

REPORT

CLIMATE & ENERGY PERFORMANCE PRIVATE CAR PRODUCTION SECTOR

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CONTENTS

1	SUMMARY	1
1.1	Sector analysis climate and energy	1
1.2	European Commission emission standards	1
1.3	Performance benchmark all companies on climate and energy	4
1.3.1	Main conclusions	4
1.4	Summary table all car producers; engagement recommendations	5
2	ECRA-METHODOLOGY.....	7
2.1	Introduction	7
2.1.1	Security of Energy Supply (total weight level 4)	7
2.1.2	Carbon management and Energy Legislation (total weight level 4)	8
2.1.3	Social and political License to operate (weight level 2)	8
2.1.4	Supply chain (weight level 2)	8
2.2	Explanation of score cards.....	9
3	CLIMATE & ENERGY SCORECARDS.....	10
3.1	BMW	10
3.2	Daihatsu	12
3.3	Daimler	14
3.4	Fiat	16
3.5	Ford.....	18
3.6	General Motors	20
3.7	Honda.....	22
3.8	Hyundai	24
3.9	Mazda Motor Corporation	26
3.10	Mitsubishi	28
3.11	Nissan	30
3.12	PSA (Peugeot Citroen)	32
3.13	Porsche	34
3.14	Renault.....	36
3.15	Suzuki	38
3.16	Toyota	40
3.17	Volkswagen.....	42
3.18	Volvo	44
4	ANNEX.....	46
4.1	Information sources used per company.....	46

1 SUMMARY

1.1 Sector analysis climate and energy

Transport accounts for about 14 percent of global Greenhouse Gas emissions, making it a major contributor to global climate change. Within this sector, road transport accounts for the largest share, at 72 percent of sector and 10 percent of global emissions.

The transport sector – and motor vehicles in particular- is notable for its high concentration of actors and significant international integration among manufacturers. Motor vehicle production (which includes passenger cars, light commercial vehicles, heavy duty trucks and buses) is concentrated among relatively few countries and companies. Production is dominated by the US, EU-25 and Japan, with China rapidly increasing its production levels.

At the company level, five multinational car producers – Toyota, General Motors, Ford, Volkswagen and Daimler (in the combination with Chrysler) produce half of all motor vehicles. Major car companies are largely headquartered in the United States, Europe, and South Korea. Virtually all manufacturers have assembly and production facilities in multiple countries. Joint ventures are also common among major manufacturers. Governments play in different ways a role in the transport sector. Interventions tend to be oriented around safety and fuel efficiency regulations, particularly in developed countries.

Uniformity is high for all transport products. Most automobiles are produced on assembly lines, with similar production methods employed by different firms. Furthermore, while vehicle models may vary widely, the number of propulsion technologies involved, so far, is very small. Almost all road vehicles use one of a few major types of internal combustion engine fuelled by gasoline, diesel or natural gas. Other, low-carbon technologies, like hybrid, plug-in hybrid, fuel cells, electricity and hydrogen are being pursued by almost all major car companies.

Reducing CO₂-emissions from passenger vehicles will, however, be a highly capital-intensive endeavour. Meaningful, cost-effective reductions in carbon emission from passenger cars will entail an integrated approach involving a broad range of measures. These measures could include vehicle upgrades to greater fuel efficiency, broad use of biofuels, introduction of alternative propulsion technologies, improvements to road and traffic infrastructure, greater use of public transportation and driver education (sources WRI and McKinsey).

1.2 European Commission emission standards

In December 2007 the European Commission published a legal proposal to regulate the fuel efficiency of new cars. The EU's first legislation to limit carbon dioxide emissions from new cars has entered into law half June 2009. As a regulation (as opposed to a directive) it is immediately binding in all member states. Neither carmakers nor the European Commission have so far published company-specific fleet-average CO₂ figures for new cars.

One liter of petrol consumption leads to about 2.34 kg of CO₂, one liter of diesel consumption to approx. 2.62 kg of CO₂. Reducing CO₂ emissions is therefore not only beneficial in the context of

mitigating climate change, but it also helps to reduce Europe's oil import burden and drivers' fuel bills at the pump. The European Union is committed under the Kyoto Protocol to reduce greenhouse gas emissions by 8 per cent by 2008-2012 compared to the 1990 level. In March 2007 EU leaders committed to a 20-30% reduction in greenhouse gas emissions overall by 2020. In January 2008 the European Commission issued a package of proposals to legally implement these targets. The 'climate and energy package' is now working its way through the Council of Ministers and the European Parliament. Transport CO₂ emissions in the EU grew by 35% between 1990 and 2006. Other sectors reduced their emissions by 3% on average over the same period. The share of transport in CO₂ emissions was 21% in 1990, but by 2006 this had grown to 28%. The European Environment Agency estimates that cars are responsible for 14% of CO₂ emissions.

Transport is also critical in the debate on Europe's energy dependence. Europe currently imports approximately €1 billion of oil every day. Cars are the single biggest consumer in the EU, using around 4.4 million barrels a day, and responsible for 40 per cent of imports. Oil imports for cars now amount to €140 billion a year, more than the value to the economy the entire European car industry creates each year. In this context, the European Commission published on 19 December 2007 a proposal to reduce CO₂ emissions from cars.(source T&E)

Brief explanation of the European Commission proposal

On December 17 2008, the European institutions approved a regulation to reduce CO₂ emissions from passenger cars. By 2012, the average fuel consumption of the new car fleet will have to equate to 130 g CO₂/km, which will require an average improvement of 20% in fuel consumption. Each vehicle will have a specific target based on its weight. Another set of directives will require vehicles to incorporate technologies such as gear shift indicators, low rolling resistance tires, and tire pressure monitoring systems. These technologies, along with low-blend biofuels, will be granted emission reductions of another 10g; thereby bringing the industry target to 120g CO₂/km in 2012. The automobile industry will be allowed to comply with the adopted regulation through a phase-in by volume (i.e., 65% of the OEM fleet will have to be compliant in 2012, reaching 100% in 2015). Furthermore, the policymakers included special provisions (valid until 2015) to stimulate research and development in breakthrough technologies and alternative fuels. The concept of "super-credits" for ultra-low emitting vehicles (<50g CO₂/km) will allow automakers to count these vehicles several times towards their compliance target. Credits for "eco-innovations" will allow OEMs to receive a maximum credit of 7g CO₂/km across their fleet for installing in their vehicles CO₂ reduction technologies which are not reflected in the test-cycle. Lastly, alternative fuel vehicles will receive a 5% credit in Member States where 30% of filling stations offer alternative fuels. The regulation will require OEMs to pay penalties if they don't comply with their target, with a maximum of 95 euros/g (which is multiplied by the OEM's total volume).

Manufacturer	target for 2012*	Year 2007		Year 2006		
		average CO ₂ (g/km)	Distance to target	average CO ₂ (g/km)	Distance to target	Rank 2006
1 PSA Peugeot-Citroën	127	141	10%	142	12%	1
2 Renault	127	146	13%	147	15%	2
3 Fiat	122	141	14%	144	16%	3
4 Toyota	127	149	15%	153	17%	5
5 Honda**	131	156	16%	154	16%	4
6 Hyundai	132	160	17%	167	21%	9
7 General Motors	129	156	17%	157	19%	6
8 Ford	132	162	18%	162	20%	7
9 Volkswagen	133	163	19%	166	20%	8
10 BMW	137	170	19%	184	26%	12
11 Nissan**	130	167	22%	168	24%	10
12 Mazda	129	171	24%	173	26%	11
13 Daimler	137	181	24%	188	27%	14
14 Suzuki	122	162	25%	166	26%	13
Average	130	158	17%	160	19%	

* Assuming the average weight of the company fleet will not change between 2007 and 2012

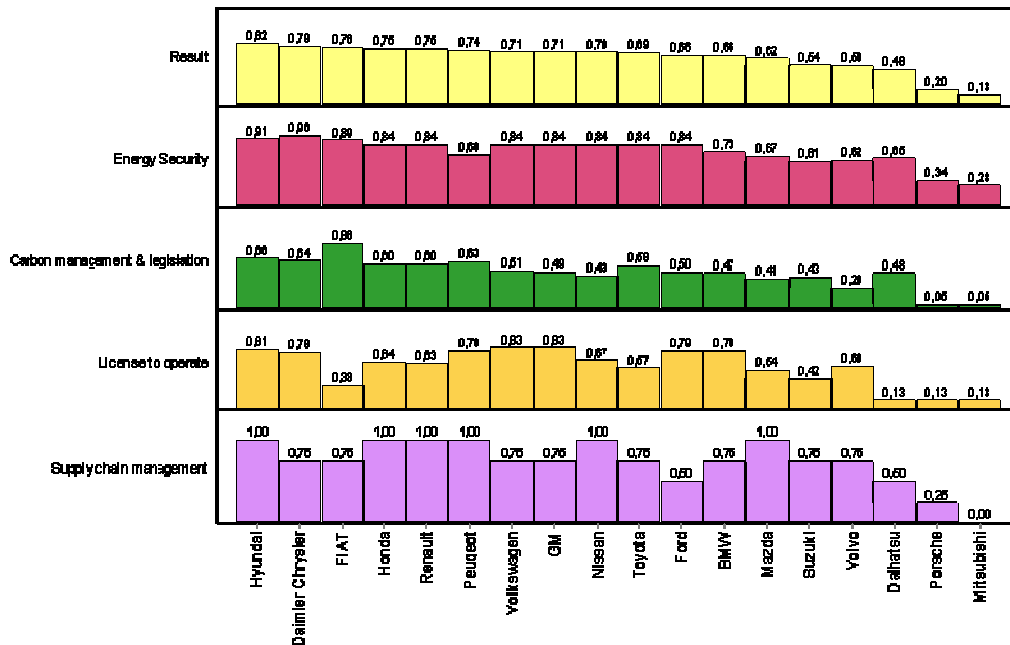
** There are significant gaps in the recorded data of the *weight* of cars sold by Honda (39% missing) and Nissan (25% missing). Therefore the company CO₂ target and the gap to close are less reliable than those of other carmakers, for whom missing weight data is in the range of 1-2%.

Source: Transport & Environment

The following conclusions can be drawn from the table above:

- BMW is the carmaker that made by far the greatest year-on-year CO₂ and fuel efficiency improvement in 2007. This is likely to be due to its program 'Efficient Dynamics', a range of fuel-saving measures gradually introduced across the full range of BMW's models. This progress shows that significant year-on-year CO₂ cuts are achievable even by carmakers in the premium segment of the market;
- Daimler, the other premium German car maker in the ranking, achieved a 3.5% improvement. However more than half of this figure can be attributed to the demerger of Daimler-Chrysler in 2007.
- Both French car makers disappointed with less than 1% progress. Ford and General Motors performed similarly;
- Overall progress for all carmakers was just 1.7 per cent. European, Japanese and Korean carmakers (represented by ACEA, JAMA, and KAMA respectively) performed more or less similarly. (Source T&E)

1.3 Performance benchmark all companies on climate and energy



1.3.1 Main conclusions

Hyundai scores best in class in this ECRA-benchmark as a result of a good overall performance in all categories. Although the Italian (FIAT) and French (Renault, Peugeot-Citroen) car makers score higher in the category carbon management & legislation, these companies in general have somewhat weaker disclosure practices. Japanese and Korean (Hyundai, Toyota, Suzuki, Honda, Nissan, Mazda, Daihatsu) car makers score in general high on supply chain management with detailed described strategies to minimise the supply chain environmental impact with the help of LCA-methodologies, supplier certification and recycling strategies. Also these Asian companies have a good performance on average car emissions and improvements. Disclosure practices among Asian firms vary widely, with Hyundai as positive outperformer and Daihatsu with very weak disclosure practices. Structural stakeholder engagement is something that is less developed in Asian companies. This could be a cultural issue, however to draw any conclusions falls out of the scope of this research. Only Mitsubishi outperforms other Asian car companies in negative terms. This firm has the weakest performance on all categories with very limited disclosure on all issues. German carmakers (Volkswagen, BMW, Daimler) have still relatively high average car emissions, however are gaining speed to close the gap. Disclosure practices and focus on a large range of low carbon technologies are strong points of these two companies. Porsche is a negative exception to this rule, for beside very weak disclosure practices, Porsche also has the highest average car emissions from all car makers. Porsche therefore runs the highest regulatory, non-compliance risks from all car companies in the research. The US-based car makers Ford and General Motors are

performing mediocre, in general they have good disclosure practices, focus strongly on all current and future low-carbon technologies, however have relatively still high average car emissions and make little progress to close the gap. Therefore they run a significant regulatory non-compliance risks. Volvo, the only Scandinavian car company, shows a weak overall performance. This has mainly to do with the high average car emissions and little progress made to close the gap. Therefore Volvo run significant regulatory non-compliance risks.

Due to the non-disclosure agreement with the European Commission neither carmakers nor the European Commission have so far published company-specific fleet average CO₂-figures. This is notable in the benchmark results as very few companies have disclosed average fleet emissions themselves.

1.4 Summary table all car producers; engagement recommendations

Producers	Engagement recommendations
BMW	<ul style="list-style-type: none"> • Significant compliance risk with respect to EC regulations because of high average car emissions • Target setting and disclosure of target on average car emissions • Improve public disclosure of compliance status and strategy
Daihatsu	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions and on CO₂-emissions of production processes • Improve public disclosure practices in general; lack of performance data • Development of structural stakeholder dialogue
Daimler	<ul style="list-style-type: none"> • Significant compliance risks with respect to EC-regulations because of high average car emissions • Development of structural stakeholder dialogue
FIAT	<ul style="list-style-type: none"> • Improve disclosure and strategic communication on climate efforts • Participation in Carbon Disclosure Project • Development of structural stakeholder dialogue
Ford	<ul style="list-style-type: none"> • Improve public disclosure on compliance status and strategy • Improve communications on supply chain efforts to minimise environmental impacts
GM	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status, strategy and targets
Honda	<ul style="list-style-type: none"> • Development of structural stakeholder dialogue • Improve public disclosure of compliance status and strategy • Target setting and disclosure of target on average car emissions
Hyundai	<ul style="list-style-type: none"> • Improve public disclosure on compliance status and strategy • Significant compliance risk with respect to EC regulations because of high average car emissions
Mazda	<ul style="list-style-type: none"> • Significant compliance risks because of high average car emissions • Improve public disclosure on compliance status and strategy • Target setting and disclosure of target on average car emissions • Improve disclosure on climate risks, opportunities and climate

Producers	Engagement recommendations
	strategy
Mitsubishi	<ul style="list-style-type: none"> • Disclosure practices very weak and does not give any clarification about climate and energy strategy of processes and/or products • Significant compliance risks because of high average car emissions and lack of clear targets • Target setting for processes • Not clear on what kind of low carbon technologies Mitsubishi focuses; therefore it is unclear whether this is a lack of efforts or a lack of communication only. If it represents a lack of efforts, Mitsubishi could risk a severe backlash in the car industry, as it runs the risk that car technologies are becoming obsolete
Nissan	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status and strategy • Significant compliance risks because of high average car emissions and little progress since 2006
Peugeot- Citroen	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status and strategy
Porsche	<ul style="list-style-type: none"> • Improve disclosure practices in general • Focus and strategy to achieve low carbon technologies in cars • Significant compliance risks because of extremely high average car emissions, no (disclosed) intentions or strategy to reduce average car emissions to compliance level
Renault	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status and strategy
Suzuki	<ul style="list-style-type: none"> • Improvement disclosure practices on climate and energy strategy in general and of cars and low carbon technologies specifically • Target setting and disclosure of target on average car emissions • Significant compliance risks because of high average car emissions and little progress since 2006
Toyota	<ul style="list-style-type: none"> • Improvement of disclosure in CSR report and CDP06 makes information better accessible for rating institutes • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status and strategy • Improvement of structural stakeholder dialogue
Volkswagen	<ul style="list-style-type: none"> • Target setting and disclosure of target on average car emissions • Improve public disclosure on compliance status and strategy • Significant compliance risks because of high average car emissions
Volvo	<ul style="list-style-type: none"> • Improve public disclosure on compliance status and strategy • Significant compliance risks because of high average car emissions and little progress since 2006 • Improve disclosure on emission reduction strategy of the manufacture processes

2 ECRA-METHODOLOGY

2.1 Introduction

Before the climate performance benchmark of the car producers are assessed the main and relevant issues according the different risk categories for the Energy and Climate Risk Assessment (ECRA) are defined. The risk level of those issues within the categories are therewith sector-specific and can be seen as of high relevance.

Information sources used for defining sector-specific, material ECRA-aspects

- Global Reporting Initiative Automotive Sector Supplement Pilot Version 1.0;
- Carbon Disclosure Project Questionnaire
- UNEP Mobility Forum
- EC-communications FAQ on proposed regulations to reduce CO₂-emissions from cars; memo/07/597
- T&E: Reducing CO₂ Emissions from New Cars: A study of major car manufacturers progress in 2007; August 2008
- McKinsey: Roads toward a low-carbon future: Reducing CO₂-emissions from passenger vehicles in the global road transportation system; March 2009
- T&E; Reducing CO₂ Emissions from new cars

The following issues in the five ECRA-categories are identified to be significant and relevant for the car production sector. These issues are scored on a 3, 4, 5 or 6 scale per car producer and after normalization subsequently benchmarked.

2.1.1 Security of Energy Supply (total weight level 4)

In this category the efforts and performance is assessed to reduce carbon emissions from products and processes. This category is relevant because of energy security issues, the current and future running out of fossil fuels and the increasing dependency of political unstable regions.

The sub-categories are the following:

- R& D efforts and marketing of low carbon cars (weight 5)
- Strategy and target setting for low carbon product (cars) development (weight 5)
- Strategy and target setting for low carbon production processes (weight 3)
- Communication strategies and activities fuel reduction at customer base (weight 2)

2.1.2 Carbon management and Energy Legislation (total weight level 4)

In this category specifically the regulatory performance of car producers against near future carbon standards in the EU per car is assessed. This category is relevant because of strengthening and future carbon emissions standards in different regions in the world and from a (financial) risk perspective the compliance status of car producers is extremely relevant.

The sub-categories are the following:

- Actual average CO₂-emission per car in g/km (2007 status) (weight 4)
- 2007 status in distance to average CO₂-emissions per car (158 g/km) in % (weight 4)
- Actual average CO₂-emission per car in g/km (2008 status, own report) (weight 4)
- Reporting conduct on compliance status EU/US regulations (weight 4)
- Relative CO₂-reduction target setting for cars (weight 3)
- Progress in CO₂-reduction since 2006 (weight 3)
- Introduction low carbon cars or mobility concepts outside EU (weight 3)
- Regulatory risk management (weight 3)

2.1.3 Social and political License to operate (weight level 2)

In this category the public exposure/disclosure of the company with respect to its climate performance, intentions and efforts is assessed. This is relevant as is a strong indication of the transparency level and willingness of the company

The sub-categories are the following:

- Stakeholder engagement / dialogue (weight 2)
- GHG-disclosure (weight 2)
- CSR-reporting (weight 2)
- Risk and opportunity analysis of climate reputation (weight 2)
- Communications about impacts of company on climate change and on activities of company on CC (weight 2)
- Participation in carbon disclosure project (weight 2)

2.1.4 Supply chain (weight level 2)

In this category the efforts and performance of the company to reduce the carbon emissions of products and processes in collaboration of supply-chain partners. This is relevant as the reduction of carbon emissions becomes more and more a combined effort in supply chains of products and processes.

The sub-categories are the following:

- Supply chain involvement in development of low carbon technologies (co-production / collaboration with governments, oil producers, car equipment producers)

2.2 Explanation of score cards

Within this report 18 different score cards has been drawn up, one for each car producer. The aim of the score cards is to get a quick and easy overview of:

- the company profile, including for example the type of cars they produce and the geographical area they are active,
- the overall score on the main risk categories (e.g. security of energy supply, carbon management and legislation, etc.).
- their strong and weak points per risk category and recommendations for engagement
- the score's on the sub-risk categories

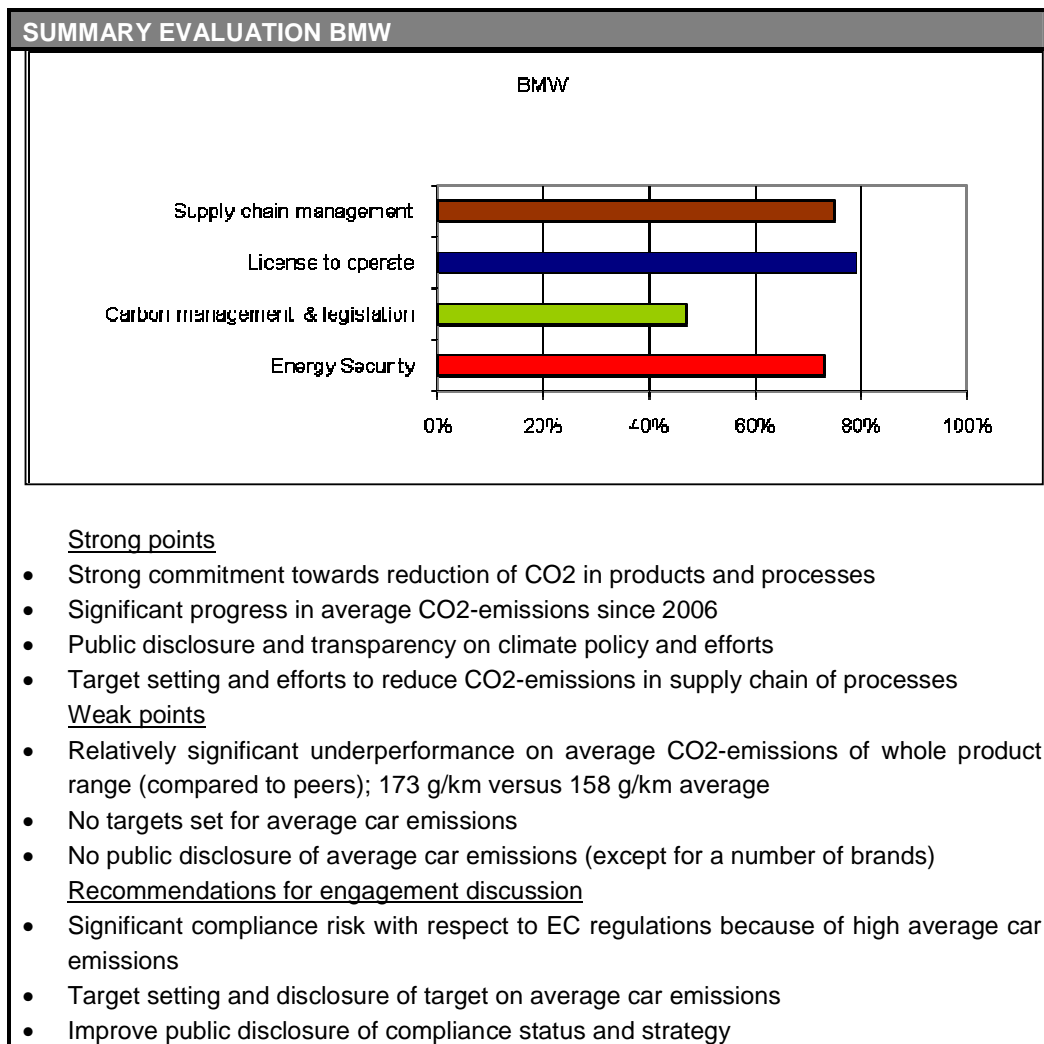
3 CLIMATE & ENERGY SCORECARDS

3.1 BMW

Company profile

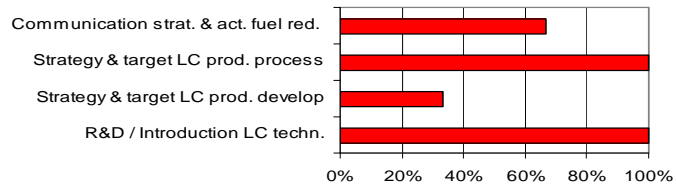
Along with its automotive concerns, the BMW Group's activities comprise the development, production and marketing of motorcycles, as well as comprehensive financial services for private and business customers. With BMW, MINI and Rolls-Royce Motor Cars, the BMW Group is the world's only car maker to pursue a purely premium strategy for all market sectors covered by its brands, from exclusive smaller cars to top-of-the-range luxury limousines. Premium is the key word for BMW Group motorcycles as well. BMW Group activities worldwide are co-ordinated from the corporation's head office in Munich and covers operations in over 150 countries.

Overall score

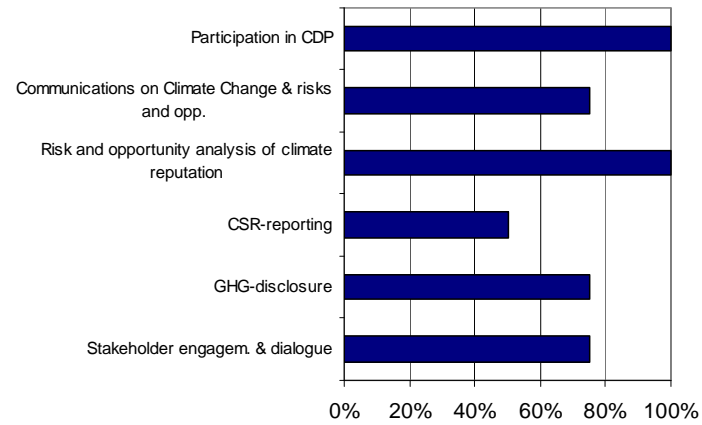


OVERVIEW SCORES PER CATEGORY BMW

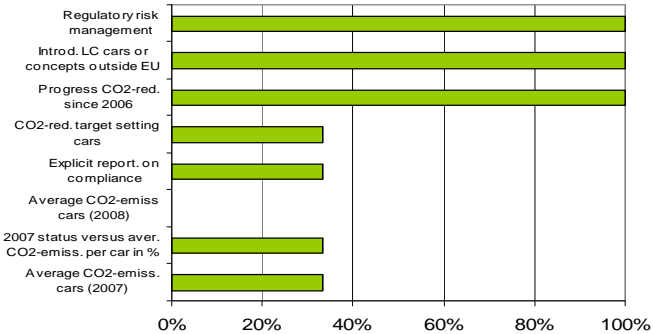
Energy Security



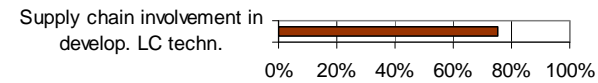
License to operate



Carbon management & legislation



Supply chain management

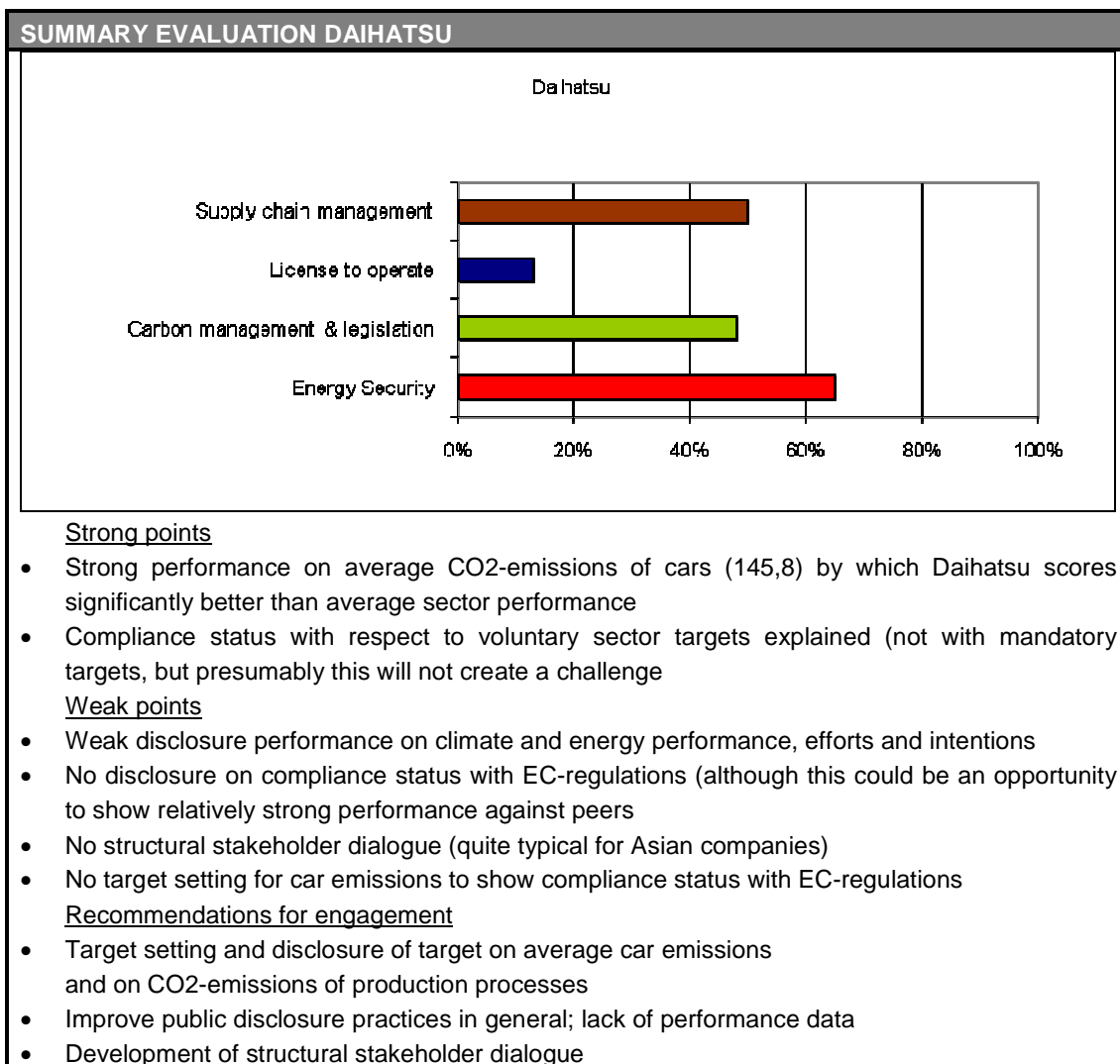


3.2 Daihatsu

Company profile

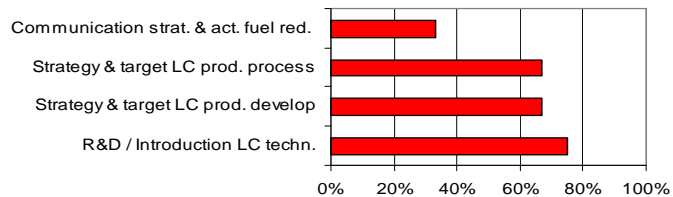
Daihatsu Motor Co. is a Japanese manufacturer of cars, well known for its smaller models and off-road vehicles. Daihatsu was formed in 1951 as successor organization to Hatsudoki, and by the 1960s had started exporting cars to Europe, although it did not enjoy any major sales success until well into the 1980s. Since February 1992 in North America, it has been common for Toyota to distribute Daihatsu models. Number of employees: over 13.000. Market focus: manufacture, sale and repair of automobiles, industrial and other vehicles and parts. Manufacture, sale and repair of engines, machines, fixtures and parts. Domestic sales: 616.000 units; exports 157.000 units.

Overall score

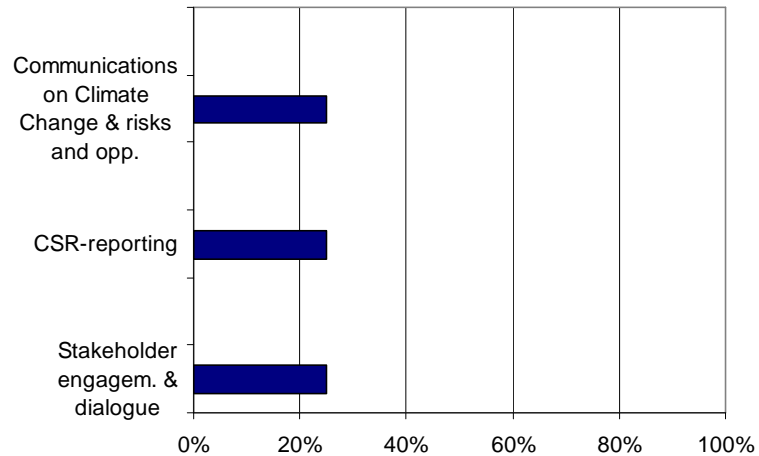


OVERVIEW SCORES PER CATEGORY DAIHATSU

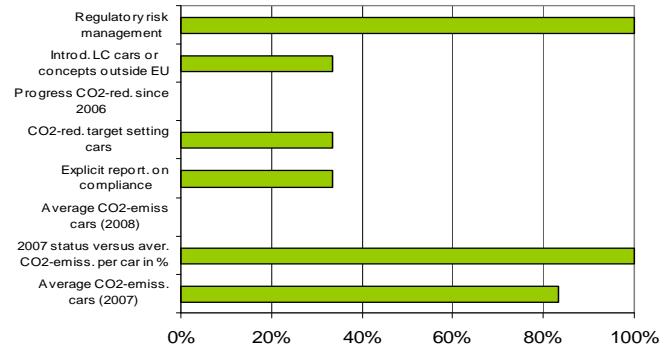
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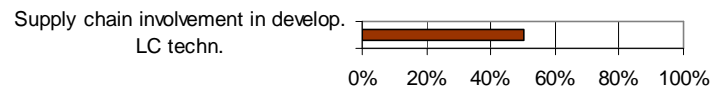
License to operate



Carbon management & legislation



Supply chain management

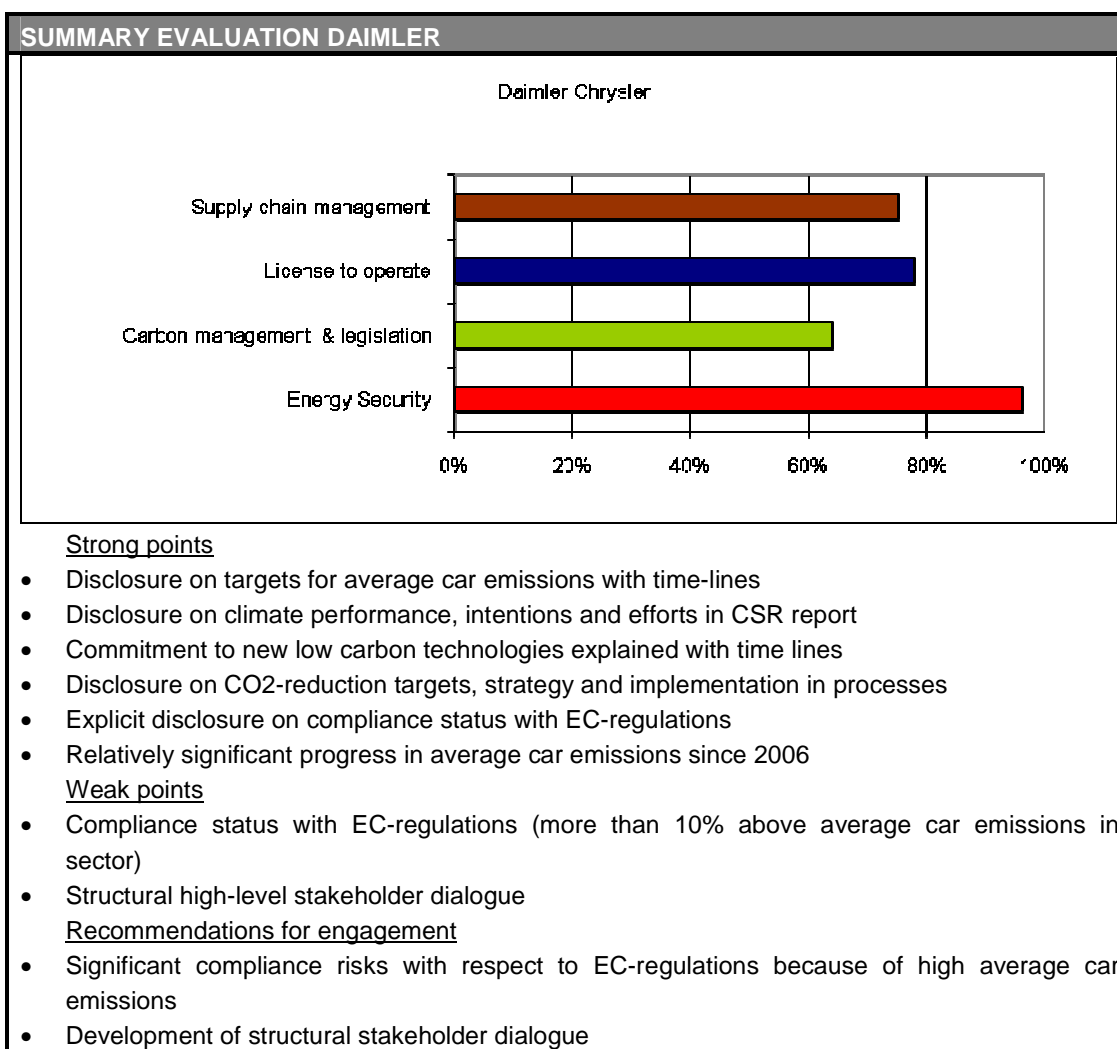


3.3 Daimler

Company profile

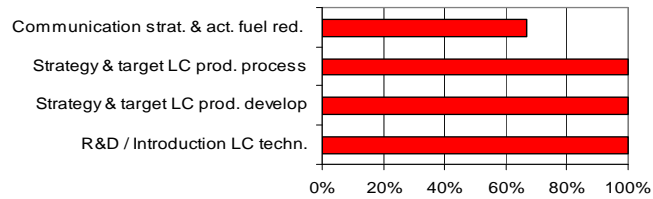
Daimler AG, Stuttgart, with its businesses Mercedes-Benz Cars, Daimler Trucks, Daimler Financial Services, Mercedes-Benz Vans and Daimler Buses, is a globally leading producer of premium passenger cars and the global market leader of heavy- and medium-duty trucks as well as busses. The Daimler Financial Services division has a broad offering of financial services, including vehicle financing, leasing, insurance and fleet management. Daimler sells its products in nearly all the countries of the world and has production facilities on five continents. The current brand portfolio includes the world's most valuable automobile brand, Mercedes-Benz, as well as Smart, Maybach, Freightliner, Western Star, Mitsubishi Fuso, Setra, Orion and Thomas Built Buses. In 2008, the Group sold 2.1 million vehicles and employed a workforce of over 270,000 people.

Overall score

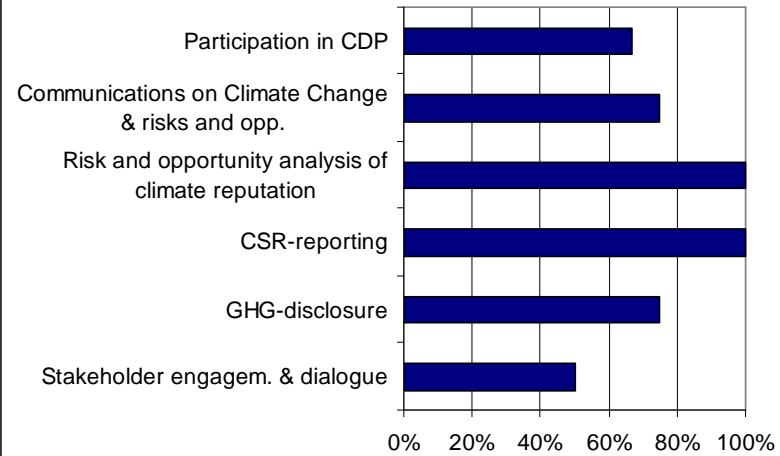


OVERVIEW SCORES PER CATEGORY DAIMLER

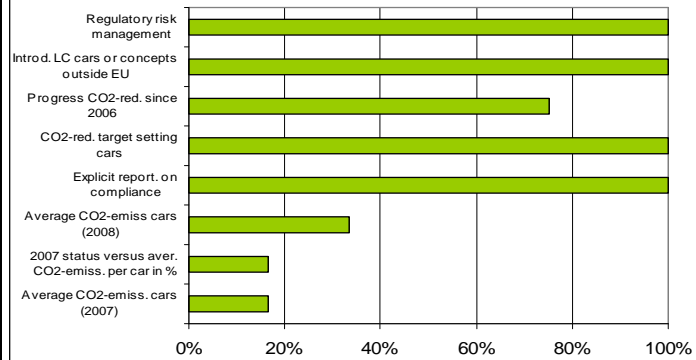
Energy Security



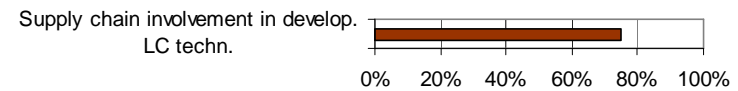
License to operate



Carbon management & legislation



Supply chain management

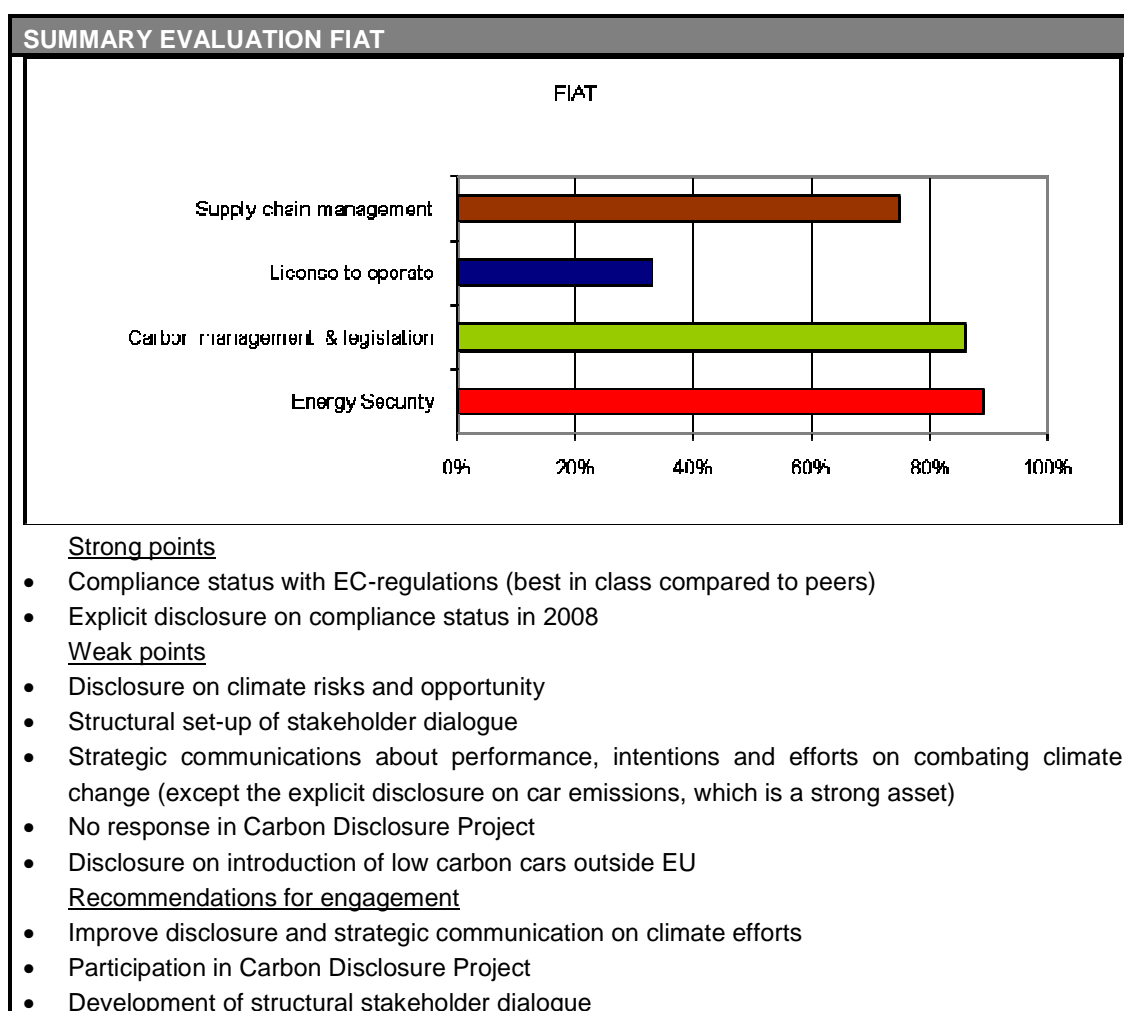


3.4 Fiat

Company profile

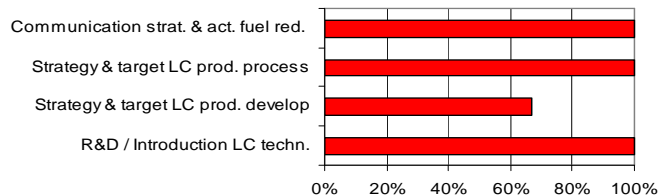
The Fiat Group is the largest industrial enterprise in Italy and one of the founders of the European motor industry. Right from the outset, the company had a strong propensity for international expansion and innovation. Fiat is an automotive-focused industrial Group and designs and manufactures automobiles, trucks, wheel loaders, excavators, telehandlers, tractors and combine harvesters. Fiat carries out its industrial and financial services activities through companies located in 50 countries and commercial relationships with customers in over 190 countries.

Overall score

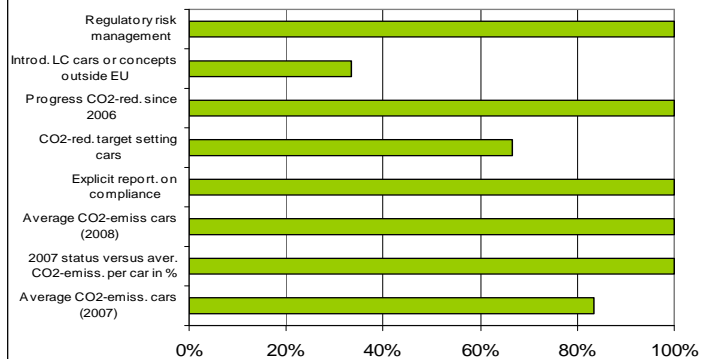


OVERVIEW SCORES PER CATEGORY FIAT

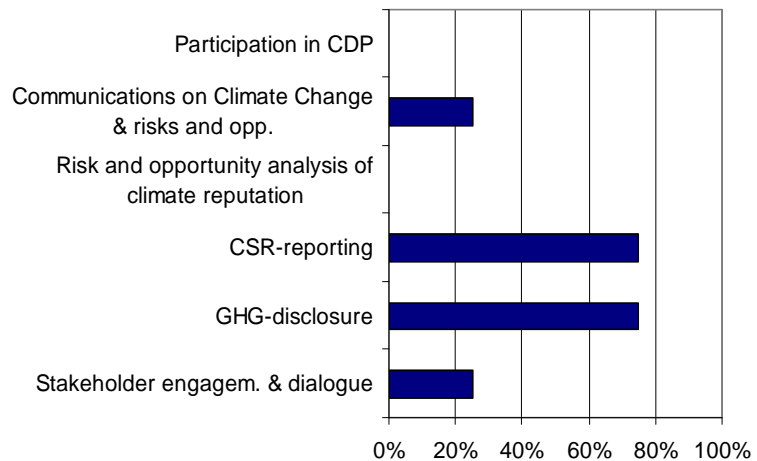
Energy Security



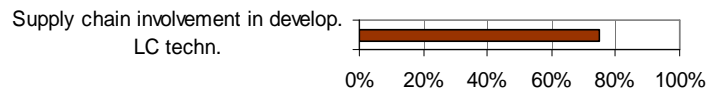
Carbon management & legislation



License to operate



Supply chain management

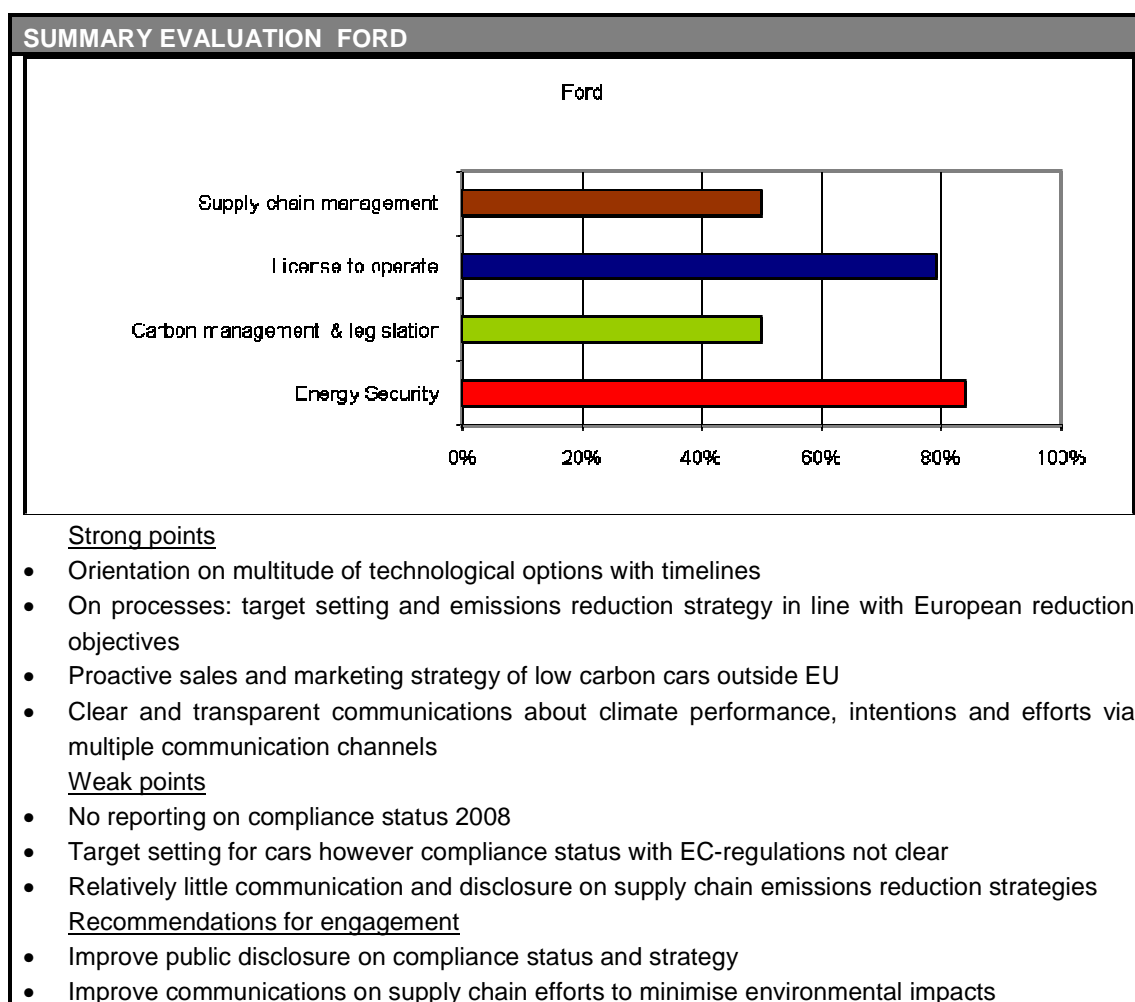


3.5 Ford

Company profile

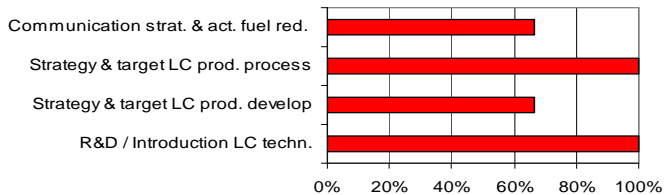
Ford is the third largest automobile manufacturer in the world. It manufactures and distributes automobiles in 200 markets across six continents. Ford employs about 246,000 people worldwide and produce passenger cars, trucks, engines, transmissions, castings and forgings and metal stampings of all kinds at 95 wholly owned, equity-owned and joint venture plants around the world. From the Model T—the car that first brought driving to the people—to more recent favorites like the Mustang in the United States, the Mondeo in Europe, the EcoSport in South America and the Territory in Asia, Ford vehicles have been among the world's most popular cars, trucks and SUVs.

Overall score

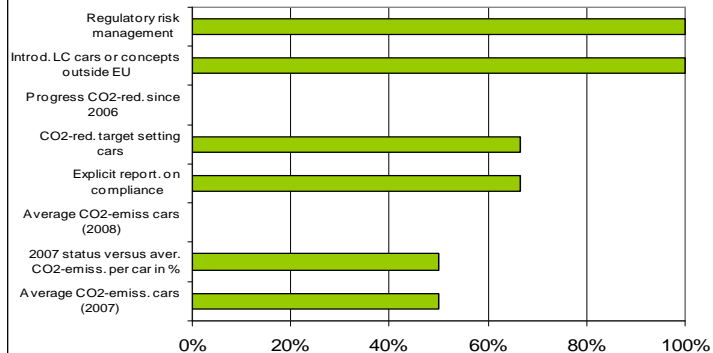


OVERVIEW SCORES PER CATEGORY FORD

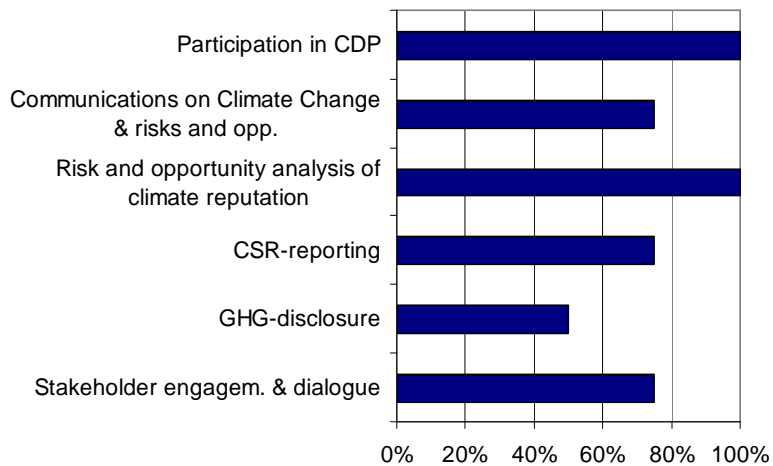
Energy Security



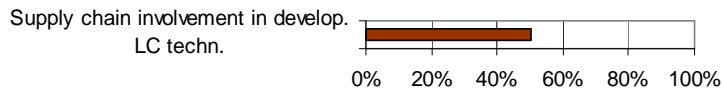
Carbon management & legislation



License to operate



Supply chain management

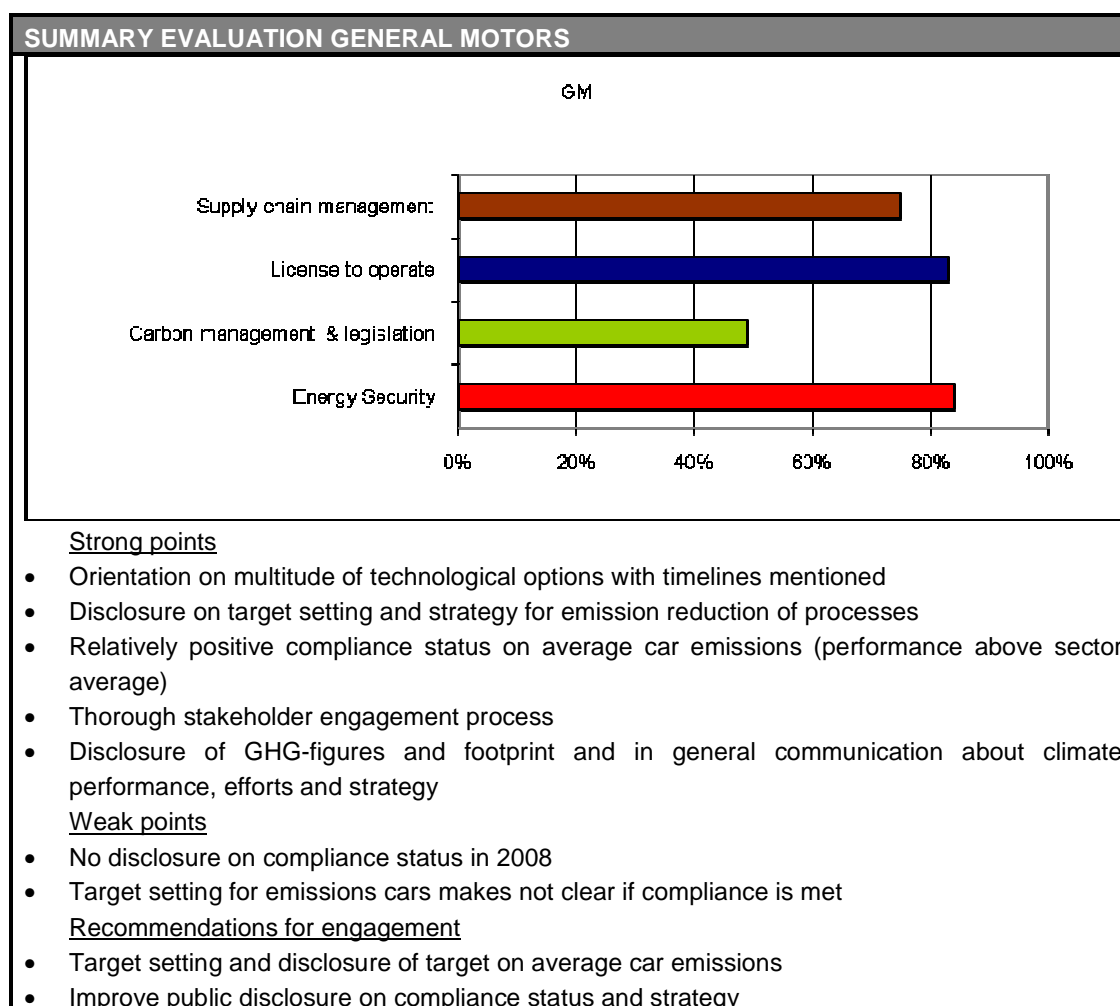


3.6 General Motors

Company profile

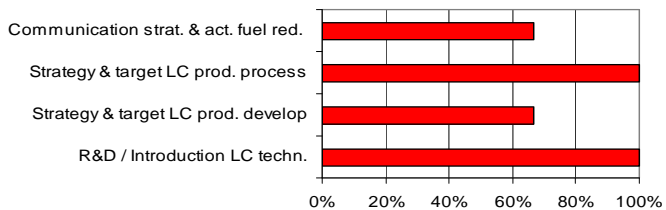
General Motors Corp. (NYSE: GM), one of the world's largest automakers, was founded in 1908, and today manufactures cars and trucks in 34 countries. With its global headquarters in Detroit, GM employs 244,500 people in every major region of the world, and sells and services vehicles in some 140 countries. In 2008, GM sold 8.35 million cars and trucks globally under the following brands: Buick, Cadillac, Chevrolet, GMC, GM Daewoo, Holden, HUMMER, Opel, Pontiac, Saab, Saturn, Vauxhall and Wuling. GM's largest national market is the United States, followed by China, Brazil, the United Kingdom, Canada, Russia and Germany.

Overall score

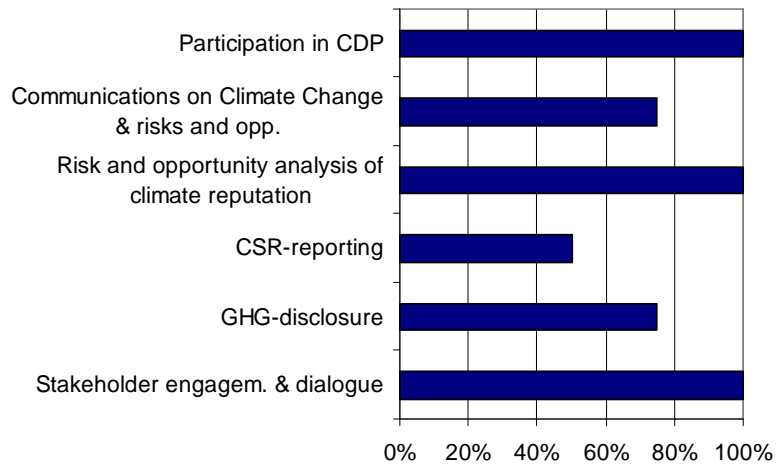


OVERVIEW SCORES PER CATEGORY GENERAL MOTORS

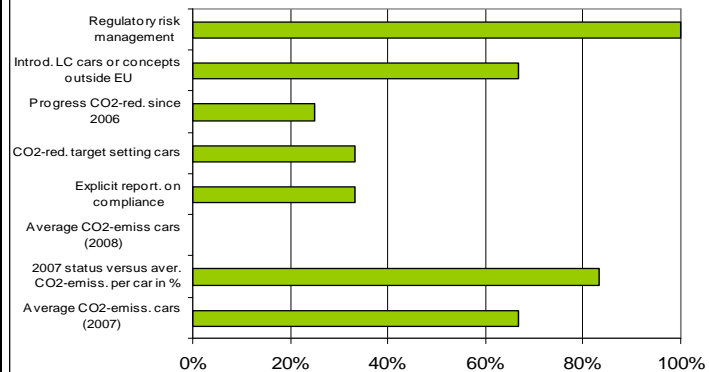
Energy Security



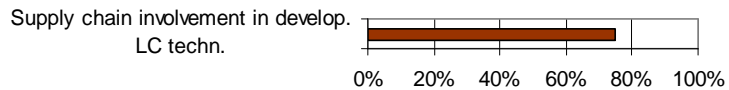
License to operate



Carbon management & legislation



Supply chain management

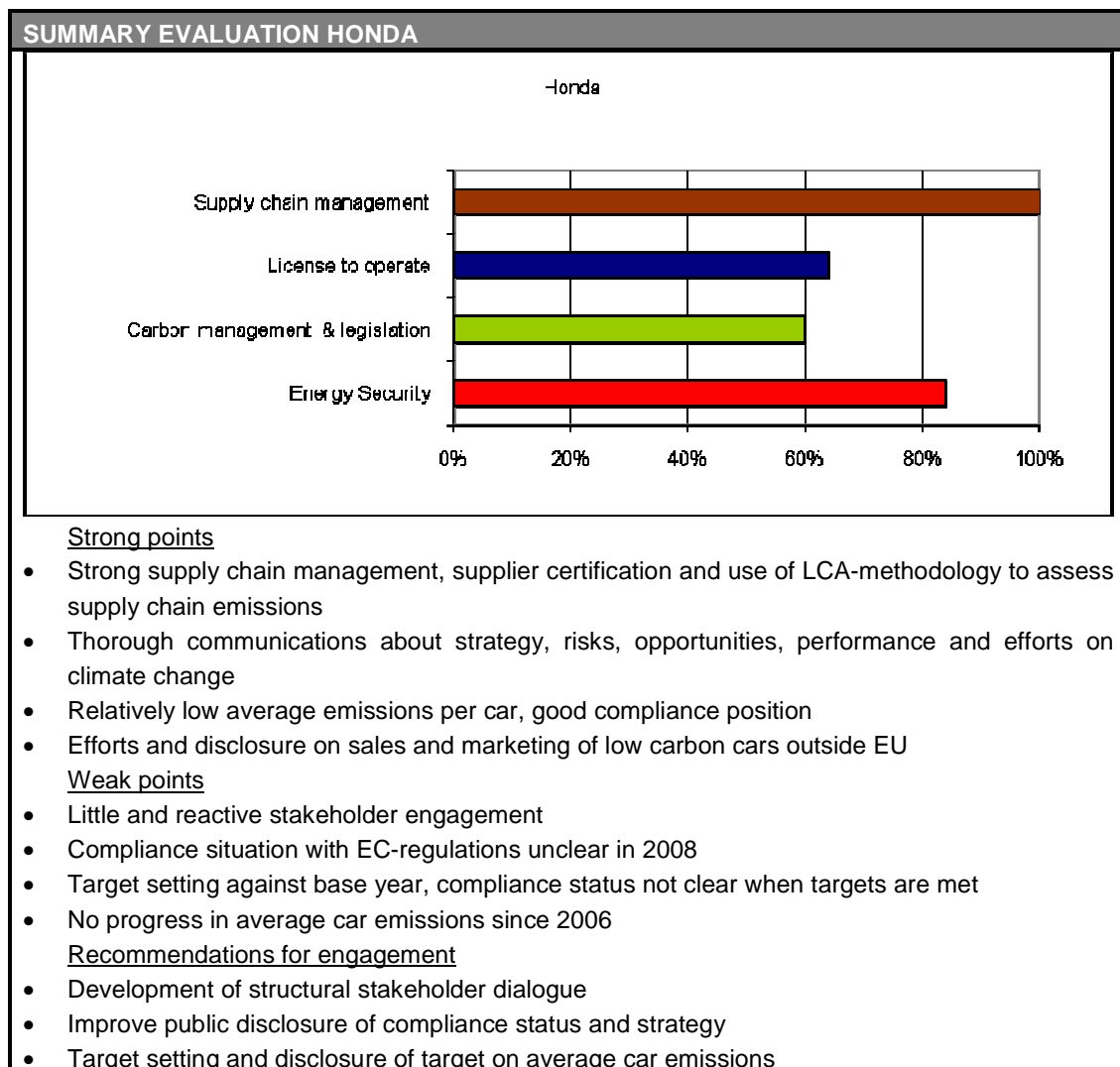


3.7 Honda

Company profile

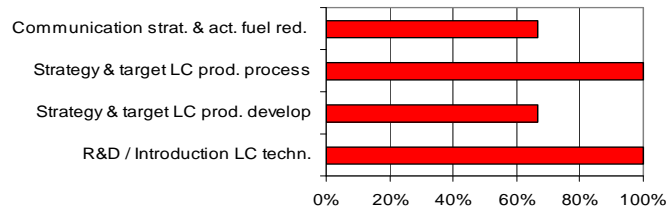
Honda was established in 1948. With headquarters in Japan the Company has grown to become the world's largest motorcycle manufacturer and one of the leading automakers. With a global network of 501* subsidiaries and affiliates accounted for under the equity method, Honda develops, manufactures and markets a wide variety of products, ranging from small general-purpose engines and scooters to specialty sports cars, to earn the Company an outstanding reputation from customers worldwide. Total number of employees: over 178.000. Chief products are motorcycles, automobiles and power products.

Overall score

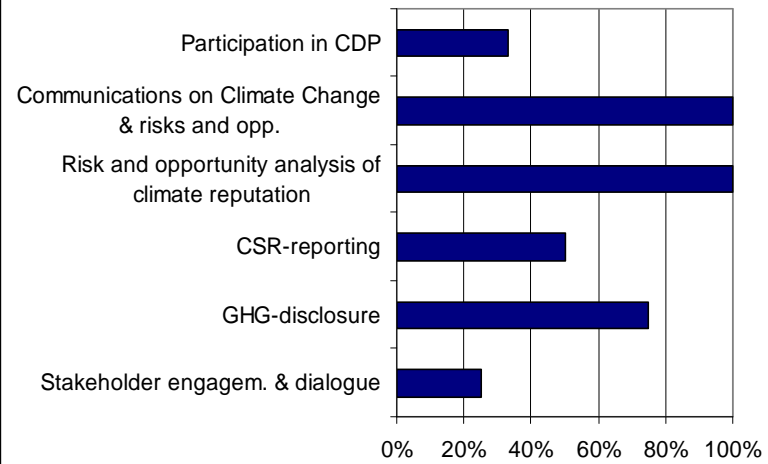


OVERVIEW SCORES PER CATEGORY HONDA

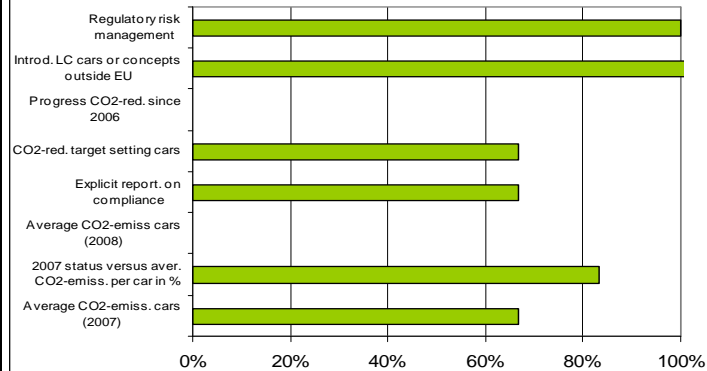
Energy Security



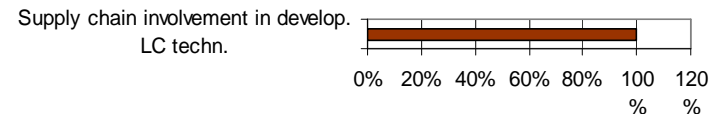
License to operate



Carbon management & legislation



Supply chain management

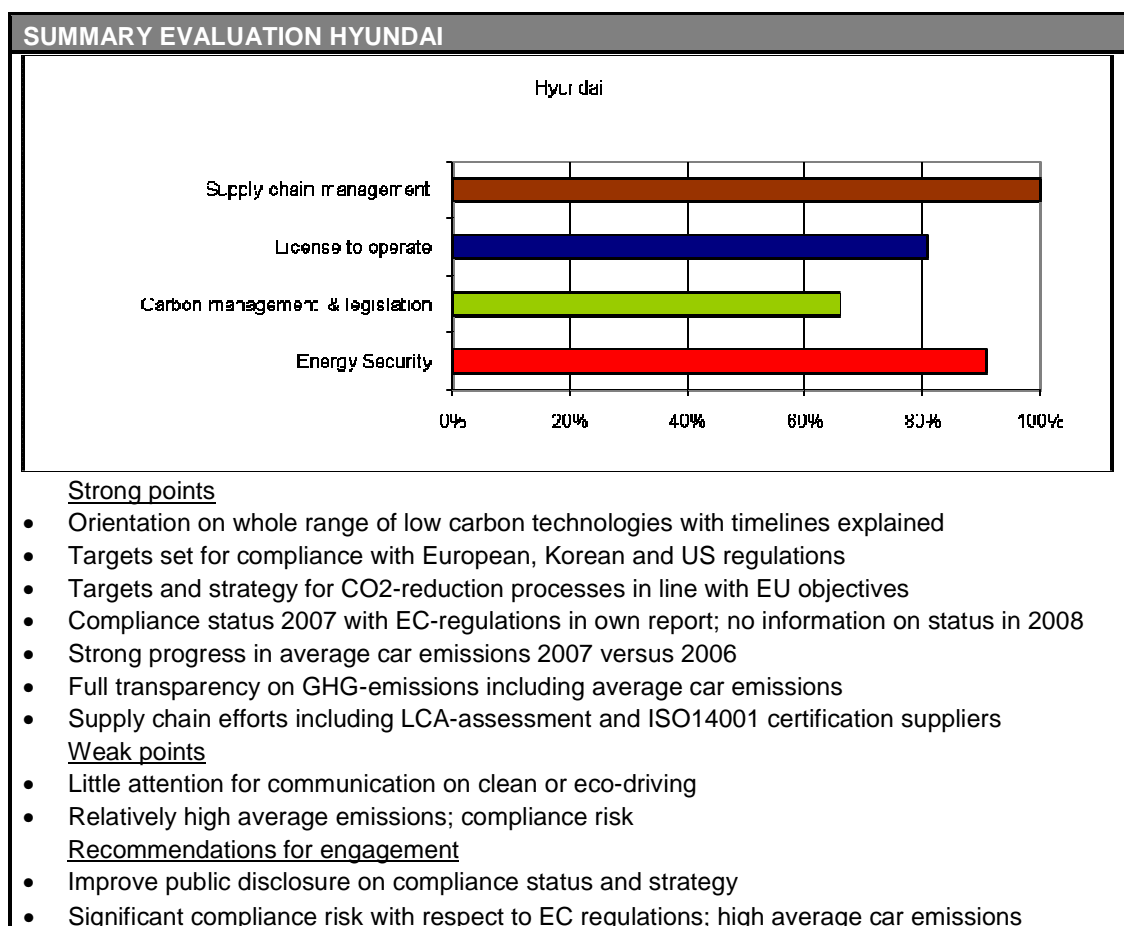


3.8 Hyundai

Company profile

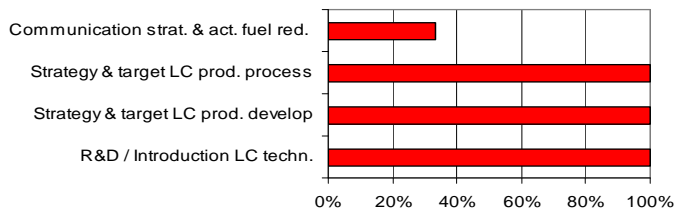
Hyundai is a group of companies founded by Chung Ju-yung in South Korea. The first Hyundai company was founded in 1947 as a construction company, and the Hyundai Group eventually became South Korea's largest conglomerate company (Jaebeol). Some of the best-known Hyundai organization are Hyundai Motor Company - the world's 5th largest automaker, Hyundai Heavy Industries - the world's largest shipbuilder, and Hynix - a top semiconductor manufacturer. Hyundai Group underwent a massive restructuring following the 1997 East Asian financial crisis and the founder's death in 2001. Today many companies are bearing the name Hyundai but are legally unrelated to the Hyundai Group. Some of the larger former members of the conglomerate include Hyundai Group, Hyundai Kia Automotive Group, Hyundai Department Store Group, Hyundai Heavy Industries Group, and Hyundai Development Group. Following the separation, Hyundai Group's business remains manufacturing of elevators, container shipping services, and tourism.

Overall score

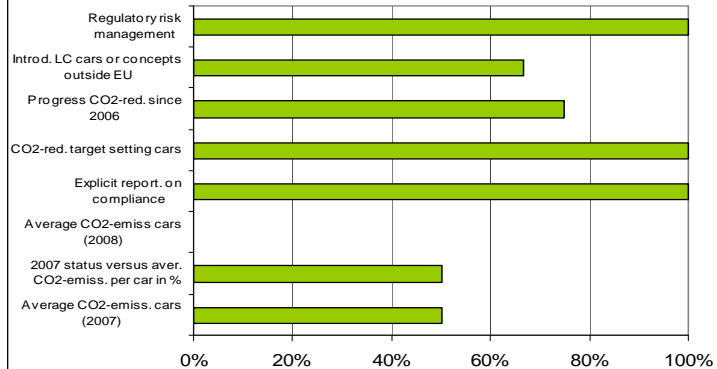


OVERVIEW SCORES PER CATEGORY HYUNDAI

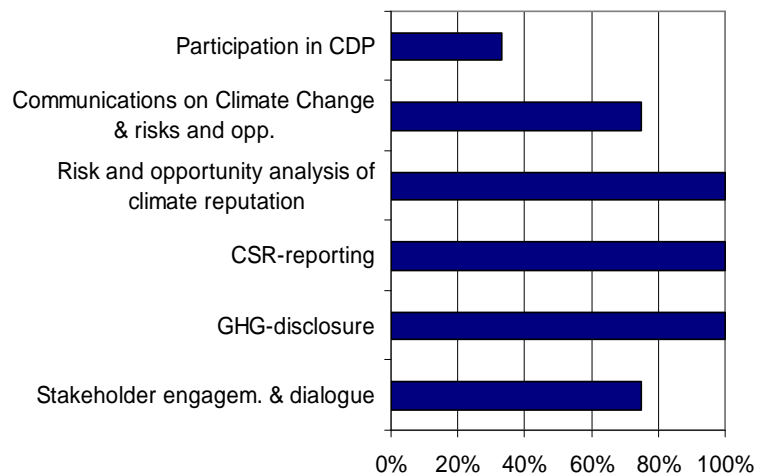
Energy Security



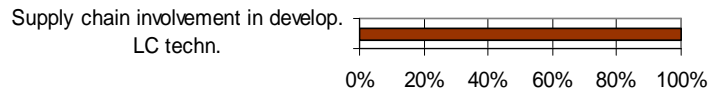
Carbon management & legislation



License to operate



Supply chain management

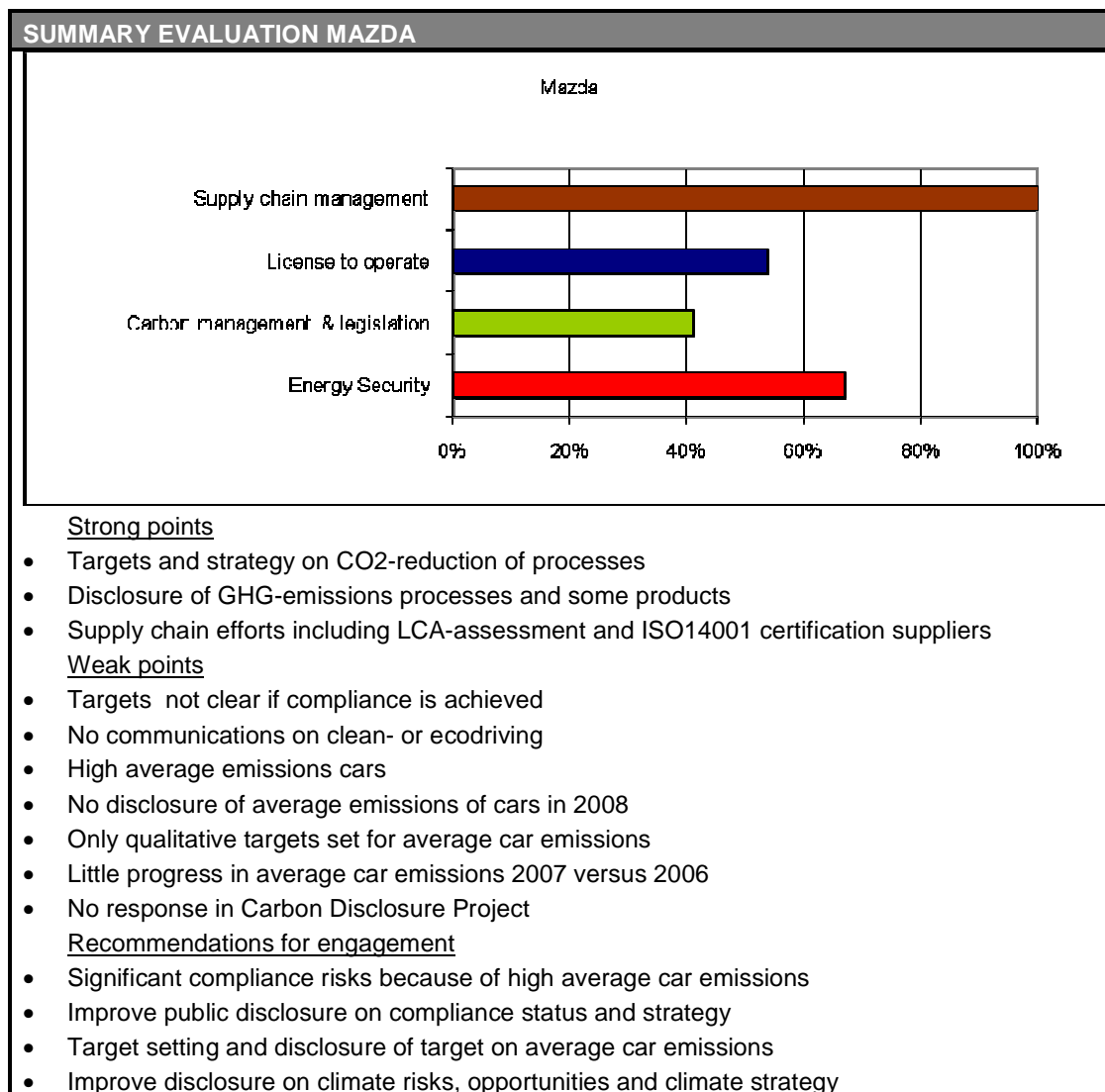


3.9 Mazda Motor Corporation

Company profile

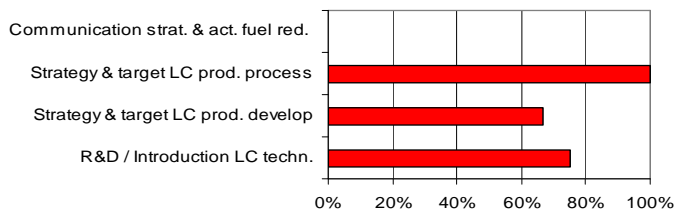
Mazda Motor Corporation is a Japanese automotive manufacturer based in Hiroshima, Japan. Company was founded in 1920. main business lines: manufacture and sales of passenger cars and commercial vehicles. Number of employees over 21.000. Principal products four-wheeled vehicles, gasoline reciprocating engines, diesel engines, rotary engines, automatic and manual transmissions for vehicles. During 2007, Mazda produced almost 1.3 million vehicles for global sales. The majority of these (nearly 1 million) were produced in the company's Japanese plants, with the remainder coming from a variety of other plants worldwide.

Overall score

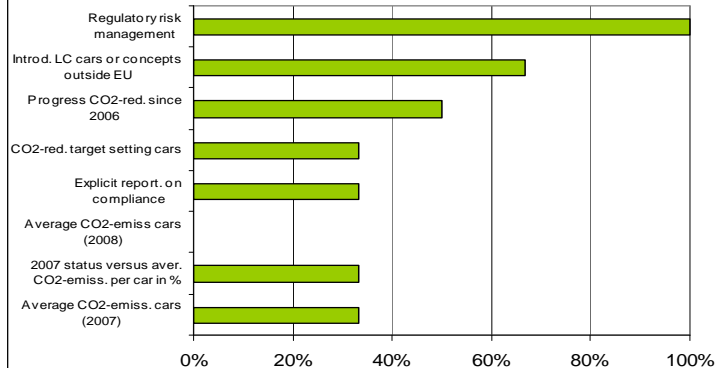


OVERVIEW SCORES PER CATEGORY MAZDA

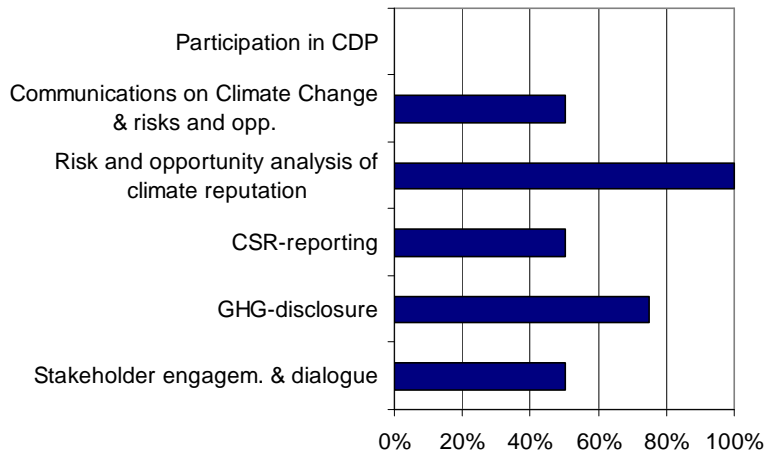
Energy Security



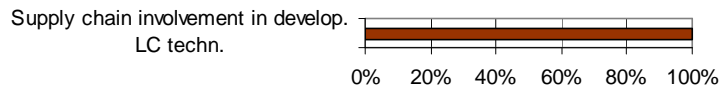
Carbon management & legislation



License to operate



Supply chain management

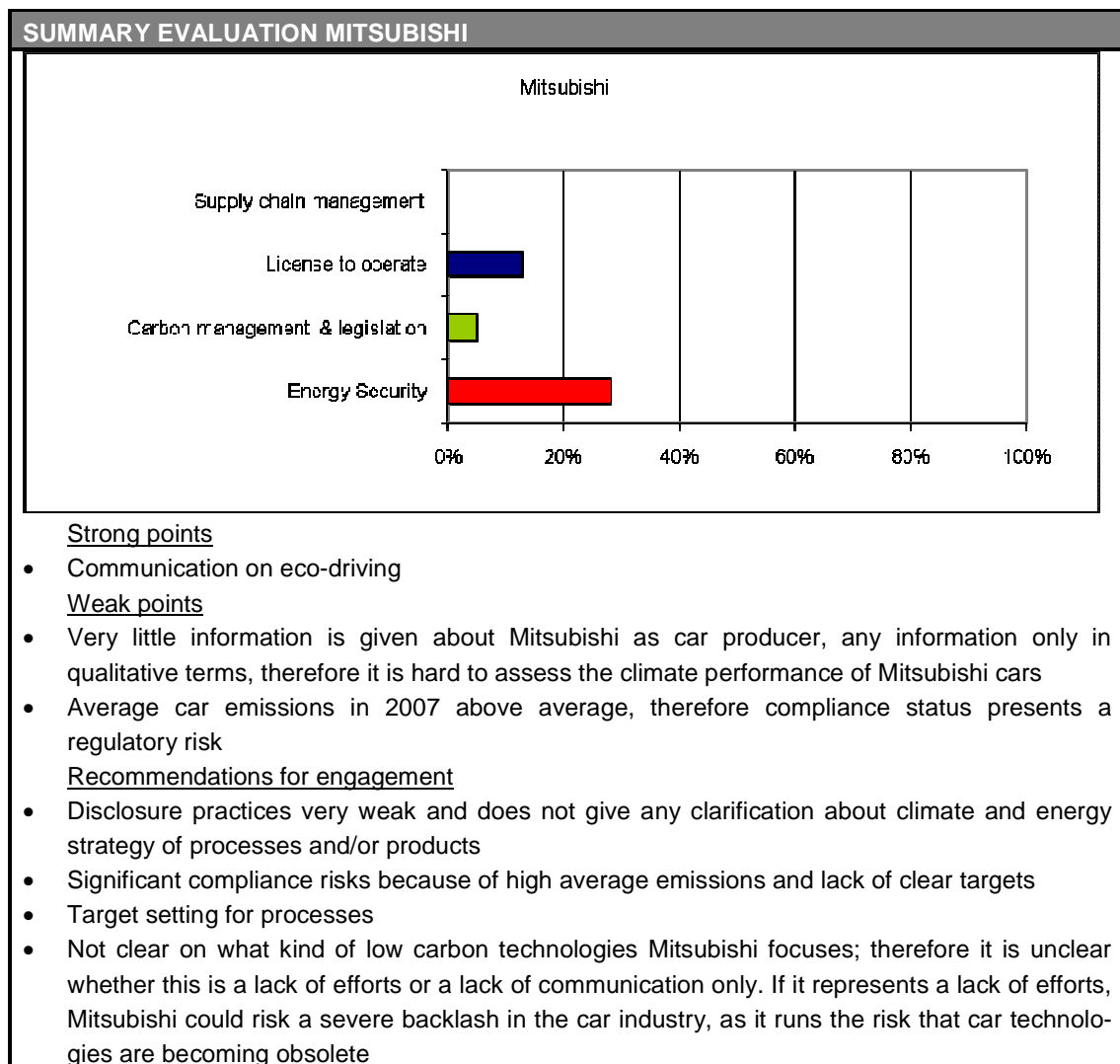


3.10 Mitsubishi

Company profile

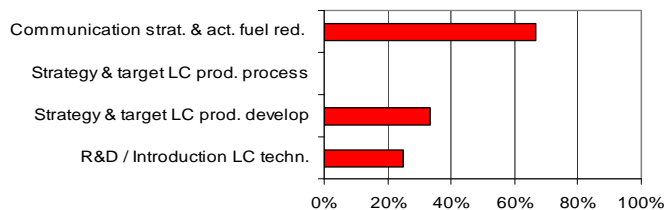
Mitsubishi Corporation (MC) is Japan's largest general trading company with over 200 bases of operations in approximately 80 countries worldwide. Together with its over 500 group companies, MC employs a multinational workforce of approximately 60,000 people. MC has long been engaged in business with customers around the world in virtually every industry, including energy, metals, machinery, chemicals, food and general merchandise.

Overall score

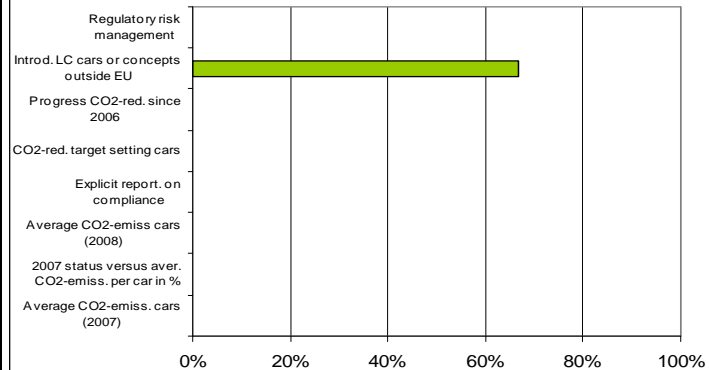


OVERVIEW SCORES PER CATEGORY MITSUBISHI

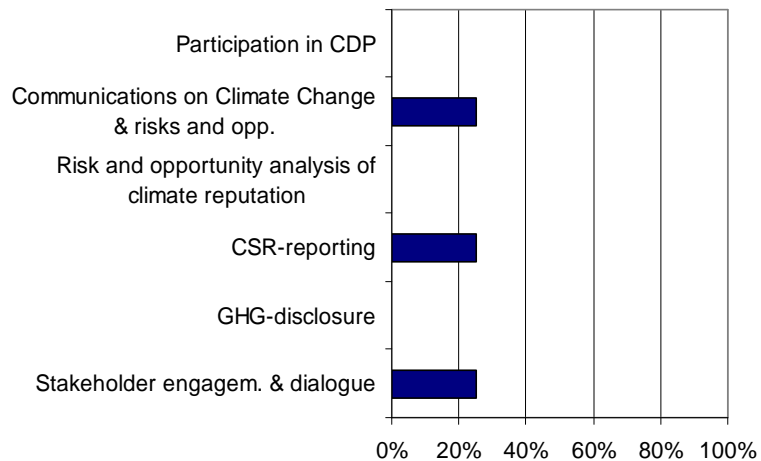
Energy Security



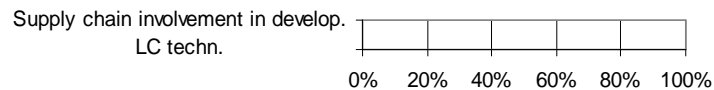
Carbon management & legislation



License to operate



Supply chain management

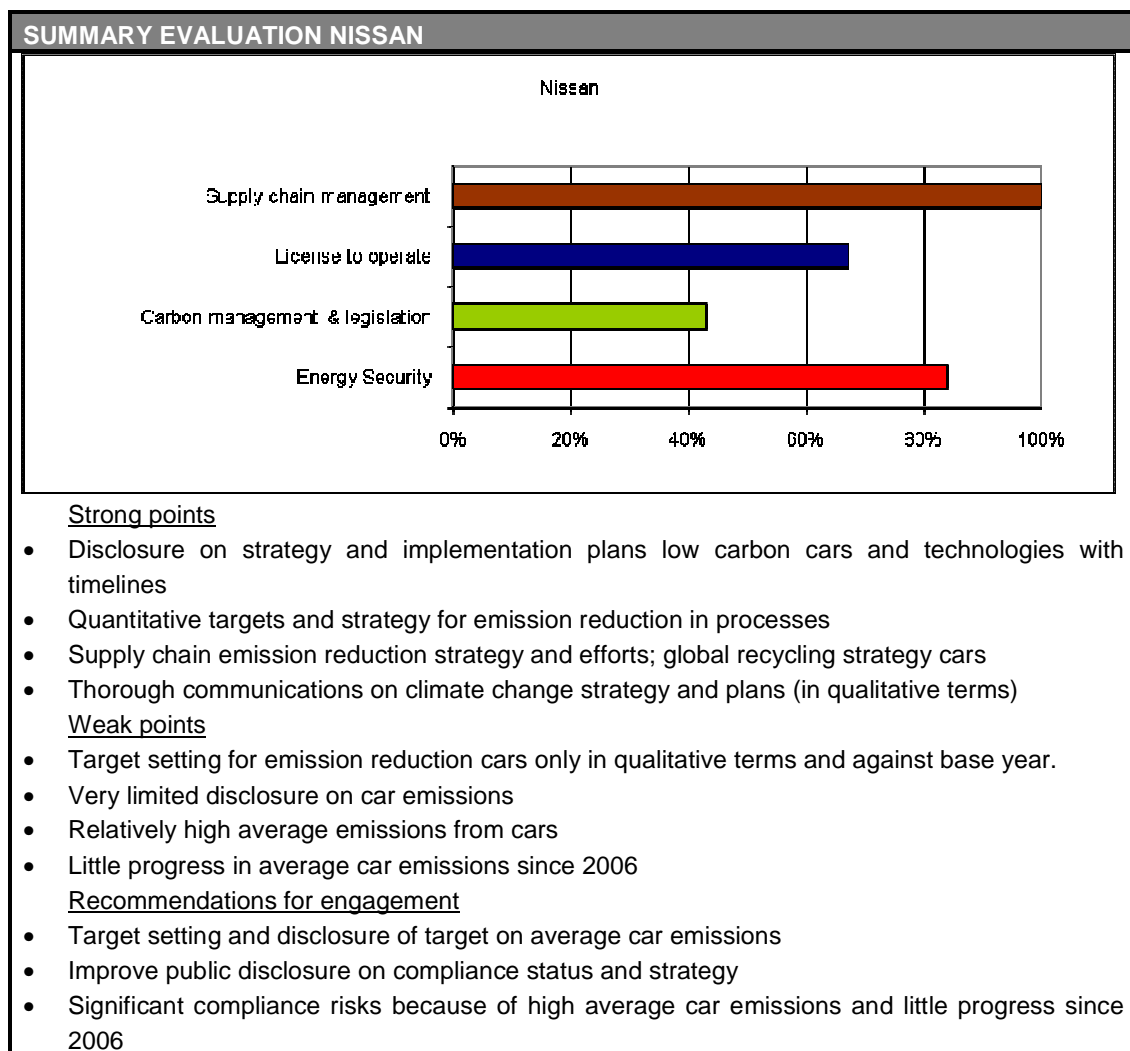


3.11 Nissan

Company profile

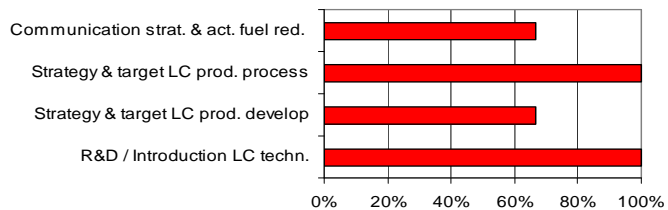
Based in Tokyo Japan; business Outline Manufacturing, sales and related business of automotive products, industrial machinery and marine equipment. Number of Employees 180,535
 Renault holds a 44.3% stake in Nissan, while Nissan owns 15% of Renault shares. Each company has a direct interest in the results of its partner. Renault-Nissan B.V.*, the common strategic management structure of the Renault-Nissan group, was founded on March 28, 2002. Incorporated under Dutch law, Renault-Nissan B.V. is equally owned by Renault and Nissan. Renault-Nissan B.V. is the registered office of the Alliance Board, which meets regularly in Paris and Tokyo.

Overall score

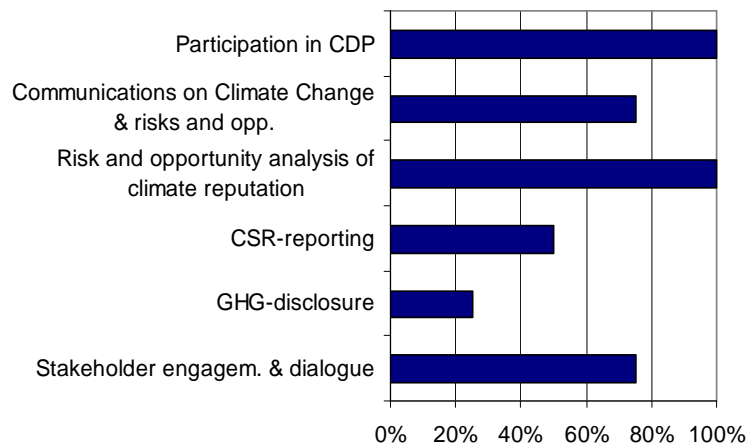


OVERVIEW SCORES PER CATEGORY NISSAN

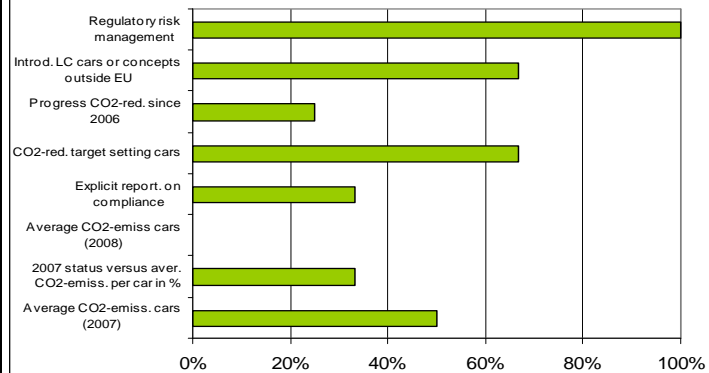
Energy Security



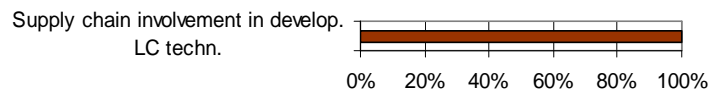
License to operate



Carbon management & legislation



Supply chain management

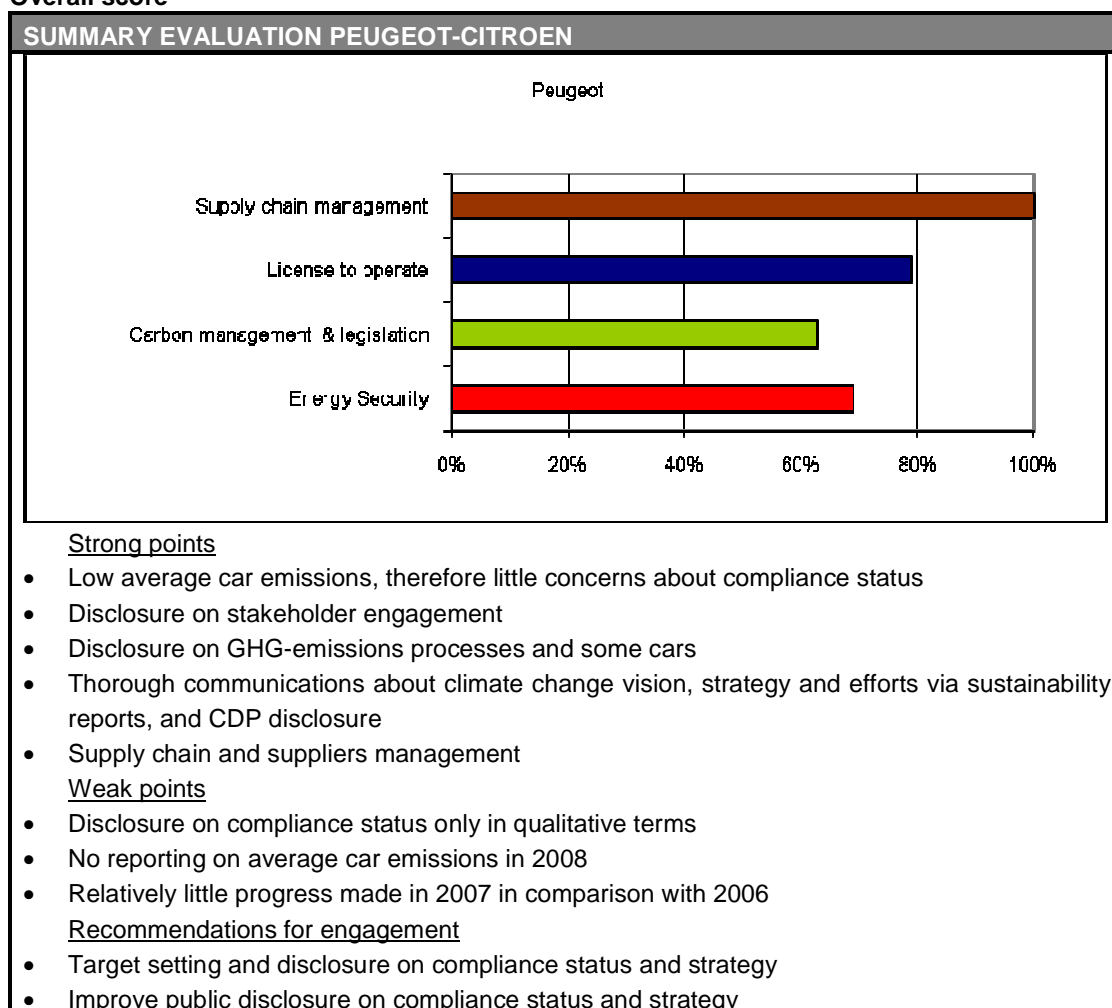


3.12 PSA (Peugeot Citroen)

Company profile

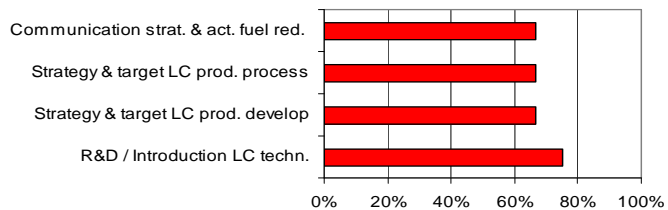
PSA Peugeot Citroën comprises two strong and clearly differentiated brands : Peugeot and Citroën. Each one has its own identity and its own commercial policy. In 2008, 1 904 000 vehicles (vehicles and CKDs) were sold in the world by Peugeot. The range of eco-friendly vehicles has enabled PSA Peugeot Citroën to confirm its environmental leadership. For the 3rd consecutive year, global sales of vehicles emitting less than 140 g de CO₂/km was well above the one-million threshold at 1,161,000. Worldwide sales of vehicles emitting less than 130g of CO₂/km rose in 2008 to 921,000 units, up 7.4%.

Overall score

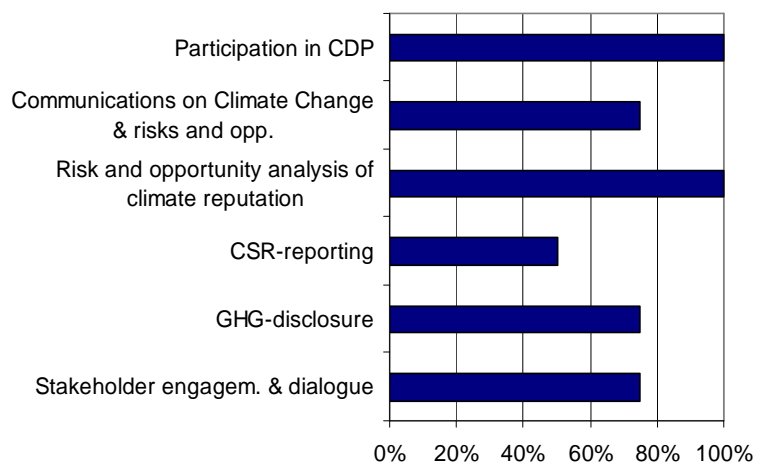


OVERVIEW SCORES PER CATEGORY PEUGEOT-CITROEN

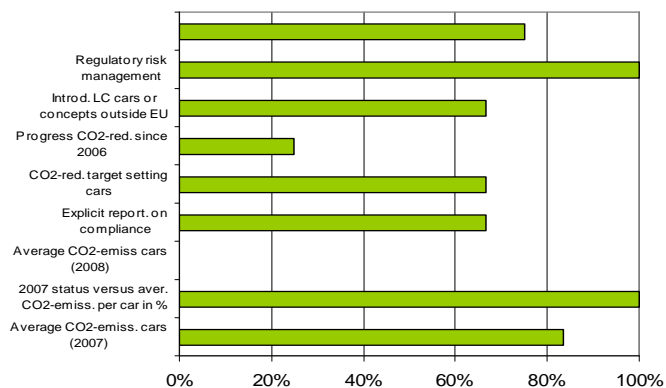
Energy Security



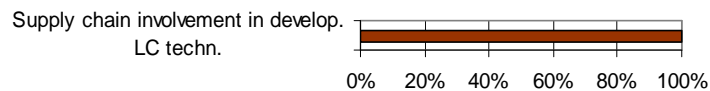
License to operate



Carbon management & legislation



Supply chain management

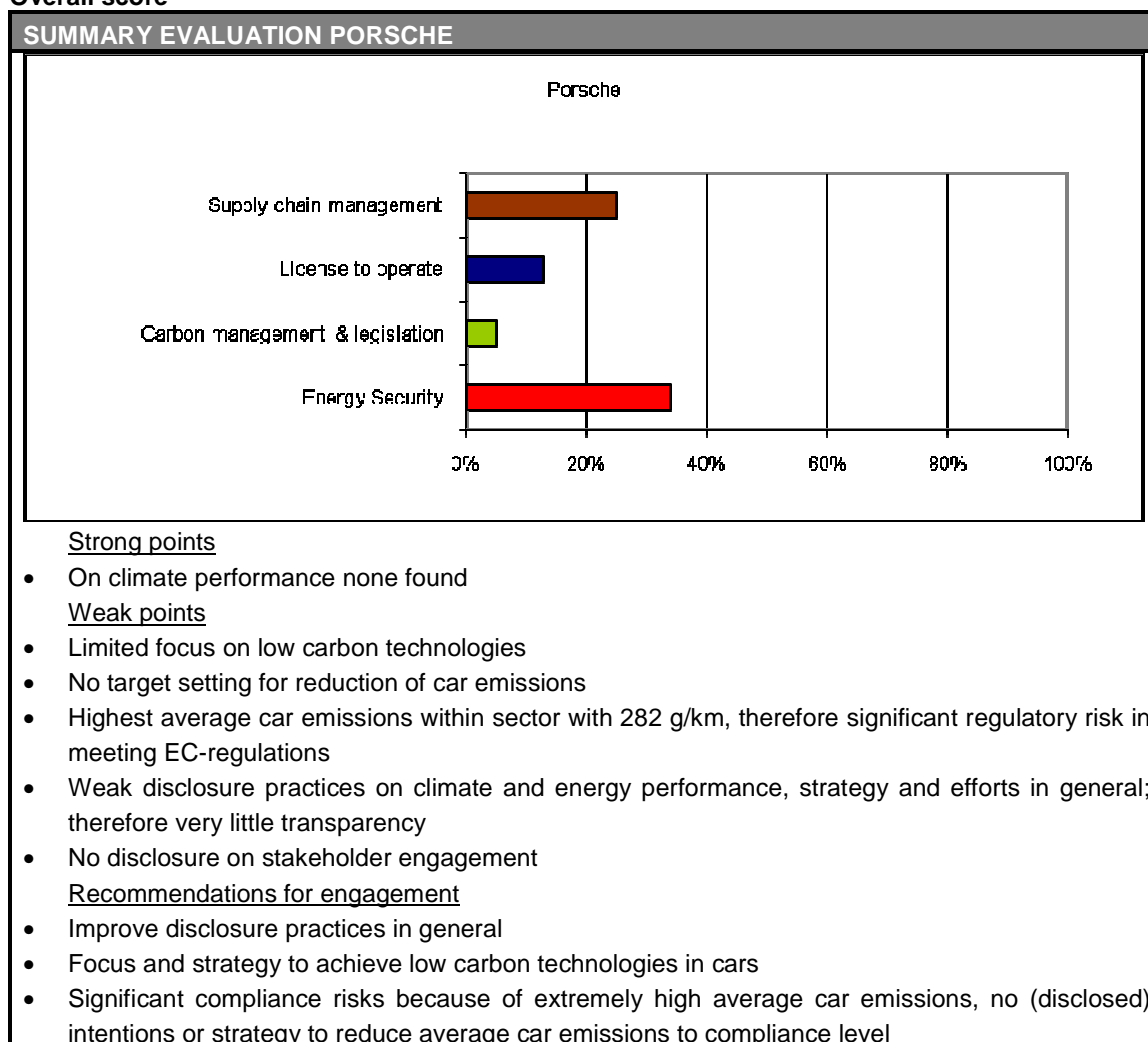


3.13 Porsche

Company profile

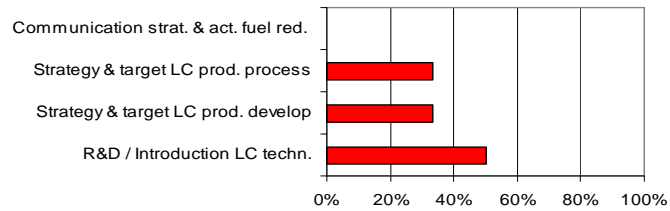
Porsche SE or Porsche is a German manufacturer of luxury automobiles, which is majority-owned by the Porsche and Piëch families. Porsche SE holds two chief assets, the first of which is Dr. Ing. h.c. F. Porsche AG (which stands for Doktor Ingenieur honoris causa Ferdinand Porsche Aktiengesellschaft), often shortened to Porsche AG, manufacturer of the Porsche automobile line. The second asset is a majority stake in Volkswagen AG, the largest car manufacturer in Europe. The company is headquartered in Zuffenhausen, a city district of Stuttgart, Baden-Württemberg. The company currently produces 911 (997), Boxster and Cayman sports cars and Cayenne sport utility vehicles. The latest model line, the four-door Panamera sedan, was launched on Monday, 20 April 2009.

Overall score

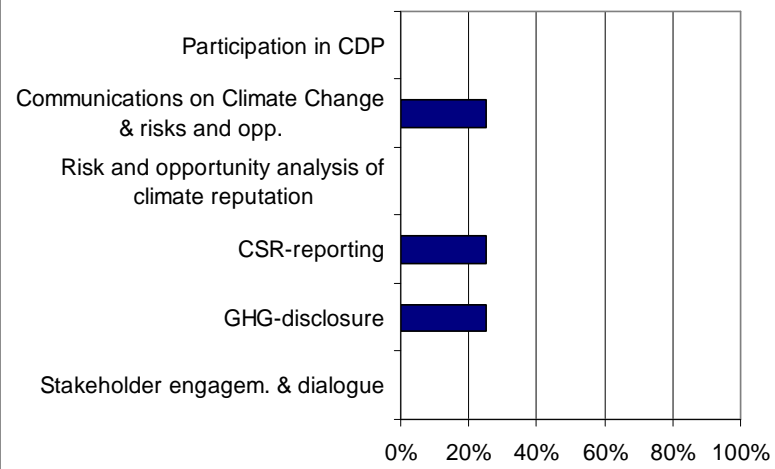


OVERVIEW SCORES PER CATEGORY PORSCHE

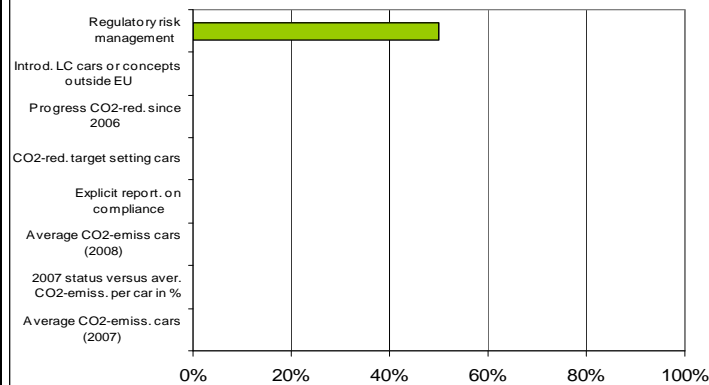
Energy Security



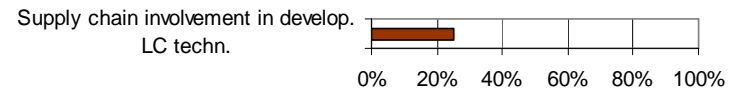
License to operate



Carbon management & legislation



Supply chain management

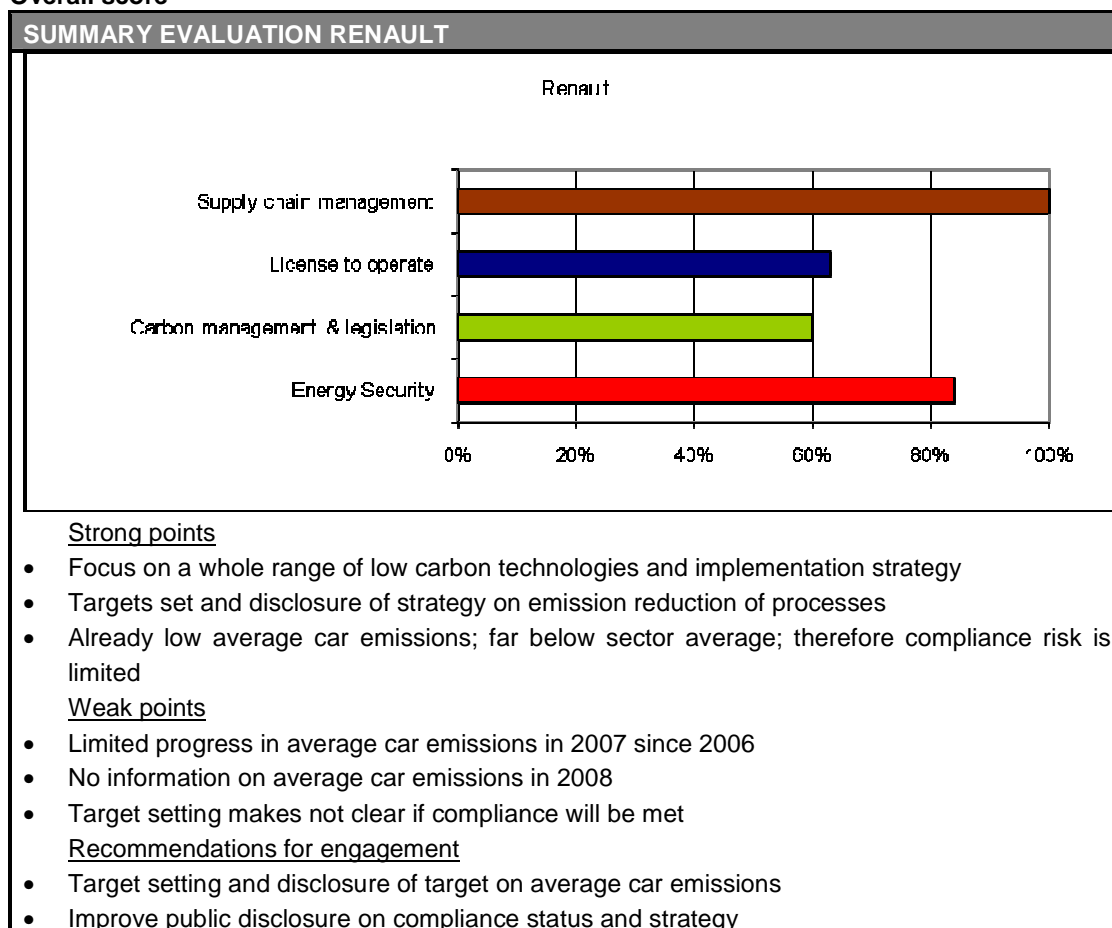


3.14 Renault

Company profile

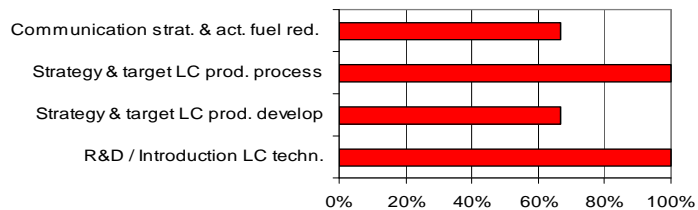
Renault S.A. (Euronext: RNO) is a French automaker producing cars, vans, buses, tractors, and trucks. Due to its alliance with Nissan, it is currently the world's 4th largest automaker. It owns the Romanian automaker Automobile Dacia and the Korean automaker Renault Samsung Motors. The company's most successful car to date is the Renault Clio, and its core market is France. The company is known for numerous revolutionary designs, security technologies, and motor racing.

Overall score

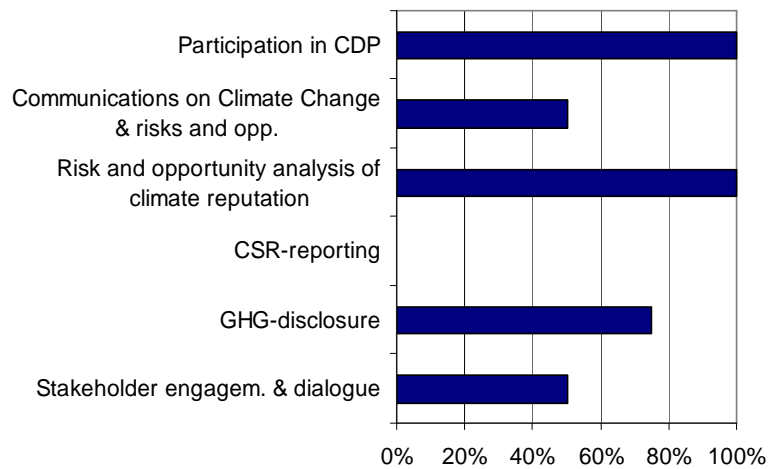


OVERVIEW SCORES PER CATEGORY RENAULT

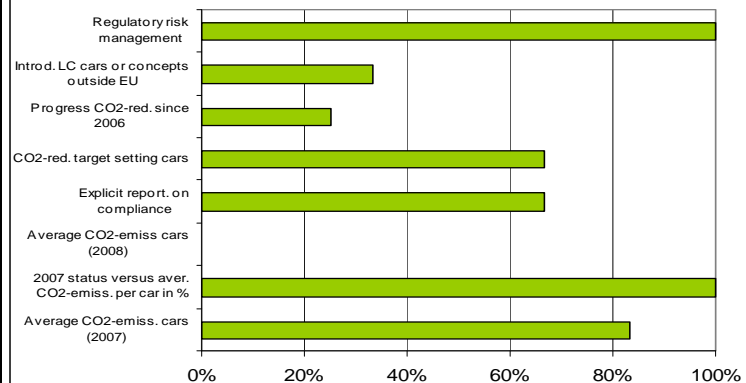
Energy Security



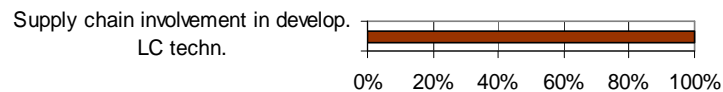
License to operate



Carbon management & legislation



Supply chain management

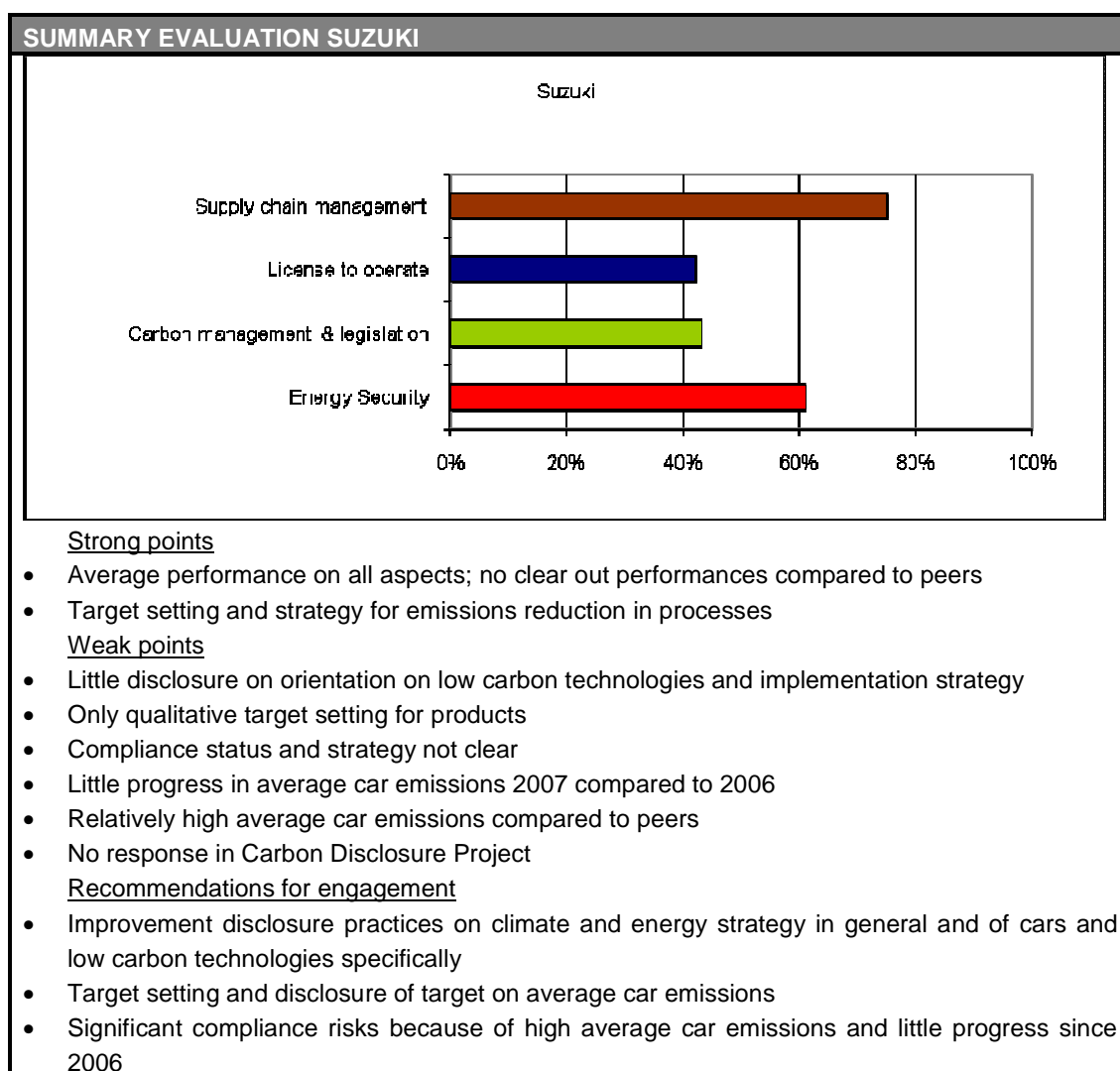


3.15 Suzuki

Company profile

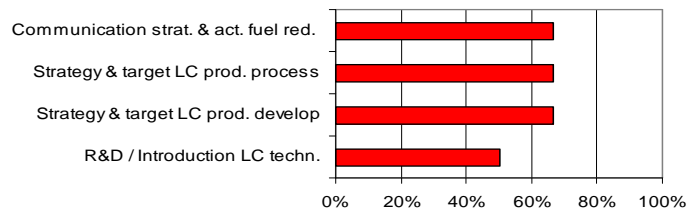
Suzuki Motor Corporation is a Japanese multinational corporation headquartered in Hamamatsu, Japan that specializes in manufacturing compact automobiles, a full range of motorcycles, All-Terrain Vehicles (ATVs), outboard marine engines, wheelchairs and a variety of other small internal combustion engines. Suzuki is the 12th largest automobile manufacturer in the world by production volume, employs over 45,000 people, has 35 main production facilities in 23 countries and 133 distributors in 192 countries.

Overall score

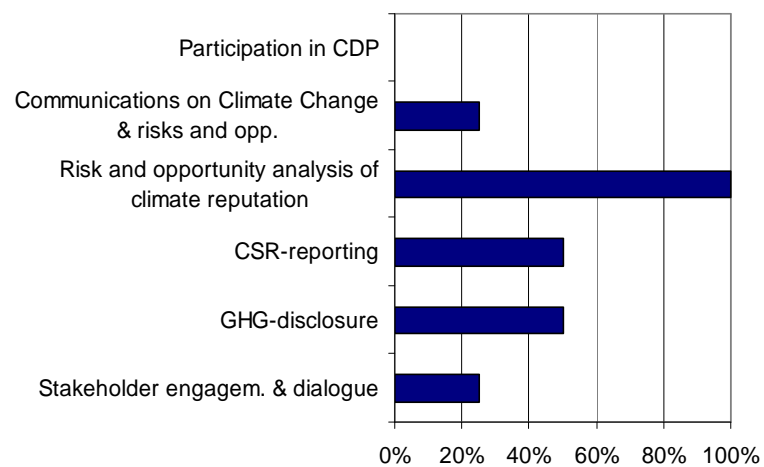


OVERVIEW SCORES PER CATEGORY SUZUKI

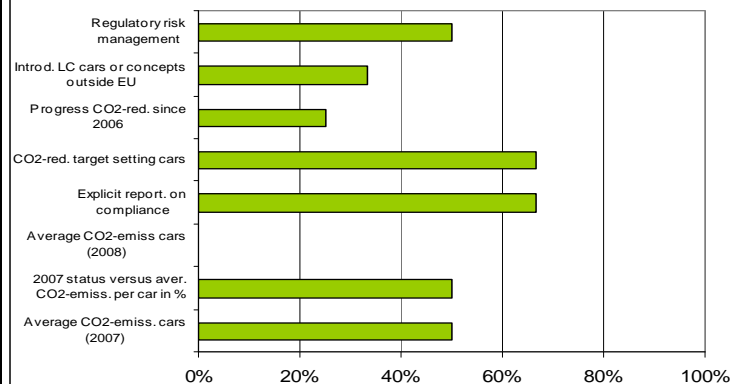
Energy Security



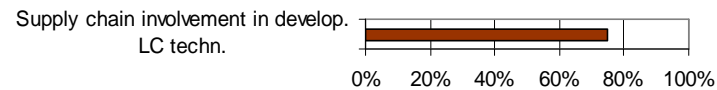
License to operate



Carbon management & legislation



Supply chain management

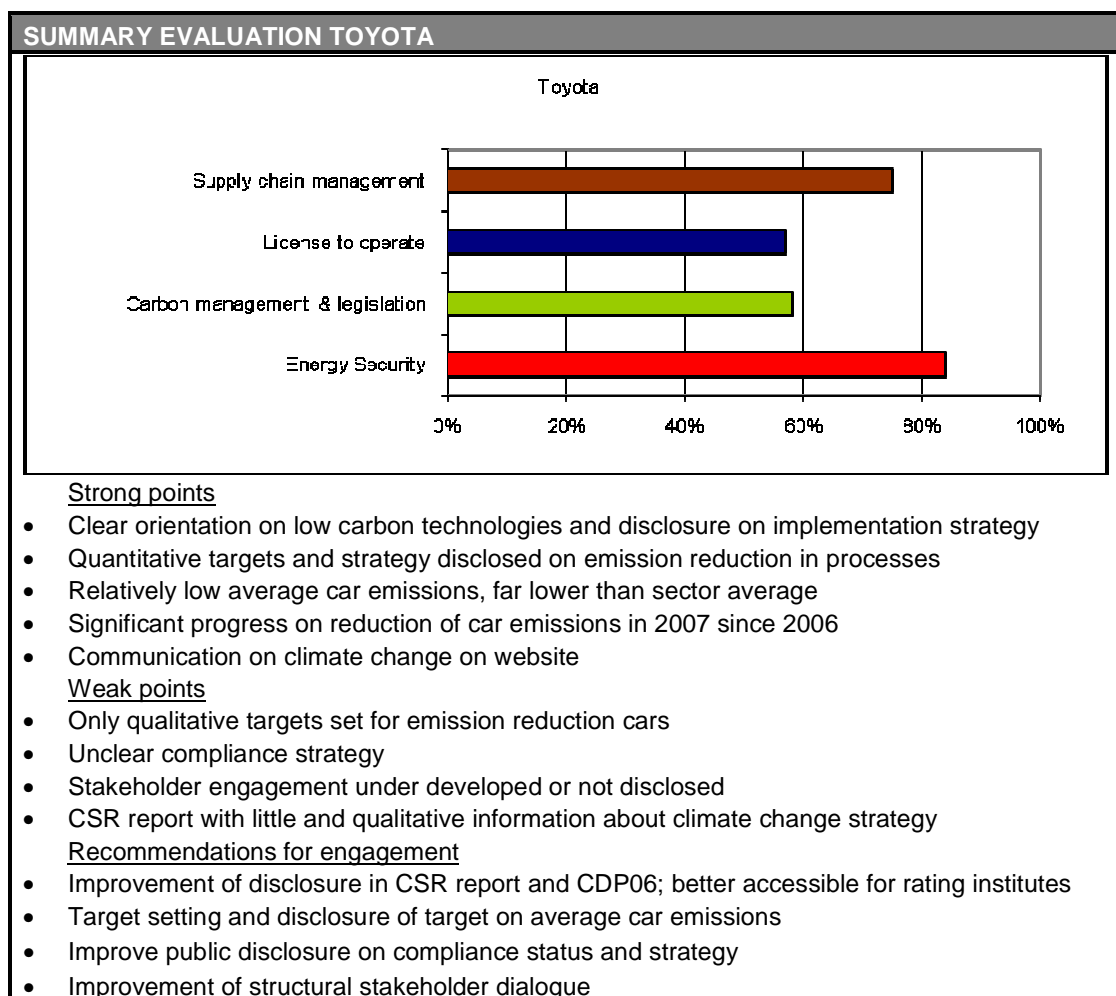


3.16 Toyota

Company profile

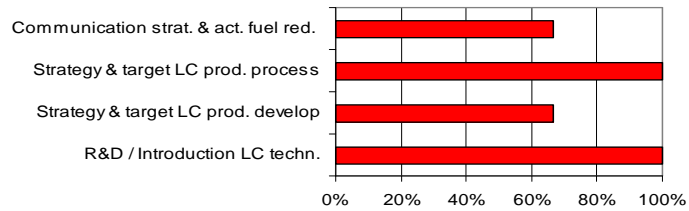
Toyota Motor Corporation headquartered in Japan, and is currently the world's largest automaker. Toyota employs approximately 316,000 people worldwide. In 1934, while still a department of Toyota Industries, it created its first product Type A engine and in 1936 its first passenger car the Toyota AA. The company was eventually founded by Kiichiro Toyoda in 1937 as a spinoff from his father's company Toyota Industries to create automobiles. Toyota also owns and operates Lexus and Scion brands and has a majority shareholding stake in Daihatsu and Hino Motors, and minority shareholdings in Fuji Heavy Industries, Isuzu Motors, and Yamaha Motors. The company includes 522 subsidiaries. Toyota is headquartered in Toyota City and Nagoya (both in Aichi), and in Tokyo. In addition to manufacturing automobiles, Toyota provides financial services through its division Toyota Financial Services and also creates robots. Toyota Industries and Finance divisions form the bulk of the Toyota Group, one of the largest conglomerates in the world.

Overall score

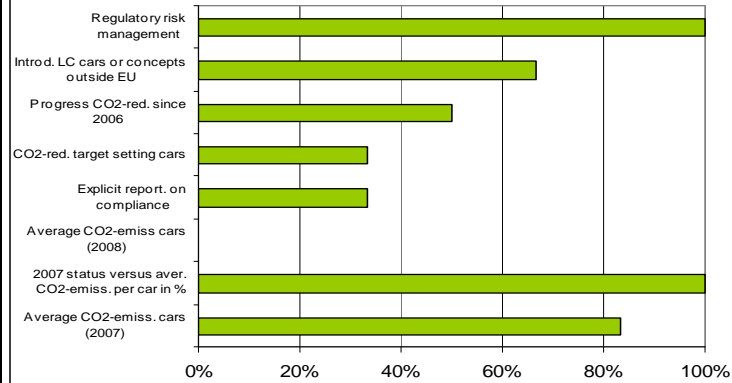


OVERVIEW SCORES PER CATEGORY TOYOTA

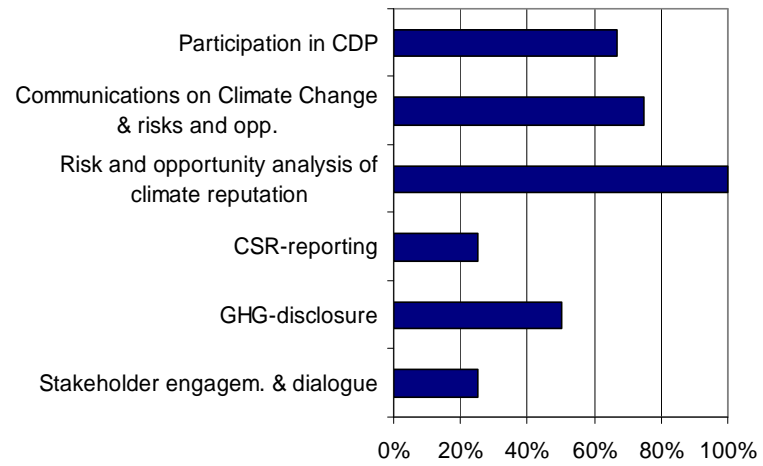
Energy Security



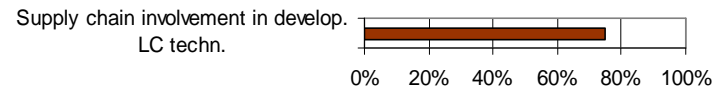
Carbon management & legislation



License to operate



Supply chain management

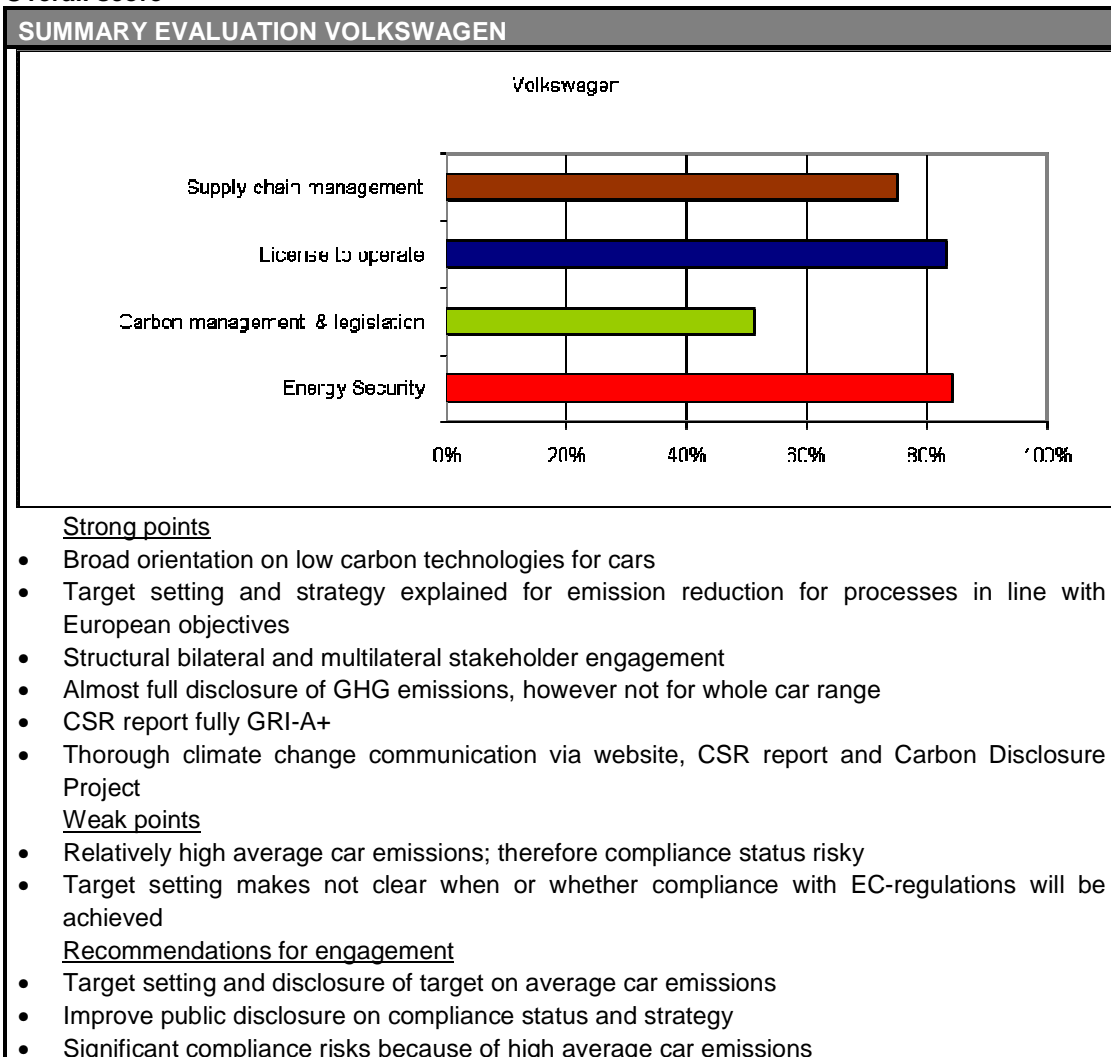


3.17 Volkswagen

Company profile

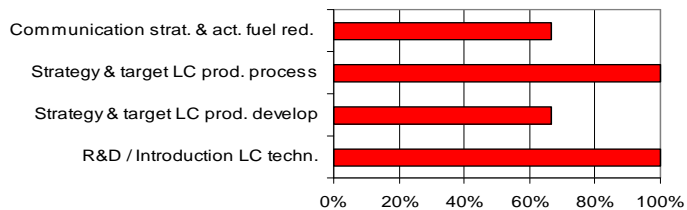
The Volkswagen Automobile Company, also known as Volkswagen Passenger Cars or just VW, is an automobile manufacturer based in Wolfsburg, Germany, and is the original brand within the Volkswagen Group, as well as the largest brand by sales volume. Volkswagen is recognized as one of the leading small diesel engine manufacturers, and is partnering with Mercedes and other companies to market BlueTec clean diesel technology, calling it BlueMotion. Volkswagen has offered a number of its vehicles with a TDI Turbocharged Direct Injection engine, which lends class-leading fuel economy to several models. According to the United States Environmental Protection Agency, four of the ten most fuel efficient vehicles available for sale in the U.S. in 2004 were powered by Volkswagen diesel engines.

Overall score

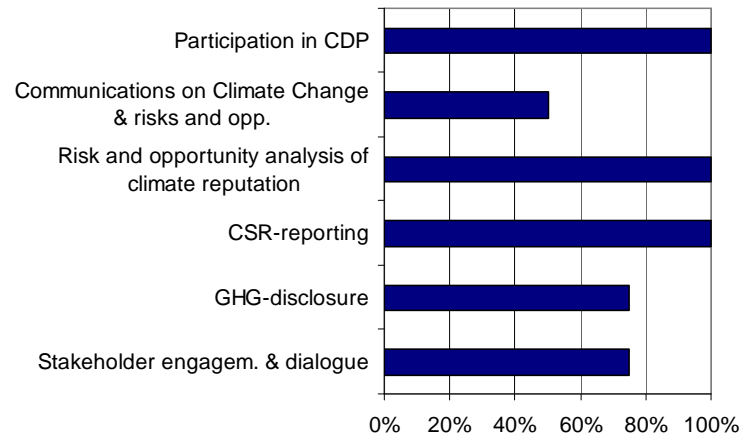


OVERVIEW SCORES PER CATEGORY VOLKSWAGEN

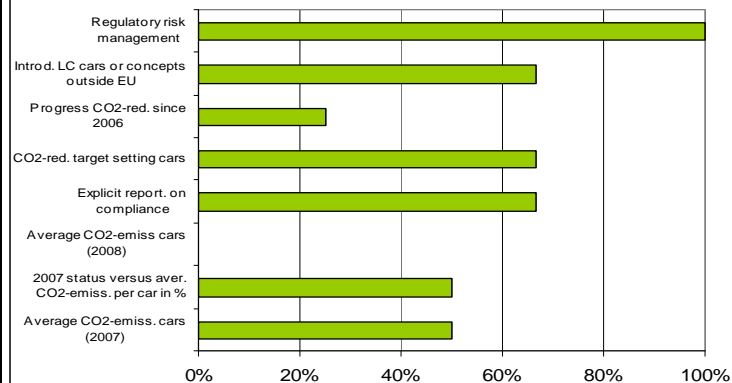
Energy Security



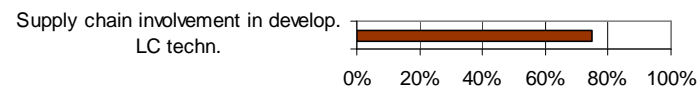
License to operate



Carbon management & legislation



Supply chain management

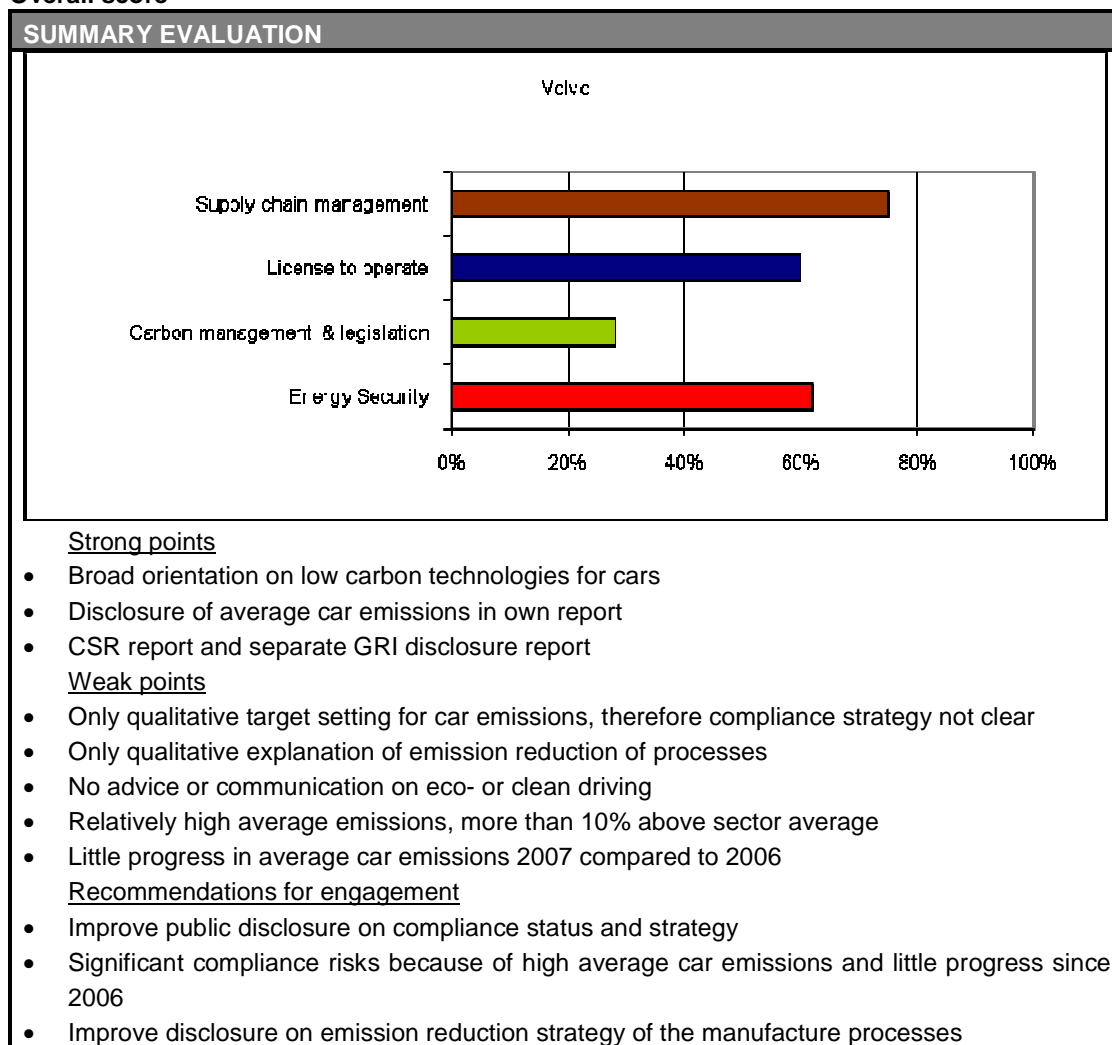


3.18 Volvo

Company profile

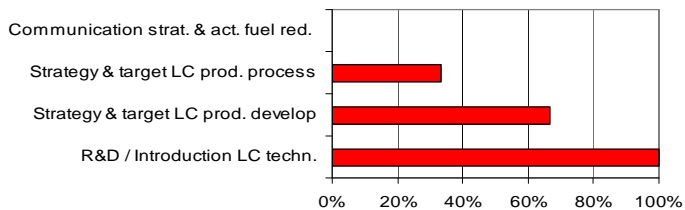
The Volvo Group is a Swedish supplier of commercial vehicles such as trucks, buses and construction equipment, drive systems for marine and industrial applications, aerospace components and financial services. Although Volvo was incorporated in 1915 as a subsidiary of AB SKF, a Swedish ball bearing manufacturer, the auto manufacturer was officially founded on 14 April 1927, when the first car rolled out of the factory in Hisingen, Gothenburg. In 1999 Volvo sold its car division Volvo Cars to Ford for \$6.45 billion. Repeated reports in the media about Ford selling off Volvo Cars have been refuted by the company. However, on 1 December 2008, Ford announced that it will "re-evaluate its strategic options for Volvo".

Overall score

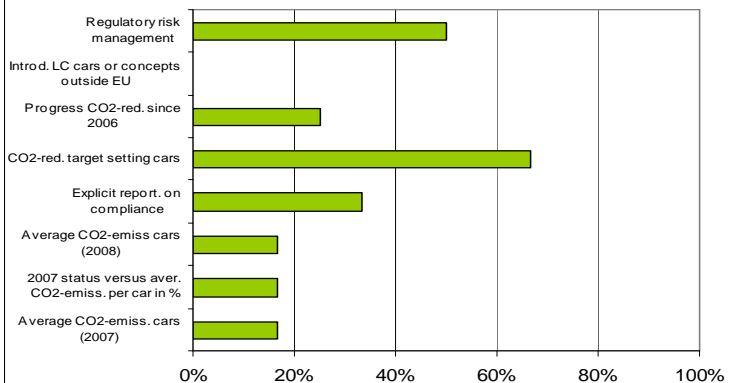


OVERVIEW SCORES PER CATEGORY VOLVO

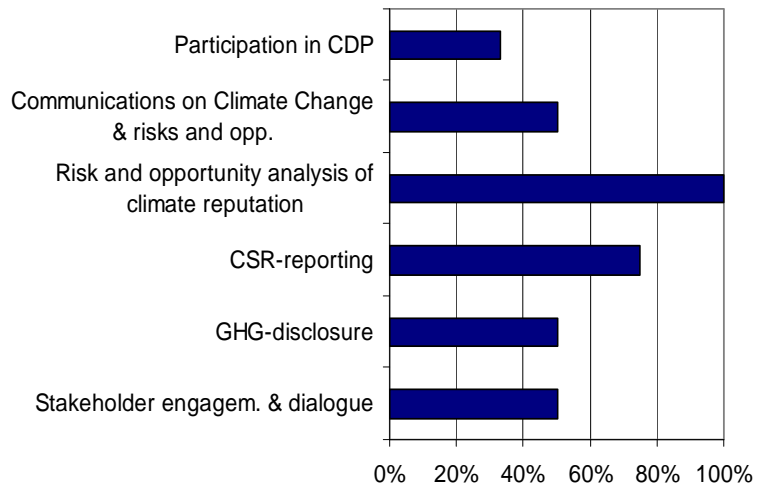
Energy Security



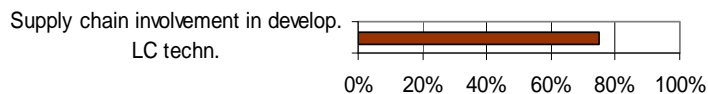
Carbon management & legislation



License to operate



Supply chain management



4 ANNEX

4.1 Information sources used per company

Producers	Information Sources
BMW	BMW sustainability report 07 SVB-status report 2008 CDP06 report BMW Group Annual Report
Daihatsu	Daihatsu Environmental Plan Daihatsu Environmental report
Daimler Chrysler	Daimler Sustainability report 2009 Sustainability 2009
FIAT	Sustainability report 2008
Ford	SR-07 Ford sustainability CDP06 Corporate website
GM	GM sus report 09 CDP06 Corporate website
Honda	Sustainability report 2008 Corporate website
Hyundai	Sustainability report 2008 Corporate website
Mazda	Sustainability report 2008 Corporate website
Mitsubishi	SR-report 2008-all Corporate website
Nissan	CDP06 Nissan SR-2008 Corporate website
Peugeot	CDP06 Peugeot-PSA-SR2007 Corporate website
Porsche	Porsche und umweltrapport 08 Corporate website
Renault	CDP06 Corporate website on CSR
Suzuki	2008 Environmental report Corporate website
Toyota	CSR report 2008 CDP06 Corporate website
Volkswagen	Sustainability report 07

	CDP06 Corporate website
Volvo	Sustainability report 08 GRI-report 08 Corporate website