HIV and other contagious diseases. The link between Transportation and HIV spread has been proven in academic literature. In Sub-Saharan Africa, Eastern Europe, SE Asia, China, India are examples of locations where the interaction of transport workers and sex workers has been proven to be a strong link with higher HIV infection rates. This is also coupled with the fact that long distance truck drivers have limited access to medical interventions as their trips are long, there are fewer social controls and long waiting times are border crossings and ports leads to boredom and interaction with local based sex workers
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	Good practice is now a universal imperative, at least in OECD countries, and now falls into the fair & reasonable expectations of any employer. Poor practice is visible to all external stakeholders and can be a source of litigation if the negligence causes significant harm
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	No	We don't think that Employee Health & Safety is a material issue from an investor perspective, unless the reporting company has a particularly poor performance record in this area. And if that's the case, the reporting would likely have to disclose any significant fines, lawsuits or other related risks in their 10-K filings anyway.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	No	Stakeholders won't hold the companies responsible for truckers' being obese.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Corporation	Yes	While this and Accident & Safety Management are material, the metrics provided are similar, and it seems they could be included in the same category.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	Lack of healthy environment for employees can exacerbate driver retention.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Maybe	This is a relative designation. With the government's increasing focus on employee health it is an important issue, but the other items are more material in my view.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	No web links, but there are likely to be many in the realm of "insurance premiums" for companies in this industry.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Public Interest & Intermediary	Yes	Brief states issues well. Restrictions on time in service based on health concerns will, over time, erode the door to door and delivery anywhere benefit of road transportation over rail and may cause a greater movement to multimodal transport, which may cut revenue.
Road Transportation	Employee Health, Safety, & Well-being	Material issue?	Market Participant	Yes	No doubt it is secondary here but remains important overall as it is a good comparable. It was borderline for me.
Road Transportation	Employee Recruitment & Retention	Material issue?	Market Participant	Yes	Trucking companies face turnover of 100%+, its important to see how carriers can attract and retain drivers.
Road Transportation	Employee Recruitment & Retention	Material issue?	Corporation	Yes	With nearly 100% turnover typical for the truckload market, retention is one of the most significant issues in the space, and drives compensation and business expansion plans.
Road Transportation	Employee Recruitment & Retention	Material issue?	Corporation	Maybe	Small firms may be training grounds for new drivers and dispatchers, who may wish to move on to better-paying jobs at larger firms. As long as training and accident prevention protocols remain in place and acted upon by the smaller firms, higher employee turnover should not be an issue.
Road Transportation	Employee Recruitment & Retention	Material issue?	Market Participant	No	Employees just move around within the industry. the overall rate of employment does not change significantly. it increases coincidentally with the increase/decrease in industry fleet size.
Road Transportation	Employee Recruitment & Retention	Material issue?	Corporation	Yes	Understanding methods used to recruit employees, pay and retain them can help shareholders understand various methods of compensation, both on and off balance sheet



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Employee Recruitment & Retention	Material issue?	Market Participant	Yes	Transportation and Warehouse management is a skilled job but as express delivery and logistics management can be an antisocial occupation with high shifts common practice in the industry.
Road Transportation	Employee Recruitment & Retention	Material issue?	Public Interest & Intermediary	Maybe	The relevance of this to investors is subject to many variables. For instance, retention of employees performing routine work with limited skill requirements are unlikely to be pivotal to the financial health of the organisation in any market other than one with an exceedingly low unemployment situation. The issue is material only where the employees offer skills & experience in critical areas of the operations that are difficult to obtain in the general employment market.
Road Transportation	Employee Recruitment & Retention	Material issue?	Corporation	No	We don't think that Employee Recruitment & Retention is a material issue from an investor perspective, unless the reporting company has a particularly poor performance record in this area. And if that's the case, the reporting would likely have to disclose any significant business-related risks due to recruitment/retention in their 10-K filings anyway.
Road Transportation	Employee Recruitment & Retention	Material issue?	Market Participant	Yes	The industry is experiencing shortage of drivers. This has also affected the caliber of new drivers companies hire. The hiring criteria such as required experience has been adjusted downward in order to fill candidate pools. This may have an adverse effect in companies safety/accident track records.
Road Transportation	Employee Recruitment & Retention	Material issue?	Corporation	Maybe	If the projected labor shortages do in fact happen, this could be material. Otherwise, I don't think it is.
Road Transportation	Employee Recruitment & Retention	Material issue?	Public Interest & Intermediary	Yes	Turnover can be very high for trucking companies. High turnover can impact the ability of road freight companies to meet their contractual obligations.
Road Transportation	Employee Recruitment & Retention	Material issue?	Market Participant	Yes	Employee turnover is a significant issue for trucking companies from both a cost and efficiency standpoint.
Road Transportation	Employee Recruitment & Retention	Material issue?	Public Interest & Intermediary	Yes	The road transportation industry relies heavily on sober, alert drivers, and the Industry Brief describes the difficulty in attracting and retaining good people. There's a truckload (!!) of issues here, but right at the top is "people" -- the human capital part of the equation. If you have good drivers, then you get loads delivered in a timely manner. If you have bad drivers, then you increase the risk levels exponentially.
Road Transportation	Employee Recruitment & Retention	Material issue?	Public Interest & Intermediary	Yes	Brief states well.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	Industry definition	Add Issue	Public Interest	Social Capital and Equity - impact of access and mobility issues and TOD laws	This is pertaining to Road Transportation in the context of Mass Passenger Transit enterprises. This is assuming SASB standards can be extended to cover transit enterprises under the mandate of SEC rule 15c2-12, which orders annual materiality issues disclosure reporting obligations for municipal entities (of which mass passenger road transit enterprises are an important subset in the US). Growing evidence and data points to the recognition that License to operate is going to be subject to providing of certain level of access and mobility services to the community. This is the result of state law, like in California, the second largest market for mass passenger road transit in the US, and SB375 with its emphasis on what is called "Sustainable Communities Strategy" as the driver of Transit Oriented Development, which can significantly influence revenues for entities. This is tied to certain performance service metrics, influenced in many cases by cost effectiveness and efficiency issues, which can result in major risks to revenues, and consequently impacting the ability of continuing to manage the operation as an independent entity. Also, this relates to the common practice of ballot measure reauthorization for major revenue sources, which in some cases have resulted in denial by voters / taxpayers.
Road Transportation	Industry definition	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	page 1- "Owner-operators comprise the vast majority of the industry due to the relative ease of entry..." It may be a definitional issue- I define O/O as an individual owning a single truck. I do not include small fleets. Under this definition the O/O is a small and declining segment of the market.
Road Transportation	Industry definition	Other Comments	Public Interest	D.N.A. - Other Comments	I will provide more comments by email to Katie and the Research team, but overall this is an excellent process. I would encourage you to consider, even if this is not the objective right now, the possibility that the work SASB is doing could influence or impact the metrics that will be applied by reasonable investors, under SEC rule 15c2-12, to assess material disclosure issues that may affect valuation and investment decisions on securities issued (and traded heavily in secondary markets) by "municipal", or generally speaking public passenger road transit systems, in the US.
Road Transportation	New Issue	Add Issue	Corporation	Network Efficiency	You may also want to think about developing metrics around network efficiency (i.e. activity per unit output, perhaps miles per load, or similar).



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	New Issue	Add Issue	Public Interest	Noise specifically and Urban Livability generally	Personally, I group the issue of noise along with air pollution and road safety hazards as significant and localized population health impacts of freight traffic. Fuel management, while related to air quality could be addressed separately. Managing local noise as well as localized public safety externalities of freight traffic is an increasingly important challenge for healthy cities sustainable urban development. Awareness and action on noise and traffic safety currently lags actions European union. Vehicle standards for noise have not been updated since the 1981 de-funding of the noise control act (NCA). While NCA pre-empted more protective state and local standards for truck emissions, locals can still address this issue in several ways that may affect the industry (e.g. controls on freight routes, speed limits, restrictions on freight delivery times, etc). Such actions are likely to accompany urbanization as newly urbanized populations demand environmental quality. New federal standards for local roadway air impacts (e.g. NO2) should also be mentioned in the brief and may also drive local regulation affecting transport facilities and infrastructure Such actions, would not regulated vehicles, but would be de facto regulations on use and thus could shape the nature of the road transport industry.
Road Transportation	New Issue	Add Issue	Corporation	Management of Sub Contracted Operations	The road transport sector is highly networked with many levels of sub-contracting in the supply chain. Major operators such as FedEx and UPS sub-contract in both the US and around the world but their current reporting is silent on the impacts of this material component of their business in terms of health and safety and environmental performance.
Road Transportation	New Issue	Add Issue	Public Interest	Incorporation of hazard mitigation measures and resilience	As natural disasters have been increasing in frequency measures need to be taken to protect road transportation assets from future disasters.
Road Transportation	New Issue	Add Issue	Public Interest	Security	Transportation modes are vulnerable to hijackings, terrorism, smuggling, and illicit use by criminal elements. Both physical security and cybersecurity are concerns to investors.
Road Transportation	New Issue	Add Issue	Public Interest	D.N.A. - Add Issue	No inaccuracies but consider the following omissions: 1) New air quality standards for PM 2.5 and NO2 - these standards will likely affect truck transport operations and facilities 2) Noise pollution as regulated trucking industry health externality. 3) Generally, the impact of freight traffic on livability / neighborhood quality and the potentially growth or people-truck conflicts with infill development and the growth of the industry.



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Road Transportation	Regulations	Add Issue	Public Interest	Road taxes	The success of the road transportation industry has occurred, in large part, because it is heavily subsidized by the federal budget in terms of road infrastructure. However, as returns on the gasoline tax are reduced by improved mpg, there is a potential move afoot to replace gasoline tax with a mileage tax. This change may have significant implications for the road transportation industry if significant additional infrastructure cost is shifted to it as part of the transition.
Road Transportation	Regulations	Other Comments	Public Interest	D.N.A. - Other Comments	I believe that the report fails to evaluate adequately the impact of the reduction of hours of service on asset availability for the industry as a whole. While large firms can manage around the impact by assigning multiple drivers to a single vehicle, owner/operators cannot readily schedule around legal requirements, increasing the amount of down time (e.g., decreased asset utilization) that will increase the industry's cost relative to rail and also shift sector cost/benefit in favor of larger operators with greater flexibility in asset utilization.
Road Transportation	SASB Approach	Other Comments	Corporation	D.N.A. - Other Comments	We (FedEx) are only submitting one set of consolidated responses to both the Air Freight & Logistics and Road Transportation feedback surveys. I think that perhaps each IWG company should only be allowed to submit one set of responses to this feedback process in order not to over-represent any one participating company's opinion in the process.



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/ Response	Comment
Road Transportation	SASB Approach	Other Comments	Public Interest	D.N.A. - Other Comments	<p>I found the Industry Brief extremely well written and cogent. Except for the analytical issues I mentioned, which fall into 3 buckets affecting:</p> <p>(1) HUMAN CAPITAL: More material information relative to maintaining high quality employee performance (recruiting, screening, retaining);</p> <p>(2) BUSINESS MODEL & INNOVATION: More innovation in the business model, efforts to anticipate a change in fuel energy mix, use of lightweight vehicles, and so forth;</p> <p>(3) SOCIAL CAPITAL: More efforts to get the sustainability message across, as well as raising brand profile re: benefits of trucking versus other modes of transit.</p> <p>Again, SASB is challenged to balance categorical imperatives (Sorry, Kant) with more universal, overlapping issues and metrics. Another tension: avoiding the "regular business" rule that the SEC protects against investor insurgence. (Rule 14a-8(i)(8)) But this is a great start.</p> <p>On process, I'd encourage a more active and engaging communication strategy with IWG participants--one that also includes greater knowledge of who else is in the group. I found my interest waning (it shouldn't have, as I'm one of SASB's biggest fans!) but there's an active outreach / warming up phase that always needs to occur to get folks in a working group engaged and active. One or two webinars isn't sufficient. As an educator who spends a lot of her time learning more about how to do this via Web technologies, I'm aware of what the research has to tell us about how to be more engaged and productive. I know SASB is working on a shoestring, and certainly without precedent, but there's an art to curating a crowd, and SASB needs to develop this more. Otherwise (speaking for myself, but I suspect others feel this way, too), I feel like I'm isolated from what the others are doing, and am less inclined to learn from teh experience because I'm only talking to myself here. After reading the SASB drafts, I'm not learning anything. I'm communicating what I already know. There's no dialogue, there's no interactivity. SASB would benefit from a set aside fenced-in discussion about the issues raised in the Industry Brief, so that we can answer these questions more effectively--as well as gain knowledge in the process.</p>



Industry	Mapping to SASB Topic	Survey Category	Stakeholder Type	Suggested Topic/Response	Comment
Road Transportation	Several Issues	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	<p>1. Possible error: Page 1 “Bloomberg estimates that 435 trucks are required to move the same volume of freight as a single 100-car train.” This seems quite high. For example, 100 double stacked chassis would only be 200 containers, replacing no more than 200 truckloads, or 100 box cars might replace 100 truck containers, as each might hold around 2.5 trucks’ worth of goods. I believe the 435 value may refer to the AAR trucking fuel efficiency comparison to rail, perhaps 435 ton-miles per gallon of diesel.</p> <p>2. Page 4 under Value Impact discusses compliance costs with regulation on emissions, “...companies are likely to realize significant operational savings through increased fuel efficiency...”, but low emission engines do not equal highly fuel efficient engines.</p> <p>3. On page 5 first sentence under Human Capital, personally, I would use independent rather than individual contractors as human capital. I think this is the customary term for nonemployee hired drivers.</p>



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Road Transportation	Several Issues	Inaccuracy	Market Participant	D.N.A. - Inaccuracy	<ol style="list-style-type: none"> 1. Regulation section does not cite equipment types and conditions (like mud flaps secure), permissibility of multiple trailers per tractor, and weight per axle, a serious and highway tested restriction that probably deserves mention. 2. Fuel efficiency related hardware includes Engines, governors, trailer skirts, tires. 3. Natural gas as an over the road fuel is neglected in the document. Is it too early to include? 4. Page 4 under Value Impact discusses compliance costs with regulation on emissions, "...companies are likely to realize significant operational savings through increased fuel efficiency...", but low emission engines do not equal highly fuel efficient engines. 5. Under Social Capital, one might include urban dwellers eventual frustration with traffic could push volume to rail, if for example, truck traffic was prohibited during busy daylight hours. 6. On page 5 first sentence under Human Capital, personally, I would use independent rather than individual contractors as human capital. I think this is the customary term for nonemployee hired drivers. 7. On page 5, the final sentence, "a shortage of qualified drivers" may also allow an increase in rates as shipper demand capacity to serve the clients (and likely pass through the cost of shipping to clients)—a positive to help offset higher driver costs. This could also push volume to rail intermodal or boxcars as shippers secure capacity where available. 8. I'd like to see firms report CSA details in filings compared to industry and similarly sized peers 9. Page 8 mentions Landstar's disclosure of potential weather related disruption, but does not mention Landstar's maintaining a full backup facility in the Midwest—I believe it would be more valuable to show an example of disclosure of a vulnerability addressed with a prudent recovery plan. 10. Appendix 1: why not show a more complete list of trucking firms? Add Saia, Heartland, Conway, and Schneider, at minimum. Some of these were already mentioned in the text. 11. Appendix 3, Air Quality: I consider grid electricity consumption irrelevant for trucking.