The civil war that rages in the eastern provinces of the Democratic Republic of the Congo (DRC) has led to countless atrocities, including murder, rape and slave labour, being committed by the armed groups in the region. There are numerous political, historical, cultural and economic reasons for this conflict, and a wide range of actors are involved. However, a clear link exists between these atrocities and the mining of minerals in the region, as well as the use of these minerals in consumer products worldwide. The income generated from the mining of minerals used in consumer products is used to finance arms that are wielded against the local population. Awareness of this link between consumer products and civil war has been raised through NGO campaigns, media attention and political movements both in the United States and in Europe. The use of minerals such as tin, tungsten, gold and coltan from the DRC in laptops and mobile phones is subject to increasing public pressure, and there is a widespread call for more tracing, transparency and supply chain responsibility to tackle these grave problems.

The situation in the DRC might be the gravest example of how mineral extraction can fuel conflict and suffering, but is certainly not the only one. Throughout the global south, local communities, workers and the environment are suffering from the consequences of mining operations. Issues such as land expropriation, mining in environmentally fragile areas, contested water use and contamination, community tensions, child labour and forced labour, and hazardous working conditions can be found in numerous mining operations. Examples include the mining of cobalt in the southern region of the DRC, platinum mining in South Africa, tin mining in Indonesia, etc.

A large portion of the demand for non-ferrous metals comes from two end user industries; the electronics and the automotive industry. Where cobalt, platinum group metals (PGMs) and rare earth metals are concerned, the combined demand from the two sectors is more than half of the global demand. At the same time, a continually increasing percentage of car components are electronic, which contributes to an increase in overlap between the mineral demands of both industries.

The large and well-known electronic brands are increasingly recognising their responsibility as major end users of minerals that are concerned with social, environmental and labour issues. This year, the sector’s sustainability initiative, the Electronics Industry Citizenship Coalition (EICC), has commissioned research into the sector’s use of aluminium, cobalt, palladium, copper, gold and tin.
It has also issued public statements of position and has commissioned a project to map the supply chain of some of these metals, which is currently underway. These efforts illustrate that this sector is moving towards a more comprehensive approach of its supply chain responsibility, to the point where it will encompass the full supply chain.

Research aim and design

The automotive industry has been much less active in the public debate around controversial metals than the electronics industry. This briefing paper assesses the current state of the automotive sector with respect to its efforts towards a full supply chain responsibility that includes the use of metals. It intends to provide an overview of the approach used by the largest companies in the automotive sector to address the social, environmental and labour issues in the mining phase of its supply chain. By analysing information about the Corporate Social Responsibility of these companies (e.g., policies and the implementation thereof) that is publicly available, the paper evaluates the largest players in the automotive sector on four indicators:

1. Whether the company has a CSR policy, and how this is constructed and implemented.
2. Whether the company recognises its supply chain responsibility, and how this is implemented.
3. Whether the company is transparent about and sustainable in its use of minerals.
4. Whether the company conducts proper recycling activities.

All chapters start with a general introduction that describes the relevance of the indicator for the social and environmental issues in the extractive phase, followed by an analysis of the state of the industry and a whole regarding that indicator. Each chapter also briefly describes the approaches of the largest individual automotive companies for the respective indicator.

The ten largest automotive companies, on the basis of annual production of motor vehicles, are Toyota, General Motors (GM), Volkswagen, Ford, Honda, Nissan, PSA Peugeot Citroën (PSA), Hyundai, Suzuki and Fiat.

About SOMO

SOMO, a Dutch non-profit research and advisory bureau, was established in 1973. SOMO investigates the consequences of the internationalisation of business and of MNC policies, particularly where developing countries are concerned. SOMO’s primary goal is to enhance the capacity of civil society organisations worldwide to influence corporate behaviour and business regulations in the interest of sustainable development and poverty eradication. Through knowledge combined with action, SOMO strives to achieve sustainable economic, social and ecological development, the improvement of workers’ lives and the eradication of exploitation, poverty and inequality. SOMO is the coordinator of the makeITfair campaign, which focuses on achieving sustainability throughout the supply chain of electronic products.

Corporate Social Responsibility

To assess what is needed for automotive companies to confront the issues in the extractive phase, the first step is to look at how these companies deal with such issues in general. A solid CSR policy addresses both social and environmental issues, and is based on the relevant internationally accepted norms and standards. These standards include the Universal Declaration of Human Rights, the International Labour Organization’s Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development and the United Nations Convention Against Corruption. Ideally, companies make explicit references to these standards, but they can also commit to them indirectly through various sustainability initiatives. Proper management systems need to be in place to ensure that these CSR policies are implemented in day-to-day business operations. This paper evaluates the CSR policies of the automotive companies on the basis of these criteria, which are derived from the CSR Frame of Reference of the Dutch CSR Platform.

Industry as a whole

Almost all of the large brands publish an annual CSR or sustainability report in which they describe their efforts, policies and achievements. A number of companies publish additional social, economic or environmental policies. Overall, it seems that most companies provide information about their approach towards environmental, social and economic issues. The sector also seems to be aware of the importance of proper management systems being in place to ensure that the CSR policies are implemented throughout all the business activities of a company, as most of the companies discussed here have executive directors responsible for CSR. Around half of the companies discussed here make explicit mention of relevant international standards, such as the Core Conventions of the International Labour Organisation (ILO), the Universal Declaration of Human Rights of the United Nations and the 1992 Rio Declaration on Environment and Development.

Individual company approaches

- **Hyundai**: Hyundai has a number of ethics regulations and an environmental strategy, and publishes an annual CSR report. Hyundai is a member of the UN Global Compact, and thereby indirectly committed to international labour, environmental and human rights standards.
As part of its corporate governance, Hyundai has an ethics committee that oversees the company’s ethics management.

**PSA:** PSA has a number of CSR policies. The social component of CSR is covered by an ethics code and a framework agreement signed between PSA, the International Metalworkers’ Federation (IMF) and the European Metalworkers’ Federation (EMF). PSA also has an environmental policy and publishes an annual CSR report. PSA is a member of the UN Global Compact and explicitly committed to the main international standards.9 PSA has a sustainable development department, which is positioned between the executive committee and the functional and operating divisions.4

**Toyota:** Toyota has formulated a CSR policy that is based on the company’s Guiding Principles.7 Additionally, the company has a separate policy on Biodiversity, as well as a Code of Conduct, a Global Vision for 2020, and the Toyota Way 2001, which outlines the expectations of how employees should behave. It also has an environmental plan of action that includes design production and recycling.8 Toyota has a separate CSR department, as well as a CSR committee that includes members of the executive board. The company is a member of the World Business Council for Sustainable Development (WBCSD), but does not mention any of the relevant international standards in its international CSR report or CSR policy. Several regional divisions also publish their own annual CSR reports in accordance with GRI standards.

**Volkswagen:** Volkswagen has formulated its principles of CSR in the company’s Model of Sustainable Development.9 It also has a separate environmental policy.10 Volkswagen manages its CSR through a CSR and Sustainability Coordination Office, which reports to the CSR Steering Committee.11 Volkswagen makes specific mention of the ILO Core Conventions and the OECD Guidelines, and indirectly refers to the UN Declaration of Human Rights through its membership of the UN Global Compact.12

**Honda:** Honda’s overall business philosophy is formulated as ‘striving to be a company society wants to exist’.13 It defines its environmental policies and environmental management system in the Honda Environment Statement. In addition to its annual CSR report, Honda publishes a separate annual environmental report. Honda makes no mention of international standards in its CSR report.

**Nissan:** Nissan has a CSR policy that contains nine key areas, including economic contribution, employees and the environment.14 It also has an ethical code of conduct as part of its corporate governance.15 The company’s CSR activities are managed by a CSR steering group, which consists of 30 mid-level managers.16 This steering committee falls directly under the Executive Committee of the company. Through its membership of the UN Global Compact, Nissan has indirectly committed itself to all international standards regarding labour, human rights and the environment.

**General Motors:** General Motors does not have a clear CSR policy, nor does it publish annual CSR reports. It does have a section on its website dedicated to its corporate responsibility, but this section is mostly descriptive in nature and hardly refers to CSR policies or commitments.17 It does, however, list the company’s environmental principles, which seem to be the only area of commitment the company publishes about. Little information was found on how CSR is incorporated into the overall business strategy of the company. None of the people in senior leadership positions seem to be responsible for the company’s CSR.18

**Suzuki:** Suzuki also publishes an annual comprehensive CSR report that deals with the company’s environmental, economic and social responsibility. Other than its Green Procurement Guidelines, discussed in Chapter 2, it does not have any additional policy documents. Suzuki has a Code of Ethics, as well as a specialised ethics commission.19 The only mention of the ILO is with regards to an occupational health and safety award it has received in Pakistan.20 It does not make any explicit commitment to any international standards in its CSR report.

**Ford:** Ford publishes its CSR report in the form of a special website, where it publishes information on all aspects of CSR. It has a Code of Conduct Handbook, stating the company’s policies with regards to issues such as working conditions, ethical business practices and corruption.21 Ford also has a Code on Basic Working Conditions, which is based on standards of the ILO, UN and OECD.22 Sustainability management is the responsibility of one of the group’s vice presidents.23

**Fiat:** Fiat gives its Sustainability Plan, which can be seen as the company’s commitment to its stakeholders, a prominent place in its annual CSR report. This plan includes a number of goals related to the environment, human resources, suppliers and the community.24 The company’s sustainability is managed by a Sustainability Unit, and overseen by the Sustainability Committee, which is comprised of group and sector level executives. The corporate governance model of Fiat is based on its Code of Conduct, which is set to be updated in 2009. In its CSR report Fiat mentions that its code of conduct is based on the international labour and human rights standards of the ILO and the UN.25
Supply Chain Responsibility

Over the last decades, companies have come under increasing pressure to ensure that the products they offer are made under decent working conditions, do no harm to the environment, and are not in violation of basic human rights. Supply Chain Responsibility is the idea that a company’s Corporate Social Responsibility goes beyond its own business activities and applies throughout the entire supply chain. While the extraction of metals is not a direct business activity of the companies discussed here, supply chain responsibility implies that the same social and environmental standards should feature in this phase of the supply chain as well.

A large number of MNEs that outsource their production have codes of conduct or other policies in place that specifically apply to their suppliers. These codes often include principles on social and environmental issues, in addition to product quality criteria, ethical business practices and cost effectiveness. In order to be able to supply to these companies, the suppliers have to adhere to these principles. To ensure that this actually contributes to an improvement of conditions in the supply chain, the implementation of such codes needs to be adequately managed, for example through a system of (multi-stakeholder) audits, monitoring systems and remediation mechanisms. In complex supply chains such as the automotive or electronic chain, it is also vital that these principles not only apply to the first tier suppliers, but also to second tier and beyond. This is the only way to avoid violations of the relevant principles still taking place in supply chains that are said to be sustainable.

Industry as a whole

In the automotive sector, the environmental principles are more completely represented in supplier codes of conduct than other aspects of sustainability. A possible explanation for this phenomenon is that cars have to abide by ever stricter environmental regulations in some of the regions with the highest demand, such as Japan and Europe. As in other sectors, many of the large electronics companies also started up their CSR programmes with environmental measures, only including social clauses at a later phase.26

A number of the companies discussed here make mention of their relations with second tier suppliers and beyond. None of the companies acknowledge their own responsibility towards these second tier suppliers and beyond, but rather appoint responsibility for the sustainability of this link in their supply chain to the first tier suppliers. Nonetheless, the fact that some of these companies have invited second tier suppliers to sustainability trainings or otherwise have engaged with them, shows the potential for full transparency of the automotive supply chain.

Such transparency can be regarded as a prerequisite to effectively resolving issues in the mining phase.

Individual company approaches

- **Hyundai**: Hyundai does not publish any information about supplier agreements that include human rights clauses, or about whether any suppliers have undergone human rights screenings.27 However, it has signed a ‘fair trade pact’, with around 2,400 suppliers in Korea.28 Hyundai also has a green purchasing system to manage the purchasing of green and eco-friendly components.29 Among other things, Hyundai provides trainings to its suppliers on green purchasing.30 These trainings have also been given to second and third tier suppliers.

- **PSA**: Every subsidiary has pledged to support the Global Framework Agreement on Social Responsibility.31 In 2006, PSA Peugeot Citroën published supplier guidelines for its social and environmental responsibility requirements. The 1,000 largest suppliers, accounting for around 95% of PSA’s worldwide purchases were asked to commit to the standards. At the end of 2008, 71% of worldwide purchases were covered by a supplier agreement. These agreements include principles on human and labour rights, as well as the environment. The last requirement included in the guidelines concerns ‘supplier relationships with its own suppliers’, stipulating that: ‘The Supplier is obliged to obtain from its own suppliers an agreement similar to the one it is signing with PSA Peugeot Citroën through this document’.32 Targeted audits are conducted for suppliers deemed to be ‘at risk’.33

- **Suzuki**: Suzuki has Green Procurement Guidelines, to ensure that all products it purchases are produced in an environmentally friendly way.34 These guidelines mostly focus on Suzuki’s intention to procure the most environmentally friendly components but also pay attention to environmentally friendly production processes. However, these policies only apply to the suppliers of its domestic offices and plants in Japan.35

- **Toyota**: Toyota published its Supplier CSR Guidelines in February 2009. In these guidelines, Toyota outlines its expectations that all suppliers conduct their business in line with Toyota’s own business principles. The Supplier CSR Guidelines include measures on labour conditions, the environment and local communities.36 The Green Purchasing Guidelines that the company had previously published in 2006 are now considered as a detailed version of the environmental section of the Supplier CSR Guidelines.37 Toyota’s suppliers are asked to develop their own independent CSR activities and extend these to their own suppliers, thereby reaching Toyota’s second tier suppliers and beyond. Toyota provides training to its suppliers and requests suppliers to perform ‘self-checks’ on compliance with the Toyota
No mention is made of audits or other forms of independent verification in its CSR report.

- **Volkswagen**: In its ‘Sustainability in Supplier Relations Scheme’, Volkswagen bases its concept of sustainability on environmental protection and worker’s rights. To implement the sustainability requirements listed in the scheme, Volkswagen has an ‘early detection scheme’ to identify and avoid environmental and social problems at suppliers. Additionally, suppliers fill out a self-assessment questionnaire, and assistance is given to suppliers who are not conforming. Monitoring takes place through ‘quality assurance plausibility checks’, whereby sustainability issues are included in an overall quality assurance audit, and through checks at suppliers’ sites by an expert team. Suppliers also have to ensure that their own suppliers can guarantee adherence to the same standards.

- **Ford**: Ford’s supply chain responsibility is formulated in its Code of Basic Working Conditions. This code states that Ford requires its suppliers to ensure that products are manufactured ‘under conditions that demonstrate respect for the people who make them’. To ensure the implementation of this code at its suppliers, Ford has conducted 550 human rights assessments of current and prospective suppliers. Ford has contractually established that it maintains the right to third party verification of supplier sites, and that it can terminate contracts on grounds of violation of the code. Suppliers are not only expected to align their own business activities, but also those of their respective supply chains in accordance with Ford’s code. Ford has conducted a number of training sessions that reached large numbers of first and second tier suppliers. Ford claims on its website that its individual and sector-wide efforts have impacted the second tier suppliers, and that it might impact third tier suppliers and beyond.

- **Honda**: Honda’s supply chain standards are limited to Green Procurement Guidelines to ensure that the company purchases green products. No mention is made of the environmental conditions at the production site, or of other sustainability considerations such as working conditions or human rights standards.

- **Fiat**: The supply chain is specifically mentioned in Fiat’s Sustainability Plan, as an area in which to develop and promote environmental and social sustainability. As part of this plan, Fiat has developed a supplier code of conduct. As a supplement to this code of conduct, Fiat has developed specific guidelines to ‘raise partner awareness of sustainability (respect for human rights and the environment; promotion of ethical conduct)’. Self assessments and audits will be conducted to evaluate the implementation of these guidelines. No information was found about the nature of such audits, or about Fiat’s approach to second tier suppliers and beyond.

- **Nissan**: Nissan’s overall CSR policy is based on nine key areas, of which the value chain is one. It describes its role in the supply chain as ‘Nissan promotes ethical, environmentally sound actions in all stages of the supply chain.’ This is the basis of Nissan’s Green Procurement Guidelines, which serve as the standard for the environmental efforts of its suppliers. Nissan mentions that it is currently expanding these guidelines to apply on a global level. Among other things, these guidelines require suppliers to set up an environmental management system, and to bear responsibility of adherence by second tier suppliers and beyond. Nissan also ‘reserves the right to obtain relevant information from tier [N] suppliers when necessary’. Additionally, new suppliers are required to submit statements of commitment to prevent pollution and abolish child labour and forced labour.

- **GM**: General Motors provides no information whatsoever on its website regarding its approach to supply chain responsibility.

### Raw materials

As a large end user of a number of raw materials, the automotive industry bears a shared responsibility for ensuring that the extraction of these raw materials occurs in a sustainable manner. SOMO has addressed this broader issue since 2007 and confronted the electronics industry with its responsibility. It believes that this responsibility should be reflected in corporate codes of conduct and that such codes should be implemented throughout the supply chain. Merely transferring such responsibility to the first or second tier suppliers does not fulfill this responsibility and does not resolve some of the most pressing issues facing supply chains such as the electronics and automotive ones.

A vital first step needed to apply codes of conduct throughout the supply chain is to create an overview of the raw materials that a company is using. Such a general overview is needed to assess the *sphere of influence*, which determines the chances of success of any sustainability effort. This sphere of influence does not only have to relate to individual companies. Rather, the sector as a whole might be such a large user that it would be logical to undertake sector-wide initiatives. The following step is *tracing* the raw materials to the country or, if possible, the mine of origin. Once the origin of the raw materials is known, this information can be linked to publicly available knowledge about the issues with mining in such regions. This allows for a risk assessment of each of the raw materials used. Finally, systems need to be implemented that link these risk assessments to decisions on sourcing of raw materials.
Industry as a whole

Most of the companies discussed here provide some information about their respective use of raw materials. However, not many of them provide figures for the use of specific materials, or do so only with regards to steel or metals in general. Only one company (Nissan) makes mention of its efforts to reduce precious metals, such as PGMs. A number of companies do make efforts to map the use of materials, and seem generally aware of the material content of their cars. They do so mostly out of environmental considerations, as part of the Life Cycle Analysis approach (see chapter ‘Recycling’) to evaluate the environmental impact of the raw materials, or as a risk management approach in relation to the REACH regulations (see box on this page). A few other companies (Toyota, Volkswagen) also manage their raw material use from a supply risk approach. They indicate that they are aware of geopolitical factors or price fluctuations that might hamper the procurement of specific materials. None of the companies discussed here indicate that they take human rights, or other social issues that might occur at the mining of such materials, into consideration.

Individual company approaches

- **Hyundai:** Hyundai provides an overview of the combined totals of raw materials used, totalling 298,000 tonnes.54 However, no further information is provided about what these raw materials were or in what quantities these different raw materials were used. No information was found regarding any efforts regarding tracing or responsible sourcing of raw materials.

- **PSA:** PSA provides somewhat detailed information about its use of raw materials on its website as one of its environmental indicators. It makes a distinction between direct and indirect use of steel (1,140,000 tonnes direct; 1,860,000 indirect), non-ferrous metals (50,000 direct; 270,000 indirect) and synthetics (630,000 tonnes indirect).55 PSA makes a conscious link between designing activities and the use of raw materials, factoring in considerations such as recycling, cost management and lower weight of vehicles. PSA also makes the following observation: ‘Economic tensions in markets for raw and non-renewable materials validate the Group’s strategy of using recycled or renewable material wherever technically and economically possible provided that supply risks are controlled.’56

- **Nissan:** Nissan does not provide public information about its total use of raw materials, as some of the other companies do. However, Nissan does make specific mention of a number of individual metals, indicating that it is aware of its use of these raw materials. For example, in its CSR report Nissan describes its efforts to develop car models with catalysts containing only half of the precious metals. These metals include platinum, a metal of which the extraction is surrounded by controversy.57 Nissan also takes a number of measures to prohibit or limit the use of SVHCs.58

- **Fiat:** Fiat provides various figures related to its use of raw materials in its CSR report. It provides the relative weight of direct materials in relation to the total procurement volumes (88%), the relative figures of the origins of the direct materials, and the relative weights of the product types in relation to the total direct

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**REACH**

Directive 2006/121/EC of the European Parliament and of the Council concerning Registration, Evaluation, Authorization and Restriction of Chemical substances (REACH), entered into force on June 1, 2007. The aim of REACH is to further improve the protection of human health and the environment through the better and earlier identification of certain chemical substances.53

The REACH Regulation gives greater responsibility to industry to manage the risks from chemicals and to provide safety information on the substances. The regulation applies to all suppliers (inside and outside Europe) that want to sell, import or manufacture chemicals and/or products containing certain chemicals in the European Union. The companies selling the product within the European Union are required to consider the safety of the use of the substance, based primarily on information provided by suppliers.

Part of REACH is a list of Substances of Very High Concern (SVHC). This list contains substances such as mercury, lead, cadmium and hexavalent chromium. Any product containing these substances is subject to authorisation through REACH. In response to the REACH regulation, a lot of companies have taken steps to phase out their use of these SVHCs.

A side effect of these efforts has been that many companies have developed a much better insight into their supply chains.
materials are partially influenced by environmental considerations. It encourages the optimal use of raw materials, promote the use of environmentally friendly materials and reducing waste from an environmental perspective. No information was found about social or human rights considerations in relation to the use of raw materials.

Volkswagen: Volkswagen publishes environmental background documents (‘Commendations’) for a number of the different models it produces. In these Commendations, Volkswagen provides information about the relative weights of different types of materials. For example, the Volkswagen Golf model consists of 65% steel, 2% non-ferrous metals and 0.2% ‘special metals’. Volkswagen also describes in its CSR report how it traces the raw materials it uses from a risk management perspective. It states: ‘Using our specially developed methodology, our aim is to safeguard innovative technology paths such as electromobility or lightweight design by ensuring the availability of the required raw materials. Indicators such as ‘geopolitical risk in supply countries’ or ‘market power through industry concentration’ clearly signal potential raw material shortages that the company can counter through appropriate measures at an early stage.’

Suzuki: Suzuki makes some efforts to analyse the material content of its products, but purely from an environmental perspective. Since 2003, it has been using an International Material Data System, to establish an internal management system for materials ‘with environmental impact’. It measures the use of such materials in its products, and evaluates whether this use is within legal norms. Suzuki also reports on its efforts to reduce its use of SVHCs in its CSR report.

Toyota: Toyota’s approach towards raw materials seems very much focused on its recycling efforts. This will be described in Chapter 4. Toyota does mention the price fluctuations of raw materials in 2008, which shows that it is aware of the raw materials it uses. However, it does not provide any specific information about the range of materials it uses. It does manage its supply chain on the presence of SVHCs from an environmental perspective and adheres to current and future REACH regulation, but does not seem to take social or human rights issues into consideration. However, the social and environmental clauses taken up in Toyota’s Supplier CSR Guidelines also apply to direct suppliers of materials.

Honda: Honda discusses raw materials in its CSR report with respect to two different aspects. Firstly, it mentions the procurement of raw material as one of the phases in a car’s life cycle in which CO2 emissions can be reduced. Secondly, it describes how it worked together with its suppliers to reduce the amounts of raw materials used in its hybrid Insight model, from a cost perspective. No mention is made of human rights or social considerations. It also looks at the SVHCs in response to the REACH regulation (see box on page 9).

Ford: Ford has developed a comprehensive set of processes and system tools called Global Materials Management. It tracks the suppliers on the materials they use in the parts and components they produce, to make sure that these parts are in line with the end-of-life regulations in EU and Japan and REACH. Ford also reports on its website about its efforts to reduce the use of SVHCs, in particular lead and hexavalent chromium. Ford links the issue of raw materials to both its overall supply chain responsibility and its recycling efforts. It asks suppliers to use recycled materials wherever economically and technically possible. Implicitly, this has an indirect effect on Ford’s use and sourcing of raw materials.

Recycling

Recycling is a crucial aspect of the supply chain responsibility of car manufacturers. The benefits of proper recycling programmes are two-fold; they reduce the waste generated by cars at their end of life, and they reduce the pressure to mine for new materials at the mining phase of the supply chain. A very high percentage of car parts seem to be recyclable, as indicated by EU’s ambitious goal of achieving 95% recycling rates of end-of-life vehicles by 2015, as formulated in Directive 2000/53/EC.

One of the most generally accepted approaches to link raw materials to recycling is the use of so-called Life Cycle Assessments (LCAs). These LCAs are a vital part of the ISO 14000 standards, the independent standard for environmental management systems. While recycling and LCAs are most often discussed in terms of environmental impact of a product, it can also have a social component. Many of the social conflicts in mining areas are exacerbated by the economic pressure to extract at the fastest pace possible. Recycling can significantly reduce this pressure, thereby potentially easing some of the conflicts. Additionally, the e-waste problem in the electronics sector shows how unsustainable management of products after their use can also have severe social consequences.
Industry as a whole
The automotive sector is a sector that devotes considerable attention to recycling efforts. A distinction can be made between current recycling mechanisms for end-of-life vehicles, and the efforts to design new models so that they can be recycled in the future. Almost all of the companies discussed here state their so-called ‘recycling rates for end-of-life vehicles’ or their aims for such rates. These rates can be as high as 85% or even 95% in recyclable materials by weight for new vehicles. The recycling efforts of these companies are mostly discussed within the context of environmental benefits, as well as the requirements set by regional governmental bodies, such as in the EU Directive. Some companies (Toyota, Volkswagen, GM) also link their recycling efforts to the economic benefits of having to source fewer newly mined raw materials.

The companies discussed here differ in their approaches towards recycling. Some companies (Hyundai, Suzuki) have a primary focus on certain specific parts of a vehicle, while others (Toyota, Nissan, Ford) have recycling mechanisms in place for specific raw materials, either metallic or non-metallic. Generally, recycling is explicitly linked to the demand for new raw materials. None of the companies, however, explicitly recognise the link between recycling for raw materials and the social and human rights conditions at the mining phase.

Individual company approaches
- **Hyundai:** Hyundai discusses its recycling efforts in its CSR report chapter on environment, indicating that it perceives recycling as a purely environmental matter. Some of the efforts it undertakes include designing its new models for recyclability, setting up an automotive recycling plant and recycling nylon materials, bumpers and battery covers almost entirely.79 In accordance with the EU ELV Directive, Hyundai aims for a 95% recycling rate for end-of-life vehicles in 2015.71 This means that almost all components of newly built vehicles are suited for recycling.

- **PSA:** PSA also includes recyclability objectives in its designing process, integrating them in each new vehicle’s specifications.72 PSA reports that is has already reached the target of 95% recyclability for the average weight of new Peugeot and Citroen models. In its CSR reports, it links recycling to the use of green materials, thereby indicating that it also perceives recycling as mainly an environmental matter. PSA illustrates the link between raw material use and recycling by stating that they have exhaustive knowledge of the materials used in its vehicles because of systems assessing recycling possibilities.73

- **Suzuki:** Suzuki also incorporates recyclability in its designing process, using recyclable materials in its ‘exterior and interior resinous parts’.74 One of the materials extra attention is given to is glass.75 Suzuki conducts LCAs to assess the environmental impacts of the materials it uses.

- **Toyota:** Toyota explicitly recognises the link between recycling and resource use, and reports on its recycling activities in the context of risks involved with price fluctuations of raw materials. It also recognises the issues related to waste, such as illegal dumping. Since 1998, Toyota manages an Automotive Shredder Residue (ASR) recycling plant that extracts copper, resins and rubber, among other things.76 This plant has a recycling/recovery rate of 80%. Toyota also makes efforts to recycle end-of-life electric batteries, in cooperation with Panasonic, and it has activities related to the dismantlability and recyclability of end-of-life vehicles at the design phase.

- **Volkswagen:** Volkswagen also explicitly recognises the link between raw materials and recycling, and is aware of the potential of raw material extraction from used cars from an economic and environmental perspective.77 Volkswagen’s environmental principles also include measures on resource conservation, including the use of secondary raw materials and aiming for optimum recyclability through new technologies. Volkswagen gives the example of the new Golf GTI models, which consist of 40% recycled materials by weight.

- **Ford:** As part of Ford’s environmental approach, it has developed principles for design that are based on life-cycle analyses. Ford Europe has developed a Product Sustainability Index to evaluate the environmental and social impacts throughout the life-cycle of its products.78 However, the indicators it lists as part of this PSI do not include working conditions or human rights conditions within the supply chain. Also, Ford indicates that its recycling efforts do not focus on metals; ‘We have focused our efforts to increase recycled materials on non-metallic parts, which traditionally have little or no recycled content.’79 For these non-metallic parts, Ford provides relative recycling figures on its website.80

- **Honda:** Honda also takes an LCA approach to recycling, stating that it attempts to recycle materials and conserve resources at every stage of a product’s life cycle.81 In Japan, Honda’s recycling policy consists of five phases82; design for recyclability; implementation of recycling measures; priority for designs that allow for reusability; minimize substances of concern; collaborate with all stakeholders. Also in Japan, Honda achieved a recyclability rate of 90% for all its new products.83

- **Nissan:** Nissan considers the recycling of resources as one of three focal points of its environmental approach.84 In its CSR report, Nissan describes how it recycles car parts and has an aluminium recycling program.85 It states: ‘Striving to reduce the use of virgin natural resources, we presently collect and recycle
around 100 tons of end-of-life aluminum wheel rims each month.’ The company reports how it achieved 100% recycling rates at some of its facilities. However, it is unclear how this percentage was measured. It also provides some figures on its recycling activities in Japan, where it has a recycling rate of 76.7% ASR and 94.6% for airbags.

- **Fiat:** As formulated in its Sustainability Plan, Fiat aims to ‘increase recoverability, recyclability and reusability of vehicles’. To achieve this goal, Fiat is committed to extending the use of LCAs to various components or production processes (eg, painting). It also aims to increase the use of recycled materials, by identifying components that could be produced with recycled materials, and the monitoring of the use of recycled materials. Fiat also aims to increase the recyclability of new models by including recycling considerations in the design process, and it has a recyclability rate of 95% by weight for new models.

- **General Motors:** General Motors has formulated aims regarding recycling on its website. It states that it is ‘committed to [...] recycling materials at every stage of the product life cycle’. It aims to include recycled materials for its newly designed vehicles ‘whenever economically and technically possible’. GM models are 85% recyclable and 95% recoverable by weight. GM is aware of the benefits of recycled materials with respect to environmental pollution and manufacturing costs compared to using newly mined raw materials.

### Conclusion

This briefing paper gives an indication of the current state of the automotive sector with regards to CSR and supply chain responsibility, including responsibility for its use of raw materials. The analysis of the company’s own CSR documentation shows that none of the companies considers the social or human rights conditions at the mining level of their supply chain when establishing their CSR approach. None have taken measures to ensure that its supply chain is free of the grave violations that are known to exist in the mining sector. While some companies do discuss their use of raw materials, none give full transparency on the exact use of metals and minerals. Nor does any company indicate that social considerations play a role in their sourcing policies. Furthermore, none of the companies indicate that they consider their supply chain responsibility to extend beyond their first tier suppliers and none link their recycling activities to mitigating the social effects of mining.

However, the sector does have a lot of overall CSR activities, and there are a number of developments that make the sector stand out in a positive way. Firstly, the sector is strongly focused on recycling end-of-life vehicles. Most of
60 Ibid., p.76.
63 Suzuki, Environmental & Social report 2008, p.70.
64 Ibid., p.70.
65 Toyota response to a draft version of this report, email received 09-02-10.
71 Hyundai, 2009 Sustainability Report, p.44.
72 PSA Peugeot Citroen, 2008 Sustainable Development and Annual Report, p.54.
75 Ibid., p.69.
76 Toyota, CSR Report 2009, p.29.
82 Ibid., p.48.
83 Ibid., p.49.
84 Nissan, Sustainability Report 2009, p.25.
85 Ibid., p.56.
86 Fiat Group, 2008 Sustainability Report, p.29.
87 Ibid., p.34.
88 Ibid., p.57.

Disclaimer
It is SOMO’s policy not to publish information regarding specific companies before they had a chance to review the text for factual misunderstandings. SOMO contacted all ten automotive companies mentioned in this research several times. However, only three companies (Nissan, Toyota and PSA Peugeot Citroën) provided feedback to the report. SOMO could therefore not verify the factual accuracy regarding the other seven companies. All information coming from online company sources are referenced throughout the text.
Colophon

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This paper is a publication of SOMO. The Dutch Ministry of Foreign Affairs and DOEN Foundation financed the formation of this publication, however the Dutch Ministry of Foreign Affairs and DOEN Foundation are not the sender of this publication. Therefore the Dutch Ministry of Foreign Affairs and DOEN Foundation are not responsible for the content or accountable for any damage as a result of wrong or incomplete information in this publication.