FAIR PHONES IN THE NETHERLANDS: IT’S YOUR CALL

How Dutch and European mobile network operators can improve responsibility for their supply chain

September 2009
COLOPHON

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MAKEITFAIR
MakeITfair is a European wide project on the electronics industry, especially on consumer electronics. We want to inform young consumers about the conditions and problems of consumer electronics over their full life cycle like human rights violations and non-compliance with social and environmental standards. And we want them to get active against this. At the same time we aim to take the multinational companies into account and ask them to take their responsibility and to change their behaviour.

This report is published as part of the makeITfair campaign. MakeITfair is co-ordinated by the Dutch organisation SOMO. Project partners are SwedWatch, Fair Trade Center, Church of Sweden Aid from Sweden, FinnWatch and Finnish Association for Nature Conservation from Finland; Germanwatch and Verbraucher Initiative from Germany, KARAT from CEE; ACIDH from the DR Congo, CIVIDEPE from India and Labour Action China from China.

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Established in 1973, the Centre for Research on Multinational Corporations (SOMO) is a non-profit Dutch research and advisory bureau. SOMO investigates the consequences of Multinational Enterprises' (MNEs) policies and the internationalisation of business worldwide. SOMO’s expertise lies in the field of international guidelines, treaties and codes of conduct for MNEs, and it conducts research on compliance with related norms. Focus is placed upon research on labour conditions in the global South and cooperation with local organisations and trade unions.

Website: www.somo.nl
CONTENTS

Contents ............................................................................................................................................3
Foreword ...........................................................................................................................................4
Acronyms...........................................................................................................................................5
Summary ...........................................................................................................................................6
Introduction ......................................................................................................................................10
Methodology ....................................................................................................................................12
1. Mobile Network Operators – a global market analysis ........................................................... 13
   1.1 Mobile Network Operators examined in the study ............................................................... 16
2. Corporate Social Responsibility (CSR) issues in the mobile phone industry .........................20
   2.1 Production characterised by low wages and anti-union tactics ............................................ 20
   2.2 Raw materials mined in poor and dangerous conditions .................................................... 21
   2.3 E-waste ‘disappears’ to developing countries ...................................................................... 22
3. Case studies of Dutch mobile network operators ...................................................................25
   3.1 KPN ..........................................................................................................................................26
   3.2 T-Mobile ..................................................................................................................................28
   3.3 Vodafone ..................................................................................................................................30
   3.4 Tele2 ........................................................................................................................................33
   3.5 Conclusion................................................................................................................................34
4. Comparison of Mobile Network Operators in four different countries ..................................36
   4.1 Sales figures and product information ..................................................................................37
   4.2 Recycling and re-use of mobile phones ...............................................................................38
   4.3 Supply chain responsibility.....................................................................................................39
5. Conclusions and recommendations ........................................................................................42
Annex 1: Table 1, including references ........................................................................................46
Annex 2: Standard questionnaire ....................................................................................................48
Annex 3: E-mail from Tele2 NL, declining participation in study ..................................................50
Annex 4: Comparison Supply Chain Policies................................................................................52

Fair Phones in the Netherlands : It’s your call  ■  3
FOREWORD

This report is part of the ‘makeITfair’ project to raise awareness about development issues in the production chain of the consumer electronics industry, with a special focus on products for young consumers, such as mobile phones, MP3 players, game consoles and laptops. The focus of the project is on the consumer electronics industry, as this industry is growing rapidly and facing many social and environmental problems throughout the world. The industry has only recently become the subject of public campaigns, and there is still limited awareness among the wider public about what goes on in the electronics sector. As the production chain for consumer electronic products is a truly global one, the sector is a particularly good example to use in discussing issues of globalisation with young consumers.

The three-year makeITfair programme concentrates on young consumers because they can play a decisive role in moving the industry towards more equitable and sustainable production methods. At the same time, dialogues are being initiated with companies in the electronics industry that are responsible for working conditions throughout their entire supply chain.

In the first year, makeITfair research reports described the conditions under which the raw materials for electronics are extracted. In the second year, the research focused on the production of electronic gadgets, such as mobile phones in Asia. Retailing, and eventually the discarding of products in the last phase of the product’s life cycle, are the focus of research in the current, third year of the project.

Communicating the results of this research entails the publication of Consumer Guides, educational material, toolkits for campaigning organisations and web-based tools. Other activities in this project include capacity building sessions in Eastern Europe and the organisation of an annual international Round Table to bring together electronics companies, non-governmental organisations (NGOs) and trade unions to discuss the various responsibilities for the environmental, human rights and labour conditions down the supply chain of consumer electronics.

MakeITfair is funded by the European Union (EU) and led by a consortium of NGOs from Europe including: Germanwatch, Verbraucher Initiative, SwedWatch, Church of Sweden, Fair Trade Center, FinnWatch/Finnish Association for Nature Conservation, Karat and SOMO. The consortium also includes NGOs in developing countries in Asia and Africa, such as SACOM in China, CIVIDEP in India and ACIDH in the Democratic Republic of Congo.
# ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>Corporate Social Responsibility</td>
</tr>
<tr>
<td>EICC</td>
<td>Electronic Industry Citizenship Coalition</td>
</tr>
<tr>
<td>E-TASC</td>
<td>Electronics – Tool for Accountable Supply Chains</td>
</tr>
<tr>
<td>ETNO</td>
<td>European Telecommunications Network Operators’ Association</td>
</tr>
<tr>
<td>GeSi</td>
<td>Global e-Sustainability Initiative</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organization</td>
</tr>
<tr>
<td>ITU</td>
<td>International Telecommunication Union</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organisation</td>
</tr>
<tr>
<td>SACOM</td>
<td>Students and Scholars Against Corporate Misbehaviour</td>
</tr>
<tr>
<td>SAR</td>
<td>Specific absorption rate</td>
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<tr>
<td>SOMO</td>
<td>Centre for Research on Multinational Corporations</td>
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</tbody>
</table>
SUMMARY

Over the past ten years, the worldwide use of mobile phones has increased rapidly. In 2008, the International Telecommunication Union (ITU) estimated that there were 4.1 billion mobile phone subscribers.\(^1\) This equates to an average global penetration rate of 61%.

A growing proportion of consumer electronic products such as mobile phones is manufactured in developing countries or countries in transition. Every second mobile phone is made in China. Previous makeITfair research found that severe environmental and social problems persist in the mobile phone supply chain, emphasising the need for increased responsibility and accountability in the supply chain.

This makeITfair study focuses on the supply chain responsibility of major mobile network operators in the Netherlands: KPN, T-Mobile, Vodafone and Tele2. In addition, the report makes a comparison of major mobile network operators in Finland, Germany, Sweden and the Netherlands. Some of these operators belong to the global top ten: Vodafone, Telefónica/O₂, Telenor, TeliaSonera, and Deutsche Telekom/T-Mobile. Other companies that are included in the international comparison are E-Plus (KPN subsidiary), the Swedish branch of Tele2, Tre, Elisa and DNA.

Collectively, the mobile network operators included in this report had nearly 1 billion subscribers in 2008, implying they represent almost one quarter of all global subscriptions for mobile communication networks.\(^2\) The mobile network operators’ position in the supply chain is particularly crucial since these companies are an important retail channel of mobile phones for consumers. For this report, makeITfair asked mobile network operators questions about sales, recycling efforts and supply chain responsibility efforts. Fifteen questionnaires were sent out to the national branches of mobile network operators in the Netherlands, Finland, Germany, and Sweden. Three of them declined to answer makeITfair, showing poor transparency.

Dutch mobile network operators compared

Sales figures of the Dutch mobile network operators are surrounded by secrecy, which makes it impossible to assess their exact influence in the mobile phones supply chain. T-Mobile and Vodafone have both started selling their own branded products, removing part of the traditional first tier of their supply chain. This strategy increases the reach and thus the responsibility of these companies into their supply chain. Of the four companies under research, T-Mobile is the only company that offers consumers a ‘green’ mobile phone model.

With regard to perceived customer interest in environmental and social issues associated with mobile phones, the companies differ somewhat. KPN does not have a clear view yet but plans to develop one shortly, Vodafone signals increasing consumer interest in environmental topics, Tele2 refers to a general rise in consumer interest for CSR and sustainability in its e-mail, \(^3\) while T-Mobile mainly sees the interest rising with business clients.

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\(^2\) Based on the the International Telecommunication Union (ITU) estimate of 4.1 billion subscribers in 2008 globally.

\(^3\) see Annex 3 for complete e-mail
KPN, T-Mobile and Vodafone have recycling and re-use programs for mobile phones in place, while Tele2 does not provide its customers with the option to hand in their old mobile. The first three companies use their retail points as collection locations for mobile phones. The fact that Tele2 does not operate its own shops in the Netherlands is no excuse for not offering a ‘hand-in’ option; the company could collect mobile phones by mail. The mobiles collected by KPN, T-Mobile and Vodafone are sold to a recycling company that either sells them on for re-use in developing regions, or recycles them when re-use is no option. As such, the lifetime of mobile phones is extended. 4 KPN, T-Mobile and Vodafone each donate a fixed fee per collected mobile to one or several charities.

In terms of supply chain responsibility, Vodafone and T-Mobile assume the largest share of responsibility. KPN is planning to catch up, and, judging from Tele2’s own public information, supply chain responsibility is non existent in this company. Vodafone is the most transparent about its supplier evaluations, providing insight into the amount and result of its site assessments. Thanks to this transparency, it becomes clear that site assessments cover only a minor fraction of Vodafone’s total supplier base (i.e. 18 site assessments over 2008). For T-Mobile the amount is even smaller (i.e. 3 audits over 2008), and KPN still needs to begin supplier site assessments.

Comparison of mobile network operators in four different countries

Sales figures

Most mobile network operators do not disclose sales figures of mobile phones. The only exceptions from the 12 national branches of mobile network operators that returned the questionnaire are O2 (Telefónica Germany) and KPN. O2 provides sales figures of 3.6 million mobile phones in Germany in 2008. Due to a lack of information, it is not possible to assess their procurement volume of mobile phones. However, an indication is offered by the Finnish Communications Regulatory Authority: almost 30% of mobile phones sold in Finland in 2008 were distributed by mobile network operators. The brands that the operators mention as the most popular are Nokia, Samsung, Sony Ericsson and Apple.

A fairly recent development is the marketing of so-called ‘green’ mobile phones, although it is doubtful whether these phones deserve the label ‘green’. There are only four (branches of) mobile network operators in our selection that explicitly sell ‘green’ mobile phones: T-Mobile Netherlands, Tele2 Sweden, Telenor and DNA. T-Mobile Germany told makeITfair that it is encouraging the manufacturers to produce really green phones (i.e. taking into account the whole life cycle).

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4 Re-use of old electronic appliances in developing countries may have a downside: ultimately, the electronics will end up as e-waste. E-waste needs proper recycling, but recycling practices in the developing world are often not suitable to perform this task. Both KPN and Vodafone work with the company Regenersis for recycling. This company reportedly has set up recycling programmes in the countries where its mobiles are re-used (see: http://www.regenersis.com/userfiles/file/Regenersis%20white%20paper%20on%20responsible%20reuse%20and%20recycling.pdf). The evaluation of the responsibility of these programs would need additional research, but that was beyond the scope of this report.
Recycling and re-use of mobile phones

All the mobile network operators included in this study have a re-use and recycling programme in place, with the exception of Tele2 Netherlands. Since Tele2 does not operate shops in every country, it should start a recycling programme by mail in those countries. Although ‘hand in’ programmes are in place, collection and recycling figures of mobile phones are still dramatically low. There is a lot of room for improvement here.

When asked about initiatives to stimulate environmental design of mobile phones with the manufacturers of mobile phones, eight out of the ten companies that answered this question indicate that they discuss environmental design aspects in their communication with manufacturers during procurement. However, the common marketing practice of mobile network operators offering ‘free’ phones with tie-in subscriptions has an enormous impact on the amount of mobile phones that are circulating on the market and the mounting volumes of e-waste.

Supply chain responsibility

In terms of supply chain responsibility, seven out of the ten mobile networks studied have some sort of supply chain policy in place. Only five of them have systems in place to monitor the compliance with their policies by suppliers, using supplier self-assessment questionnaires and site audits of suppliers (i.e. Telenor, T-Mobile, Vodafone, Telefónica (known as ‘O2’ in Germany) and TeliaSonera). None of the operators in this report uses independent, third party site assessments to monitor their suppliers. Most of the operators are just at the beginning of developing criteria for, and monitoring and verification systems of, their supplier standards. In the cases of companies that use site assessment as part of their supply chain monitoring, the number of audits remains small. This number needs to be increased considerably to cover all high-risk suppliers, ensuring compliance with the social and environmental supplier criteria that are codified in policies.

The content of the supply chain policies differs. Of the seven companies that have a policy, six refer to International Labour Organization (ILO) conventions and five refer to the UN Human Rights Charter or Declaration of Human Rights as a basis for their policies. Most companies state that they will comply with national laws. Such a commitment cannot be regarded as very ambitious.

Only Vodafone, Deutsche Telekom (to which T-Mobile belongs) and Telenor are transparent about the number of audits over 2008. Vodafone and Deutsche Telekom also report the main results of their audits. Vodafone reports it conducted 18 site assessments and made a total of 166 recommendations to suppliers for improvement.\(^5\) Deutsche Telekom states in its Corporate Responsibility Report 2009 that it held three site audits in China, Mexico and Taiwan in 2008.\(^6\) Due to a lack of information, it is impossible to assess how many of the audited suppliers are actually mobile phone manufacturers. Although the supply chain responsibility for Vodafone and Deutsche Telekom is the most developed, the amount of site assessments reported by them are small in comparison to Telenor and other companies in the electronics sector. For example, Philips audited 277 supplier facilities and Apple audited 83 facilities in 2008, mainly in China.\(^7\)

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Conclusions and recommendations

Although all mobile network operators except Tele2 Netherlands have ‘hand-in’ programmes in place, collection and recycling figures of mobile phones are still dramatically low. In order to address this, the first step seems to be to raise awareness about the existence of recycling opportunities. Mobile network operators might even consider a joint awareness-raising campaign. Another way to promote recycling is to offer gift vouchers on products and/or subscriptions when customers hand in their old mobile phone. Such ‘hand in’ programmes also need to be developed outside Europe. Consumers in developing countries often get money for their discarded mobile phones if they sell them to the informal recycling sector, where the phones are recycled improperly. MakeITfair believes that mobile network operators with operations in these regions must consider economic incentives for proper recycling in the emerging markets.

Making SIM-only contracts more attractive to consumers than subscription renewal in combination with a mobile phone represents a promising opportunity for mobile network operators to address several issues in the chain simultaneously – i.e. less mining of precious metals, less time-pressure and thus overwork in manufacturing, less e-waste. In the current marketing of subscription renewals, most operators present consumers with two alternatives: a ‘reduced’ SIM-only tariff or a new mobile phone. Operators could do several things to promote the SIM-only option. They could make the SIM-only subscription more visible by marketing it more actively than the new phone option, or they could skip the option for receiving a new phone with a renewal altogether. Another option is to demand handing in the old phone as a condition of receiving a new mobile phone with a subscription renewal. Each of these options could be accompanied with a message that highlights the environmental and social benefits of the SIM-only or ‘new-for-old’ alternatives, which may enhance the company’s image.

MakeITfair believes that supplier monitoring systems and improvement plans must include representatives of workers from the South, to provide a balanced insight into the suppliers’ performance, as well as an employee perspective on the attainability and desirability of improvement measures. Working in a multi-stakeholder setting would enhance the possibility of taking on labour issues as a company initiative, which the auditing service from the Electronic Industry Citizenship Coalition (EICC) and Global e-Sustainability Initiative (GeSI) cannot. Furthermore, to work towards long-term improvements, the supply chain management system should also include a complaint mechanism for stakeholders along the supply chain.

To conclude, this research report has shown that mobile network operators have developed several initiatives to improve the social and environmental conditions in their supply chains. Some have progressed much further on this pathway than others. Overall, there is still a lot room for improvement throughout the whole mobile phone supply chain and product life-cycle: in the design of mobile phones, the manufacturing process, the marketing of phones and the recycling. Considering the crucial and unique role of the mobile network operators in the mobile phone supply chain, it is very unfortunate that the companies, as retailers, do not fully capitalise on their opportunity to influence both consumers and suppliers on social and environmental issues. MakeITfair urges mobile network operators to pursue improvements in the mobile phone supply chain, and hopes this report will provide the operators with some ideas about how to do so.
INTRODUCTION

Over the past decade, the market for mobile phones has increased rapidly. In 2008 alone, nearly 1.2 billion handsets were sold worldwide.\(^8\) But in spite of this enormous success, the reality is harsh for many mobile phone factory workers. In 2008 and 2009, makeITfair organisations FinnWatch, SACOM (Students and Scholars Against Corporate Misbehaviour), SwedWatch and SOMO (Centre for Research on Multinational Corporations) released reports about the working conditions in seven mobile phone factories in China and the Philippines.\(^9\) The reports revealed severe violations of labour laws and rights in factories producing multimedia phones and items such as chargers and Bluetooth headsets for the big mobile phone brands. Other makeITfair reports have addressed the early stages of the supply chain,\(^10\) namely the appalling working conditions at the mines that extract valuable metals for producing mobile phones and other electronic equipment, and the negative effects of dumping e-waste in developing countries.\(^11\)

In this report, makeITfair focuses on the role and responsibility of mobile network operators (i.e. telecommunication companies that provide services for mobile phone subscribers) in the supply chain of mobile phones. These companies provide the networks and network technology that allow people to communicate with their mobile phones in the first place; without mobile network operators, there would be no mobile phone market. In addition, they are important buyers and retailers of mobile phones. As such they have considerable influence on the mobile telephone market as well as a responsibility to address the social and environmental problems in their supply chains.

This report compares the supplier policies, marketing strategies and recycling programmes of major mobile network operators in the Netherlands, Germany, Sweden and Finland. Although equally important, some issues (e.g. health aspects linked to radiation, debt traps for teenagers and young adults) are not addressed because of time and budget constraints. The research was conducted in the four different countries at the same time. For each country involved, an individual report has been produced that includes case studies of the largest national operators. In addition, an international version of the report was produced from which national level case studies were excluded. This current report is the Dutch version. For case studies of the operators in the other countries and the international version of the report, please refer to the makeITfair website: www.makeitfair.org

This report is organized as follows. In chapter 1, the global market for mobile network operators is analyzed, and each company that is included in this study is shortly introduced. Chapter 2 gives an overview of the main social and environmental issues in the mobile phone supply chain. In chapter 3, case studies of the Dutch mobile network operators are presented. In chapter 4, the sales, recycling efforts and

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\(^8\) [http://www.idc.com/getdoc.jsp?containerId=prUS21659209](http://www.idc.com/getdoc.jsp?containerId=prUS21659209)


\(^11\) S. Nordbrand, "Out of Control: E-waste trade flows from the EU to developing countries," (Swedwatch, 2009).
supply chain responsibility of ten European mobile network operators is compared. Finally, in chapter 5, the main research findings are presented and suggestions are made how to improve the social and environmental conditions in the mobile phone supply chain.
METHODOLOGY

This research examines the efforts made by four mobile network operators in the Netherlands to take responsibility for their supply chains. In addition, it compares efforts among ten leading mobile network operators in Finland, Germany, Sweden and the Netherlands.

For each country, an individual report has been published, including case studies on the market-leading mobile network operators in that respective country. In this Dutch version of the report, case studies of KPN, T-Mobile, Vodafone and Tele2’s operations in the Netherlands are included in chapter 3.12 In addition, in chapter 4 a comparison is made between the mobile network operators in the different countries. Internationally, the selected companies are Vodafone, Telefónica, Telenor, TeliaSonera, T-Mobile, KPN, Tele2, Tre, Elisa and DNA. As data was collected at the national level, and Vodafone, T-Mobile, Tele2, TeliaSonera and KPN have operations in more than one of the selected countries, a total of 15 case studies were conducted. In Finland, TeliaSonera, Elisa and DNA were studied. In Sweden, TeliaSonera, Tele2, Telenor and Tre were analysed. In the Netherlands, Vodafone, T-Mobile, KPN and Tele2 were studied. And in Germany, Vodafone, T-Mobile, KPN’s subsidiary E-Plus, and O2 (Telefónica Germany) were examined.

Data collection methods used for the report included literature and online searches, as well as questionnaires. A standard questionnaire was used for all companies (see Annex 2 for the standard questionnaire). Specific questions were added for certain companies. Fifteen questionnaires were sent out to the national branches of mobile network operators in Finland, Germany, the Netherlands and Sweden in June 2009. Twelve questionnaires were returned. Tele2 Netherlands was among the three companies that denied participation in the study.

The mobile network operators that participated in this study by returning the questionnaire were given the opportunity to respond with comments and corrections of factual errors in their profiles. Their comments were integrated in the final reports.

12 For the international and German, Finnish and Swedish versions of this report, please visit the makeITfair website: http://makeitfair.org/the-facts/reports
1. MOBILE NETWORK OPERATORS – A GLOBAL MARKET ANALYSIS

Over the past ten years, the worldwide use of mobile telephony has increased rapidly. In 2008, the International Telecommunication Union (ITU) estimated that there were 4.1 billion mobile phone subscribers worldwide. This equates to an average global penetration rate of 61.1% (i.e. on average, about 61% of the world population owns a registered mobile telephone – see Figure 1). Compared to the global penetration rate in 1998 – when the ITU registered 318 million mobile subscribers – the figure has multiplied more than tenfold. There has been a clear shift from fixed telephone lines towards mobile telephone usage. In 1998, the number of fixed telephone lines was almost three times higher than the number of mobile phone subscriptions (838 million fixed lines compared to 318 million mobile subscriptions). Today, the number of mobile phone subscriptions is nearly four times higher than fixed telephone line subscriptions. Only 19% of the world population holds a fixed telephone line, and the increase over the past ten years has been marginal.

Nevertheless, figures like the global penetration rate of 61% might be somewhat misleading. On closer examination, there is a huge gap between developed and developing countries. While in Europe the

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16 Ibid.
penetration rate was about 111% in 2008 (i.e. on average every inhabitant owned more than one mobile phone), the penetration rate in Africa was only 28%. In 2008, 38% of people living in Asia were mobile phone subscribers, while in America 72% were subscribers and in Oceania 79% of inhabitants were subscribers.17 Due to the (over)saturation of subscriptions in developed countries – e.g. the 2008 penetration rates of the countries examined in this study are 130% for Germany,18 129% for Finland,19 121% for the Netherlands20 and 119% for Sweden21 – the growth rates of the mobile penetration in developing countries is considerably higher. Africa holds the top position with a growth rate of 32% in 2008, which is not surprising as the continent currently has the world’s lowest penetration rate.22

**FIGURE 2: MOBILE SUBSCRIPTIONS – PENETRATION RATE BY REGION**

![Mobile subscription penetration rate by region](source)

When adopting a global perspective, the market for mobile telephony services presents the following picture: worldwide the ten biggest mobile network operators (measured in the number of subscribers)

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19 Ibid.
20 Ibid.
21 Ibid.
cover a market share of about 46%.\textsuperscript{24} Two out of the ten market leaders are Chinese. Apart from China Unicom, each of the ten biggest mobile network operators is internationally active, not restricting their operations to one country only.

\textbf{FIGURE 3: LARGEST NETWORK OPERATORS IN THE WORLD}

![Chart showing mobile subscribers worldwide](chart.png)

Source: Own calculations\textsuperscript{25}

This study focuses on the major mobile network operators in Finland, Germany, Sweden and the Netherlands (see Table 1). Among them are some of the major global players: Vodafone is ranked second globally, Telefónica third, Telenor fifth, T-Mobile sixth and TeliaSonera seventh. Other companies that are included in this study are KPN, Tele2, Tre, Elisa and DNA. These companies are not listed in the top ten of the world’s largest mobile network operators. Nevertheless they are examined in this study as they are major players on the national mobile network markets of Finland, Germany, Sweden and/or the Netherlands.

\textsuperscript{24} Calculation based on Annual Reports of companies and amount of 4,000,394,600 total mobile subscribers for 2008 http://www.itu.int/ITU-D/icteye/Reporting/ShowReportFrame.aspx?ReportName=/WTI/CellularSubscribersPublic&RP_intYear=2008&RP_intLanguageID=1, see also Figure 3.

\textsuperscript{25} Calculation based on amount of subscribers; figures taken from Annual Reports 2008 of respective companies – only for Bharti Airtel: figures from 31 March 2009.
1.1 MOBILE NETWORK OPERATORS EXAMINED IN THE STUDY

### TABLE 1: MARKETS AND CUSTOMERS FOR OPERATORS IN THIS STUDY

<table>
<thead>
<tr>
<th>MOBILE NETWORK OPERATOR (HOME OFFICE)</th>
<th>MAIN MARKETS</th>
<th>SUBSCRIBERS IN MILLIONS (GLOBALLY/IN RESPECTIVE COUNTRIES STUDIED) BY END 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA (Finland)</td>
<td>Finland</td>
<td>Finland: 1.66</td>
</tr>
<tr>
<td>Elisa (Finland)</td>
<td>Finland, Estonia</td>
<td>Globally: 2.88, Finland: 2.54</td>
</tr>
<tr>
<td>KPN (Netherlands)</td>
<td>Belgium, Germany, Netherlands, France, Spain</td>
<td>Globally: 31.1, Germany: 17.78, Netherlands: 8.4</td>
</tr>
<tr>
<td>Tele2 (Sweden)</td>
<td>Austria, Croatia, Estonia, France, Germany, Latvia, Lithuania, Netherlands, Norway, Russia, Sweden</td>
<td>Globally: 19.401, Netherlands: 0.458, Sweden: 3.36</td>
</tr>
<tr>
<td>Telefónica (Spain)</td>
<td>Argentina, Brazil, Chile, Colombia, Czech Republic, Ecuador, El Salvador, Germany, Guatemala, Ireland, Mexico, Morocco, Nicaragua, Panama, Peru, Puerto Rico, Slovakia, Spain, UK, Uruguay, USA, Venezuela</td>
<td>Globally: 182.82, Germany: 14.93</td>
</tr>
<tr>
<td>Telenor (Norway)</td>
<td>Bangladesh, Denmark, Hungary, India, Malaysia, Montenegro, Norway, Pakistan, Russia, Serbia, Sweden, Thailand, Ukraine</td>
<td>Globally: 164.00, Sweden: 1.9</td>
</tr>
<tr>
<td>TeliaSonera (Sweden)</td>
<td>Azerbaijan, Cambodia, Denmark, Estonia, Finland, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Nepal, Norway, Sweden, Spain, Tajikistan, Uzbekistan</td>
<td>Globally: 134.8, Finland: 2.68, Sweden: 5.33</td>
</tr>
<tr>
<td>T-Mobile (Germany)</td>
<td>Albania, Austria, Bulgaria, Croatia, Czech Republic, Germany, Greece, Hungary, Macedonia, Montenegro, Netherlands, Romania, Slovakia, UK, US, Poland</td>
<td>Globally: 128.34, Germany: 39.1, Netherlands: 5.3</td>
</tr>
<tr>
<td>Tre/3 (Hutchison Whampoa) (Hong Kong)</td>
<td>Australia, Austria, Denmark, Hong Kong and Macau, Ireland, Israel, Italy, Sweden, UK</td>
<td>Globally: 25.3, Sweden (together with Denmark): 1.231</td>
</tr>
<tr>
<td>Vodafone (UK)</td>
<td>Albania, Australia, Czech Republic, Egypt, Fiji, Germany, Ghana, Greece, Hungary, India, Ireland, Italy, Kenya, Malta, Netherlands, New Zealand, Poland, Portugal, Romania, Spain, Turkey, UK, Qatar</td>
<td>Globally: 255.74, Germany: 36.17, Netherlands: 4.54</td>
</tr>
</tbody>
</table>

The core business of mobile network operators is to offer mobile communication services. Some of the operators own their mobile network infrastructure, while others rent part or all of their network infrastructure from the owning operators. This latter group is growing rapidly.\(^{27}\) It is common for mobile network operators to offer mobile devices along with the service contracts as a subscription package. A new trend among mobile network operators is to offer note- or netbooks with internet subscription packages, as they have begun to offer internet access and services.\(^{28}\)

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\(^{26}\) Please refer to Annex 1 for the sources for the figures in this table.

\(^{27}\) These companies are often referred to as ‘mobile virtual network operators’, but in this report we will use the term ‘mobile network operator’ to refer to all companies selling mobile communication services alike.

Telefónica
The Spanish corporation Telefónica does business in 21 different countries; many of them are Latin American. In Europe it operates mostly under the O2 brand (Republic of Ireland, UK, Germany, Czech Republic and Slovakia). Its activities in Germany – due to its acquisition of O2 Germany in 2006 – make it relevant to this report. Telefónica is represented on the German market with a share of about 14% (all market shares refer to the number of mobile subscribers), ranked fourth of the four biggest providers.29 Its worldwide standing is remarkably better; ranked third with a worldwide market share of about 5%.30

Telenor
This Norwegian company has 143 million subscribers, representing a global market share of about 4%. Worldwide it is the fifth largest provider.31 It operates in Europe and Asia. In this report it is of interest as the third largest provider in Sweden, with a market share of about 17%.32

TeliaSonera
TeliaSonera is the result of a merger between a Finnish company (Sonera) and a Swedish company (Telia) in 2003. With about 135 million subscribers and a global market share of about 3%, it is ranked seventh in the worldwide comparison of mobile network operators.33 The company’s relevance to this report lies in its activities in Sweden, where it is market leader with a market share of about 40%,34 and Finland, where it is market leader as well with an approximate market share of 39%.35

T-Mobile
T-Mobile, the mobile services division of the German company Deutsche Telekom, operates in 11 different countries (see Table 1). Its various activities on a global level result in a global market share of about 3%.36 For this report, T-Mobile is of interest because it is the second largest mobile network operator in the Netherlands with a market share of about 27%.37 It is also the market leader in Germany, where it holds a market share of 36.5%.38

Vodafone
The Vodafone Group is based in the UK and operates in 21 different countries (see Table 1). According to its 2009 annual report, it had about 255.74 million subscribers39 by the end of 2008, suggesting a

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30 Figure 3.
31 Ibid.
33 Figure 3.
35 Ibid.
36 Figure 3.
worldwide market share of approximately 6%.\(^{40}\) The company is included in this study due to its activities in the Netherlands and in Germany. It is the third largest operator in the Netherlands with 21% of market share.\(^{41}\) In Germany, Vodafone is the second largest operator, with a market share of about 32.6%.\(^{42}\)

KPN, Tele2, Tre, DNA and Elisa Oyi are not listed in the top ten of the world’s largest mobile network operators. Nevertheless they are of relevance as actors on the national mobile network markets of Germany, Sweden, Finland and the Netherlands, the countries examined in this study.

**KPN**

KPN is a Dutch company and market leader in the Netherlands with a market share of about 45%.\(^{43}\) Furthermore, it operates in Belgium, France, Spain and Germany. It appears twice in this study, due to its role as market leader in the Netherlands, and due to the fact it owns the fourth biggest network operator in Germany, the Eplus Group, with a market share of 17%.\(^{44}\)

**Tele2**

Tele2 is a Swedish company and does not fully own the network it uses, and as such is a mobile virtual network operator. Tele2 operates in Austria, Croatia, Estonia, Germany, Latvia, Lithuania, the Netherlands, Norway, Russia and Sweden, where it is ranked second in terms of market share (approximately 30%).\(^{45}\) Apart from its large market share in Sweden, in the Netherlands it is ranked fourth (with a market share of about 2%),\(^{46}\) and is therefore included within this study.

**Tre**

Tre (or “3”) – is a brand name for mobile network operators from Hong Kong. It is owned by the Hong Kong company Hutchison Whampoa.\(^{47}\) With about 19 million subscribers worldwide, its global market share is relatively small. Nevertheless, Tre is the fourth largest operator in Sweden and is therefore a subject of this study.

**DNA**

DNA is a Finnish company and is included due to its role as the third largest mobile network operator in Finland, with 1.7 million subscribers in Finland and a market share of about 20%.\(^{48}\)

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\(^{40}\) Figure 3.


\(^{46}\) 0.458 million Tele2 subscribers in the Netherlands; see Tele2, 2008. *Full year report*; [http://hugin.info/133413/R/1288826/291256.pdf](http://hugin.info/133413/R/1288826/291256.pdf); p. 15


Elisa Oyi
Elisa Oyi is a Finnish telecommunication company, which was formerly called ‘HPY’ until 2000. According to its own 2008 annual report, Elisa Oyi holds a 50% market share in ‘3G’ (i.e. 3rd generation network) users in Finland, which does not only include mobile customers, but also broadband internet and fixed telephony users.49

2. CORPORATE SOCIAL RESPONSIBILITY (CSR) ISSUES IN THE MOBILE PHONE INDUSTRY

In 2008, 1.18 billion mobile phones were sold worldwide.\textsuperscript{50} The economic crisis has caused a slow-down in sales, but market analysts predict that sales will pick up already by 2010.\textsuperscript{51}

A growing proportion of consumer electronics is manufactured in developing countries or countries in transition. Every second mobile phone is made in China. Most of the workers on the production lines are young women who often carry a heavy burden as the main breadwinners of their families. Yet they are often denied many of their basic rights and earn wages that are very difficult to live on. In addition, raw materials (metals) used to make mobile phones are often extracted in poor conditions. And e-waste flows to developing countries create health and environmental problems.

2.1 PRODUCTION CHARACTERISED BY LOW WAGES AND ANTI-UNION TACTICS

Many consumers believe that it is the actual brand name companies that manufacture the phones bearing their logo, but this is not necessarily true. In 2007, 30.1\% of all mobile phones were designed or produced by so-called contract manufacturers, unknown to most consumers, like Flextronics, Foxconn, and BenQ.\textsuperscript{52}

Besides these contract manufacturers, a wide range of component producers exist that make parts for the final product. The supply chain of the mobile phone industry has a high degree of outsourcing. Over the years, production centres have moved from one country to another in search of lower costs and to get closer to booming new markets. Between 1995 and 2006, the Asia Pacific area’s share of global electronic production increased from 20\% to 42\%, while production in Western Europe, the US and Japan continues to decline.\textsuperscript{53}

The most common problems in the manufacture of mobile phones include low wages, excessive working hours, disrespect of union rights, health and safety issues and growing job insecurity through temporary contracts and agency work. MakeITfair has examined working conditions in seven factories that make mobile phone (or their parts) in China and the Philippines in 2008 and 2009.\textsuperscript{54} These factories are suppliers for Apple, LG, Motorola, Nokia, Samsung and Sony Ericsson. In China, all studied factories paid new workers a basic wage equal to the legal minimum, 75-85 Euros per month, for full-time work. In both countries workers worked compulsory overtime of up to 100-180 hours per month – a gross violation of the local labour laws and International Labour Organization (ILO) conventions. Workers were often fined if they made mistakes or fell asleep at work. The electronics industry also has a history of widespread anti-union tactics, which leads to a very low unionisation percentage and hardly any collective bargaining agreements. In the Export Processing Zones in the Philippines, where many of the electronics

\textsuperscript{50} http://www.idc.com/getdoc.jsp?containerId=prUS21659209
\textsuperscript{51} http://www.eetimes.eu/uk/217600424
\textsuperscript{53} SwedWatch, 2008. Silenced to deliver: Mobile phone manufacturing in China and the Philippines.
factories can be found, a ‘no union – no strike’ policy is very effectively applied. Less than 10% of the Philippines’ electronics firms are thought to have unions.

All of the five largest mobile phone brands – Nokia, Samsung, Motorola, LG and Sony Ericsson55 – have adopted codes of conduct stating that human rights and the labour rights of workers will be guaranteed for all workers producing for them. However, the situation at the factories looked at in the makeITfair report shows that this is not the case. Four out of the five largest mobile phone companies claim that they monitor compliance with their ethical guidelines by their suppliers.56 However, in reality a large part of the companies’ supply chains are left uncontrolled, since the four companies that carry out audits mainly monitor random samples of the suppliers that are closest to them (so-called first and second tier suppliers), while the most severe problems are found further down the supply chain.

BOX1: SUPPLY CHAIN RESPONSIBILITY AND CODES OF CONDUCT

Over the last decade, companies have been put under increasing pressure to make sure that the products they sell are made under good social and environmental conditions. They should not only apply this to their own companies, but also to the companies that supply them with parts and products. Mobile phone companies and many others have adopted codes of conduct for this purpose, and have put efforts into monitoring and auditing their suppliers.

According to makeITfair, codes of conduct should be based on international standards such as the International Labour Organization (ILO) conventions. The ILO’s core labour standards are freedom of association, right to collective bargaining, no discrimination of any kind, no forced or slave labour, and a minimum employment age. There are several other generally accepted labour standards; health and safety measures, a maximum working week of 48 hours and voluntary overtime of 12 hours maximum, a right to a living wage and the establishment of an employment relationship.57

The world’s five leading mobile phone companies acknowledge, to varying degrees, that they have a responsibility for labour conditions in their supply chains. The companies’ codes of conduct stipulate the rights of the workers. Most of them refer to abiding to national laws and make references to international norms in general. However, the codes lack effective implementation measures, since companies primarily rely on self assessment by suppliers.58

2.2 RAW MATERIALS MINED IN POOR AND DANGEROUS CONDITIONS

A mobile phone may require up to 30 metals to function. For example, half of the world’s tin is used in electronic solders, and one fourth of its cobalt is used in portable products such as mobile phone batteries. These metals often come from mines in Africa and Asia. They are frequently mined in breach of several international conventions.59 Many miners work in poor and dangerous conditions, and the environment suffers, with subsequent harm to the communities around the mines. In some cases, the

55 These ‘big five’ held more than 80% of the mobile phone market in 2008.
56 In 2008, LG and Samsung did not do audits for their suppliers regarding ethical and social demands. Samsung states that it has started doing audits of some of its suppliers regarding ethical demands in 2009. For more information and a comparison of the mobile phone companies’ CSR-work, see: Torstesson, A. and Riddselius, C. 2008: En rapport om mobiler - de största företagens etikarbete, Fair Trade Center and SOMO, 2008. Mobile connections, Supply Chain Responsibility of 5 Mobile Phone Companies SOMO Paper.
mining of minerals for the electronics industry has contributed to the ongoing conflict in the Democratic Republic of Congo; militias sold the minerals destined for manufacturing electronics, and used the revenues to buy arms.\textsuperscript{60}

In 2007, makeITfair tracked the supply chains of some of these metals from mines to mobile phones and other electronic products.\textsuperscript{61} Mining companies and processors are part of the mobile phone companies’ supply chain and the electronic industry therefore has an obligation and an opportunity to influence the mining sector.\textsuperscript{62} Income generated by mining operations in resource-rich countries such as the DR Congo and Zambia are crucial to combat poverty and create development, but only when they are sourced and traded in a responsible way.

In 2007, the electronic industry told makeITfair that the metal used in mobile phone production was out of its sphere of influence and that the industry was an insignificant consumer compared to other sectors. But after conducting its own research, and after continuous dialogue with makeITfair, industry associations accepted a shared responsibility for the situation at the mining level. They started to explore possible collaboration in multi-stakeholder initiatives on social and environmental conditions in the mining industry, and also started looking into tracing specific metals. MakeITfair is in dialogue with the companies to pursue this issue further.

2.3 E-WASTE ‘DISAPPEARS’ TO DEVELOPING COUNTRIES

The increased consumption of electronic items like mobile phones has caused a parallel increase in discarded products. The UN estimates that up to 50 million tonnes of electronic waste, so-called ‘e-waste’, may be generated worldwide each year.\textsuperscript{63} Although they are small, mobile phones contain a vast range of both potentially dangerous substances and precious metals. It is therefore important that the recycling is done properly and thoroughly. If more phones were recycled, fewer metals would have to be mined and there would be fewer dangerous substances harming the environment.

There are over four billion mobile phone users in the world today.\textsuperscript{64} If each of them handed in one unused phone, 240,000 tonnes of raw materials could be saved. This would be the equivalent in greenhouse gas emissions as taking four million cars off the road. However, research presented by Nokia shows that globally only 3% of all consumers recycle their used phones.\textsuperscript{65}

EU legislation requires that the cost of properly disposing of electronic products must be paid by the producers, and that they must phase out some of the most hazardous substances.\textsuperscript{66} This legislation,\textsuperscript{67} makeITfair has developed a list of principles on the CSR issues in the extraction phase. These can be found at: makeitfair.org/companies/list-of-principles/view?searchterm=list%20of%20principles

\textsuperscript{60} FinnWatch, 2007. Connecting Components, Dividing Communities – Tin production for consumer electronics in the DR Congo and Indonesia.
\textsuperscript{64} Nokia press release, Global consumer survey reveals that majority of old mobile phones are lying in drawers at home and not being recycled, 8 July 2008. Available at http://www.nokia.com/A4136001?newsid=1234291
\textsuperscript{65} The WEEE Directive and the RoHS Directive.
together with a stronger focus on environmental issues in Western markets, has made several mobile phone companies produce more eco-friendly products that are easier to recycle when they reach their end-of-life. In June 2009, Sony Ericsson presented a new eco-friendly model in Sweden. A day later, Nokia started marketing a new eco-model that was due to be launched in the third quarter of 2009. Increased production and sales of more eco-friendly electronics will have global effects, since the electronics market and its production processes are global. However, in order to move this development forward, there needs to be a visible demand from consumers for sustainably produced electronics. The mobile phone operators can play an important role here.

Since several developing countries in Asia and Africa lack proper systems for recycling and disposal, they are presently experiencing increasing problems with handling e-waste. In many of these countries (for example, China and Ghana) e-waste is being handled by unprotected workers in the informal sector, a dangerous situation that also causes great damage to the environment. Yet mountains of e-waste are growing by the day in these countries. The most important reason is that consumption of electronics is increasing in these countries. Furthermore, e-waste is exported from the rich world to developing nations. The average annual e-waste collection rate within the EU is about five kilos per person, while it is expected that each inhabitant generates 15 kilos of e-waste annually. Parts of this hidden flow are exported for reuse, recycling or disposal in Asia and Africa, often illegally.

MakeITfair claims that the lifecycle of mobile phones is far from sustainable at present, especially when effects in developing nations are taken into account – effects caused by the mining of metals, manufacturing in Asia and final waste treatment. The production of consumer goods and mining of raw materials give developing countries the opportunity to develop their economies and societies, if companies respect labour and human rights and the environment, and take responsibility for their supply chains. MakeITfair believes that mobile network operators have the responsibility to address the concerns that were described in this chapter. As retailers of mobile phones, mobile network operators can urge mobile phone companies to adopt solutions that will improve the situation throughout their supply chains.

69 Out of control – E-waste trade flows from the EU to developing countries.
BOX 2: THE GLOBAL E-SUSTAINABILITY INITIATIVE (GESI) AND THE ELECTRONIC
CITIZENSHIP COALITION (EICC)\(^{70}\)

In 2001, the Global e-Sustainability Initiative (GeSI) was established to promote sustainable development in the
ICT sector. At the time of writing, GeSI has 24 members. Of the ten mobile network operators included in this
study, KPN, Vodafone Group, Deutsche Telekom and Telefónica (O2) are GeSI members. Some of GeSI’s general
principles for its members include:

- meeting or exceeding, where appropriate, requirements of all applicable legislation;
- minimising a company’s own operational impacts on the environment; and
- maximising our contribution to the societies in which we operate.

GeSI has established a number of working groups, including a supply chain working group. This group explores
ways in which ICT companies can work more closely together to improve management of the social and
environmental risks in their supply chains. In partnership with another industrial initiative (involving many
computer companies), the Electronic Industry Citizenship Coalition (EICC), GeSI has developed common tools,
including E-TASC\(^{71}\), a web-based self-assessment tool for suppliers, and a shared audit programme.
These standard industry approaches are designed to encourage electronics suppliers to improve labour and
environmental issues by presenting an industry-wide call to improve and by avoiding duplication between
customers. However, they have been criticised because there is no clear strategy that ensures the active
involvement of representative groups of stakeholders on all decision-making levels. Stakeholder meetings
cannot replace a true multi-stakeholder process.

Many GeSI and EICC members have developed own code of conducts based on the EICC Code of Conduct. The
EICC Code refers to issues like forced and child labour, wages, working hours, non-discrimination and freedom
of association. Review processes on the EICC Code have been carried out with input from civil society
organisations. So far, this has not led to improvements and the EICC Code is falling well short of what is
considered to be the threshold standard of a code; the EICC Code does not include the full right to organising
and no collective bargaining, a living wage and a clear limit on normal working hours and overtime hours.
Although joint audits are being done, follow up is not coordinated, which means that it is left to the individual
companies to each come up with a corrective action plan - or not - and does not require working together on it.

\(^{71}\) See: http://e-tasc.achilles.com/default.aspx
3. CASE STUDIES OF DUTCH MOBILE NETWORK OPERATORS

Mid 2008 the number of mobile connections in the Netherlands had risen to 19.9 million. This means that the number of connections per inhabitant, ‘the degree of penetration’, is 121%. This is one of the highest percentages in the world. The infrastructure that is required for the resulting mobile communication is operated by a small number of mobile network operators, as concentration among the mobile network operators in the Netherlands continues. While in 2005 there were still five operators that owned a share of the Dutch mobile phone network, there are currently only three left: KPN, T-Mobile and Vodafone. Next to these three mobile network operators, there are over 50 mobile virtual network operators active in the Netherlands. These are operators that sell mobile communication services to customers, but do not (fully) own their own network infrastructure. Tele2 belongs to this category. Instead, these companies use mobile network operators’ infrastructure for their purposes. 71% of all the clients of virtual network operators use KPN’s network.

This chapter examines the role that Dutch mobile network operators (whether virtual or not) play in the mobile phone supply chains by means of case studies. It concentrates on the operators with the largest market share in terms of connections, since these companies are expected to sell the most mobile phones to consumers. Although Tele2 is a small player on the Dutch market compared to the top 3 ‘giants’, it is still relatively big compared to the other 50 players on the market. Therefore, Tele2 is included in this chapter.

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>MARKET SHARE</th>
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<tbody>
<tr>
<td>KPN</td>
<td>30-40%</td>
</tr>
<tr>
<td>T-Mobile</td>
<td>20-30%</td>
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<tr>
<td>Vodafone</td>
<td>20-30%</td>
</tr>
<tr>
<td>Tele2</td>
<td>0-5%</td>
</tr>
<tr>
<td>Others</td>
<td>10-20%</td>
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</tbody>
</table>

There are roughly two models for mobile services subscriptions in the Netherlands: post-paid and pre-paid subscriptions. With a post-paid subscription, the customer buys a fixed amount of mobile phone calling minutes a month for a predefined period of time (normally one or two years). With a pre-paid subscription, the customer is free to buy any amount of calling minutes whenever he/she pleases. In their marketing of post-paid subscriptions, it is common practice for the Dutch mobile network operators to offer a mobile phone (within a certain price range) for free as part of a subscription-package. When subscriptions expire after one or two years, operators offer subscribers either a new phone or a ‘reduced’ subscription fee without mobile phone, which is referred to as a sim-only subscription, to prolong the contract. Of course, although the sim-only subscription is marketed as a discounted subscription compared to a ‘normal’ subscription which includes mobile phone, it is in fact the other way around:

72 Opta marktmonitor 2008
73 OPTA Jaarverslag 2007
74 http://www.opta.nl/nl/actueel/alle-publicaties/publicatie/?id=2756
subscribers actually pay off the costs for their mobile phone through their monthly subscription costs. The phone is paid off in either one or two years, depending on the subscription contract, rate and mobile phone model. Pre-paid subscriptions do not come with free phones, but one can acquire a phone for as cheap as 19.95 EUR.

3.1 KPN
KPN is an originally Dutch company. Historically, it was a state-owned telephone company and the nation’s telecom monopolist until the 90s, up until the point when the telecom market was liberalized. KPN is market leader in terms of the number of mobile phone connections, and has strengthened its position with the acquisition of Telfort in 2005. Among KPN’s subsidiaries are Getronics, BASE, XS4ALL and E-plus. The latter is a German operator which will appear in the international comparison (chapter 4) as it was included in the German study.

■ Sales figures and product information
Apart from stating that KPN has sold more than 100,000 mobile phones in the Netherlands in 2008, the company does not disclose any more specific sales figures. This lack of transparency appears to be common practice among mobile network operators, since none of the companies included in this chapter have revealed these figures.

In the procurement of mobile phones, KPN has included environmental performance aspects (e.g. energy use) for some years. With its recently developed supplier code of conduct (see below), other sustainability aspects of the mobile phones it procures and sells on to consumers will increasingly be part of the selection process. It is still unclear how sustainability criteria will be weighed against other criteria in the procurement process, and whether and how KPN’s supplier code will influence its product portfolio.

The company does not sell mobiles marketed as ‘green’ or ‘fair’. KPN is of the opinion that within its target groups, marketing of other mobile phone attributes is more lucrative. However, consumer interest in social and environmental aspects of mobile phones will be further discussed within the company. 77

■ Recycling and re-use of mobile phones
As KPN indicates in response to the questionnaire, its recycling rates of mobile phones are “less than several percentages of sales”, but KPN intends to increase these rates. The company is currently developing a more active recycling programme, which includes a briefing to employees of KPN’s shops and KPN’s customer service aimed at motivating customers to hand in their old mobiles; the possibility for customers to send in their old mobile phone through mail free of charge; and a webpage with instructions for customers on how to hand in old mobile phones. The collected mobile phones are generally sold on to an electronics recycling company and, when possible, exported for second hand use in Eastern Europe and Africa. Revenues created by the selling of the old mobiles to the recycling company—on average 3.50 euro’s per mobile—, will benefit the foundation that KPN has initiated: the Finest Contact Foundation (in Dutch: ‘Mooiste Contact Fonds’). The foundation’s mission is to stimulate social contact

75 S. Drillenburg Lelijveld - CSR-manager Royal KPN NV, Questionnaire, returned 24 June 2009
76 J. Wilde and E. de Haan, "The High Costs of Calling. Critical issues in the Mobile Phone Industry.," (Amsterdam: SOMO, 2006).
77 S. Drillenburg Lelijveld - CSR-manager Royal KPN NV, Questionnaire, returned 24 June 2009
78 Ibid.
79 For more information, see the foundation’s website: www.mooistecontactfonds.nl
for vulnerable groups that risk social exclusion. KPN is in the process of formulating mobile phone collection targets.

Supply chain responsibility
KPN has introduced a Supplier Code of Conduct in 2008. This code specifies requirements for suppliers in the areas of human rights, labour conditions, consumer safety and environmental impacts of production. Before the introduction of this code, KPN only assessed compliance of suppliers with environmental norms. 45 of the 86 suppliers that received the new code in 2008, have signed it. It is yet unclear how KPN will proceed with the other 41 suppliers that have not returned the code. At present, the code’s status is not binding for its suppliers.

In terms of quality of the code there is room for improvement. Although the code is based on and refers to the United Nations Human Rights Charter and the core conventions of the International Labour Organization, the supplier requirements are formulated rather vague. Although the code refers to ILO conventions in general, it does not specify specific supplier requirements and restrictions. For instance, while the code urges suppliers to withdraw from the use child labour, an age minimum is not specified. The references to employee wages and overtime are somewhat more specific since they require compliance with national laws. However, this requirement is not very ambitious: suppliers have to comply with these laws anyway, with or without KPNs code. Overall, the code in its current form leaves room for interpretation and therefore seems unfit for giving it a binding status. KPN says it intents to gradually increase the ambition level of the code. In fact, a recent stakeholder dialogue organized by KPN on its newly developed code showed there is quite some room for discussion. Upon conclusion of the dialogue session, KPN suggested it may even decide to replace its individual suppliers code with the code of the industry initiative EICC, possibly accompanying it with annexes that ‘repair’ the weaker parts of the EICC code.

The scope or reach of the current policy is up to the 2nd supplier, as the policy states that: “suppliers will inform their employee’s and subcontractors of their compliance with this code and will strive to have subcontractors accept the relevant terms of this Code as well”. This text element further exemplifies the vagueness of the requirements; wording like “strive for” and “relevant terms” leave plenty of room for interpretation.

KPN stands at the beginning of the implementation of the suppliers code. The suppliers code is part of KPNs procurement procedure and as such intends to influence the selection of suppliers. In the case of existing suppliers, the company states that “in the annual evaluation of supplier relationships it will explicitly consider sustainability aspects” and a series of audits is planned for 2009. Nevertheless, the company is still in the early stages of the development of an implementation and monitoring system for its suppliers code. Although the code refers to self-assessments and audits as possible monitoring tools, the

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80 S. Drillenburg Lelijveld - CSR-manager Royal KPN NV, Questionnaire, returned 24 June 2009
stakeholder dialogue session mentioned above made clear that no such system is yet in place. \(^{85}\) In response to our questionnaire, KPN explains that the only monitoring to date are informal checks of its procurement office. Furthermore, there is no procedure in place yet to follow in case of non-compliance with the code. \(^{86}\) It will remain to be seen how KPN will decide to implement and monitor its new suppliers code, and in which timeframe.

### 3.2 T-MOBILE

T-Mobile Netherlands B.V. (from now on simply referred to as T-Mobile) is a subsidiary of German parent company Deutsche Telekom AG (DT). This relationship is the result of the acquisition of Dutch provider Ben by DT in 2002, through which it acquired a considerable share of the Dutch market. Ben was then transformed into T-Mobile. As DT also operates a T-Mobile division in Germany, this company will appear in the international comparison chapter.

- **Sales figures and product information**

In line with other mobile network operators, T-Mobile does not provide sales figures of mobile phones. \(^{87}\)The online T-mobile shop sells mobile phones of all the large brands, and it offers ‘T-Mobile’ branded phones as well. \(^{88}\)

In the procurement process of mobile phones for the T-Mobile product portfolio, social considerations are integrated by means of a contract supplement that is referred to as the Social Charter (see section on supply chain responsibility). T-Mobile is the only mobile network operator that offers Dutch consumers a ‘green’ mobile phone. As of the 2nd of July, T-Mobile introduced the Samsung S3030 Eco as the first green mobile phone on the Dutch market. Nevertheless, T-Mobile regards consumer interests in social and environmental issues related to mobile phones virtually non-existent. It does observe some movement among its business customers; (prospect) business customers increasingly inquire about which CSR initiatives T-Mobile is pursuing and whether T-Mobile is compliant with the sustainable procurement criteria that have been developed by Senternovem for the Dutch government. \(^{89}\) \(^{90}\)

- **Recycling and re-use**

T-Mobile has set up a recycling programme in 2008. Both customers and T-Mobile employees can return their handsets that are no longer in use at special return points in all T-Mobile shops and the T-Mobile offices in The Hague, Arnhem and Breda. T-Mobile donates the net results of the recycling programme to the charity War Child. Apart from the statement that “T-Mobile makes sure that the handsets are collected and recycled in a responsible way”, it remains unclear how the handsets are disposed of, and what percentages are recycled and re-used. T-Mobile has no recycling and re-use figures available. \(^{91}\)

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\(^{86}\) S. Drillenburg Lelijveld - CSR-manager Royal KPN NV, Questionnaire, returned 24 June 2009

\(^{87}\) C. de Rooij - CSR Manager T-Mobile Netherlands, Questionnaire, returned on 28 July 2009

\(^{88}\) T-Mobile on-line shop: http://www.t-mobile.nl/persoonlijk/htdocs/page/shopping/acquisitionoffers.aspx

\(^{89}\) C. de Rooij - CSR Manager T-Mobile Netherlands, Questionnaire, returned on 28 July 2009

\(^{90}\) The Dutch government has committed itself to 100% sustainable procurement in 2010. For this purpose, Senternovem, an agency of the Dutch Ministry of Economic Affairs, to develop sustainable procurement criteria for 45 product categories, among which ‘networks, telephone services and telephone equipment’. In implementing their CSR policies, companies apparently use these criteria as guidelines for their own procurement.

\(^{91}\) C. de Rooij - CSR Manager T-Mobile Netherlands, Questionnaire, returned on 28 July 2009
Supply chain responsibility

Judging from the DT website and its corporate responsibility report, supply chain responsibility is well developed at T-Mobile’s parent company DT. DT has a procurement volume of 19.7 billion EUR in total, and acknowledges its responsibility in its supply chains accordingly. The parent company of T-Mobile has developed a sustainable procurement strategy that is based on a Social Charter combined with Social Audits.

The DT Social Charter sets out the basic social principles the group adheres to “in compliance with internationally recognized norms, directives and standards, in particular those of the ILO, OECD and the Global Compact”. It includes explicit reference to human rights in general as well as specific labour rights. In some instances its wording is rather strict. For instance, the company “guarantees” the observance of minimum employment ages within national laws, as well as the observance of the respective national regulations on hours of work. Notwithstanding this strictness, the ambition level of the charter is rather modest, since it essentially refers to compliance with national laws.

The Social Charter is applicable to DT employees and suppliers alike as it sets out that “Deutsche Telekom shall ensure the group-wide communication of the Charter both to its employees and its suppliers and expects the latter to declare themselves willing to observe, respect and apply these basic principles throughout their sphere of responsibility”. The DT Social Charter is an integral part of all supplier/vendor contracts, including the contracts with mobile phone producers, and as such is a mandatory supplier requirement. Sustainability requirements are not stricter for the manufacturers of the T-Mobile branded phones; requirements are the same for all suppliers.

The verification and monitoring tool for the Social Charter is the Social Audit. The key components of this Social Audit are:

- Risk assessments
- Supplier self-assessments
- Internal supplier assessments
- Personal contact and constructive dialogue with suppliers and business partners
- Audit reports including audit evaluations.

The audits are performed by the company itself, by the Sustainability Management unit in collaboration with the Sustainable Procurement Working Group. DT states in its Corporate Responsibility Report 2009 that it held three site audits in China, Mexico and Taiwan in 2008. Furthermore, on its website it is stated that “Deutsche Telekom has already held several supplier audits and plans to make greater use of this method in its future supplier management activities. The company’s target is to cover the majority of the Group’s procurement volume with audited suppliers”.

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Other implementation and monitoring instruments that are mentioned in DT corporate information are awareness raising and training of procurement staff, supplier workshops and supplier self assessments via the information system E-TASC (Electronics - Tool for Accountable Supply Chains). This web-based self assessment tool was developed through the joint efforts of the Global e-Sustainability Initiative (GeSI) and the Electronic Industry Citizenship Coalition (EICC), both industry-level CSR initiatives. Suppliers fill in a single questionnaire on E-TASC and can share their responses with multiple participating customers, rather than completing separate assessments from different companies. The tool includes a risk assessment that automatically provides a report identifying potential risk areas and best practice examples to help improve performance. Deutsche Telekom has been requesting information via E-TASC from its major suppliers (representing 80% of the procurement volume) as a mandatory requirement since 2007. One tool used by DT to support adherence to and implementation of its corporate policies throughout the group is its internal policy database, which gives all employees throughout the Group access to the group rules and provisions. At T-Mobile, sustainable procurement is currently professionalized according to the general DT strategy. At the time of writing, sustainable procurement at T-Mobile is mainly confined to the inclusion of the social charter in supplier contracts, but other measures may be considered to better include social and environmental considerations in procurement. As with regard of verification and monitoring of the sustainable procurement strategy, this is still in an early stage of implementation. The instruments that are already used within DT are currently being assessed for their applicability to the Dutch situation. T-Mobile has no procedure in place yet to follow in case of non-compliance, but the goal is to integrate the sustainability criteria into the existing procedure for continued non-compliance by suppliers. This means that cases of non-compliance will first be handled within the procurement department and finally they will be send to the legal department to decide on appropriate measures.

3.3 VODAFONE

Vodafone Netherlands (‘Vodafone’) is part of the Vodafone group which operates in 20 countries, among which Germany. The German branch of Vodafone will appear in the international comparison chapter.

- Sales figures and product information

Not surprisingly and in line with the other operators, Vodafone does not disclose any mobile phone sales figures. Vodafone sells all the major mobile phone brands, but is developing its business strategy to include more Vodafone-only branded products, which removes the traditional first tier of its supply chain (e.g. Nokia, Apple).

Vodafone procures its mobile phones for retail at group level, so communication with suppliers takes place at group level as well. In purchasing mobile phones with suppliers, social and environmental considerations of the mobile phone production process are considered by means of a Code of Ethical Purchasing (see section on supply chain responsibility). The company does not explicitly sell any green mobile brands or models. The company indicates that there is a possibility that it will start introducing

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97 C. de Rooij - CSR Manager T-Mobile Netherlands, Questionnaire, returned on 28 July 2009
99 C. de Rooij - CSR Manager T-Mobile Netherlands, Questionnaire, returned on 28 July 2009
green brands, but that this would require clear delineation of the parameters of ‘green’ and ‘fair’ products first.\textsuperscript{101} Vodafone signals an increasing interest of consumers in environmental topics. This has stimulated the company to start selling solar chargers and elaborate its recycling program (see below).

On a more general level, Vodafone Group provides an aggregate overview of its key stakeholders’ major concerns, which includes but is not limited to customer concerns. Other key stakeholder groups identified by Vodafone are employees, investors, suppliers, local communities and governments.\textsuperscript{102} The overview of stakeholder concerns indicates that employment issues enjoy a low level of concern, supply chain issues are midrange, and high up in the priority list are recycling and re-use and not surprisingly, clear pricing.\textsuperscript{103}

#### Recycling and re-use of mobile phones

Vodafone has a consumer recycling programme in place. Consumers can either hand in their old mobile phone at a Vodafone store or send it in through mail free of charge. As in the case of KPN, the old phones are sold to a recycling company and intended for re-use in developing countries. Per mobile phone, Vodafone receives 3.50 EUR from the recycling company, which Vodafone donates to one out of six charities according to the consumer’s choice.\textsuperscript{104} In response to the questionnaire, the company indicates that a new reuse and recycling program aimed at increasing the number of received and accounted mobile phones is planned to become operational in 2010.

Vodafone does not have mobile collection rates as percentages of sales available. The reason the company provides is that it does not have insight in the collection rates of its indirect sales channel partners, which are accountable for more than 50% of Vodafone sales. It does provide a breakdown of the destiny of mobile phones once they have been collected: over the period from April 2008 to March 2009, 95% of the collected mobile phones was sold on for re-use in Asia and Africa, while 5% was directly recycled.\textsuperscript{105}

#### Supply chain responsibility

As mobile phones are procured at group level, in this section Vodafone’s group policies and practices are reviewed. As a group, Vodafone spent £30 billion (approximately 35 billion Euro) with suppliers over 2008/09. Vodafone Group has an elaborate system in place to manage its supply chain responsibility. The starting point is Vodafone’s Code of Ethical Purchasing, which is based on Vodafone’s values and international standards, including the Universal Declaration of Human Rights and the International Labour Organization Conventions on Labour Standards. It deals, a.o., with issues of child labour, forced labour, and freedom of association. The code is formulated in clear and straight-forward terms.\textsuperscript{106}

\textsuperscript{101} M. de Jong - Sr. Program manager CSR Vodafone Netherlands, Questionnaire, returned 5 August 2009
\textsuperscript{103} For an overview of all the issues and their prioritizing, see <http://www.vodafone.com/start/responsibility/our_approach/issue_management/material_issues.html>
\textsuperscript{105} M. de Jong - Sr. Program manager CSR Vodafone Netherlands, Questionnaire, returned 5 August 2009
The Code of Ethical Purchasing is incorporated into the contract template for global suppliers and is included in all new contracts with suppliers across the Group. 107 The group focuses its efforts mainly on strategic first tier global suppliers, defined according to spend and significance to Vodafone’s business. Vodafone group uses supplier assessments to monitor compliance with the Code of Ethical Purchasing. The assessment process includes risk assessments for new suppliers, supplier site assessments of high risk new and existing suppliers and continuing supplier monitoring using scorecards. CSR is 10% of the overall score. The CSR evaluation is based on suppliers’ CSR management systems, public reporting and its approach to managing CSR in its own supply chain. Vodafone’s supply-chain teams review the requirements and scores, and request supporting evidence from the supplier’s account manager, at half-yearly intervals.108 If a supplier fails to meet Vodafone Group’s requirements, the company will work together with the supplier to implement its CSR standards. In case of a durable misfit, the collaboration will be terminated. The company indicates that “In 99% of those cases this is not necessary and our suppliers adopt our CSR Standards”. 109

Vodafone is transparent about the annual number of supplier site assessments and their results. The company reports that over the year 2008/09, site assessments were conducted at 18 suppliers. It remains unspecified what percentage of Vodafone’s total supplier base is covered by these 18 site assessments, but judging from the fact that Vodafone Netherlands alone has more than 3000 suppliers of its own, this percentage most be extremely low. Vodafone explained that suppliers that are selected for site assessments are generally the relatively small and unbranded manufacturers of mobile phones and mobile phone accessories in high risk regions. The products these manufacturers make are often sold to consumers under the Vodafone brand. These suppliers represent a roughly estimated 10% of Vodafone mobile phone procurement, the other 90% is procured with the major mobile phone brands (e.g. Nokia, Samsung). These companies are not audited since they have extensive CSR policies and audit systems in place according to Vodafone. Based on the 18 site assessments at high risk suppliers, a total number of 166 recommendations for improvement were made. 110 The company reports that from the 18 suppliers “two potential new suppliers failed to qualify because of poor performance across a range of CR issues – including health and safety, discrimination and working hours – identified during site visits. We are working with [the other] suppliers to put in place improvement plans to address the areas identified”.111

Other mechanisms used to increase Vodafone’s supply chain responsibility and improve the conditions in its supply chain are group wide awareness raising and training of procurement staff, providing all suppliers with a copy of Vodafone’s general order & purchase terms, assessment of sub-tier suppliers together with 1st supplier on a project basis, a whistle blowing procedure (providing employees and suppliers a means of reporting concerns about CSR issues), a Supplier Corporate Responsibility Engagement Award112, and participation in GeSI. Together with the EICC, GeSI promotes the industry wide use of the E-TASC tool,

109 M. de Jong - Sr. Program manager CSR Vodafone Netherlands, Questionnaire, returned 5 August 2009
a supply chain responsibility tool meant to harmonize and standardize supply chain management procedures across the industry.\textsuperscript{113} Furthermore, Vodafone has recently developed a non-compliance management system to ensure systematic action when instances of non-compliance are identified. This management system will be deployed the coming year. \textsuperscript{114}

3.4 TELE2

Tele2 Netherlands (from now on ‘Tele2’) is the Dutch subsidiary of the Swedish Tele2 AB group. Tele2 profiles itself as an ‘alternative operator’ with competitive prices compared to the mainstream companies. The Tele2 group has operations in 11 countries. Among these countries is of course Sweden, and this Swedish Tele2 company will appear in the international comparison chapter.

After several conversations by e-mail and telephone, and after clarifying the specifics and purpose of the present study, Tele2 has decided not to participate and has thus not returned the questionnaire. We received an e-mail in which participation was declined due to time constraints, and in which Tele2’s ‘CSR vision’ was shortly explained, and Tele2 indicates that the company signals an increasing consumer interest and is planning to emphasize CSR issues more strongly in the future. \textsuperscript{115} Notwithstanding this official response, our impression is that time constraints are not the major reason. In a telephone call prior to the denial e-mail, Remco Meerstra, Senior Corporate Relations Executive -Tele2 does not employ CSR staff-, seemed willing to participate, only to request for some deliberation and consultation time after the executive realized the information would be used in a public report. The actual reason for denying participation thus seems to be the public character of the report, combined with Tele2’s lagging behind its competitors. That Tele2 lags behind in CSR terms is apparent from its own public corporate information.

- Sales figures and product information
  There is no public information available regarding the sales figures of mobile phones by individual companies. In contrast to the other companies included in this report, Tele2 has no shops of its own. Instead, it sells its products and services through its online shop and through independent retail channels; shops that offer subscription packages of different operators.

- Recycling and re-use of mobile phones
  From the Tele2 business principles arises that the company has the intention to reduce waste. In this document, ‘Sustainability’ is listed as a value, and under this heading the company explains that:

  "Tele2 Netherlands’ main target is to conduct a profitable, growing and sustainable enterprise. As a result, our short and long-term targets must be in balance and we strive at all times to avoid bringing damage to human beings or the environment. Our environmental policy is focused on improving our performance by increasing our energy efficiency, reducing waste and reporting in compliance with legal requirements". \textsuperscript{116}

Notwithstanding this principle, the company does not seem to have a recycling program in place for consumers. However, since Tele2 has no shops of its own, the absence of such a programme is not surprising; the other operators organize their recycling through their retail points. It seems that Tele2’s

\textsuperscript{114} http://www.vodafone.com/start/responsibility/supply_chain/supplier_assessments.html
\textsuperscript{115} see Annex 3 for complete e-mail
stated waste-reduction intention is confined to recycling and reduction of its own business waste, not of the waste associated with the products it sells.

Supply chain responsibility
There are no clear indications that Tele2 assumes responsibility for the social and environmental conditions in its supply chain. The company does not seem to apply any sustainability criteria in the selection of its suppliers. The only explicit social requirement that is also applicable to suppliers deals with a ban on any form of discrimination described in the Tele2 Business Principles: “This ban on intimidation and discrimination applies to everybody, regardless of whether it concerns employees, temporary employees, managers, customers, suppliers or visitors of Tele2 Netherlands”.

The following text element deducted from the Tele2 Code of Business Conduct on group level, exemplifies that environmental and social criteria are no priorities in Tele2’s supplier relationships: “Our contractual relationships with suppliers, dealers and customers are important elements of the Company’s success. Vendor selection and purchasing decisions must be made objectively and in the Company’s best interests, based on evaluation of price, delivery conditions, quality and other relevant factors. Any agreement with a supplier should be concluded according to Tele2’s Purchasing policy”. 117

Unfortunately, we were unable to retrieve the Tele2 Purchasing policy. However, since environmental and social conditions are not specified in the above vendor selection and purchasing decision requirements, it seems unlikely such conditions will be included in the purchasing policy.

Tele2 is the only one out of the four mobile network operators in this study that is not a member of GeSI.

3.5 CONCLUSION
Sales figures of the Dutch mobile network operators are surrounded by secrecy, which makes it impossible to assess their exact influence in the mobile phones supply chain, leaving unclear which of the four companies included in this report actually has the largest influence in the supply chain. T-Mobile and Vodafone have both started selling their own branded products, removing part of the traditional first tier of their supply chain. This strategy increases the reach and thus the responsibility of these companies into their supply chain, as they are more closely involved with the design and manufacturing of the mobile phones they procure. Of the four companies under research, T-Mobile is the only company that offers consumers a ‘green’ mobile phone model. This is a very recent development, so it might well be that others will follow. With regard to perceived customer interest in environmental and social issues associated with mobile phones, the companies differ somewhat. KPN does not have a clear view yet but plans to develop one shortly, Vodafone signals increasing consumer interest in environmental topics, Tele2 refers to a general rise in consumer interest for CSR and sustainability in its e-mail, 118 while T-Mobile mainly sees the interest rising with business clients.

KPN, T-Mobile and Vodafone have recycling and re-use programs for mobile phones in place, while Tele2 does not provide its customers with the option to hand in their old mobile. The first three companies use their retail points as collection locations for mobile phones. While it remains unclear what

118 see Annex 3 for complete e-mail
exactly happens with the old mobile phones that are collected by T-Mobile, KPN and Vodafone explain these are sold to a recycling company that either sells them on for re-use in developing regions, or recycles them when re-use is no option. As such, the lifetime of mobile phones is extended. KPN, T-Mobile and Vodafone each donate a fixed fee per collected mobile to one or several charities. As mobile phone collection rates remain low to date, KPN and Vodafone are planning to launch efforts to increase these rates. Tele2 is the only mobile operator that does not offer recycling of the products it sells. The fact that Tele2 does not operate its own shops is no excuse; the company could offer collection by mail, an example set by Vodafone and KPN already.

In terms of supply chain responsibility, Vodafone and T-Mobile assume the largest share of responsibility, although T-Mobile Netherlands still needs to professionalize its supply chain management by implementing monitoring and verification procedures for sustainable procurement. KPN is planning to catch up, but still has some hurdles to overcome in terms of operationalizing its supply chain responsibility. Judging from Tele2's own public information, supply chain responsibility is non-existent in this company. Vodafone is the most transparent about its supplier evaluations, providing insight into the amount and result of its site assessments. Thanks to this transparency, it becomes clear that site assessments cover only a minor fraction of Vodafone's total supplier base. For T-Mobile the amount is even smaller, and KPN still needs to begin supplier site assessments.

KPN, Vodafone and T-Mobile are all involved in GeSI. In fact, GeSI's chairman is the corporate responsibility manager at Deutsche Telekom (T-Mobile), and one of GeSI's board members is a Vodafone representative. The joint development of the E-TASC tool by GeSI and EICC seems to stimulate a certain degree of standardization of supply chain responsibility management among mobile network operators; T-Mobile and Vodafone already report to use the tool to some extent, while KPN may do so in the future, as the company is looking for ways to implement its supply chain policy. This tool however is based on self assessment questionnaires, which are not considered a reliable and certainly not an independent tool. The standardization is desirable for suppliers, as it presents them with one clear set of requirements, but it depends on whether the suppliers are also independently audited, on the scope and stringency of monitoring, as well as on follow-up procedures at non-compliant suppliers whether this tool will actually improve supply chain conditions.

119 Re-use of old electronic appliances in developing countries may have a downside: ultimately, the electronics will end up as e-waste. E-waste needs proper recycling, but recycling practices in the developing world are often not suitable to perform this task. Both KPN and Vodafone work with the company Regenersis for recycling. This company reportedly has set up recycling programmes in the countries where its mobiles are re-used (see: http://www.regenersis.com/userfiles/file/Regenersis%20white%20paper%20on%20responsible%20reuse%20and%20recycling.pdf). The evaluation of the responsibility of these programs would need additional research, but that was beyond the scope of this report.
4. COMPARISON OF MOBILE NETWORK OPERATORS IN FOUR DIFFERENT COUNTRIES

In this chapter, the sales and product information, recycling efforts and responsible management of the supply chain of mobile network operators are compared. The comparison is based on public information and the operators’ answers to our questionnaire (see Annex 2 for an example of this questionnaire). The selected mobile network operators represent the market leaders in Germany, Sweden, Finland and the Netherlands. Some of these operators have branches in more than one of these countries. Table 2 provides an overview of the operators that were approached for this study, and the main markets in which they operate. The national network operators and branches of international network operators that were approached for inclusion in the study are printed in italics; printed in bold are the companies that returned the questionnaire.

<table>
<thead>
<tr>
<th>MOBILE NETWORK OPERATOR</th>
<th>MAIN MARKETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA</td>
<td>Finland</td>
</tr>
<tr>
<td>Elisa</td>
<td>Finland, Estonia</td>
</tr>
<tr>
<td>KPN (includes E-Plus)</td>
<td>Belgium, Germany, Netherlands, France, Spain</td>
</tr>
<tr>
<td>Tele2</td>
<td>Austria, Croatia, Estonia, France, Germany, Latvia, Lithuania, Netherlands, Norway, Russia, Sweden</td>
</tr>
<tr>
<td>Telefónica (O2)</td>
<td>Argentina, Brazil, Chile, Colombia, Czech Republic, Ecuador, El Salvador, Germany, Guatemala, Ireland, Mexico, Morocco, Nicaragua, Panama, Peru, Puerto Rico, Slovakia, Spain, UK, Uruguay, USA, Venezuela</td>
</tr>
<tr>
<td>Telenor</td>
<td>Bangladesh, Denmark, Hungary, India, Malaysia, Montenegro, Norway, Pakistan, Russia, Serbia, Sweden, Thailand, Ukraine</td>
</tr>
<tr>
<td>TeliaSonera</td>
<td>Azerbaijan, Cambodia, Denmark, Estonia, Finland, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Nepal, Norway, Sweden, Spain, Tajikistan, Uzbekistan</td>
</tr>
<tr>
<td>T-Mobile</td>
<td>Albania, Austria, Bulgaria, Croatia, Czech Republic, Germany, Greece, Hungary, Macedonia, Montenegro, Netherlands, Romania, Slovakia, UK, US, Poland</td>
</tr>
<tr>
<td>3 (‘Tre’)</td>
<td>Australia, Austria, Denmark, Hong Kong and Macau, Ireland, Israel, Italy, Sweden, UK</td>
</tr>
<tr>
<td>Vodafone</td>
<td>Albania, Australia, Czech Republic, Egypt, Fiji, Germany, Ghana, Greece, Hungary, India, Ireland, Italy, Kenya, Malta, Netherlands, New Zealand, Poland, Portugal, Romania, Spain, Turkey, UK, Qatar</td>
</tr>
</tbody>
</table>

The table shows that ten mobile network operators were included in this study. Treating national branches of international operators as separate units, this results in a total of 15 companies spread over Germany, Sweden, Finland and the Netherlands. Each of these 15 companies was approached to fill in a questionnaire; 12 returned it. Unfortunately, the Dutch branch of Tele2, the German branch of Vodafone and Finnish operator Elisa did not participate and did not return the questionnaire, showing poor
transparency. This means that, at some points in this comparative analysis, the necessary information is lacking.120

4.1 SALES FIGURES AND PRODUCT INFORMATION

Insight into the sales figures of mobile phones by mobile network operators is crucial to assess the relative influence of each of the operators in the mobile phone supply chain. Unfortunately, most mobile network operators do not disclose sales figures of mobile phones. The only exceptions from the 12 companies that returned the questionnaire are O2 (Telefónica Germany) and KPN. O2 provides sales figures of 3.6 million mobile phones in Germany in 2008. KPN states that it sold more than 100,000 mobile phones in the Netherlands in 2008. Because of lacking sales information of mobile phones by mobile network operators, it is not possible to assess their procurement volume of mobile phones. However, an indication is offered by the Finnish Communications Regulatory Authority: almost 30% of mobile phones sold in Finland in 2008 were distributed by mobile network operators. Furthermore, it is clear that the companies included in this report collectively represent nearly 1 billion subscribers.121 Since the mobile network operators choose to occupy the link between mobile phone companies and consumers, acting as retailers, they must accept responsibility for the social and environmental conditions in the supply chain of mobile phones.

Because mobile phone sales figures are generally not disclosed, there is no further information available on the distribution of mobile phone sales for new subscriptions and renewals. DNA and TeliaSonera Finland are the only companies that state that they do not issue new free phones with subscription renewal.

Mobile network operators generally do not provide sales percentages per brand, with the exception of Tele 2 Sweden. This company provides a sales distribution of 60% to Sony Ericsson, 25% to Nokia and the remaining 15% to other brands. Although information on the sales distributions per brand is often not provided, the brands that the operators frequently mention as the most popular are Nokia, Samsung, Sony Ericsson and Apple.

A fairly recent development is the marketing of so-called ‘green’ mobile phones. Such phones have environmentally friendly characteristics such as avoiding hazardous chemicals, a high degree of recyclability and energy-efficiency. However, makeITfair thinks it is too early to call these phones ‘green’. Some of them might be more environmentally friendly than others, but a recent product survey from Greenpeace could only award around 5 out of a possible 10 points to existing mobile phones.122 Greenpeace states that, using the technologies employed by the current market leaders, and thus combining the best characteristics of the submitted products, a significantly greener product could already be on the market.123 Furthermore, makeITfair also considers responsible mining an important aspect of creating a ‘green’ product. However, this is still not an aspect of ‘green’ phones. The content of recycled materials so far mainly refers to the plastics of the mantle of the phone and the packaging, but not the metals used inside the phone.

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120 For profiles of these companies, please refer to the national versions of this report. These can be found on the makeITfair website: http://makeitfair.org/the-facts/reports
121 See Table 1 earlier in this report.
123 Ibid., p. 9.
There are only four (branches of) mobile network operators in our selection that explicitly sell ‘green’ mobile phones: T-Mobile Netherlands, Tele2 Sweden, Telenor and DNA. T-Mobile Netherlands recently started marketing its first ‘green’ model in the Netherlands: the Samsung S3030 Eco. Tele2 Sweden and Telenor market the Sony Ericsson Greenheart C901 as a ‘green’ phone on the Swedish market. DNA sells the Nokia 3110 Evolve in Finland. TeliaSonera plans to sell green mobiles in Sweden later in 2009; it remains unclear why the company does not consider such steps in Finland. Whereas T-Mobile Netherlands already sells a green phone, T-Mobile Germany is of the opinion that there is no green phone on the market yet. T-Mobile Germany told makeITfair that it is encouraging the manufacturers to produce really green phones.

The mobile network operators differ with regard to the perceived customer interest in social and environmental issues related to mobile phones. The companies that have responded to this question can be divided into the three groups. The first group, consisting of TeliaSonera Sweden and E-plus answered that there was either no customer interest or very little interest. E-plus actually specifies the average number of queries it receives regarding these issues: an average number of ten queries per shop per year, mostly concerning SAR$^{124}$ and recycling. The second group comprises of Tre, Telenor Sweden, T-Mobile Netherlands and TeliaSonera Finland. These companies have not registered any (increasing) consumer interest, but do register a growing interest stemming from professional customers (i.e. the business sector and public procurement). A third group of companies does register increasing interest from customers. Companies that belong to this group are DNA, T-Mobile Germany, Vodafone Netherlands, Tele2 Sweden and O₂, although the latter specifies it registers this increasing interest with specific regard to the recycling of mobile phones.

4.2 RECYCLING AND RE-USE OF MOBILE PHONES

Consumers can hand in their old mobile phones for re-use or recycling at the shops of all the operators included in this study, excluding Tele2 Netherlands. In the absence of its own shops, Tele2 Netherlands does not operate any mobile phone hand-in points. When asked about mobile phone collection rates, the companies either did not answer the question or report disappointingly low rates: T-Mobile Germany reports a 1% collection rate of sales; O₂ 0.41%; KPN responds that collection rates are “less than several percentages of sales”; E-plus reports a total amount of 15,000 mobile phones collected; and Telenor reports it has recycled 115,000 phones in 2008.

The very low collection rate of mobile phones is a commonly acknowledged state of affairs in the sector. This seems to have a lot to do with the size of the product; it is easy to store an old mobile phone that still works in your drawer ‘just in case’ and forget about it for years.$^{125}$ KPN, Vodafone Netherlands and both the Swedish and the Finnish offices of TeliaSonera state that they will launch campaigns to increase collection and thereby increase recycling and re-use rates in the near future.

$^{124}$ SAR stands for ‘specific absorption rate’, a physical variable measuring the absorption of electromagnetic field by organic tissue. In Germany there is considerable concern about electromagnetic radiation that might be harmful to customers’ health. $^{125}$ www.mobil.se, Mobilkomposten håller insamlingskampanj för gamla mobiler, 3 April 2008; Nokia press release, Global consumer survey reveals that majority of old mobile phones are lying in drawers at home and not being recycled, 8 July 2008. Available at http://www.nokia.com/A4136001?newsid=1234291
Apart from these re-use and recycling programmes, another way companies can be said to provide consumers with an incentive for longer use of their mobile phone is by offering SIM-only subscriptions against ‘discounted’ rates. Of all the mobile network operators in this study, Telenor seems to provide the biggest incentive: the company offers a gift voucher of 25 Euros for each returned mobile phone, and additionally, reduced costs per minute when the service contract is renewed.

When asked about initiatives to stimulate environmental design of mobile phones with the manufacturers of mobile phones, eight out of the ten companies that answered this question – i.e. KPN, Vodafone Netherlands, E-Plus, T-Mobile Germany, Telenor, DNA and TeliaSonera Sweden and Finland – indicate that they discuss environmental design aspects in their communication with manufacturers during procurement. TeliaSonera further indicates it is planning to intensify its efforts in this regard. Telenor adds that it feels it has little influence over the production and design of mobile phones.

### 4.3 SUPPLY CHAIN RESPONSIBILITY

Mobile network operators organise their supply chain management at group level, since much of their procurement is done at this level. This means the policy is applicable to all the branches of an internationally operating company. Of the ten mobile network operators that were studied for this report (taking a group level perspective), seven have some sort of supply chain policy in place that sets social and environmental requirements for their suppliers. These are TeliaSonera, T-Mobile, Vodafone, KPN (including E-Plus), Tele2, Telenor and Teléfonica (known as ‘O2’ in Germany). (See Annex 3 for a comparative assessment table of the supply chain policies). Tre responds that it does not have a supply chain policy; DNA does not have one yet but reports it is currently developing one, and, while somewhat uncertain because Elisa did not return the questionnaire, no such policy is available in Elisa’s public information. Most of the seven mobile network operators that have a supply chain policy in place indicate that it is binding in the sense that the supplier requirements they set are part of the formal contracts with suppliers. Only the supply chain policy of KPN and its subsidiary E-Plus is not binding (yet).

The content of the supply chain policies varies. Of the seven companies that have a policy, six refer to ILO conventions and five refer to the UN Declaration of Human Rights as a basis for their policies. Only Tele2’s policy refers to neither of these important international frameworks. The policies also differ with regard to the scope of the labour and human rights issues they address. Of the labour issues mentioned, security of employment and wages are least mentioned; only four out of the seven companies that have some sort of supplier policy refer to wage requirements for the workers in their supply chain; Tele2 and Telenor do not include the subject of wages in their policies as a demand to their suppliers, and for TeliaSonera this cannot be assessed since it is not willing to share its specific requirements. None of the mobile network operators refers to security of employment.

The policies also vary with regard to the level of detail of the supplier requirements (i.e. specifying what criteria they will use to assess compliance of their suppliers with their policy). For instance, six companies state that they reject the use of child labour anywhere in their supply chain, but only four of them make clear what they understand as child labour: the minimum age according to national laws. Vodafone and Telenor further specify that they will not allow workers in their supply chain to perform hazardous work under the age of 18.
When the mobile network operators specify the criteria accompanying their supplier requirements, most companies state that they will comply with national laws. Such a commitment cannot be regarded as very ambitious. First of all, compliance with national laws is obligatory for all companies operating in that country, so a public commitment to these laws should be unnecessary, and raises eyebrows to say the least. In the absence of such a public commitment, we should be concerned whether companies would abide by the law. Secondly, makeITfair research has shown that national laws do not always protect workers sufficiently. For instance, the minimum wage in the Philippines has been shown to be insufficient for workers to cover their basic needs.\textsuperscript{126}

Companies differ considerably with regard to their efforts in monitoring and verification of their supplier requirements. Out of the ten mobile network operators that we assessed, and out of the seven that have a supply chain policy, only five—Telenor, TeliaSonera, T-Mobile, Vodafone and O2—report that they use self-assessment questionnaires to assess their suppliers. These same five companies report the use of supplier site assessments. None of the mobile network operators uses third party independent audits.

Self-assessment questionnaires can hardly be considered an effective tool to monitor supplier compliance; self-monitoring provides the supplier with the opportunity to paint a better picture than reality at the production site. Site assessments have a greater potential in this regard, although the objectivity of the results depends on the assessment procedures. As far as makeITfair is aware, off site interviews with workers are not standard procedure in these supplier assessments, which creates the risk that no balanced information about labour conditions is gathered.

Only Vodafone, Deutsche Telekom (to which T-Mobile belongs) and Telenor are transparent about the number of audits in 2008. Vodafone and Deutsche Telekom also report the main results of the audits. Vodafone reports it conducted 18 site assessments and made a total of 166 recommendations to suppliers for improvement.\textsuperscript{127} Deutsche Telekom states in its Corporate Responsibility Report 2009 that it held three site audits in China, Mexico and Taiwan in 2008.\textsuperscript{128} Furthermore, on its website it is stated that “Deutsche Telekom has already held several supplier audits and plans to make greater use of this method in its future supplier management activities. The company’s target is to cover the majority of the Group’s procurement volume with audited suppliers”. \textsuperscript{129} In response to the questionnaire, the German branch of T-Mobile said that so far, each audit meant that there needed to be a Corrective Action Plan. Furthermore, the company provides a table with the key findings of the audits and the improvements achieved.\textsuperscript{130} Telenor visited suppliers 382 times without warning during the period May–September 2008.\textsuperscript{131} Such information is lacking for Telefónica, and TeliaSonera has indicated that it is only in the early stages of implementing its supplier requirements. Because of this lack of information, it is impossible to assess how many of the audited suppliers are actually mobile phone manufacturers. Vodafone has


\textsuperscript{128} Deutsche Telekom: The 2009 Corporate Responsibility Report, June 2009.

\textsuperscript{129} Deutsche Telekom website, Global sourcing and supplier management, <http://www.deutsche.telekom.com/de/drag/cms/content/de/en/474196> (9 September 2009)

\textsuperscript{130} http://cr-report.telekom.de/site09/en/verantwortungsbereiche/lieferanten/audits/index.php?page=1

indicated that its site assessments are mainly targeted at high-risk manufacturers that manufacture components for its Vodafone branded products. Since the supply chain responsibility of Vodafone and Deutsche Telekom is the most developed, and even the number of site assessments performed by these operators is relatively small, it can be expected that this number will not be higher for the other mobile network operators. Furthermore, the amount of site assessments reported by Vodafone and Deutsche Telekom are small in comparison to Telenor and other companies in the electronics sector. For example, Philips audited 277 supplier facilities and Apple 83 facilities in 2008, mainly in China.\textsuperscript{132}

Four of the (group level) operators studied in this report are members of GeSI (see Box 2). The European Telecommunications Network Operators’ Association (ETNO) also has a Sustainability Charter\textsuperscript{133}, which commits its signatories to ‘continuously improve’ and ‘share best practices’ with regard to procurement, in observation of human rights and labour conditions and implementation of environmentally friendly product requirements. Signatories of the Charter include five operators from this study, namely DT, KPN, Telefonica (O2), Telenor and TeliaSonera. It seems that wording of the Charter leaves a lot of room for interpretation.

5. CONCLUSIONS AND RECOMMENDATIONS

Collectively, the mobile network operators included in this report had nearly 1 billion subscribers in 2008, implying they represent almost one quarter of all global subscriptions for mobile communication networks.\footnote{Based on the ITU estimate of 4.1 billion subscribers in 2008 globally.} As mobile phones and mobile networks are mutually dependent, and mobile network operators are important retailers of mobile phones, the mobile network operators in this report play a significant role in the mobile phone market.

Earlier makeITfair research has signalled that severe environmental and social problems persist in the mobile phone supply chain, stressing the need for increased responsibility and accountability in the chain. The mobile network operators’ position in the supply chain is particularly crucial since these companies are an important retail channel of mobile phones for consumers. It is common practice for mobile network operators to offer customers a ‘free’ new mobile phone when they sign up for a new subscription, or renew their subscription. Evidently, this type of marketing has an enormous impact on the amount of mobile phones that are circulating on the market, as well as on the mobile phone production processes, and the mounting volumes of e-waste. Although the operators are an important retail channel for mobile phones, their core business is the sale of network services (i.e. the use of mobile network technology), giving them a unique opportunity to release some of the pressure on the mobile phone supply chain without harming their own core business. A decrease in mobile phone sales and production would not necessarily impact mobile network operators’ revenues (as long as calling minutes are not reduced), but would reduce mining, overtime for manufacturers, and e-waste, to name a few issues.

Case studies of the market leading mobile network operators in the Netherlands, and a comparative analysis of operators’ supply chain responsibility in the Netherlands, Finland, Germany and Sweden\footnote{Since some mobile network operators operate in more than one of the included countries, a total of 15 case studies were conducted. For the national level case studies of each of the mobile network operators, please refer to the national versions of this report. These can be found on the makeITfair website: http://makeitfair.org/the-facts/reports} revealed their policies and practices in terms of mobile phone marketing, recycling and supply chain management. Based on the main research findings, in this final chapter makeITfair develops suggestions for European mobile network operators to improve the social and environmental conditions in the mobile phone supply chain.

The research has indicated that most mobile network operators are not transparent about their mobile phone sales, major suppliers, supplier relationships and results of their efforts to improve supply chain conditions. Of all the mobile network operators included in this study, only Vodafone and T-Mobile provide insight into the number and results of their supplier audits. And only KPN and O2 provided us with sales figures for mobile phones. MakeITfair urges mobile network operators to collectively change this secretive culture, since insight into sales figures and supply chain management practices is of utmost importance for industry and civil society alike to define responsibilities and assess progress.

The research indicated that only four (branches of) mobile network operators in our selection – T-Mobile Netherlands, Tele2 Sweden, Telenor and DNA – sell mobile phones marketed as ‘green’ mobile phones,
although it is doubtful whether these phones deserve the label ‘green’. In fact, T-Mobile notes in its Corporate Responsibility report that it is putting effort into getting more environmentally friendly products on the market, but still awaits the first real green phone on the market. The limited availability of ‘green’ mobile phones and the non-existence of ‘fair’ ones may be partly explained by the fact that consumer interest in ‘green’ or ‘fair’ attributes of mobile phones is perceived as low by most operators. However, market research by makeITfair published in 2008 revealed that a majority of young European consumers is concerned about the social and environmental conditions under which their mobiles are produced, and are willing to pay 10% more for fair electronics. Furthermore, even in cases of low consumer demand, products are often ‘pushed’ on the market only to create consumer demand after introduction. With a smart and strategic marketing campaign, the same can be done for green and/or fair mobiles. At the procurement side, environmentally friendly design and socially fair production could become an active demand towards manufacturers. Particularly when operators market phones under their own brand (like T-Mobile and Vodafone do), the operators have the opportunity to place manufacturing orders that create new mobile phone models.

All the mobile network operators included in this study have a re-use and recycling programme in place, with the exception of Tele2 Netherlands. Since Tele2 does not operate shops in every country, it should start a recycling programme by mail in those countries. Other operators (e.g. Vodafone, KPN) already provide customers with a return option by mail, so there is no reason why Tele2 could not follow this example.

Although ‘hand in’ programmes are in place, collection and recycling figures of mobile phones are still dramatically low. There is a lot of room for improvement here. The first step seems to be to raise awareness about the existence of recycling opportunities; currently most consumers are unaware of the opportunity to hand in their old mobile phone at the mobile network operator shops. Since recycling does not seem to be an element of competition between the operators, they might even consider a joint awareness raising campaign. Another way to promote recycling that is already used by Telenor is to offer gift vouchers on products and/or subscriptions when customers hand in their old mobile phone. Such ‘hand in’ programmes also need to be developed outside Europe. Consumers in developing countries often get money for their discarded mobile phones if they sell them to the informal recycling sector, where the phones are recycled improperly. MakeITfair believes that mobile network operators with operations in these regions must consider economic incentives for proper recycling in the emerging markets.

A promising opportunity for mobile network operators to address several issues in the chain simultaneously – i.e. less mining of precious metals, less time-pressure and thus overwork in manufacturing, less e-waste – is to make SIM-only contracts more attractive to consumers than subscription renewals in combination with a mobile phone. In the current marketing of subscription renewals, most operators present consumers with two alternatives: a ‘reduced’ SIM-only tariff or a new mobile phone. Operators could do several things to promote the SIM-only option. They could make the SIM-only subscription more visible by marketing it more actively than the new phone option, or they

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could skip the option for receiving a new phone with a renewal altogether. Another option is to demand handing in the old phone as a condition of receiving a new mobile phone with a subscription renewal. Each of these options could be accompanied with a message that highlights the environmental and social benefits of the SIM-only or ‘new-for-old’ alternatives, which may enhance the company’s image.

When mobile phone operators sell used phones on instead of recycling them directly, it is very important that they make sure that collected phones are not exported to countries without proper recycling systems. Used products will sooner or later end up as waste (so called ‘e-waste’). In several low-income countries in Asia and Africa, there is a lack of integrated systems for recycling and waste management. The recycling is often done without protective equipment by workers in the informal sector, with devastating effects on health and the environment. Therefore, it is very important that mobile network operators include the entire life-cycle of products in their supply chain management, and that they assume responsibility for the responsible recycling of the products they sell, even after they have begun a second life in low-income countries.

In terms of supply chain responsibility, seven out of the ten studied mobile network operators have some sort of supply chain policy in place. Only five of them have systems in place to monitor the compliance with their policies by suppliers, using supplier self-assessment questionnaires and site assessments of suppliers (i.e. Telenor, T-Mobile, Vodafone, Telefónica and TeliaSonera). None of the operators in this report uses independent, third party site assessments to monitor their suppliers. Most of the operators only stand at the beginning of developing criteria for, and monitoring and verification systems of, their supplier policies. In the case of companies that use site assessment as part of their supply chain monitoring, the number of audits remains small. This number needs to be increased considerably to cover all high-risk suppliers, ensuring compliance with the social and environmental supplier criteria that are codified in policies.

MakeITfair considers independent, third party supplier audits an important instrument for supply chain monitoring. Such audits are costly in terms of time and personnel for both the supplier and the customer company. An opportunity to perform thorough supplier audits while saving costs and enhancing coverage at the same time is the performance of shared audits. Although GeSI and EICC are in the process of developing an auditing service for its members to share, the effectiveness of this specific tool remains to be seen.137 Its effectiveness in improving the social and environmental conditions in the supply chain is dependent on the supplier assessment criteria, the code of conduct, audit procedure and follow-up procedures to improve performance by suppliers. MakeITfair is of the opinion that supplier monitoring systems and improvement plans must include representatives of workers from the South, to provide a balanced insight into the suppliers’ performance, as well as an employee perspective on the attainability and desirability of improvement measures.

Working in a multi-stakeholder setting would increase the possibility of taking on labour issues as a company initiative, in a way that the auditing service from the EICC and GeSI cannot. Furthermore, to

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137 GeSI website, "ICT sustainability through innovation. GeSI activity report.," (June 2009), <http://www.gesi.org/LinkClick.aspx?fileticket=nCDkpySzT08%c3d&tabid=60>
work towards long-term improvements, the supply chain management system should also include a complaint mechanism for stakeholders along the supply chain.

To conclude, this research report has shown that mobile network operators have developed several initiatives to improve the social and environmental conditions in their supply chains. Some have progressed much further on this pathway than others. Overall, there is still a lot room for improvement throughout the whole mobile phone supply chain and product life-cycle: in the design of mobile phones, the manufacturing process, the marketing of phones and the recycling. Considering the crucial and unique role of the mobile network operators in the mobile phone supply chain, it is very unfortunate that the companies, as retailers, do not fully capitalise on their opportunity to influence both consumers and suppliers on social and environmental issues. MakeITfair urges mobile network operators to pursue improvements in the mobile phone supply chain, and hopes this report will provide the operators with some ideas about how to do so.
## Annex 1: Table 1, Including References

### Table 1: Markets and Customers of Operators in This Study

<table>
<thead>
<tr>
<th>Mobile Operator (Home Office)</th>
<th>Main Markets</th>
<th>Subscribers in Millions (Globally/In Respective Countries Studied) By End 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNA (Finland)</td>
<td>Finland</td>
<td>Finland: 1.66&lt;sup&gt;138&lt;/sup&gt;</td>
</tr>
<tr>
<td>Elisa (Finland)</td>
<td>Finland&lt;sup&gt;139&lt;/sup&gt;, Estonia&lt;sup&gt;140&lt;/sup&gt;</td>
<td>Globally: 2.88&lt;sup&gt;141&lt;/sup&gt;, Finland: 2.54&lt;sup&gt;142&lt;/sup&gt;</td>
</tr>
<tr>
<td>KPN (Netherlands)</td>
<td>Belgium, Germany, Netherlands&lt;sup&gt;143&lt;/sup&gt;, France, Spain&lt;sup&gt;144&lt;/sup&gt;</td>
<td>Globally: 31.1&lt;sup&gt;146&lt;/sup&gt;, Germany: 17.7&lt;sup&gt;145&lt;/sup&gt;, Netherlands: 8.4&lt;sup&gt;147&lt;/sup&gt;</td>
</tr>
<tr>
<td>Tele2 (Sweden)</td>
<td>Austria, Croatia, Estonia, France, Germany, Latvia, Lithuania, Netherlands, Norway, Russia, Sweden&lt;sup&gt;148&lt;/sup&gt;</td>
<td>Globally: 19.401&lt;sup&gt;149&lt;/sup&gt;, Netherlands: 0.458&lt;sup&gt;150&lt;/sup&gt;, Sweden: 3.36&lt;sup&gt;151&lt;/sup&gt;</td>
</tr>
<tr>
<td>Telefónica (Spain)</td>
<td>Argentina, Brazil, Chile, Colombia, Czech Republic, Ecuador, El Salvador, Germany, Guatemala, Ireland, Mexico, Morocco, Nicaragua, Panama, Peru, Puerto Rico, Slovakia, Spain, UK, Uruguay, USA, Venezuela&lt;sup&gt;152&lt;/sup&gt;</td>
<td>Globally: 182.82&lt;sup&gt;153&lt;/sup&gt;, Germany: 14.93&lt;sup&gt;154&lt;/sup&gt;</td>
</tr>
<tr>
<td>Telenor (Norway)</td>
<td>Bangladesh, Denmark, Hungary, India, Malaysia, Montenegro, Norway, Pakistan, Russia, Serbia, Sweden, Thailand, Ukraine&lt;sup&gt;155&lt;/sup&gt;</td>
<td>Globally: 164.00&lt;sup&gt;156&lt;/sup&gt;, Sweden: 1.9&lt;sup&gt;157&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

139 http://www.dna.fi/en
141 Ibid.
144 Via the networks of Orange España and Bouygues Télécom under the brand name ‘SIMYO’; see Telecompaper, 2009. KPN to launch Simyo in France on 11 January; http://www.telecompaper.com/news/article.aspx?cid=652453
145 KPN (2008): KPN Profile; http://www.kpn.com/web/file?uuid=b6af77ba-e4c6-4a54-a734-57383d465551&owner=08dcb4d5-bfaa-4af-8a43-1be9722723ae; p. 2
146 E-Plus – press release 27.01.2009; E-Plus Gruppe erzielt 2008 Rekordergebnis; http://www.eplus-gruppe.de/Presse/Presseinformationen/Presseinformationen.asp
147 KPN, 2009. Interim financial report Q2 2009 – Subscribers for June 2009 instead of end of 2008; http://www.kpn.com/web/file?uid=3ae40687-9a11-4c8-82e4-420d4-489b-8-2f5-e0-cdefe3be0
150 Ibid
151 Ibid
154 Telefónica, 2009. Telefónica O2 Germany – First half operating review; http://www.o2.com/about/germany/operating_review.asp
<table>
<thead>
<tr>
<th>Company</th>
<th>Countries</th>
<th>Globally:</th>
<th>Finland:</th>
<th>Sweden:</th>
</tr>
</thead>
<tbody>
<tr>
<td>TeliaSonera (Sweden)</td>
<td>Azerbaijan, Cambodia, Denmark, Estonia, Finland, Georgia, Kazakhstan, Latvia, Lithuania, Moldova, Nepal, Norway, Sweden, Spain, Tajikistan, Uzbekistan</td>
<td>134.8</td>
<td>2.68</td>
<td>5.33</td>
</tr>
<tr>
<td>T-Mobile (Germany)</td>
<td>Albania, Austria, Bulgaria, Croatia, Czech Republic, Germany, Greece, Hungary, Macedonia, Montenegro, Netherlands,</td>
<td>128.34</td>
<td>39.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Tre/ 3 (Hutchison Whampoa)</td>
<td>Australia, Austria, Denmark, Hong Kong and Macau, Ireland, Israel, Italy, Sweden, UK</td>
<td>25.3</td>
<td>1.23</td>
<td>4.54</td>
</tr>
<tr>
<td>Vodafone (UK)</td>
<td>Albania, Australia, Czech Republic, Egypt, Fiji, Germany, Ghana, Greece, Hungary, India, Ireland, Italy, Kenya, Malta, Netherlands, New Zealand, Poland, Portugal, Romania, Spain, Turkey, UK, Qat</td>
<td>255.74</td>
<td>36.17</td>
<td>4.54</td>
</tr>
</tbody>
</table>

160 Ibid.
161 Ibid.
166 Hutchison Whampoa, 2003: http://www.hutchison-whampoa.com/eng/about/overview.htm
167 Ibid.
168 Ibid.
171 Ibid.
172 Ibid.
173 Ibid.
ANNEX 2: STANDARD QUESTIONNAIRE

Questionnaire [Mobile network operator name]
Respondent's name:
Position:
Phone:
Fax:
Email:

1. Sales Figures
   Please provide figures for the [country name: Finnish/ German/ Dutch/ Swedish] market

1. How many mobile phones did you sell to consumers during 2008?
   Please specify the number of mobile phones that were sold
   a) individually
   b) as part of a subscription package
   c) as part of a subscription prolongation
   d) on which your company brand logo has been engraved

2. What percentage of customers that renewed their subscription during 2008, received a new phone with their renewed subscription?

3. Please enclose a sales breakdown to the proportion of individual brands for your mobile phones sold.

4. Is it also part of [company name]’s mobile phone marketing strategy to offer new customers free additional electronics like netbooks, notebooks or TVs?
   If yes, what kind of electronics and how many of these products were provided to customers in 2008?

2. Mobile phone product information
   Please focus your answer on the [country name] market as much as possible

5. Which criteria do you take into account when selecting the mobile phones you will sell to consumers? Do you pursue any policy that sets social and environmental conditions of the production process as selection criterion?

6. Does your company offer mobile phones marketed as ‘green’ and/or ‘fair’ at the moment?
   If yes: Please provide us with information about what models and the numbers sold in 2008.

7. How do you perceive consumers’ interest for environmental and social issues related to the products you sell? (existent/non-existent, increasing/decreasing, etc) Please also add information about what kind of questions you receive from consumers regarding these issues.

8. What kind of consequences does this perception have for your strategies?
3. Recycling & reuse

*Please answer this question for the [country name] market if possible*

9. Does [company name] offer consumers the opportunity to return old electronic appliances?

10. How big is the proportion of mobiles that have been collected according to the total number of mobiles sold in 2008?

11. Which percentage of the products collected are being
   a) sent to recycling, please write where they are send.
   b) subject to reuse, please specify who sells them on and where.

12. Do you have any future strategies to set incentives for the increased return of old appliances?

13. Do you have any future strategies to set incentives for a longer consumer utilisation period of consumer electronics devices?

4. Supply chain responsibility

MakeITfair has published several reports about social and environmental problems related to electronics production and waste (see further at http://makeitfair.org/the-facts/reports).

14. How do you assess your reach of influence on the social and environmental performance along the value chain of the mobile phone manufacturers whose products you sell? Has your range and your level of influence changed over the past years, and if so, how?

15. Has your company tried to influence mobile phone companies to work more on environmental and social issues along their supply chains?

   If yes: please specify what type of initiatives and activities your company has employed

16. Do your agreements with suppliers include any reference to social and environmental conditions in the production process?

   If yes, please elaborate on the monitoring and verification instruments used.

17. Do you engrave your own brand logo on (some) mobile phones you sell? If so, are requirements stricter when you engrave your own brand logo on mobile phones?

18. Do you communicate with manufacturers about environmental design criteria for the products you sell (for instance: higher energy efficiency and longer user time for mobile phones)?

5. Further points you would like to raise in this context?

19. If there are any further points you would like to raise in the context of this research, you are invited to do so.

20. Please enclose policy information and other relevant documents if needed.
ANNEX 3: E-MAIL FROM TELE2 NL, DECLINING PARTICIPATION IN STUDY

Original text:

Beste Mariette,

Tele2 is altijd kieskeurig in het feit of het aan een onderzoek meewerkt of niet. In dit geval hebben we niet voldoende tijd om de lijst met vragen uitgebreid in te vullen. Ik kan wel vertellen dat wij ook de toenemende belangstelling zien vanuit consumenten voor duurzaamheid en corporate social responsibility. Dit staat ook zeer zeker hoog bij ons op de agenda en wij houden goed in de gaten wat onze concurrenten op dit vlak doen. Wij zien dus zeker het belang in van milieu en sociale issues in relatie tot de producten en diensten die wij verkopen en gaan hier als bedrijf duidelijker de nadruk op leggen in de komende tijd.

Ik hoop dat ik met deze mail toch de visie van Tele2 heb kunnen toelichten,

Met vriendelijke groeten,

Remco Meerstra
Sr. Corporate Reputation Executive

Tele2 Nederland B.V.
Postbus 22697
1100 DD Amsterdam Z-O
The Netherlands

T (+31) 20 750 XXXX
M (+31) 6 2955 XXXX
F (+31) 20 750 XXXX
E XX@XX
tele2.nl or tele2zakelijk.nl

Please consider the environment – do you really need to print this email?

(see next page for translation to English)
Translated to English:

Dear Mariette,

Tele2 is always ‘picky’ in deciding whether to participate in a research or not. In this case we do not have enough time to answer the questions in detail. What I can tell you is that we observe an increase in consumer interest for sustainability and corporate social responsibility. This is definitely high on our agenda, and we monitor closely what our competitors do in this area. We thus see the importance of environmental and social issues in relation to our products and services and will be giving these more priority in the coming period.

I hope I still have been able to explain Tele2’s vision with this e-mail,

Kind regards,

Remco Meerstra
Sr. Corporate Reputation Executive

Tele2 Nederland B.V.
Postbus 22697
1100 DD Amsterdam Z-O
The Netherlands

T (+31) 20 750 XXXX
M (+31) 6 2955 XXXX
F (+31) 20 750 XXXX
E XX@XX
tele2.nl or tele2zakelijk.nl

Please consider the environment – do you really need to print this email?
## ANNEX 4: COMPARISON SUPPLY CHAIN POLICIES

<table>
<thead>
<tr>
<th>ASSESSMENT CRITERIA</th>
<th>TELIA SONERA</th>
<th>TELE 2</th>
<th>TEL ENOR</th>
<th>TRE</th>
<th>T-MOBILE</th>
<th>VODAFONE</th>
<th>KPN/ E-PLUS</th>
<th>TELEFONICA/O2</th>
<th>ELISA</th>
<th>DNA</th>
</tr>
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<tr>
<td>Supply chain policy</td>
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<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
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<td>Binding (i.e. part of supplier contract?)</td>
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<td>-</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td>Reference to forced labour</td>
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<td>no</td>
<td>yes</td>
<td>-</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>-</td>
<td>?</td>
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<td>ASSESSMENT CRITERIA</td>
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<td>TRE</td>
<td>T-MOBILE</td>
<td>VODAFONE</td>
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<td>yes</td>
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<td>-</td>
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<td>no</td>
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<tr>
<td>Reference to discrimination</td>
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<td>yes</td>
<td>-</td>
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<td>TELENOR</td>
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<td>T-MOBILE</td>
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<td>KPN/E-PLUS</td>
<td>TELEFONICA/O2</td>
<td>ELISA</td>
<td>DNA</td>
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<tr>
<td>specified?</td>
<td>no</td>
<td>according national law</td>
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<td></td>
<td>no</td>
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<td></td>
</tr>
<tr>
<td>&quot;free from any discrimination based on race or disability and free from bullying, harassment or similar.&quot;</td>
<td>&quot;in favour of the promotion of equal opportunities and diversity of all employees, taking due account of cultural and legal particularities&quot;</td>
<td>&quot;Forms of discrimination may include race, colour, sex, sexual orientation, religion, political opinion, nationality, social origin, social status, indigenous status, disability, age and union membership&quot;</td>
<td>no</td>
<td>&quot;should be no discrimination on employment, payment, retraining, promotion, quitting and retirement on race, social stratum, national origin, religion, age, invalidity, gender, family status, sexual orientation, trade union- or political membership&quot;</td>
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<td>no</td>
<td>according national law</td>
<td>according to national law</td>
<td>-</td>
<td>according to national laws and existing agreements</td>
<td>according to national law</td>
<td>no</td>
<td>no</td>
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Page 54
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<th>TELIASONERA</th>
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<th>VODAFONE</th>
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<td>Specified?</td>
<td>no; only &quot;agreements on working time&quot;</td>
<td>no</td>
<td>no limit, only &quot;shall not be excessive&quot;</td>
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<td>according to national law and no excessive hours</td>
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<td>&quot;according to national law and national standards at current industries&quot;</td>
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<td>according national law</td>
<td>according national law</td>
<td>according international accepted standards and applicable laws</td>
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<td>&quot;compliance at least with the standards applicable in each country at sites all over the world should be ensured and the further development thereof should be supported to improve the working environment&quot;</td>
<td>according to national and international law and standards + requirements to accommodation and training</td>
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<td>&quot;health and safety trainings, clean toilettes, clean drinking water and sanitary facilities for storage of foodstuffs&quot;</td>
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