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Views on an evolving automotive industry

Responding to ESG-related scrutiny

The automotive industry is unquestionably evolving at considerable pace whether through advances in connectivity and autonomy in vehicles, developments in the way that consumers access and use vehicles or changes driven by the 'electric revolution'.

Through our series of articles, "Views on an evolving automotive industry", we will look at some of the legal, regulatory and compliance issues that arise from these unprecedented changes.

In this first of the series, we look at environmental, social and governance (**ESG**) concerns relating to the recent and ongoing changes in the industry and how such concerns expressed by stakeholders and society at large are rapidly moving up the business agenda.



Environmental

Until recently, the automotive industry's primary focus has been to reduce road transport's contribution to urban air pollution and move towards carbon neutrality through hybrid and alternative fuel vehicles, with electric vehicles having taken the lead. As key industry players have acknowledged however, electric vehicles are not in themselves a complete solution to achieving true environmental sustainability.

Jaguar Land Rover

Jaguar Land Rover's "Destination Zero" project has a vision of sustainable, smart mobility. Whilst Jaguar Land Rover acknowledges that it is government incentives and policies and advances in electrification technologies that will drive consumer take-up of zero emission vehicles, it emphasises that 100% emissions-free mobility requires decarbonisation of the entire energy production process.

The overarching premise that electric vehicles are only as green as the electricity that they are run on and as is used in the manufacturing and end-of-life disposal process remains fundamental and a number of OEMs are seeking to address this issue (see boxes above and below).

Volkswagen Group Elli

Volkswagen has established Elli Group with the goal of the digital networking of energy and mobility, which is expressly stated to be based on the conviction that e-mobility can only be sustainable if vehicles are powered by electricity generated on a CO₂ free basis.

Elli has launched an 'eco-power tariff' product called "Volkswagen Naturstrom®" which has certification (from TÜV Nord) that the electricity provided through the tariff comes from 100% renewable sources.

Elli's electricity supplier, VW Kraftwerk, also invests actively in the expansion of renewable electricity generation to be included in the power mix for Volkswagen Naturstrom®.

Other considerations, such as electric vehicle models being heavier than their ICE equivalent models resulting in an increased power requirement and more particulates being produced from tyres and brakes, cannot be ignored, nor the apparent growth in demand for larger, heavier, SUV electric vehicles. The extensive use of plastic within cars with all the advantages of being lightweight, easy to shape and not prone to corrosion will likely also attract increased public concern at some point, once the primary concern of eradicating single use plastics has been addressed.

Arguably the greatest current focus, however, is on the environmental impacts relating to electric-vehicle battery production and waste management.

Raw materials mining

Lithium-ion is a key ingredient in EV batteries along with nickel, manganese, cobalt and aluminium oxide. It has been estimated that the lithium-ion industry will grow from 100 gigawatt hours (GWh) of annual production in 2017 to 800 GWhs in 2027 (albeit that not all of this growth is attributable to EV batteries).

The majority of lithium mining takes place in the Argentinean, Bolivian and Chilean salt flats, which hold more than half of the world's lithium supply. In order to mine lithium, holes are drilled into the salt flats to pump brine to the surface allowing lithium carbonate to be extracted using a chemical process. As well as consuming a large quantity of water, there are concerns over pollution of soil and air.

Recycling of batteries

Environmental impacts may also result from batteries being improperly disposed of after use, resulting in the materials contained in batteries being released into the environment, relevant also in the context that, currently, EV batteries may need to be replaced over the expected life of a vehicle and thus each vehicle sold may be associated with multiple spent batteries. Accordingly, the industry is looking at ways in which to minimise the environmental footprint of used batteries.

Conventional car batteries are already subject to waste regulation in the EU under the 2000 End of Life Vehicles Directive and the 2006 Batteries Directive. The former restricts the use of cadmium in batteries used in EVs; the latter restricts the use of mercury.

The Batteries Directive places certain requirements on manufacturers who design products that contain batteries. Unlike for portable batteries, there are no national collection targets for used car batteries, but they have been banned from landfill or incineration in the EU since September 2008 and therefore need to be recycled or reused. Battery producers are required to register themselves and belong to a recycling scheme, which they finance. Recycling of the waste batteries must meet certain minimum specified treatment requirements and there are minimum recycling efficiency targets (50% in the case of non nickel-cadmium or lead acid batteries) that apply.

The European Commission earlier this year consulted stakeholders on additional product standards with the objective of fostering high performing, safe, sustainable and durable (ie long-lasting) battery cells and battery packs/modules, produced with the lowest environmental footprint possible in a way that is cost-effective.

Beyond the EU, in 2018 China's Ministry of Industry and Information Technology announced measures seeking to ensure automotive manufacturers are held responsible for the recovery of new energy vehicle batteries, requiring them to set up recycling channels and service outlets for the collection and storage of batteries and the transfer of the same to specialist recyclers.

For reuse, batteries need to be developed with sufficient adaptability for other products; producers of goods may struggle to give sufficient customer product warranties if their products are reliant on second-hand batteries and the right pricing model for second-hand batteries as against new technologically-advanced batteries may be difficult to achieve.

For recycling, lithium, whilst only a small component of a battery, has traditionally been

uneconomic to recycle resulting in batteries having to be broken down to separate the different metal components with considerable lithium wasted in the process. Encouragingly, in early 2018, Nissan announced the opening of a plant to recycle electric-car batteries to be operated by 4R Energy Corporation (a joint venture with Sumitomo Corporation) stating the factory was Japan's first specialising in the reuse and recycling of used lithium-ion batteries from electric vehicles.

Such reuse and recycle initiatives are not however without their challenges. Friends of the Earth has for example claimed that "Low collection rates, the low and volatile market price of lithium, and the high cost of recycling relative to primary production have contributed to the absence of lithium recycling." Standardisation of the underlying technology will assist in enabling greater investment into recycling in coming years.

Despite these challenges, it is unquestionable that the battery reuse and recycle market will need to be front of mind if industry players are to achieve substantive progress in environmental sustainability, including through technological developments.

Audi (Volkswagen Group)

Earlier this year, Audi announced that aluminium producer Hydro now supplies sustainable aluminium for the battery housing of the first fully electric Audi e-tron* model. Hydro states that it processes and manufactures aluminium from the extraction of the bauxite raw material to the end product in an environmentally friendly manner, with the Aluminium Stewardship Initiative having awarded the collaboration a "chain of custody" certificate.



Social

Given the current focus on environmental sustainability, it would be easy for industry players to lose sight of also tackling social impacts in the supply chain. Stakeholders are, however, increasingly uncompromising in their expectations.

In March 2019, Amnesty International publicly challenged leaders within the electric vehicle industry to make the world's first completely ethical battery within five years and in doing so highlighted how lithium-ion batteries powering electric vehicles are linked to human rights abuses, including the use of child labour in the Democratic Republic of Congo in respect of cobalt mining. More recently, the legal action taken by families of children killed or injured while mining for cobalt in the Democratic Republic of Congo against big tech companies including, Apple and Google, is a prime example of supply chains facing litigation in respect of potential human rights abuses.

Statements such as that issued by Amnesty International have followed a general trend of strengthened transparency. In March 2011, UN Special Representative John Ruggie issued his Guiding Principles on Business and Human Rights; in 2015 the ground-breaking UK Modern Slavery Act forced issues of modern slavery and supply chain transparency to board level discussions and in November 2018 a similar, more onerous, Modern Slavery Bill 2018 was passed in Australia.

Despite this pressure, given the opacity of the current supply chain, tackling supply chain issues is far from a simple challenge for the automotive industry to overcome. Some industry players are, therefore, turning to technology as the solution whilst others are seeking to increase a supervisory presence within the supply chain itself.

Consortium blockchain project

A pilot began in December 2018 through a consortium comprising Ford, IBM, LG Chem and RCS Global aimed at using blockchain to demonstrate how materials in the cobalt supply chain can be responsibly produced, traded, and processed from mine to end manufacturer. The pilot is advertised to start at an industrial mine site in the Democratic Republic of Congo (with oversight from responsible sourcing group RCS Global). The cobalt produced is then traced through the supply chain as it travels from mine and smelter to LG Chem's cathode and battery plant in South Korea, and finally to a Ford plant in the United States. An immutable audit trail is then created using blockchain, which will include corresponding data to provide evidence of the cobalt production from mine to end manufacturer. The end user of the cobalt will then know which entities in the supply chain to approach for information on observance of proper environmental and social standards.

"Cobalt for Development" pilot project

In September 2018 the "Cobalt for Development" pilot project was officially launched to seek to promote responsible mining practices and improve conditions at an artisanal cobalt mine site in a southern province of the Democratic Republic of Congo.

The project is a collaboration between Samsung Electronics, Samsung SDI, BMW and BASF who have commissioned the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) to test within three years how living and working conditions in the artisanal cobalt mine site and the surrounding communities can be improved.

At the pilot site, the initiative aims to promote practices that comply with human rights, respect the environment and contribute to the development of the wider community as well as seeking to improve access to education, financial literacy and alternative sources of income for residents in the surrounding community.

Whether or not projects such as the consortium blockchain project or the cobalt development pilot (see boxes) will give stakeholders sufficient comfort that the industry is tackling issues such as human rights abuses in supply chains is to be seen, but what is apparent is that tackling such issues will be critical to industry players' reputations and, over time, viability.

Conversely, there is also a potential legal risk for manufacturers who seek to control their supply chain risks by intervening too closely in the affairs of their suppliers, especially if those suppliers are their own subsidiaries. There is a developing area of class action claims being brought in the English courts founded on the theory that a parent company which sets global policies around, for example, environmental compliance, may be treated as having assumed a duty of care with regard to individuals affected by those policies being wrongly applied by other group companies. Thus, claims have been brought in the English courts against an English parent company based on harm caused to people living near the subsidiary's operations even where that subsidiary was separately operated and outside the UK. Manufacturers need to take care to ensure that group operating companies adopt their own policies and procedures and are responsible for implementing them. While the ultimate goal remains to maintain appropriate standards, and avoid harm being caused in any location, the structure by which this is achieved is important if well-intentioned oversight is not to result in manufacturers facing direct legal liability for failing to avert harm somewhere in its supply chain.

Governance

Whilst, there are less unique developments in the governance aspects of ESG facing the automotive industry, establishing systems and checks and conducting due diligence to understand where risks may occur within supply chains and manufacturing processes and financial and information systems are increasing in importance.

For example, the UK Department for Transport emphasised the significance of governance in respect of cyber security risks back in August 2017 by stating that the need for organisational security to be owned, governed and promoted at board level with a 'culture of a security' fostered within organisations was a key principle to be applied throughout the automotive sector, the connected and autonomous vehicles and intelligent transport systems ecosystems and their supply chains.

Developments have also been seen:

- in whistleblowing policies and processes relating to understanding how precious metals in batteries being procured are mined, the collation of emissions information on whether vehicle parts are being shipped in a suitably green way and the monitoring of autonomous vehicle glitches;
- through strategies to respond to the interaction between traditional engineering and software in vehicles creating a number of new areas for potential anti-competitive behaviour (including as bundled financing, credit, insurance, repair and servicing models increase); and
- as a result of businesses having to demonstrate good governance in response to well-publicised previous failings (see boxes above and opposite).

Nissan Carlos Ghosn scandal

Following the allegations of financial misconduct against their former chairman, Nissan established a Special Committee for Improving Governance ("SCIG") to ascertain the root causes behind Nissan's governance issues and to provide recommendations for Nissan to create a healthy state of governance as a foundation for sustainable business as a world-leading company.

The SCIG acknowledged in its conclusions that Nissan's corporate capabilities had suffered at a point when the automobile industry had reached a great-turning point due to a continued corporate culture valuing short-sighted performance targets over mid to long term strategies.

Volkswagen Group 'Dieselgate' emissions scandal

In Volkswagen Group's Annual Report for the year ended 31 December 2015, in the wake of the 'Dieselgate' emissions scandal, it was acknowledged that the Volkswagen Group's management need to be more decentralised in future, with greater independence for brands and regions resulting in a better sharing of responsibility and encouraging entrepreneurial thinking and behaviour.

Volkswagen Group believed this change in governance approach would result in decisions and processes becoming leaner, faster and more efficient (enabling management to focus on its core role: pursuing major group-wide topics for the future and working on synergies, control and strategy).



Ensuring the necessary governance systems are in place often requires establishing systems, both at a central management level and at a local level, that allow inspection and audit rights to give visibility throughout the manufacturing processes and supply chain and then the monitoring of the same. Industry players will need to try to unpack the relevant manufacturing players' supply chains to see whether they are fit for purpose, noting that what is fit for purpose now is unlikely to be fit for purpose in ten or even five years' time and therefore scrutiny has to be undertaken on an ongoing basis.

The scope for development of these systems will be driven by each player's role in the industry. OEMs will continue to set clear standards as to what they expect through the supply chain. Such standards will then need to be managed in order to retain relationships and to comply with contractual obligations. Industry players will, however, also have to be answerable to their own direct stakeholders, including their own consumers. Relying on OEM driven governance standards alone is unlikely to suffice.

Conclusion

As this article highlights, the automotive industry is subject to the general movement towards increased ESG scrutiny and such scrutiny will only be heightened as society and customers become even less tolerant of environmental and human collateral.

Accordingly, all participants in the industry whether they be OEMs, component manufacturers, distributors, retailers or shared mobility service providers will need to treat ESG with increasing importance and have a strategy to protect themselves from both legal liability and reputational risk.

The greater the number of industry participants that establish their own sustainability impact strategies and governance standards will, in some respects, make it easier for businesses to comply with their own legal and moral obligations, as increased standards becomes the market trend. However, the other side of that coin is that once higher standards are demonstrated by some there will come a point where they are mandated for all, as is already being actively considered by the UK Government for climate change risk disclosure and is already the case for example in the UK for disclosure by large and listed companies' of energy usage and carbon emissions.

Failure to respond to stakeholders and to society's ESG-related demands can no longer be seen purely as underperformance on corporate social responsibility matters. ESG-related performance is already and will continue to be a key factor in attracting capital, in insurability and, ultimately, in economic viability.

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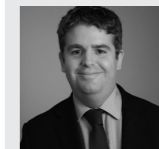
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