

oekom
Corporate Responsibility
Review 2016



Sustainability in corporate management –
an analysis in the light of the
UN Sustainable Development Goals

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Welcoming address

On 25 September 2015, the United Nations General Assembly adopted the 2030 Agenda for Sustainable Development which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030. This provides an unprecedented opportunity to shift the world onto a path of inclusive, sustainable and resilient development. Hopefully, ours can be the first generation to end poverty, but we must do that in a way that simultaneously reduces inequality and exclusion and avoids wrecking the ecosystems on which life depends. It would be hard to drive such development forward without business being on board.

The recognition that the SDGs apply to everyone and that everyone has a role to play in their delivery opens exciting opportunities for exploring new partnerships. In this sense, there is a renewed emphasis across the United Nations on partnering with responsible businesses to deliver sustainable development on the ground. We must focus on unlocking the transformative potential of the private sector and invite businesses to apply their creativity and innovation toward solving sustainable development challenges and to engage as partners in the development process.

At the SDG Fund (www.sdgfund.org), the first development cooperation mechanism created to achieve the SDGs, we understand partnerships with business as being vital for this. Every company, large and small, has the potential to make a very significant contribution towards shared economic, social and environmental progress. This can be through core business operations and value chains, socially responsible investments, philanthropic contributions and advocacy efforts. We believe that responsible business is central to growth, productivity, innovation and job creation—all drivers for progress at scale.

This understanding has been an important aspect of the SDG Fund's work since it was established in 2014. From the outset, the SDG Fund has been working to ensure that businesses are at the negotiating table to design new partnerships and initiatives. Through combining our distinct but complementary resources, technology, skills and networks, the SDG Fund can work with the private sector towards com-

mon objectives such as building inclusive markets, combating environmental sustainability, improving food security and promoting social inclusion.

With the outcome of 2015 as being such an important year for sustainable development we are encouraged in our main goal to establishing an on-going dialogue between the private sector and development actors for joint efforts to achieve the SDGs.

The success of the 2030 Agenda for Sustainable Development will also depend on gathering and producing research that provides insight on how countries, regions but also businesses incorporate the goals in their work. As the oekom Corporate Responsibility Review affirms the Sustainable Development Goals are indeed guidelines for sustainability efforts. Research initiatives such as this analysis will contribute to shed light and ignite action for building a more sustainable world in the next fifteen years. We welcome efforts in this crucial area of work.



Paloma Durán

Director United Nations Sustainable Development Goals Fund

“Speaking about the weather is a good way of breaking the ice”—although this traditional conversation advice remains true, talking about the weather also has become necessary to avoid the breaking of the ice—the Arctic ice. And indeed, never before has there been so much talk about the weather and climate change as in 2015. Freak weather conditions around the globe are evidence of a changing climate, making a fundamental social consensus and international agreement on common, sustainable development goals more urgent than ever. With the endorsement of the UN Sustainable Development Goals (SDGs) in September and the UN Climate Summit’s resolutions of December, 2015 was the year in which—despite contemporaneous economic and humanitarian crises—the course was set for sustainability. The political framework for dealing with our environmental and social challenges has been fixed. Now, it is up to industry and investors to inject life into it.

At an investor summit in New York in late January 2016, UN General Secretary Ban Ki-moon called upon institutional investors such as pension funds, insurance companies and banks to make their contribution towards implementing the Paris resolutions. In doing so, he termed investors and companies that actively help to redirect resources towards decarbonisation and climate friendly growth “powerhouses of the 21st century”, and those that do not, as being on the “losing side of history”—unusually plain words of the UN’s otherwise restrained and diplomatic top representative.

But when we do, indeed, look at developments in companies’ sustainability initiatives, there still remains much room for improvement. Just over 16 percent of the companies worldwide continue to fulfil our minimum requirements for sustainability management and performance, and were thus awarded oekom Prime Status in 2015. That said, some progress was nevertheless made in the follower group, with the share of companies with a medium sustainability performance slightly rising compared with the year before, and the share of companies with a poor performance slightly falling. What remains intriguing here is also the question: to what degree do industry’s sustainability management exertions support SDG achievement? In this report, we’ve analysed this

from a selected range of problem perspectives—but read about this for yourself...

One of the findings of our analyses is especially interesting from a sustainable investment viewpoint: the most sector winners come from France. A coincidence perhaps? Not necessarily. France has Europe’s largest SRI market and, through circumspect politics, set clear incentives for integrating sustainability criteria at a company and investor level very early on. Examples of this are the introduction of an ESG reporting duty for companies in 2001, or, just recently, the transparency guidelines for investors in the framework of the new Energy Transition Act. A trend is beginning to emerge here, one which sustainability-orientated investors will have to adjust to more than ever before in 2016: the agreed political goals not only place greater expectations on the companies themselves, but also on investors and, ultimately, also on information service providers such as rating agencies. We’re delighted to take on this challenge and are continually expanding our rating portfolio accordingly. Our Universe meanwhile encompasses over 3,700 companies, and our workforce has also grown to almost 75 in the meantime. With this, we see ourselves well-positioned to meet 2016’s challenges as well and, in this way, respond to our customer’s expectations to deliver high quality ratings as the basis for sustainable investment.

To finish off with, I would also like to thank Paloma Durán for her foreword to this year’s CR Review. She agrees with us in hoping that, this year, the positive signals of 2015 will take us another step forward towards a sustainable future. With this in mind, I wish you absorbing and informative reading.



Robert Haßler
CEO oekom research AG

In a nutshell: a summary of the key findings

The development of the ESG performance in the oekom Universe

- ◆ By the end of 2015, the universe of companies rated by oekom research had grown to around 3,700, encompassing 55 industries. Major national and international stock indices are covered. The oekom Universe additionally comprises sustainability leaders outside these indices as well as small & mid caps from sectors with a close link to sustainability issues (e.g. renewable energies, recycling) and major non-listed bond issuers. From this parent population, around 1,600 large, internationally operating companies domiciled in industrialised countries were selected for analysis as part of this Corporate Responsibility Review.
- ◆ The number of companies awarded the **oekom Prime Status** remains constant: as in the previous year, 16.3 per cent of them met oekom research's sector-specifically defined minimum requirements for sustainability management and performance as at the end of 2015. Overall, however, a gradual trend towards a general improvement in sustainability performance is noted. At 35.8 per cent, just over one third of the companies have begun adopting an initial approach to sustainability, even if the steps they are taking are often still unsystematic. Conversely, the proportion of companies rated as "poor" continued to fall slightly—from 49.7 per cent in 2014 to now 47.85 per cent.
- ◆ Household & Personal Products remained the **industry** with the best overall score and, on the scale ranging from 0 to 100, achieved a score of 47.4, marginally up on its 2014 rating. This year, also as last, the Automotive industry took second place with a rating of 44.4. Here, too, a slight improvement is noted as compared to the previous year.
- ◆ In the **country comparison** of the best-rated companies, a significant change was noted compared to the previous year: French companies achieved the most top 3 positions in 2015. German companies, by contrast, fell back compared to 2014. France is overall leader in the country comparison with 16 top 3 positions, followed by the United Kingdom and Germany with 13 and 11 placements respectively.
- ◆ All three countries are equal with four companies in the respective industry leader ranking.
- ◆ **Breaches** of the principles of the **UN Global Compact** were particularly widespread among Oil & Gas Equipment and Services companies. Almost every second company (45.5 per cent) was in breach of at least one of the Global Compact principles, with environmental violations being the type most frequently documented. These were followed in second and third places by Oil, Gas & Consumable Fuels producers (41.3) and the Metals and Mining industry (36.8).
- ◆ With 18.2 per cent of all companies in the sector involved, the Oil & Gas Equipment/Services industry also leads the category for involvement in **corruption**. It is followed in second place by the Construction industry (with 14.8 per cent of companies involved). However, experts estimate that the number of cases involving corruption which goes unreported is many times higher.
- ◆ **Violations of labour rights** still remain widespread in the Textiles industry and have even risen compared to 2014. At 25 per cent, such breaches are meanwhile documented for every fourth company in the industry. With around 17 per cent the Metals and Mining industry follows in second place here.
- ◆ The companies most frequently implicated in **human rights violations** were those in the Metals and Mining industry. 9.8 per cent of these companies have been involved in violations of this kind. oekom research has also documented cases of human rights violations in internationally operating Trading Companies & Distributors, as well as in the Oil, Gas & Consumable Fuels sector.
- ◆ Particularly companies in the Oil, Gas & Consumable Fuels sector and the Metals and Mining industry are involved in **environmental violations**. The share of affected companies continued to rise as compared to the previous year, now lying at 37.3 per cent and 34.2 per cent respectively.

The UN Sustainable Development Goals in the oekom Corporate Rating

- ◆ The 17 Sustainable Development Goals (SDG) represent a first joint consensus of the international community on the goals for global sustainable development up to 2030. With their requirements formulated in a total of 169 targets, the SDGs serve as guidelines for nations, as well as companies and investors, in designing their respective sustainability efforts. oekom research will present ten selected examples of how the SDG requirements are used in practice in the corporate rating.
- ◆ Coal plays a central role in the fight against climatic change. However, only 35 per cent of the rated energy suppliers with a carbon share of more than 30 per cent of their energy generation mix have implemented a climate strategy at all, and comprehensive plans to reduce emissions were only identified at 18 per cent of them. Over half of the companies supplied only inadequate quantitative climate data or no such data whatsoever.
- ◆ Carbon divestment as an investment strategy for reducing climate-related risks as demanded in the SDGs has started to pick up momentum following the resolutions of the World Climate Summit. The circle of supporters of the Fossil Fuel Divestment movement had grown to 500 institutions with over EUR 3 trillion of assets as at December 2015.
- ◆ To achieve the 2 Degree Goal, the global energy system needs to be restructured towards an increased use of renewable energies. A positive trend is already evident here, with the largest share currently being attributed to the use of hydropower. Overall, however, the 13 per cent renewable-energies share of the worldwide primary energy mix is still too low.
- ◆ Water is a key aspect impacted by many of the SDG targets. These include reliable food supplies, sustainable economic growth as well as health and peace. The most frequent breaches here in 2015—both in the environmental and human rights areas—were identified for companies in the Metals and Mining industry.
- ◆ Palm oil is one of the most problematic raw materials as regards the SDG goals. Palm oil must be considered as critical both in terms of the aspects of biodiversity and climate change, as well as from a labour and human rights perspective. If minor controversies are also taken into account, two thirds of all companies rated by oekom research that trade in, or cultivate, palm oil are involved in environmental or human rights conflicts.
- ◆ The use of EDCs (Endocrine Disrupting Chemicals) not only in the Chemicals industry, but also by manufacturers of household products, cosmetics and electronics, opposes the SDG of securing healthy living conditions. Particularly those companies with the most highly developed sustainability management systems are disposed towards looking for alternatives.
- ◆ The use of agro-chemicals has risen sharply worldwide and thus opposes the SDG requirement to protect ecosystems. Biologicals are deemed an alternative in the area of pest control. They are also being explored by large agricultural companies and represent a promising growth market.
- ◆ At 59 per cent, the majority of the companies analysed in the raw materials sectors (Metals & Mining, Oil, Gas & Consumable Fuels) failed to present any programmes at all for ensuring human rights due diligence as per the UN Global Compact. Only 8 per cent of the rated companies presented comprehensive packages of measures.
- ◆ The SDGs see waste disposal and recycling as important measures for attaining sustainable lifestyles as regards consumption and the utilisation of goods. This goes hand in hand with growing awareness for the high value that can be recovered from waste as a resource. In the IT sector, oekom research notes a 20 per cent increase in the amount of waste taken back by companies over the past three years.

- ◆ Tax avoidance and tax evasion represent one of the major aspects in the SDG areas of inequality between states, as well as social justice. The transparency of how companies report their profits and tax payments, which is sampled in the

oekom Corporate Rating, identified a predominantly bad quality of reporting. Only 1.1 per cent of companies (24) were awarded the best possible grading in this category.

1. ESG performance of companies in the oekom Universe: status and trends

1.1. Basis for the analysis: the oekom Universe

The number of companies that are analysed and evaluated in the oekom Universe has grown steadily over the past years and had risen to 3,700 as at December 2015. The Universe covers—amongst others—all companies listed in major international, as well as in numerous national stock indices, and can be divided into three groups:

1. large listed companies from conventional sectors;
2. listed, often small and medium-sized, companies from sectors closely linked to sustainability, e.g. in the fields of renewable energies and energy efficiency, recycling technologies or water treatment;
3. non-listed bond issuers, e.g. regional banks, supranational organisations such as the World Bank, or railway companies.

All companies are analysed using a standard procedure and based on comprehensive and regularly updated sets of criteria. The aim of the oekom Corporate Rating is to comprehensively evaluate companies' sustainability performance, and to identify within individual sectors those companies which are particularly committed to sustainable development. The criteria used refer to all areas of corporate responsibility. Each set comprises around 100 individual criteria, a large proportion of which is industry-specific. They relate, for example, to the way in which the company treats its employees and suppliers, the ecodesign of products and the scope and

quality of environmental management systems. The criteria are regularly updated in order to take account of e.g. new technical, social or legal developments.

The oekom Corporate Rating serves as a basis for a very broad spectrum of sustainable investment strategies ranging from integration and best-in-class approaches, to engagement and the use of exclusion criteria.

oekom research conducts analyses in respect of possible violations of a total of over 20 exclusion criteria. These distinguish between controversial business areas, such as alcohol, nuclear power and military, and controversial business practices, such as violations of labour rights or human rights. oekom research's list of exclusion criteria includes, among others, the criteria recommended by the Evangelical Church in Germany (EKD).

Please note:

*The following evaluations of ESG performance and of breaches of the Principles of the UN Global Compact do not relate to the entire corporate universe covered by oekom research, but to a sub-universe of large, internationally operating companies based in industrialised countries. Altogether there are around 1,600 such companies in the oekom Universe, which will be referred to below as the **Global Large Cap Universe (GLCU)**.*

1.2. Overall performance

The overall rating of the sustainability management and sustainability performance of large, internationally operating companies (Global Large Cap Universe, GLCU) shows a slow but constant upward trend. Reasons for this could be more stringent regulatory guidelines, an increase in companies' awareness for sustainability and, associated with this, greater underlying transparency.

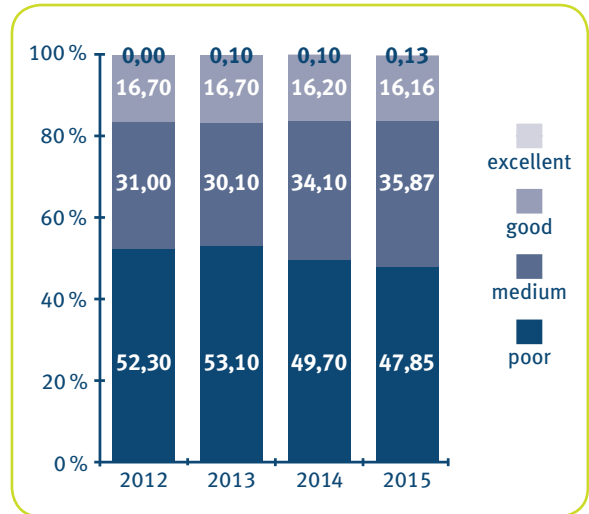
But more and more companies may also have come to recognise the economic relevance of the

issue. Although a large proportion of the companies (47.8 per cent) continue to have an insufficient commitment to sustainability, this figure has been receding since 2013. This trend is also visible on the positive side, with initial sustainability efforts meanwhile identified at 35.8 per cent of the companies. This, too, is a slight improvement compared to the previous year.

The number of companies awarded oekom Prime Status remains constant: as was the case in the pre-

vious year, 16.3 per cent of the companies fulfilled oekom research's sector-specifically defined minimum requirements for sustainability management and performance as at year end 2015.

Fig. 1: Evaluation of the sustainability performance of large, internationally operating companies based in industrialised countries (GLCU); in %; as at: 31. 12. 2015; source: oekom research (2016)



1.3. Cross-sectoral comparison

oekom research takes a decidedly sector-specific approach to the rating of companies. Of the total of approximately 700 individual indicators, around 90 per cent relate to sector-specific aspects. In order to nonetheless enable comparison of the ratings of companies from different sectors, the alphabetical grades on oekom research's scale from D- to A+

(highest possible grade) have been converted below to numerical scores, on a scale from 0 to 100 (highest possible score). When sectors are compared, a higher rating means that the companies in one sector, on average, handled sector-specific sustainability challenges better than companies in another sector with a lower rating.

1.3.1. Industry assessment: the top-performing sectors

On inspection of the sectors' sustainability performances, there still remains much room for improvement. As was the case in previous years, it is notable that even the best industries failed to be awarded even half of the maximum possible number of points on average, with most sectors being awarded less than a third, and the worst sectors being awarded significantly less than a quarter.

Household & Personal Products remained the top sector for addressing sustainability-related challenges. It was awarded an average score of 47.4 on a scale from 0 to 100 (see Fig. 2) and continued to improve slightly compared with the previous years. Also unchanged, taking the top position within the industry, was German consumer goods manufacturer Henkel with a rating of no less than 74.5. As in pre-

vious years, companies in the Automotive industry again took second place in the sectoral rating. They were awarded an average score of 44.3, also marking a slight improvement on 2014. Among those at the bottom of the sector ranking were the Commercial banks and Insurance companies, the Construction and Real Estate sector, the Oil and Gas and Retail industries as well as the Logistics business.

Although none of the reviewed industries was awarded a higher rating than 50 and the majority continued to score less than one third of the possible points, a slight but continual increase in the average rating is evident in many sectors. This can be seen in the trends for the years 2010 through 2015 (see Fig. 3).

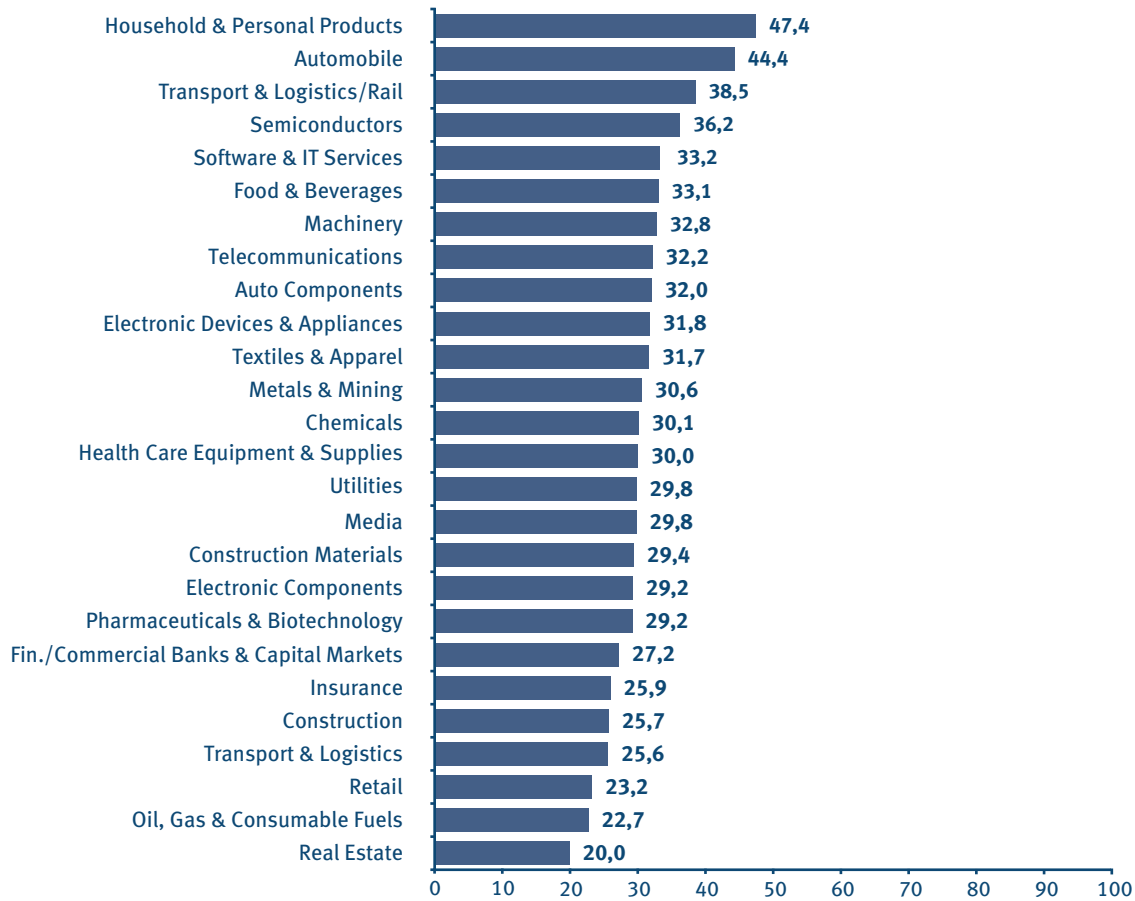


Fig. 2: Average rating of companies from selected industries on a scale ranging from 0 to 100 (highest possible score); basis: GLCU; as at: 31. 12. 2015; source: oekom research (2016)

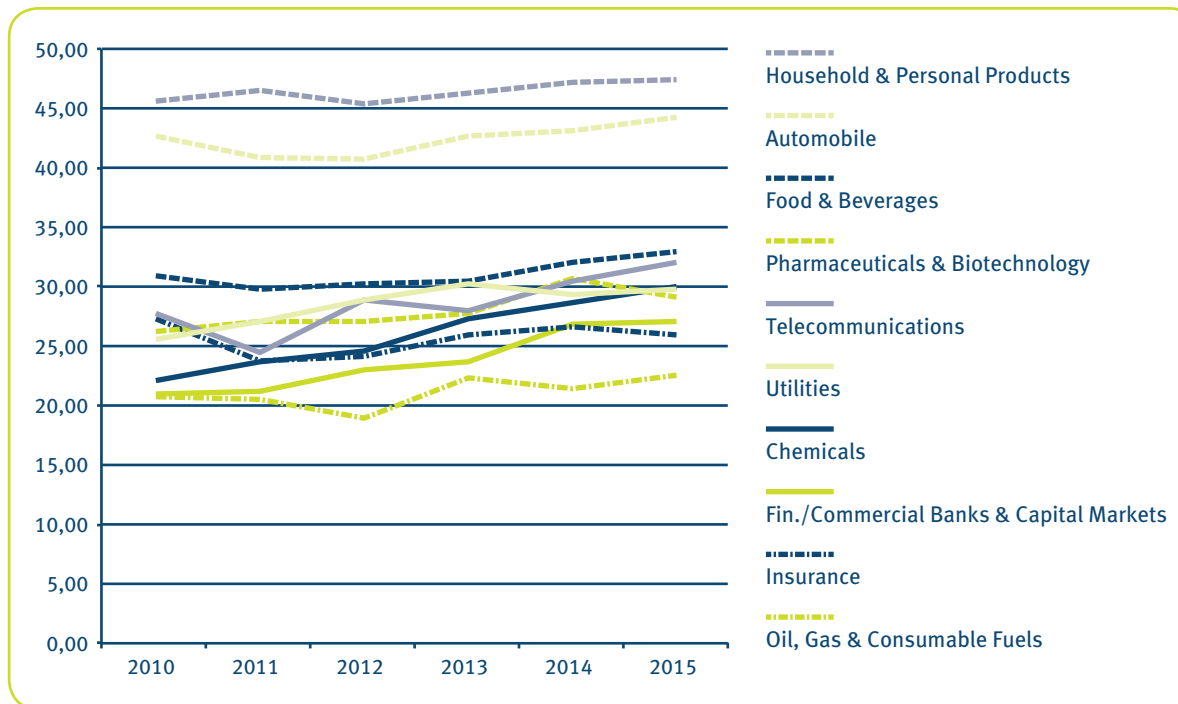


Fig. 3: Trend in the average rating of the companies in selected sectors in previous years; scale from 0 to 100 (highest possible score); basis: GLCU; as at 31. 12. 2015; source: oekom research (2016)

1.3.2. Industry leaders: the top-performing companies

Regarding the geographical distribution of industry leaders from a sustainability perspective, the ranking of nations is led by France followed by the United Kingdom and Germany. Among the best companies within an industry, four companies are from those countries each. If one also includes companies in second and third positions in this examination, France has, with 16 companies among the top

3, a significant lead over the UK, with 13, and Germany, with 11. In fourth place is the United States of America (nine companies), followed in fifth place by Sweden (four companies). The best companies thus again come predominantly from Europe. As in previous years, none of the GLCU's companies sustainability performance was so comprehensive in 2015 as to warrant oekom research awarding it grade A.

Tab. 1: The top 3 companies in selected industries; basis: GLCU; as at: 31. 12. 2015; companies in brackets were not awarded oekom Prime Status; source: oekom research (2016)

Sector	Rank 1			Rank 2			Rank 3		
Auto Components	Johnson Controls Inc	US	B-	Michelin	FR	C+	Valeo SA	FR	C+
Automobile	Peugeot SA	FR	B	Bayerische Motoren Werke AG	DE	B	Renault SA	FR	B
Chemicals	Akzo Nobel NV	NL	B-	Evonik Industries AG	DE	B-	BASF SE	DE	B-
Construction	Vinci SA	FR	C+	(Barratt Developments PLC)	GB	C	(Skanska AB)	SE	C
Construction Materials	Geberit AG	CH	B	Cie de Saint-Gobain	FR	C+	CRH PLC	IE	C+
Electronic Components	Schneider Electric SE	FR	B	Legrand SA	FR	C+	OSRAM Licht AG	DE	C+
Electronic Devices & Appliances	Koninklijke Philips NV	NL	B-	Ericsson	SE	B-	Fujitsu Ltd	JP	C+
Financials/Commercial Banks & Capital Markets	DNB ASA	NO	C+	UniCredit SpA	IT	C	Societe Generale SA	FR	C
Food & Beverages	Coca-Cola Enterprises Inc	US	B-	Coca-Cola HBC AG	CH	B-	Unilever PLC	GB	C+
Health Care Equipment & Supplies	Coloplast A/S	DK	C+	Baxter International Inc	US	C+	Sonova Holding AG	CH	C+
Household & Personal Products	Henkel AG & Co KGaA	DE	B+	L'Oreal SA	FR	B	Colgate-Palmolive Co	US	B-
Insurance	CNP Assurances	FR	C+	Hannover Rueck SE	DE	C+	Swiss Re AG	CH	C+
Machinery	Atlas Copco AB	SE	B	Volvo AB	SE	B-	MAN SE	DE	B-
Media	RELX PLC	GB	B-	WPP PLC	GB	C+	Sky PLC	GB	C+
Metals & Mining	Norsk Hydro ASA	NO	B	Anglo American PLC	GB	B-	Boliden AB	SE	B-

Sector	Rank 1			Rank 2			Rank 3		
Oil, Gas & Consumable Fuels	Snam SpA	IT	B	Enagas SA	ES	B	TOTAL SA	FR	B-
Pharmaceuticals & Biotechnology	AstraZeneca PLC	GB	B-	GlaxoSmith Kline PLC	GB	B-	Sanofi	FR	B-
Real Estate	British Land Co PLC/The	GB	B-	Gecina SA	FR	C+	Hammerson PLC	GB	C+
Retail	Tesco PLC	GB	B-	Marks & Spencer Group PLC	GB	C+	Carrefour SA	FR	C+
Semiconductors	STMicro-electronics NV	CH	B+	Intel Corp	US	B	Texas Instruments Inc	US	B-
Software & IT Services	SAP SE	DE	B	Microsoft Corp	US	B-	IBM	US	B-
Telecommunications	Deutsche Telekom AG	DE	B	Telecom Italia SpA	IT	B-	Swisscom AG	CH	B-
Textiles & Apparel	Gildan Activewear Inc	CA	B-	Hennes & Mauritz AB	SE	C+	NIKE Inc	US	C+
Transport & Logistics	Deutsche Lufthansa AG	DE	C+	Deutsche Post AG	DE	C+	(Royal Mail PLC)	GB	C
Transport & Logistics/Rail	MTR Corp Ltd	HK	B-	Canadian National Railway Co	CA	C+	East Japan Railway Co	JP	C+
Utilities	Terna Rete Elettrica Nazionale	IT	B+	Red Eléctrica Corporación SA	ES	B	Suez Environnement Co	FR	B-

1.4. Controversial business practices

Besides the scope and quality of sustainability-related efforts, oekom research also evaluates the extent to which the companies analysed are involved in controversial business areas, e.g. nuclear power, genetically modified organisms or military, or in potentially controversial business practices. In the lat-

ter case, recognised standards are used as a benchmark, such as those formulated in the ten Principles of the UN Global Compact, the most significant voluntary commitment made by companies worldwide to responsible corporate management.

1.4.1. Breaches of the UN Global Compact: the most controversial sectors

The most controversial sectors are again the raw materials sectors this year. The extraction of raw materials is not only often connected to land-usage conflicts and associated human rights violations. In many cases, the operation of the extraction facilities additionally poses a threat to sensitive ecosystems

and local populations' livelihoods. Moreover, the extraction process is sometimes highly hazardous for the workers, resulting in a relatively large number of fatal work accidents. The problem is accentuated by the fact that mining areas are often located in developing countries or emerging economies with inade-

quate minimum environmental, labour and human rights standards. Another problematic situation arises in industries such as the almost equally exposed Textiles sector: the outsourcing of production to low-

wage countries often results in the violation of internationally recognised minimum labour standards in the supply chain.

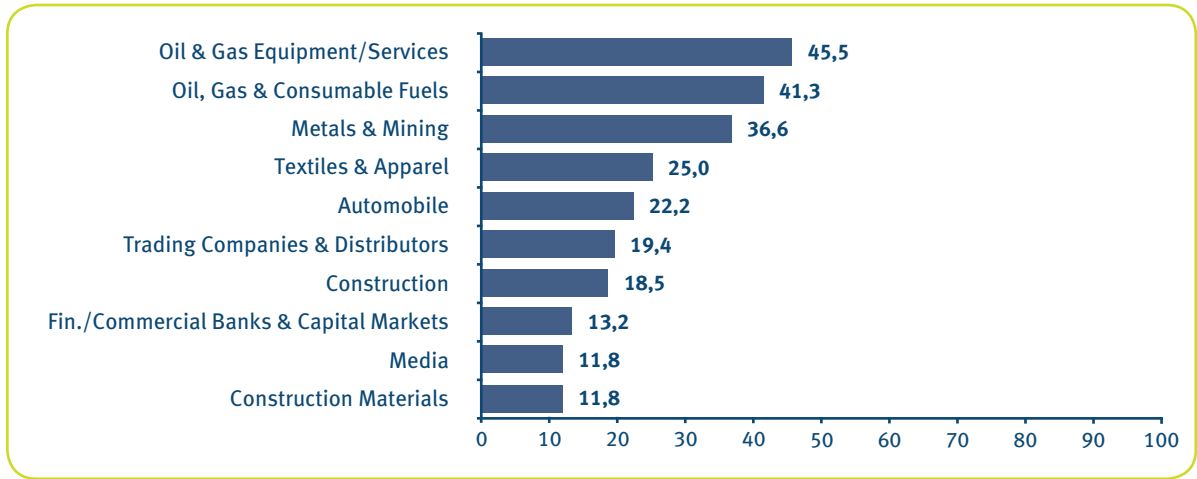


Fig. 4: Proportion of companies in the top ten sectors which have breached the Principles of the UN Global Compact; in %; as at: 31.12.2015; source: oekom research (2016)

1.4.2. Corruption

Once again, it was evident in 2015 that corruption arises particularly in areas where large orders are placed, as is the case for infrastructure projects. Despite a potentially large number of cases going unreported, which is estimated to lie between 80 and 90 per cent, there were clear indications of corrupt conduct at almost every fifth supplier or ser-

vice provider in the Oil and Gas sector. The number of cases in the Construction industry was slightly lower, whereby the two sectors switched places compared to the previous year. A second area with a traditionally high level of corruption is the Pharmaceuticals and Healthcare sector. The figures in this sector declined, however, compared to the previous year.

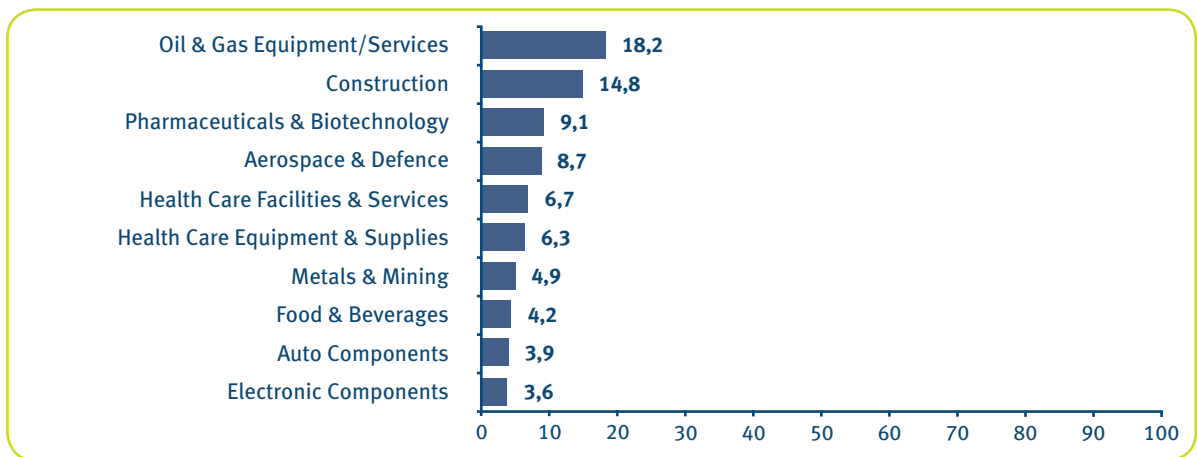


Fig. 5: Proportion of companies of the top 10 sectors with breaches in the area of corruption; in %; as at: 31.12.2015; source: oekom research (2016)

1.4.3. Labour rights violations

Besides failure to comply with the International Labour Organization's (ILO) core labour standards which focus on issues of child labour, forced labour,

discrimination and the restriction of freedom of association, there are many other critical aspects which are regarded as labour right violations by

oekom research's Corporate Rating. These include for example workplaces posing a hazard to human health, inadequate workplace safety, excessive overtime and extremely low wages, as well as compulsory pregnancy or HIV tests. The proportion of companies with violations in the area of labour rights is particularly high in the Textiles industry. Every fourth company in this sector was found to be in breach here. Generally, the violations arise in the supply chain which is intentionally located in the lowest wage countries for cost reasons. Despite appropriate management and audit systems at many textile com-

panies, which are predominantly domiciled in industrialised countries, worker exploitation by suppliers remains the order of the day.

In the current study, second place amongst the most controversial sectors was found to be the Mining sector. Work in mines is often hazardous; also, safety standards are not always adequate in the developing countries and emerging economies in which many of the extraction areas are located. The result is a large number of fatal work accidents at mining companies every year.

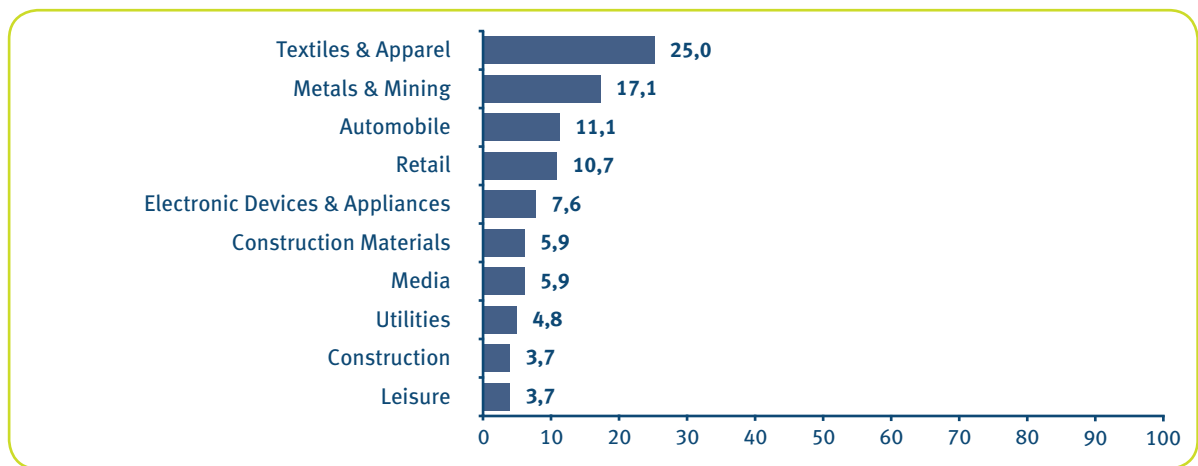


Fig. 6: Proportion of companies of the top 10 sectors with breaches in the area of labour rights; in %; as at: 31. 12. 2015; source: oekom research (2016)

1.4.4. Human rights violations

In distinction to labour rights violations, oekom research classifies such incidents, where the health or lives of local residents, customers or other persons are knowingly put at serious risk, as violations of human rights. These also include:

- ◆ activities in the area of human trafficking;
- ◆ activities and projects which grossly violate third parties' rights to self-determination and
- ◆ activities and projects which grossly disregard third parties' rights to cultural self-determination or their cultural dignity.

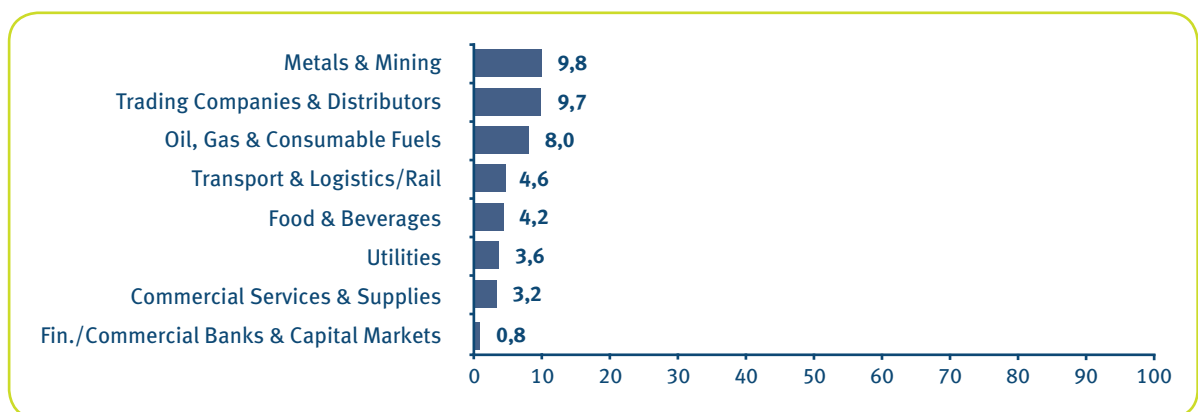


Fig. 7: Proportion of companies in individual sectors which have committed violations of human rights; complete list of sectors involved; in %; as at: 31. 12. 2015; source: oekom research (2016)

Breaches in these areas occur particularly frequently at companies in the Metals and Mining industry (almost 10 per cent). Cases also continued to be documented at International Trading groups and in the Oil and Gas industry. The breaches are often triggered by land-usage conflicts between companies and the local population, and by the destruction of the local inhabitants' livelihoods in the extraction areas. Analogously to the other thematic areas of the

Global Compact, oekom research applies rigorous criteria for defining what constitutes a violation of human rights. Besides the particularly serious cases which result in a violation, a large number of other, less serious human rights controversies means that the overall proportion of companies in these sectors which are to some extent involved in the constraining of human rights is ultimately much higher.

1.4.5. Environmental violations

Companies in the Mining industry and Oil and Gas industry are also particularly frequently implicated in cases involving environmental destruction. More than every third company analysed (37.3 and 34.2 per cent respectively) in these sectors was found to have committed breaches of this kind.

Exploration for, and extraction of, raw materials, the associated construction and development of an appropriate infrastructure such as roads and pipelines, and the storage and disposal of contaminated tailings and treatment residues—have a particularly negative impact on flora and fauna, air, water and soil. Year on year, the proportion of companies affected in the Oil and Gas sector had already doubled from 15.1 per cent in 2013 to 31.0 per cent in

2014, and has now risen even further to 37 per cent. This is primarily attributable to the fact that, since 2014, oekom research has been classifying certain types of fracking as environmental violations.

Ranked fifth in the list of industries which have committed violations in the area of environmental protection is the Automotive sector at over 11 per cent. In 2015, this was mainly seen in the light of the fraud accusations against German carmaker Volkswagen regarding manipulated NO_x emission measurements and incorrect values for CO₂ emissions which, inter alia, resulted in an activation of the exclusion criterion 'Controversial Environmental Practices'.

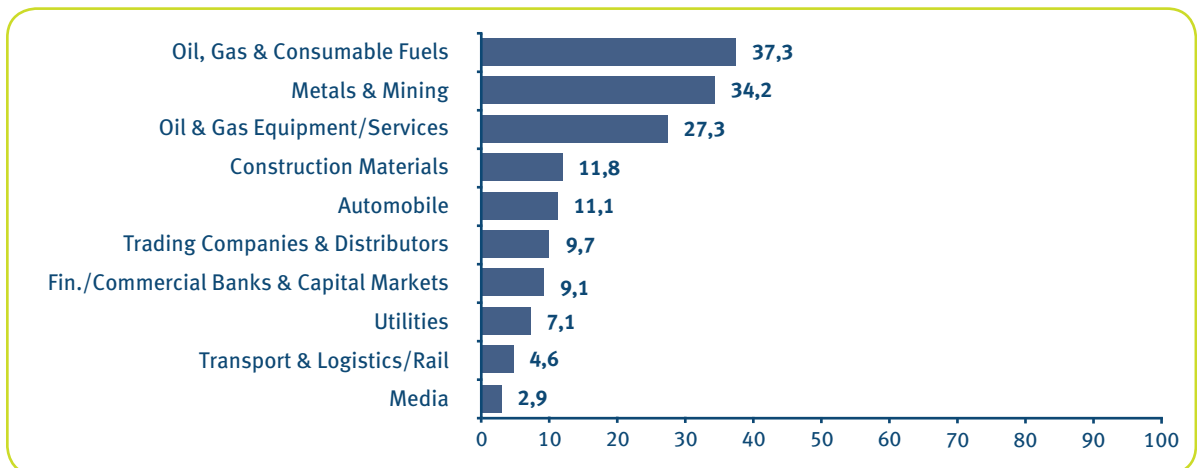


Fig. 8: Proportion of companies of the top 10 sectors which have committed violations in the area of environmental protection; in %; as at: 31.12.2015; source: oekom research (2016)

2. The UN Sustainable Development Goals – a new global framework for sustainable development

With the endorsement of the UN Sustainable Development Goals (SDGs, also called Global Goals) in September 2015, the UN General Assembly ratified a new consensus on goals for sustainable development for the coming 15 years up to 2030. They not only serve as a guideline for the future of the global community, but can also influence the underlying conditions for companies' and investors' activities

Lisa Kim Breitenbruch
ANALYST



and goals. There is therefore no way around the 17 SDGs for all those committed to sustainability.

The UN Sustainable Development Goals – an overview

Compared to their predecessors—the UN Millennium Development Goals (MDGs), which expired in 2015—the new SDGs, which were developed in a three-year negotiation process, are characterised by a number of central new aspects:

- ◆ The 17 SDGs are grouped under the five guiding themes People, Planet, Prosperity, Peace and Partnership.
- ◆ Besides social topics such as health, education and combating hunger (People), which served as the basis of the MDGs, an equivalent importance is now attached to ecological and economical goals (for example in the areas of climate change, energy, water, employment, production and consumption) through Planet and Prosperity.

- ◆ The guiding theme Peace takes account of the particular interdependency between peace and sustainable development.
- ◆ Under the catchword Partnership, the SDGs no longer only focus on developing countries and emerging economies, but on all nations equally. Furthermore, they place a much greater emphasis on the role of non-governmental protagonists from business, civil society and academia for achieving the goals.

As a result of these new aspects, the SDGs have become much more extensive and complex than their predecessors. They are split into 17 goals with a total of 169 targets (1).

Reachability, ambition and measurability – critical voices

Besides their non-bindingness under international law, one of the central criticisms of the SDGs is their complexity. The large number of goals makes certain contradictions between them unavoidable. Some of these conflicting objectives are reconciled with corresponding “decoupling” objectives (2). Overall, many of the goals and targets have been formulated so vaguely that their actual ambition remains unclear. Concrete quantitative and qualitative indicators for measuring achievement of the SGD goals are currently still under development. The suggestion by the responsible Inter-Agency and Expert Group on

SDG Indicators, which provides for two indicators per target on average, is still awaiting acceptance by the UN Statistical Commission (3).

Politics, especially national governments, continues to play a key role in the implementation of the SDGs. Through national plans of action, governments shall create a conducive environment, also for other protagonists' contributions. Often, however, it is criticised that the large number of goals could make it too easy for governments to focus selectively on individual goals, and use this to justify why other targets were possibly missed.

Minimising risk, grasping opportunities – the role of the private sector

The diversity of development goals also offers an opportunity for private sector companies to pragmatically assume the greater share of the respon-

sibility attributed to them. On the UN side, the UN Global Compact (UNGC) is chiefly active in showing ways how companies can contribute to achieving

the SDGs. It regards the SDGs essentially as a guiding framework for companies that specifies external stakeholders’—and particularly politics’—expectations of sustainability and sustainable business. Within this framework, the Global Compact reduces

the private sector’s contribution to the simple formula: “Business contribution to the SDGs = act responsibly + find opportunity” (4). While doing so, a clear prioritisation between the two aspects is made:

“Act responsibly”

Through responsible entrepreneurial action, companies should first eliminate any negative impacts of their current business model on people and the environment, or at least reduce and compensate for them. Enormous progress towards achieving the SDGs could already be made through this risk management alone and the observation of certain minimum standards in areas such as labour and human rights, environmental protection and business ethics.

“Find opportunity”

The SDGs address diverse problems in areas such as fighting poverty, securing food supplies, education, infrastructure, energy and water supplies, and declare their solution a global priority for the coming decades. They aim to shift public and private investment flows towards achieving the SDG goals. In a second step, companies should grasp the ensuing market opportunities and leverage their positive contribution by developing innovative products and services that contribute directly to achieving the sustainability goals.

Not all SDGs are equally relevant for all companies. Companies are exposed to different risks depending on their sector, business model and region, and have different opportunity profiles. With the so-called SDG Compass (5), the UN Global Compact has developed an instrument together with the Global

Reporting Initiative (GRI) and World Business Council for Sustainable Development (WBCSD) with which companies can make an initial assessment of their impacts, risks and opportunities, and identify which of the SDGs are of most strategic relevance for them.

Creating incentives and supplying capital – sustainable investment and the SDGs

Although the estimates in this area deviate significantly from one another, it can still be assumed that implementation of the SDGs up to 2030 will cost several trillion euros a year. The United Nations and its member states envisage a large share of the necessary funds being put up by the private sector. With this, the SDGs also redefine global politics’ expectations of sustainable investments.

Sustainability-oriented investors wishing to shift their investment focus towards SDG achievement must therefore ask themselves the following questions:

- ◆ Which companies act responsibly and have reduced the negative impact of their business activities as best as possible?
- ◆ Which companies offer innovative products and services that contribute directly to solving global sustainability challenges?

In the following chapters, oekom research analysts discuss the SDG-relevant topics which, both last year, in 2015, and currently for 2016, are highly relevant for sustainability ratings, and of central importance for sustainability-committed companies and investors. The choice of topics also reflects the status quo and situation of the sustainability discussions arising in the day-to-day rating and dialogue processes with companies. The assessments and results relate to the entire oekom Universe.

Sources:

- (1) <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>
- (2) One example is target 8.4 which aims to decouple economic growth from the associated environmental impacts.
- (3) <http://unstats.un.org/sdgs/iaeg-sdgs/>
- (4) https://www.unglobalcompact.org/docs/issues_doc/development/GCforSDBrochure.pdf
- (5) <http://sdgcompass.org/>

2.1. The Sustainable Development Goals and the World Climate Summit in Paris – the beginning of the end for coal

After more than a decade of exorbitant growth, the coal industry is finding itself in an increasingly precarious situation.

The prospects of reducing the dependency of the world's energy supplies on coal have never been better than today. This is not least because ethical motivations and the economic ambitions of sustainability-committed investors seem to be coinciding at a historically auspicious moment.

No shadow of doubt remains that a de-carbonisation of the economy is indispensable. Other factors are a dramatic fall in prices, the increasing competitiveness of renewable energies against fossil fuels, and significant financing risks for coal projects due to stiffer environmental legislation.

Climate and financing risks on the rise

To get the world on track to meet the 2°C climate goal, around 290 GW of capacity from inefficient, so-called “sub-critical”, coal-fired power stations need to be taken off line by 2020, according to Christina Figueres, General Secretary of the United Nations Framework Convention on Climate Change (UNFCCC). However, according to Climate Action Tracker, a scientific consortium of prominent research institutions (1), a further 2,440 coal-fired power stations are presently under planning. Were all these projects to be realised, the resulting emissions would exceed the emissions budget needed to achieve the 2°C climate goal by 400 per cent. Experience shows, however, that, of the projects which are planned, a large number is not ultimately realised; this is borne out by the fact that only one third of the coal-fired

Only the fewest have adequate climate strategies

How do companies keep up with these developments? The oekom research assessment of 55 energy providers whose energy generation mixes consist of over 30 per cent coal discovered that only 35 per cent of the companies have implemented an adequate or comprehensive climate strategy. At the same time, the average grade awarded to companies in OECD countries was C+, significantly better than that of companies from non-OECD countries, at D+. But it is precisely the latter group which requires the most urgent action, given the large share of coal consumed worldwide in these countries. An under-

Karsten Greye
LEAD ANALYST



A number of touchpoints exists between the United Nations' Sustainable Development Goals and the coal industry, especially concerning the extraction of coal and its use in power stations for electricity generation. The most obvious connection is with SDG 13 “take urgent action to combat climate change and its impact”. Here, it is clear that the most urgent need for action, and the best chances of success, centre on the most climatically harmful fossil fuel of all, namely on coal.

power station projects planned between 2010 and 2014 was actually realised (2). For investors, the risk of projects failing, or of existing, and above all inefficient, high-pollutant coal-fired power stations being decommissioned to become stranded assets, is high and continues to rise. Environmental regulation both in the OECD—here, notably in the USA and the EU—and in emerging economies such as China, are increasingly calling the profitability of new coal-fired power stations into question. The worldwide consensus of the Paris Global Climate Summit to restrict the temperature rise to just 1.5°C increases the financing risks even further. In addition, investor preference for carbon divestment strategies is gaining momentum and placing companies under more pressure to act (see chapter 2.2.).

lying prerequisite for formulating and implementing a climate strategy is the collection of authentic emissions data. Nevertheless, the quantitative climate data supplied by over half the companies is either inadequate, or no such data is provided whatsoever. Far-reaching emissions-reduction goals, and action plans to achieve them, have only been established by 18 per cent of the companies. Furthermore, transparency regarding companies' exposure to physical, regulatory and other climate-related risks—such as market, liability and reputation risks—and how they implement adequate measures to mitigate these

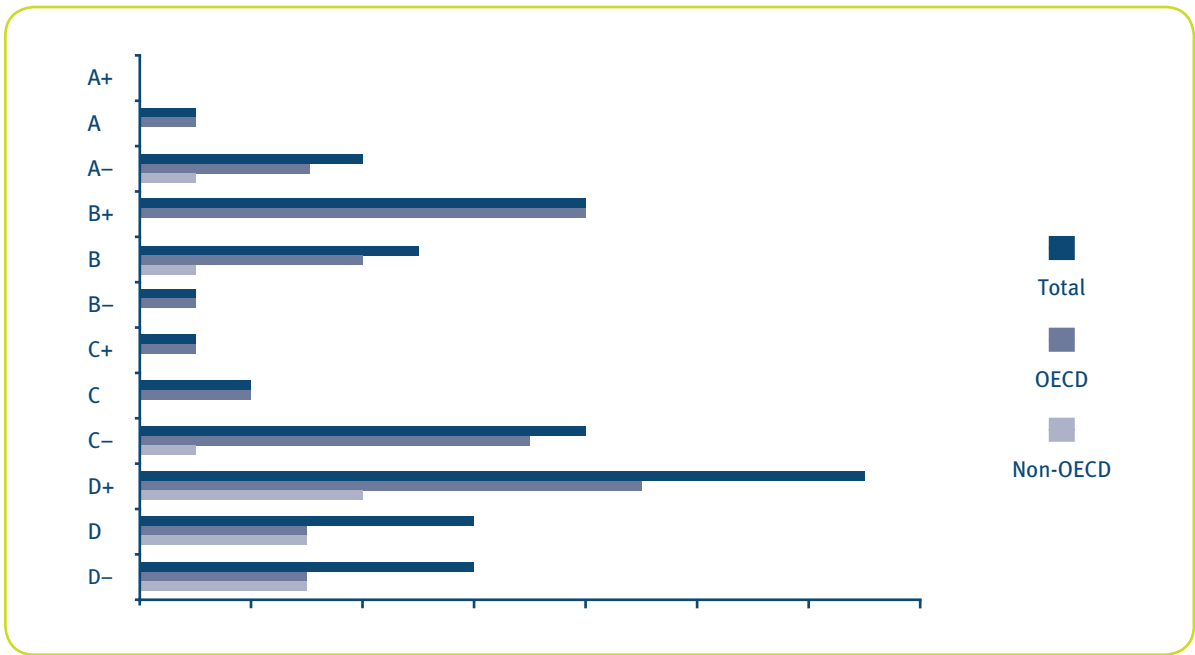


Fig. 9: Assessment of the climate strategies of 55 energy providers whose energy mixes consist of >30 per cent coal. As at 31. 12. 2015; Source: oekom research (2016)

risks are essential for investors. But on this point too, only 29 per cent of the companies received a good or very good grade. The vast majority thus fails to fulfil capital market expectations, or only fulfils them inadequately, even though it should be in the companies’ own self-interest to proactively address investors’ need for information on how they handle climate risks.

The signs of the time have been recognised by Scottish and Southern Energy plc (SSE), for example. This company aims to halve the carbon intensity of its power generation from 600 gCO₂/kWh in 2006 to 300 gCO₂/kWh in 2020 (current status as at start of 2015: 470 gCO₂/kWh). SSE is planning to achieve this by shifting capacity from coal-fired power stations to an intensified use of renewable energies and natural gas. In the non-OECD world, China’s (non-state-owned) CLP Holdings Ltd. stands out with its ambitiously formulated “ClimateVision 2050”. Starting from a value of 840 gCO₂/kWh in 2007, the company plans to achieve a 30 per cent reduction in the carbon intensity of its power generation by

2020 (to 600 gCO₂/kWh), a 45 per cent reduction (to 450 gCO₂/kWh) by 2045 and, ultimately, a 75 per cent reduction (to 200 gCO₂/kWh) by 2050—the reference year of the 2°C climate goal. Regrettably, long term objectives of this kind still remain the exception rather than the rule. It remains to be hoped that initiatives such as the “Science Based Targets Initiative” of the CDP, the United Nations Global Compact, the World Resources Institute and the WWF will motivate and enable companies to formulate and implement ambitious, long-term goals even more in the future.

The coal industry often proposes “clean coal” as an option for reducing coal-related emissions. This refers to the use of more efficient and cleaner types of power stations, on the one hand, but, above all, the use of carbon capture and storage technologies (CCS). At present, developments in this field are slow, and its overall effectiveness must be viewed with a certain amount of scepticism (see oekom research position paper “Carbon Capture and Storage”, July 2010).

Problems already arise during extraction

Besides the immense negative climatic impact of burning coal, its extraction already poses considerable challenges for sustainability: these include enormous damage caused to the landscape by opencast mining (sometimes with irreversible consequences for the environment), a serious harm to entire re-

gions’ water supplies through a drop in the water tables, and hazards for groundwater and surface water resulting from toxic dump discharges.

The SDGs not only address goals of environmental relevance, but also a number of social aspects which are significant for the coal industry. After the

Coal extraction – an interference with nature

The damage is immense in the Appalachians (USA) where entire mountaintops are removed to expose coal seams. These incursions into nature are irreconcilable with SDG 15 “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss” (3). A vivid example of how industry is not just capable of damaging terrestrial ecosystems, but also maritime ones—thereby contravening SDG 14 “conserve and sustainably use the oceans, seas and marine resources for sustainable development”—is the development of coal ports along the western coast of Australia. This poses an immense additional hazard for the already-endangered Great Barrier Reef.

SDGs were ratified, the World Coal Association emphasised that coal played an important role in “ending poverty in all its forms everywhere” (SDG 1) and “ensuring access to affordable, reliable, sustainable and modern energy for all” (SDG 7). This is particularly the case in developing countries and emerging economies (4). The World Coal Association failed to mention, however, that several other SDGs paint a less favourable picture: underground mining, for example, is one of the most hazardous occupations that exist. Coal India, the world’s largest coal company, reported a total of 166 work-related fatalities from 2011 to 2013.

Particularly coal companies in non-OECD countries have a lot of catching up to do if they are to achieve SDG 8.8 “protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment”. Also, the large amounts of harmful emissions from coal-fired power stations cause considerable environmental damage and endanger the health of local inhabitants—one of the most pressing problems in China and other Southeast Asian countries. Accord-

ingly, much still has to be done in terms of SDG 3.9 “by 2030, [to] substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination”. Another very important aspect is the coal industry’s dependence on water, with sub-critical power stations in particular using large amounts of water for producing steam and cooling. However, according to the World Resources Institute, over 50 per cent of China’s and over 70 per cent of India’s coal-fired power stations are already situated in regions suffering from water scarcity (5). Were both countries to implement their development plans unabatedly, it would considerably intensify competition with other industries and, naturally, with the local population, in their respective claims to water. Consequently, the coal industry also poses a challenge to achieving SDG 6 “Ensure availability and sustainable management of water and sanitation for all”. Furthermore, water scarcity is also an additional risk for investors, given that increasingly strict water regulation will likely jeopardise the implementation of numerous coal-fired power station projects in the future.

Accelerating decarbonisation

It can reasonably be claimed that, after all this has been considered, the coal industry ultimately poses a significant risk to achieving the SDGs. A reduction in coal extraction and the proportion of coal used in power generation is thus imperative. But there may be a glimmer of hope: a recent study conducted by the International Energy Agency (IEA) concluded that, in 2014, demand for coal stagnated for the first time since the 1990s. Following a 4.4 per cent average annual rise in coal extraction between 2004 and 2014, the IEA is now forecasting growth rates of under 1 per cent for the period 2016 through 2020 (6). Over the longer term, the agency predicts that the share of renewable energies used to generate electricity worldwide will overtake that of coal in

the early 2030s. The share of coal is expected to fall from 41 per cent at present to 30 per cent by 2040 (7). But whether these trends will suffice remains doubtful: all these figures are based on growth scenarios and, as such—despite a relative drop in the importance of coal—equates to an absolute increase, both in terms of coal extraction and coal-related carbon emissions. The IEA’s forecasts did not, however, take the Paris Global Climate Agreement into account. One thing appears certain: Paris seems to have marked the beginning of the end for coal, and has also already had a noticeable impact on investors’ momentum and measures, as reflected in many of their divestment plans alone. The important question is now whether individual states will further

improve their voluntary national obligations, which many regard as inadequate for achieving the 2°C climate goal and, even more so, the 1.5°C goal.

Sources:

- (1) <http://climateactiontracker.org/about.html>
- (2) https://www.sierraclub.org/sites/www.sierraclub.org/files/uploads-wysiwig/Coal_Tracker_report_final_3-9-15.pdf
- (3) SDG 15: “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage

forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”

- (4) <https://www.worldcoal.org/sustainable-development-goals-lacked-ambition>
- (5) <http://www.wri.org/blog/2014/04/identifying-global-coal-industry%E2%80%99s-water-risks>
- (6) International Energy Agency, Key Coal Trends 2015
- (7) http://www.worldenergyoutlook.org/media/weowebsite/2015/WEO2015_Factsheets.pdf

2.2. Carbon divestment as a means to combat climate change

Under the motto “take urgent action to combat climate change and its impact”, SDG 13 calls upon the world’s nations to take immediate action against climate change and to incorporate its containment into their national strategies and action plans. The United Nations Framework Convention on Climate Change (UNFCCC) is stated as the international forum for discussing suitable measures. SDG 13 also stresses that the obligations endorsed here must be implemented by 2030. This relatively short deadline means that not only politics, but also the financial and private sector, must find strategies and solutions which are capable of manifesting themselves in a short to medium time period if adequately fast progress and results are to be achieved. Besides the SDGs, demands and formulations of goals for reducing greenhouse gas emissions also come from other institutions and committees, and further increase pressure to take action: within slightly more than 12 months, the PRI-supported “Montreal Carbon Pledge” in Septem-

Dieter Niewierra
DIRECTOR COMMUNICATIONS



ber 2014, commitments at the June 2015 G7 summit, France’s Energy Transition Act of autumn 2015, and the resolutions of the UN Global Climate Summit in Paris in December 2015 were already setting impulses and the agenda for the choice of strategies for sustainability-orientated investments. Examples of these include: the Paris World Climate Summit’s agreement to contain global warming to a maximum of 2 or even 1.5°C; and the International Energy Agency’s (IEA) proposed list of measures enabling energy-related emissions to already peak in 2020. Other measures include reducing the use of carbon-intensive fossil fuels (particularly coal and oil) over the next five years, and ramping up the expansion and development of renewable energies.

Sustainable investments: divestment for escaping the carbon trap

Decarbonisation is therefore the catchphrase of the day. More and more investors want to—or have to due to legal obligations—identify their investments’ carbon quotas in order to minimise them and fulfil the above mentioned requirements. In this connection, divestment has gained momentum as an investment strategy and measure for implementing the decarbonisation plans (1). In practice, it is about giving up investments with a high carbon footprint and respective climate risks. The oekom Corporate Rating of financial service providers also examines and assesses divestment in the course of rating their portfolio strategies (2).

The Norwegian Sovereign Wealth Fund already decided in June 2015 to withdraw from investments in companies generating over 30 per cent of their revenues from coal-related activities. In late November

and early December, and coinciding with the Paris summit, numerous public institutions and local authorities, businesses and financial market protagonists also committed themselves to similar obligations. Organisations such as the climate protection initiative 350.org were meanwhile registering new supporters on an almost daily basis.

The world’s largest insurer, Allianz, also committed itself in November 2015 to withdrawing from coal investments, and will no longer invest in companies that produce over 30 per cent of their revenues or power generation from coal-related activities. Allianz stated that a EUR 225 million stock portfolio is to be run down by the end of March 2016. Bonds with a total value of EUR 3.9 billion are to be kept until maturity. No more new investments or reinvestments will be made.

Divestment as a fiduciary duty and protection against lower earnings

The given examples illustrate a trend which is not only driven by individual actors, but also through the consensus between a large number of players. In the run-up to the Global Climate Summit, 374 institutional investors with a total value of almost EUR 22 trillion assets under management put their signatures to the Global Investor Statement on Climate Change (3). In this treaty, they undertook to recognise the management of climate change risks as part of their fiduciary duty towards their clients. This includes cooperating in investment initiatives to promote a low-carbon economy, and requiring the companies they invest in to report on their exposure to climate change risks. The investors are also called upon to develop plans for ending subsidies for fossil fuels. The 350.org initiative is also actively calling on investors to divest. The number of institutions supporting its declared Fossil Fuel Divestment Move-

ment had grown to over 500, representing more than EUR 3 trillion of assets, by December 2015 (4).

The throng of supporters is not only attributable to an awareness for the benefits of sustainable development, but also to an understanding of the concrete hazards that an unrelenting investment in carbon assets would entail. According to a report in November 2015, the Carbon Tracker Initiative predicts that fossil energy companies might incur losses of over EUR2 trillion through stranded assets over the next ten years, which would also translate into significantly lower earnings for investors. The USA is seen as having the highest risk exposure here: with its currently planned investments in fossil fuel projects running at an equivalent of ca. EUR 375 billion, a realisation of the 2°C climate goal could render these investments superfluous, and threaten to turn them into stranded assets (5).

Detailed data basis as a condition for strategic decisions

It is therefore vital for investors to know their investments' CO₂ exposition and understand the associated climate risks and how the companies they invest in deal with these. Data relating to climate change will therefore inevitably become an increasingly permanent feature of companies' group strategies as well as financial institutions' investment strategies. In doing so, examining and reporting on climate change risks will not only serve as a deci-

sion-making basis for investors; it will also compel companies to confront their own situation and take measures to manage their risks. The December 2015 Climate Protection Index published by environmental and development organisation Germanwatch already sees a trend towards the remodelling of energy systems in many countries (see Section 2.3). Despite a rise in global energy-related carbon emissions in 2013, the preliminary data for 2014 point to slower

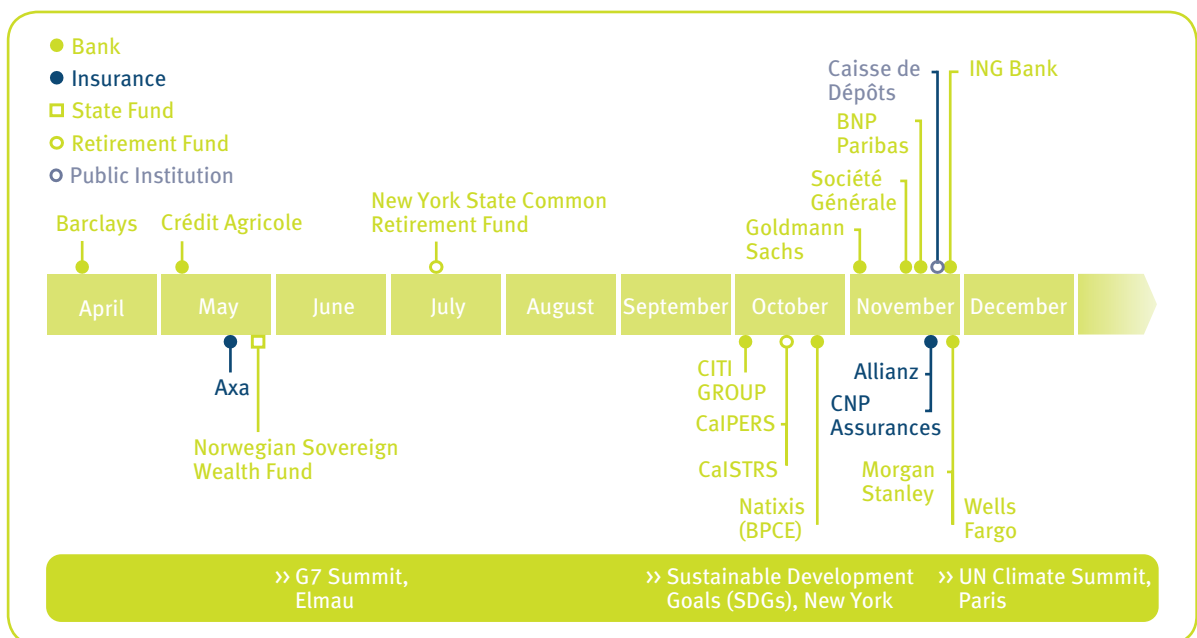


Fig. 10: Key divestment activities in 2015. Source oekom research (2016)

growth rates and possibly even to a standstill. At the same time, higher growth was registered for renewable energies. According to the index, 59 per cent of the electricity generation capacities added in 2014 came from renewable energies (6).

Divestment is not, however, the only measure that investors can take to decarbonise their investments and achieve SDG 13 in accordance with the Paris climate resolutions. Alternative investment strategies are engagement and integration. Both are structurally longer-term, however, and, as such, less suited to reducing a portfolio's carbon intensity at short notice.

Sources:

- (1) <http://www.arabellaadvisors.com/wp-content/uploads/2015/09/Measuring-the-Growth-of-the-Divestment-Movement.pdf>
- (2) oekom Corporate Rating of the Financials sectors, B.2.2.1. Environmental and social guidelines for mainstream asset management services, structured investment products and/or brokerage services
- (3) <http://www.iigcc.org/files/publication-files/GISCC17Aug2015.pdf>
- (4) <http://gofossilfree.org/de/press-release/divestment-commitments-pass-the-3-4-trillion-mark-at-cop21/>
- (5) <http://www.carbontracker.org/report/2540/>
- (6) <http://germanwatch.org/de/download/13624.pdf>

oekom Fossil Fuel Screening allows for comprehensive overview on carbon related activities

With the introduction of oekom Carbon Services and its Fossil Fuel Screening component in November 2015, investors can now define their own fine-meshed fossil-fuel exclusion criteria and apply these in their business operations. A distinction is made between the raw material types coal, oil and natural gas, and with regard to the given company's activities, whether it is acting as a producer, further processor, or service provider, or acting in another capacity.

All activities are classified in regard to their share of the company's net revenues using threshold values between >0% to 100% of net revenues and—with in regard to the production—classified with respect to its global market share (threshold values >0.5% and >1%). The trend for investors currently seems to be moving towards a 30 per cent threshold—see quoted examples. The fine-meshed threshold values that can be defined for screening, however, enable assessment categories that are more- or less-rigorous.

A differentiated analysis of both revenue- and global market share also provides findings on the discrepancy between a low revenue share, for example in the field of coal extraction—if this is calculated as internal business—on the one hand, and a nevertheless relatively high share of global overall extraction, on the other. Examples of these are companies such as RWE and Glencore. Both companies have a revenue share of coal production of currently less than 5%. However, both belong to the largest coal producers worldwide with a global share of more than 1% each.

The analysis shows that relevant fossil fuel-related activities can be seen not only with companies in the obvious sectors such as utilities, metals & mining, and oil, gas & consumable fuels but also with companies from various other sectors. Detailed inventory is therefore vital for a systematic risk management of investors.

2.3. Renewable energies: impetus for future technologies and development cooperation

For climate change to be kept in check and the associated 2°C climate goal to be achieved, nothing short of a complete restructuring of the global energy system will be needed. Renewable energies are in the spotlight here. Such an endeavour will not only require their massive expansion, but also considerable changes to the affected infrastructures. This is to be achieved primarily through investments in electricity grid upgrades and storage possibilities to compensate for fluctuations in wind and solar power.

A recent study conducted in the USA showed that this restructuring is principally feasible, citing that 139 nations would be able to switch 100 per cent of their energy supplies to renewable energies such as wind, solar and hydroelectric power by 2050 (1).

Renewable energies are also directly addressed in the SDGs and imperative for achieving SDG 13

Susanne Marttila
RESEARCH DIRECTOR



“take urgent action to combat climate change and its impacts”. A substantial increase in the renewable energies share of the global energy mix by 2030 is also one of the explicit targets of SDG 7 “ensure access to affordable reliable, sustainable and modern energy for all”. Technology transfers in the areas of renewable energies and the associated infrastructures are to be promoted through international cooperations and, in particular, in developing countries.

Muted positive trend with much room for improvement

The trend is pointing in the right direction, as borne out by e.g. a more than 100 per cent increase in the installed capacity from renewable energies since 2000. According to the International Renewable Energy Agency (IRENA), total capacity rose from 842,594 MW in 2000 to 1,828,722 MW in 2014 (2). The vast majority of this came from hydroelectric power, followed a good distance behind by wind, solar, biomass energy and other sources:

Annual growth rates since 1990 have also been promising, at more than 2 per cent for renewable energies overall, and a much higher 47 and almost 25 per cent for photovoltaic and wind respectively (3). From an economic perspective, renewable energies are nowadays not only competitive with conventional sources—with electricity generation, the costs are sometimes even lower (4).

Given the need to fully restructure the world’s energy system, when global primary energy supplies are considered, the current 13 per cent share of renewable energies is still far too low, however. Policy-makers have recognised the need to further expand the renewable energy base.

The latest IRENA study shows, for example, that 164 nations have set corresponding goals per 2015. Surprisingly, most of the goals were fixed in develop-

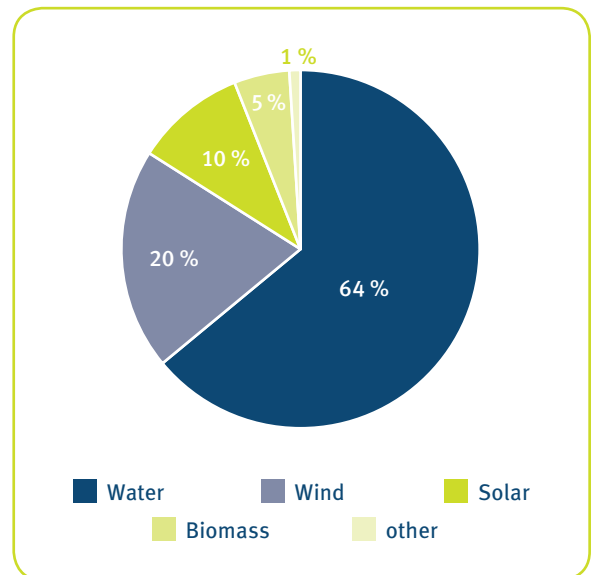


Fig. 11: Distribution of globally installed capacity from renewable energies in 2014. (IRENA 2015: Renewable Energy Capacity Statistics 2015)

ing countries or emerging economies (131 nations in total). It should nevertheless be relativised that the majority of the goals are not legally binding—which would be a prerequisite for a more effective expansion of the renewable energy base.

Energy suppliers in the driver's seat

National states as well as companies must assume responsibility for achieving the international goals, with energy suppliers in a very strong position to make a major contribution here. oekom research takes this into account in its Corporate Ratings of the Utilities sector. In its ratings, it positively assesses and assigns a particularly high weighting to the renewable energies share of the power generation mix, and also conducts a combined benchmark and qualitative trend assessment for the share of renewable energies used for power generation.

The average renewable energies share of the power generation mix of the 128 companies analysed by oekom research in the Utilities industry was 27 per cent for 2015, in other words, significantly higher than the current worldwide share, at just 16 per cent (6). If a distinction is made between large-scale hydroelectric power stations (>10 MW capacity) and other renewable energies, the average values were 20 per cent and 7 per cent respectively. The quotas per company vary widely: 44 per cent of the companies have a <10 per cent share, 20 per cent a share of >10 per cent to <20 per cent, and no less than 36 per cent of >20 per cent. These differences not only arise as a result of the companies' respective strategies; they are also significantly influenced by underlying national, legal requirements and funding instruments, as well as the geographic fundamentals in the countries in which the companies operate.

To achieve the SDGs relating to renewable energies, it does not suffice to simply consider the status quo but, far more, what the future holds. oekom research therefore assesses the energy suppliers' strategies for expanding their renewable energy bases with a particular focus on quantitative targets and concrete investment plans. Overall, the energy suppliers are only awarded an average rating of C here. 42 per cent of the companies do not have a noteworthy strategy for expanding their renewable energy bases. And only 13 per cent—or just 17—of the rated companies were awarded a grade higher than B, in other words: they were not only able to demonstrate a concrete expansion strategy, but also planned investments.

Amongst the energy suppliers with the best sustainability strategies, Danish power supplier Dong Energy is particularly noteworthy. The company has set itself the target of generating 50 per cent of its warmth and energy supplies in Denmark on the basis of renewable energy by 2020. By comparison: the

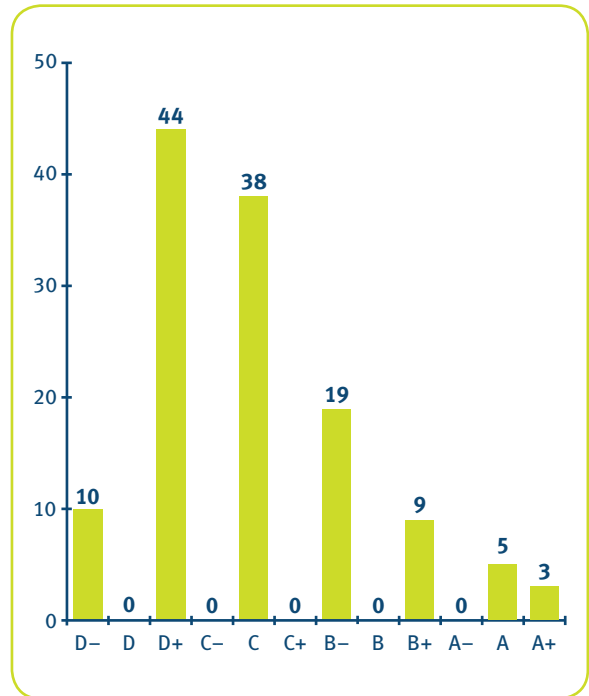


Fig. 12: Distribution of the scores that the oekom Corporate Rating awarded to 128 energy suppliers in the “Utilities” sector in regard to the sub-indicator “Strategy and investments to promote renewable energies”, as at 31.12.2015. Source: oekom research (2016)

renewable energy share of Denmark’s energy consumption currently lies at around 24 per cent (6). In doing so, Dong will mainly resort to offshore wind energy and is planning to quadruple the relating capacity from 2012 to 2020. For this, the company is set to invest 60 per cent of its entire investment budget in wind power from 2014 to 2020.

ESG risks of renewable energies

Overall, renewable energies produce fewer greenhouse emissions than fossil fuels when they are used for power generation, and are essentially available in unlimited quantities. But even here, there are ESG risks, especially regarding hydroelectric power and biomass. Hydroelectric power stations are criticised not only for the negative impact they have on the natural habitats of the local flora and fauna, but also from a human rights perspective in that the large dams needed for such projects necessitate resettlement and destroy the livelihoods of the region’s local population. For biomass, the main risks lie in their cultivation, and the actual carbon footprint of the power generation which depends on the biomass used.

Development cooperation through technology transfer

Despite a number of positive examples, it is not generally possible to speak of a true strategic sea change to the benefit of renewable energies in the sector. Nevertheless, international energy suppliers in particular can make a significant contribution towards technology transfers and advancing the use of renewable energies in developing countries and emerging economies. For this reason, the rating awards positive points to utilities engaged in appropriate activities.

A number of compelling initiatives have been implemented by Italy's international energy supplier Enel, which has expressly incorporated promoting access to secure energy supplies into its sustainability goals. The company thereby particularly focuses on remote areas and disadvantaged communities, reporting numerous programmes in various

countries throughout Latin America. Enel has developed, amongst others, a flexible power supply system based on photovoltaics and particularly suited to remote areas. With this, the company is not only making a contribution towards fulfilling SDG 7, but also tapping new, innovative business areas. Up to now, however, only a small proportion of the rated companies has presented credible projects and investments in this area.

Despite certain risks, there is no alternative to scaling up renewable energy supplies and renouncing conventional energy sources. Fossil fuels, as well as the uranium needed for nuclear power, are finite resources which will have to be replaced over the long term. They also conceal much higher ESG risks, as well as the danger of coal and nuclear investments becoming stranded assets.

The homework is clear

The international community, and at least a few energy suppliers, have recognised that a systematic expansion of renewable energies is unavoidable and also economically prudent, and have endorsed appropriate goals and strategies. Further, significant expansion can therefore be expected over the coming years. The ultimate extent of this expansion will depend on economic factors, as well as on how many nations and companies will agree to binding growth goals in the future. Energy suppliers in particular, still have a lot of catching up to do. Too few companies have implemented a systematic expansion

strategy that foresees significant investments in renewable energies and truly translates into a renunciation of conventional energy sources.

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- (2) International Renewable Energy Agency (IRENA) 2015: Renewable Energy Capacity Statistics 2015
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2.4. Water: source of life, industrial commodity and cause of conflict

Global importance of water

Water is a human right—the UN General Assembly formally recognised the right to clean water and hygienic sanitation at the end of July 2010. This importance of water is also reflected in the Sustainable Development Goals. With its eight individual targets, SDG 6, “[to] ensure access to water and sanitation for all”, is dedicated to the themes of clean water and sanitation. They formulate important milestones such as the goal to ensure the supply of safe and affordable drinking water to everyone by 2030. While the target to halve the number of people without access to water suitable for human consumption by 2015 formulated in the SDGs’ predecessors, the Millennium Development Goals (MDGs), was already achieved in 2012, the actual quality and affordability of the water were not yet taken into account. The SDGs also define further goals, some of which address companies directly. Amongst these, one target is to significantly improve the efficiency of water usage in all sectors by 2030.

As a cross-disciplinary topic, water is a major factor influencing the success of achieving many of the other SDGs. Water is of immense importance for farming, as well as in the energy, electronics and chemicals industries. It is also expected that water

Silke Jolowicz
ANALYST



will play an ever-increasing role in national and international conflicts, as reliable food supplies, sustainable economic growth, health and peace are inseparably connected with water in many regions around the world.

Observing the human right to water and implementation of the SDG involves challenges, however. According to the World Health Organisation (WHO), half of the world’s population will live in water-scarce regions by 2025. Usable freshwater accounts for less than 0.025 per cent of the world’s entire water resources according to Protestant development service “Brot für die Welt”. What is more, the freshwater resources also have an unequal geographical distribution. Due to a lack of alternative freshwater sources, countries such as Lebanon and Saudi Arabia, for example, rely almost entirely on their—continually diminishing—groundwater reserves.

According to a study conducted by the University of California and NASA (1), more water is being removed than is being replenished already from one third of the world’s largest groundwater reserves.

Water-related ESG risks inherent to many different sectors

The importance of water for sustainable development is centrally important to companies and investors, especially from a risk perspective: the World Economic Forum has declared water to be one of the “top global risks”. ESG risks connected to com-

panies’ performance, which are evaluated and assessed as such by oekom research, particularly arise at two levels: through the company’s direct business activities, and in the supply chain.

Companies as the thirstiest link in the utilisation chain

Through their business activities, companies have a direct influence on water supplies, but they are also directly dependent on them. In many sectors, production relies on adequate water quantities of a suitable quality, e.g. for further processing in the foodstuffs industry or in semiconductor manufacturing. Nevertheless, corporate water consumption often poses risks for people and the environment and may also be problematic from a regulatory perspective. Manufacturing in regions already suffering from water stress is particularly vulnerable to conflict. This was experienced at first hand e.g. by Nestlé

whose Californian production plants were heavily criticised during the 2015 drought. In another example, Indian authorities forced Coca Cola to temporarily close a factory due to conflicts over the permitted extraction of groundwater. Such controversies at the same time offer fertile ground for innovations. Nestlé responded, for example, by opening a milk factory in California whose water recycling processes no longer require any outside water whatsoever to be used in the milk processing.

Besides an over-consumption of water reserves, the potential of water pollution also conceals acute

risks, especially in industries such as oil and gas, mining and chemicals. This was the case for mine operator Samarco, and its parent companies Vale and BHP Billiton. The pollution of the Rio Doce with toxic sludge is regarded as one of the worst ecological disasters ever to have happened in Brazil. The Brazilian authorities sued the responsible companies for almost EUR 5 billion in damages. An assessment of oekom research’s currently documented controversies that explicitly relate to freshwater shows that the Metals and Mining sector has the highest number of environmental and human rights violations (see Table 2). With a total of three water-related violations, utility Duke Energy is the most controversial company with regard to water. On top of the violations provided in this overview, there are also numerous controversies for which not enough details are available to classify them as violations within the meaning of the sustainability rating (yet); these have not been included in the summary. Also not included are environmental effects with an indirect impact on the water supply, e.g. rainforest deforestation for palm oil plantations.

An assessment of the oekom Corporate Rating for the 44 companies in the Metals & Mining sec-

Sector	Environmental violations relating to water	Human rights violations relating to water
Metals & Mining	11	5
Oil, Gas & Consumable Fuels	7	1
Utilities	3	—
Financials	2	—
Food & Beverages	—	1

Tab. 2: Current controversies with direct connection to freshwater, documented by oekom research. As at 31. 12. 2015. Source: oekom research (2016)

tor additionally shows that—with only a few exceptions—the steps taken to reduce contaminations in waste water are still only very rudimentary. Just one fifth of the companies have implemented at least basic measures (grade C or better in the relevant indicators; as at December 2015) to reduce the use of toxic substances and remove them again from waste water.

Water as a decisive factor in the value chain

Besides this direct area of influence of companies, there are also water-related risks in the global supply chains which should not be underestimated. Agriculture, and the associated cultivation of foodstuffs, forage crops, cotton and energy crops are by far the largest users of available freshwater, accounting for approximately 70 per cent of global consumption. Meat production, which is rising worldwide, is also extremely water intensive, with Water Footprint

Network (2) estimating the use of around 15,000 litres of water to produce one kilogram of meat (along the entire value added chain). The increased cultivation of plants for bioenergy production also has an impact on water quality (3). Agriculture is not only the largest consumer of fresh water, it also has a serious impact on water quality, e.g. by spreading liquid manure or the use of mineral fertilisers and pesticides.

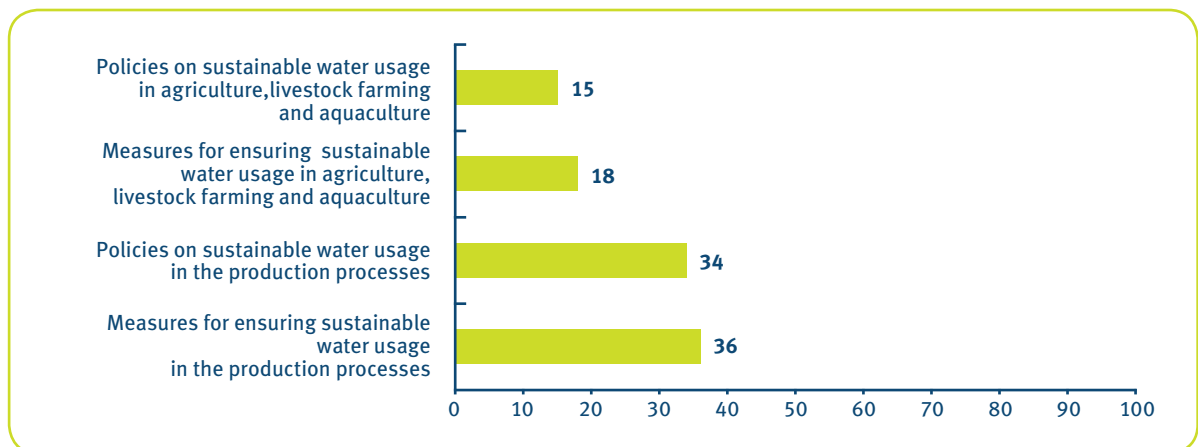


Fig. 13: Proportion of companies in the foodstuffs sector with water-related policies and measures as at 31. 12. 2015; in %; source: oekom research (2016)

It is often quite complex to find answers to risks that the company is frequently unable to influence directly. An assessment of the ratings of 71 companies in the Food & Beverages industry shows that most companies have some catching up to do here (see Fig. 13). A good one third of the companies reported at least basic policies and measures for the industrial production process which is often part of their core business (grade C or better in relevant in-

The future: from consumption to recycling

The importance of water as a resource will continue to rise over the coming years, particularly for companies and investors. This is also reflected in honed reporting requirements, for example. Accordingly, it will become vital for sustainability-orientated investors to be able to identify and estimate key trends in the area of water.

An emerging trend in the field of water usage is that of a neutral, or even positive, water balance, in other words: at least as much water should be returned to the cycle as the company uses to manufacture its products. First initiatives are being led here by companies such as Pepsi and Coca Cola, but some Indian cement producers have also declared themselves “water positive”. Such measures can certainly have a positive impact on people and the environment, especially if they ultimately provide access to improved water sources. When assessing such measures from a sustainability perspective, however, it is important not to lose sight of the primary goal, namely to improve the efficiency of a company’s water usage, and thereby reduce its actual consumption. Retroactive one-to-one compensation for extracted water is extremely complex and difficult to realise. Water extracted from an aquifer, for example, cannot simply be compensated for by feeding water into a lake, as complex social and biological interdependencies need to be considered.

Water risks in the supply chain are also set to become a future focal point. Especially when it comes to water consumption, this is in the companies’ fundamental interests for securing access to raw materials. Also, consumers are becoming increasingly sensitive about issues such as “virtual” or “imported” water in products, i.e. the water footprint along the

dicators. As at December 2015). However, in regard to agricultural production and livestock farming, which are often outsourced entirely or at least partially to the companies’ supply chains, fewer than 20 per cent of the companies reported suitable targets and measures—even though it is here that the much larger part of the Food & Beverages industry’s water footprint is generally situated.

entire value chain. Against this background, another aspect set to play a decisive role here is the global trend in meat consumption—which according to data from the Food and Agricultural Organisation (4) has quadrupled over the past 50 years. Companies are also increasingly being held accountable for water pollution in the supply chain. One example of this is Greenpeace’s Detox campaign which has resulted in many large textiles companies undertaking to stop using certain chemicals in their textiles manufacturing by 2020.

Finally, water can only ever be considered in connection with climate trends, as climatic effects, such as droughts, rainfalls and flooding, impact the global water balance. Consequently, fulfilment of the 2015 Paris agreements on limiting greenhouse gas emissions will be vital for the global supply of, and access to, freshwater. What will be crucial here is for an overarching—rather than a disconnected—approach to addressing the individual issues. For example: decisions to the benefit of regenerative energy sources should only be made after having taken relevant water aspects into account. Incorporating these interdependencies into investment decisions will also become increasingly important for sustainability-orientated financial players.

Sources:

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2.5. Palm oil in foodstuffs: when drawbacks outweigh the benefits

From foodstuffs like margarine, chocolate and ready-made meals, to cosmetics and biofuels... palm oil is nowadays used in numerous areas as an economically priced, easy-to-process vegetable oil. As a result, worldwide acreage used for cultivating oil palms has doubled since 1990, and in Indonesia even risen tenfold. When considering the risks and opportunities associated with palm oil cultivation, there are a number of touchpoints with the SDGs: while the palm oil industry can potentially make a positive contribution to some of the goals, such as SDG 1, “end poverty in all its forms everywhere”, SDG 8 “inclusive and sustainable economic growth,

Malte Kolb
SENIOR ANALYST



employment and decent work for all” and SDG 10 “reduce inequality within and among countries”, far more relevant is that its negative impact opposes goals such as SDG 13 “take urgent action to combat climate change and its impacts” and SDG 15 “sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss”.

High ESG risk through negative carbon-balance and biodiversity hazards

Palm oil cultivation is problematic for a number of reasons from an environmental perspective. As oil palms flourish in a typical rainforest climate, suitable locations for new plantations are primarily situated in rainforest regions with valuable primary forests. These are cleared to make space for planting oil palms. In the summer and autumn of 2015, Indonesia suffered large-scale fires caused by, amongst others, slash-and-burn clearing for new palm oil plantations. Besides the destruction of large areas of land, 19 people died and around 500,000 suffered respiratory disorders as a result of the fires, media reports said. The Indonesian government estimates the ensuing economic damage to be as high as 47 billion US dollars.

Moreover, the affected rainforests are the natural habitats of many endangered plant and animal species which lose their living space as a result of clearing and transforming the areas into plantations. The

regions impacted by palm oil cultivation often also contain peat bog forests which store large amounts of CO₂, in fact as much as 50 times more carbon as a conventional rainforest of the same area, according to WWF. The widespread use of slash-and-burn clearing also releases CO₂. As a result, the affected forests can no longer serve as CO₂ reservoirs.

Cases of massive environmental destruction are frequently discovered in connection with palm oil. An NGO report from September 2014 (1), for example, documents a case in which satellite images were used to show that Malaysia’s Genting Plantations had cleared areas in the region of West Kalimantan in Indonesia which were inhabited by endangered orang-utans. In a similar case, it was proven in 2015 that Indonesian agricultural company Astra Agro Lestari was responsible for destroying over 26,000 hectares (or equivalent to over 36,000 football pitches) of peat bogs in South Kalimantan (2).

Forced and child labour on the plantations

Besides such grave consequences for the environment, labour and human rights violations also occur in the palm oil industry. Sometimes workers are enticed to work on the plantations with false promises where they are then employed as forced labourers. Again and again, there are also reports of child labour, and often conflicts with rainforest inhabitants whose livelihoods are directly jeopardised by the palm oil industry. Not infrequently, these conflicts end in the people being displaced, sometimes without them being properly compensated. Golden Agri Resources, for example, made a strategic investment

in Liberia, purchasing 220,000 hectares of land that is to be used for cultivating palm oil (3). For some time now, more-serious land usage conflicts have arisen with the local population. After it was discovered in April 2015 that in numerous cases the company had, amongst others, failed to involve the local population in its planning activities, had been intimidating them, and was only paying inadequate compensation, the human rights violations exclusion criterion was activated for Golden Agri Resources in oekom research’s sustainability rating.

Responsibility lies with the companies

oekom research's Corporate Rating assesses companies' efforts to minimise the palm oil-related risks. This encompasses undertakings to use only certified, carbon-neutral palm oil, as well as the rigour of the certifications that the companies use. If larger controversies arise in the palm oil's cultivation or supply chain, this will result in an appropriate downgrade, and possibly also to the activation of exclusion criteria.

The cases listed below are examples of systematic environmental destruction in the palm oil industry. It shows that, of the 12 companies that oekom research assessed and whose core business is cultivating and trading in palm oil, half is currently involved in environmental and/or human rights controversies, so serious as to warrant activation of the corresponding exclusion criteria. When smaller controversies which do not (yet) warrant an exclusion are also taken into account, no fewer than two thirds of the companies are affected.

However, it is no longer just the palm oil producers that are associated with such controversies: various banks such as HSBC and Rabobank have also come under criticism for some time now for a 470 million US dollars loan they granted to Indonesian palm oil company Triputra Agro Persada (4). This was earmarked for expanding palm oil plantations which partially endangered land sheltering rare flora and fauna. An NGO report published in May 2015 dis-

covered that Triputra Agro Persada has been responsible for the clearance of 37,000 hectares in Indonesia over the past years. Of this, over 28,000 hectares were the natural habitat of threatened orang-utans. The company is also said to have destroyed around 16,000 hectares of peat bogs. As Triputra Agro Persada was responsible for environmental destruction both before and after the loan was granted, and the banks failed to respond appropriately to this, the exclusion criterion Controversial Environmental Practices was activated for the lenders in the Financier area.

Further processing companies such as in the foodstuffs, household products and cosmetics industries generally source palm oil from large palm oil producers and/or traders. Because of the complex and opaque supply chains, direct evidence is often unavailable as to whether or that these companies use palm oil originating from plantations linked to more-serious controversies. The use of palm oil nevertheless exposes these companies to serious risk from a sustainability and reputation perspective. Regardless of whether or not a concrete controversy can be directly tied to a company such as Unilever or Nestlé, they continue to be targeted by NGO campaigns. These criticise the companies in general for their use of palm oil. Often, all that is needed is the discovery that a company is a customer of a controversial supplier.

	Controversial environmental practices		Human rights	
	Breach	Minor controversies/ being monitored	Breach	Minor controversies/ being monitored
Number of companies	5	4	2	3
Number of suppliers	1	3	—	—

Tab. 3: Environmental and human rights breaches. As at 31. 12. 2015. Source: oekom research (2016)

Palm oil is and will remain a high-risk raw material

From an ESG perspective, palm oil poses numerous risks and problem areas which investors should be aware of. On the other hand, significant opportunities also exist in avoiding the risks associated with palm oil, and in promoting tighter standards. In May 2015, for example, the Roundtable on Sustainable Palm Oil announced a new version of its former standard (RSPO+) which now covers the protection of peat bogs and land containing high concentrations of CO₂.

The concrete details of the new version have yet to be disclosed. It is hoped, however, that it will remedy at least some of the old standard's shortfalls. The members of the Palm Oil Innovation Group have also been taking a similar approach for a number of years now, having committed themselves to criteria extending well beyond the RSPO in many areas; these relate notably to the protection of human rights, and the conservation of peat bogs and land containing high CO₂ concentrations. Amongst

the companies analysed by oekom research, only Danone is a member of this group.

Another up-and-coming issue is the capability to trace palm oil back along the supply chain to its producer. Currently, this is not generally possible which is also due to the fact that a large proportion of companies have limited themselves to purchasing RSPO certificates in the past. This is a similar system to that of electricity from renewable sources. As such, the RSPO only guarantees that, for the purchased amount, palm oil is cultivated to an equal certification level somewhere on earth. Consequently, the palm oil the company uses can just as well be uncertified, and there is no way of tracing it back down the supply chain to the originating plantation. Slowly but surely, however, some companies are finally turning to the RSPO certification options that enable better verifiability. Germany's Henkel, for example, has undertaken to switch from the mildest certification form ("Book & Claim") to the more sophisti-

cated "Segregated" system which allows palm oil to be traced back to its source. Completion of this switchover is only scheduled for 2020, however. In addition to this, Henkel, like its peers Unilever and Danone, has published its own set of guidelines in which it publicly undertakes to refrain from sourcing from plantations whose expansion could endanger peat bogs and land containing high concentrations of CO₂. It remains to be seen just how much of the guidelines are actually implemented.

Sources:

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2.6. Endocrine disruptors: hormonally effective chemicals as new healthcare challenge

SDG 3 "ensure healthy lives and promote well-being for all at all ages" aims to guarantee healthy living conditions for people of all ages. Numerous factors are relevant in negatively impacting achievement of this goal, including illnesses and deaths attributable to industrial activities. These include health endangering chemicals and environmental pollution.

It is therefore worthwhile taking a closer look at chemicals which have the potential to become

Daniela Knodt
ANALYST



an "emerging health issue", as defined by the UN, and which also pose a risk for sustainable investments.

EDCs – Progress and risk

In view of the worldwide increase in hormone-related illnesses, the World Health Organisation (WHO) and UN Environment Programme have unambiguously classified endocrine disrupting chemicals (EDCs) as a global risk which must be warded off (1). EDCs are essentially chemical substances or mixtures which can interfere with the body's natural hormonal functions in a large number of ways. They represent a large and heterogeneous class of substances which are found in a wide range of every-day products (see table 4).

Even in extremely low concentrations, EDCs can seriously impair physiological processes such as reproduction, growth and development. As the biochemical mechanisms by which these substances

work are increasingly understood, it is also becoming increasingly clear just how urgently effective regulation is needed for them, and just how few of them are regulated by chemical legislation to date (2). In its Corporate Rating, oekom research considers EDCs using a sector-specific approach orientated towards current risk estimates. Significant relevance is ascribed to EDCs under the aspect of "substances of concern" which relates to the production processes and product constituents. Consequently, not only companies in the chemicals sector but also others, such as producers of household products, cosmetics and electronics, are affected.

Especially chemicals in the environment and in consumer goods are posing considerable new chal-

Products including:	Substance (class)	Associated illnesses and disorders etc.	Primary uptake
Thermal paper, Food containers, Toys, Electronic appliances	Bisphenol A	Excess weight, Cardiac diseases, Various types of cancer, Diabetes	Skin contact, Food
Toys, Clothing, Electronic appliances, Cosmetics	Phthalates	Reproductive organ aberrations, Breast cancer	Skin contact, Food
Cosmetics, Personal care	Parabens	Reproductive organ aberrations	Skin contact
Electronic appliances, Building materials, Furniture	Polybrominated diphenylether (PBDE, flame retardant)	Neurological aberrations in newborns, Reduced intelligence and hyperactivity among children	Fatty animal-based foods, House dust
—	Atrazine (herbicide)	Reduced male fertility, Deformities among newborns, Breast cancer, Prostate cancer	Food, Drinking water (traces)

Tab. 4: Examples of EDCs; as at 31. 12. 2015. Source: oekom research (2016)

lenges for healthcare systems. The causal link between the initiator and final clinical symptoms tends to be highly complex, with lengthy time periods often involved, and difficulty in scientifically proving any given case.

Under the EU Requirements for Chemical Substances (REACH), EDCs can be regulated as “substances of very high concern” (SVHC) based on ad-hoc decisions. Nevertheless, it has not yet been

possible to enforce a concrete definition for identifying relevant chemicals (3). It is also fully unclear whether an extensive ban on relevant substances could be implemented, or whether a much less restrictive regulatory approach (such as threshold values) will be applied. Industry favours the latter strategy. From a scientific perspective, however, a definition of “safe” threshold values would not appear reasonable (4).

ESG risks of endocrine substances in selected industries

With just a few exceptions, the chemical industry has made little effort to proactively overcome the problem to date. Three of the eight companies with oekom Prime Status (from a total of 115 companies in the sector) have recognisable strategies in this area, including paint and specialist chemicals maker Akzo Nobel. However, it still remains open whether endocrine-active substances have already been taken into account here. EDC-relevant product innovations are nevertheless evident in the chemicals industry and are being promoted as more environmentally- and health-friendly alternatives to existing classes of substances.

If we take the example of electronic end devices manufacturers, it becomes clear that chemical safety certainly is taken very seriously by a large part of the industry. 23 per cent of the 53 companies assessed

by oekom research rejected the use of at least several controversial substances in their products over and above their legal obligations. A similar picture is painted by electronic component makers (19 per cent). However, only five per cent of the electronics producers were rated by oekom research as “Excellent” in the assessment field (eight out of a total 166 companies in this sector), and include Apple, BlackBerry and AU Optronics. These refrain from using i.a. phthalates and brominated flame retardants and, in doing so, also substances known for their endocrine impact. oekom research found that the companies which were most willing to subject their product portfolios to a detailed analysis, and to substitute or remove SVHCs from the market on their own accord, were mostly those with the highest-developed sustainability management systems.

Inadequate regulation hampering development of alternatives

Ultimately decisive for finding a sustainable solution to dealing with EDCs will be the question: will the various political and business players be willing to strike a balance between costs and benefits that also takes long-term health and environmental dangers into account? So long as EDC usage remains inadequately regulated, it will continue to pose an imponderable risk for investors, as currently compliant applications could be rendered unusable by stricter regulation over the medium term. The European Commission is currently working on an economic impact analysis of the regulation options which will not be completed until 2017, however. It can also be assumed that, in the European context, the next regulatory steps will only be limited to pesticides and biocides. In this area, it is therefore probably unlikely that—at least in the next few years—the EU will assume a pioneering role, influencing other countries and markets. At the same time, public awareness of the issue is also rising due to media and NGO coverage, which will presumably place consumer goods producers under further end user pressure. In the cosmetics and textiles sectors, a wide range of initiatives by consumer-protection and environmental organisations means that extensive information and apps are now accessible to consumers to help them identify critical products (5). As manufacturers are increasingly exposed to reputational risk, a growing willingness to replace critical substances can be expected. This trend should not be cause for too much optimism though, with consumer awareness still remaining persistently low in many sectors and markets, on the one hand, and, in view of the

large number of EDCs, the probably limited options that consumers will have to influence comprehensive regulation, on the other.

What is certain is that commercially viable alternatives still need to be developed for many EDCs (at least for certain applications). This needs to be understood by an innovative and future-orientated economy which ideally offers financial and regulatory incentives enabling fast-track penetration of products raising the fewest possible ecological- and product-safety concerns. The economic cost calculation should also consider that cost effective solutions which forego the use of EDCs will in turn generate added value and jobs.

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2.7. Short-term profits and permanent damage: the use of pesticides, and consequences for biodiversity and world food supplies

SDG 15 “protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss” demands protection of a wide range of ecosystems, as well as curbing worldwide extinction of species. Even though there are many different reasons for today’s rapid decline in biodiversity, agriculture unequivocally plays a decisive role here. Worldwide use of agrochemicals has risen astronomically over the past decades (1). Industrial agriculture justifies the intensified use of these chemicals with SDG 2 which aims to ensure secure food supplies for the world’s population. The alleged conflict of goals between biodiversity and world nutrition can be easily resolved,

Daniela Knodt
ANALYST



however, if one considers that each of the 7.3 billion people on the planet could be more than adequately fed, even with today’s production.

To combat world hunger effectively, the precise wording of the UN’s goal needs to be considered; this emphasises that a system of “sustainable agriculture” must be established. Without protecting biodiversity, it will be impossible to achieve this goal.

Hazardous use of pesticides in countries suffering from food shortages

For less-developed countries and emerging economies with unreliable food supplies, any attempts to improve productivity by using pesticides (and genet-

ically modified seeds) may be connected with significant risks. On the one hand, this is because—in contrast to industrialised countries—regional food

The excessive use of chemical pesticides, ...

...especially high-risk substances such as from the group of organochloride pesticides, must be considered extremely critically due to the environmental impact:

- 1. Elimination of “beneficial species”:** *a high level of biodiversity is the basis for central ecosystem services such as permanent soil fertility, pollination, natural parasite prevention, and the ground’s ability to store carbon. The potentially massive collateral damage that can be caused by a loss of biodiversity was highlighted at apple tree plantations in south-west China where, after extermination of the wild bees, each tree had to be pollinated manually (2). A decline in the bee population is, in fact, a worldwide phenomenon which is also affecting commercially used bee colonies in the EU and USA and for which the term “Colony Collapse Disorder” has been coined. Various bee-endangering substances (neonicotinoids and Fipronil) manufactured by Bayer, Syngenta and BASF have become the focus of public attention in this connection.*
- 2. Development of resistance:** *many productivity assurances given by agrochemical producers have failed to hold over the long term due to resistances which soon developed in the fields. The burgeoning scourge of so-called “super-weeds” which has frequently ensued is forcing farmers e.g. in the USA to use ever-larger amounts of glyphosate or Roundup and, in some cases, to resort to even more toxic reagents (3).*
- 3. Drift and persistency:** *this mechanism is a risk for worldwide biodiversity and can, in the worst case, result in acute health risks for the local population. Some pesticides (including chloro-organic compounds) remain in the environment as persistent contaminants and accumulate in the groundwater or food chain. An example of this is the herbicide Atrazine which has been banned in Germany since 1991. The substance, which continues to be used in the USA and other countries, and one of its toxic degradation products, is traceable in inland waters and in the groundwater, sometimes in disturbingly high concentrations. One of the consequences of this is that very costly filtration measures have become necessary to ensure that critical safety levels are not exceeded (4).*

supplies tend to be secured by intensive farming techniques. These tend to produce more cost effectively using agro-ecological methods, while, at the same time, the additional financial burden of purchasing agrochemicals is difficult to offset through productivity gains. Also, especially in peasant farming environments, it is often not possible to take full advantage of the substances when all of the safety precautions have to be considered. Finally, it is even doubtful whether state regulatory authorities have the resources and power to objectively enforce the monitoring and licensing restrictions needed to protect the population. For the world's most important pesticides market, Brazil, there is adequate evidence to show that this is not even nearly the case.

Another aspect requiring very critical consideration is that manufacturers in countries in the global South often market substances that are banned in their home countries (5). And yet another consideration is that, because of the temperature char-

acteristics of the (sub-) tropics, pesticides tend to be less effective due to the faster development of resistances.

In the framework of its rating process, oekom research assesses the activities of potential pesticide producers and users in all sectors, and uses its findings to provide ratings in regard to the type of pesticides, and the way in which especially environment- and health-endangering substances are dealt with. If companies in e.g. the chemical, pharmaceutical or foodstuffs sectors are involved in producing pesticides in WHO categories 1a/b, this will result in an activation of the associated exclusion criterion "Biocides". Also, companies which are identified as manufacturers or users of these and other particularly environment- and health-endangering substances will be downgraded in the Product Responsibility, Controversial Environmental Practices and/or Human Rights sections of the oekom Corporate Rating.

Biological pesticide solutions as an opportunity for the agricultural sector

A fundamental strategy change in terms of the excessive use of pesticides is not to be expected because of the high market concentration, as well as the associated market power and political influence of the industrial farming sector's traditional players. 75 per cent of the agrochemicals market is covered by a small number of companies: Syngenta, Bayer CropScience, BASF, Dow AgroSciences and Monsanto. Also, a further consolidation of the sector and reduction in the number of market players can be expected over the coming years, assuming that the antitrust legal hurdles can be overcome (6).

Nevertheless, innovative and sustainable pest-control techniques already exist today. These include so-called biopesticides and other biological pesticides which are also partially used in ecological farming. They are based on useful, naturally occurring (micro-) organisms which promote crop growth. They selectively beset undesired insect pests thereby reducing their population. These so-called "biologicals" are actually being explored by large agricultural concerns and represent a promising growth market in the crop protection sector (7). Particularly well-known for its biopreparations is biotech company Novozymes, which specialises in micro-organisms and their enzymes, and is currently developing its microbial agricultural products in an alliance with Monsanto (8).

Technologies focussing on the efficient use of beneficial organisms are also currently being test-

ed. Non-chemical crop protection solutions remain a niche market that tends to be complementing rather than replacing traditional pesticides (9). It remains to be seen whether a structural change to the benefit of ecological techniques will be possible with the current players.

One thing that speaks in favour of a fundamental change, though, is that in countries such as France, Germany, and even the USA, the use of agrochemicals and their side effects are increasingly being viewed with scepticism—a development that is manifesting itself in pressure on the manufacturers. It is doubtful, however, whether state licensing and regulation authorities will—at least in the most important markets—be able to build up this pressure in an adequate form. While developing countries and emerging economies will almost certainly be unable to live up to this task in general, there are even examples in Europe and the USA which point to inadequate impartiality of the regulatory authorities (10). Also, alternative crop protection is just part of the solution to the pesticide problem. The real challenge lies in restructuring today's industrial agriculture so that it is no longer weighted towards extensive monocultures, but uses cultivation methods altogether less susceptible to pests and disease.

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2.8. Compatibility of economic interests and human rights

Two objectives of the UN Sustainable Development Goals relate directly to human rights: SDG 10 “reduce inequality within and among countries” and SDG 16 “Promote just, peaceful and inclusive societies”. The SDGs do not just see national states but also expressly companies as being responsible by supplying capital, jobs, technologies and infrastructure in

Constanze Boulanger
SENIOR ANALYST



order to achieve these goals. But how they should specifically do this still remains unclear.

The UN's Guiding Principles on business and human rights

A definitive catalogue of human rights that is binding for companies does not yet exist at a global level. Only the UN Guiding Principles on Business and Human Rights have defined businesses' (and national states') responsibilities in writing (1). These are not, however, legally binding. While the governments of the UN's member states are currently working on implementing the Guiding Principles at a national level, the discussions which have arisen in the course of preparing these action plans empha-

size the challenges and different positions when it comes to the protection of human rights by politics and business: What are “suitable” measures in terms of ensuring human rights due diligence? Should the state define legally valid guidelines on human rights due diligence, or should the standards remain voluntary? How much reporting and transparency is needed and possible, especially when complex raw material supply chains are involved?

Human rights violations by companies

The risk of companies breaching human rights varies, sometimes substantially, from one sector/business model to another (see Section 1.4 “Controversial business practices”). Human rights violations can occur along a company's entire value-added chain. The UN's Guiding Principles also stress that a company's responsibilities for observing human rights do not just extend to its own business activities, but also to its business relationships with other parties, such as suppliers and their products and

services, and that the latter also applies even if the company concerned is unable to influence these.

In view of the risks and the human rights breaches frequently documented in the particularly prominent raw materials sectors (metals & mining, oil & consumable fuels), the measures for ensuring human rights due diligence are inadequate, as shown in the graphic. Only eight per cent of the 3,700 companies assessed in total in these sectors presented comprehensive programmes.

Human rights need publicity

In February 2015, the independent non-profit organisation Shift published a Reporting Framework for companies which is aligned with the UN Guiding Principles Reporting Framework. It was adopted the same year by Unilever, Ericsson, H&M, Nestlé, Newmont Mining and ABN Amro (2). The Guiding Principles are also becoming increasingly important for investors: a coalition of 82 investors with a total of 4.8 trillion US dollars of assets under management declared their support for the Reporting Framework in July 2015. In their statement, they said that human rights risks also posed risks for business. The coalition is urging companies to report publicly on their human rights compliance activities (3).

It remains to be seen how this new human rights reporting standard establishes itself and which trends develop in the systematic management of human rights issues in the various sectors. The impulses given by national action plans for implementing the UN's Guiding Principles also remain to be seen. The action plans which have already been endorsed provide insight into the progress which has been achieved to date: in the UK, for example, "information on human rights" must be incorporated into companies' annual reports; Finnish companies are required to investigate and disclose human rights risks in their value added chains; and in Germany, the action plan is scheduled to be ratified by the Federal Cabinet in 2016. Ultimately, of course, the question is whether these developments contribute towards avoiding human rights violations and improving the living conditions of the affected individuals. What is therefore important is not only public reporting on

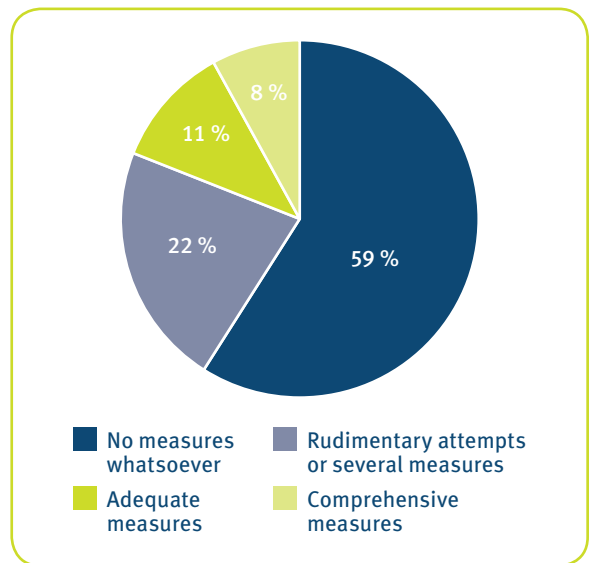


Fig. 14: Evaluation of the criteria "Human rights policy" of the oekom Corporate Rating as at 31. 12. 2015; source: oekom research (2016)

management systems, but also, and above all, on incidents and local living conditions—by the companies themselves, as well as through reports from journalists, civil society and scientific communities. This is the only way to ensure companies are placed under enough pressure to truly reconcile their business activities with respecting human rights.

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2.9. Urban Mining: sustainable value creation through recycling

Waste Electric and Electronic Equipment (WEEE) is the world's most prolific source of waste resources. In Europe alone, it is valued at between EUR 2.15 and 3.67 billion. Around 30 to 50 million metric tonnes are disposed of each year, and this volume is growing at an estimated three to five per cent annually (1).

But the majority of the disposal and, therewith, also the greatest potential to recover the resources, occurs in developing countries. Experts at the Basel Convention Regional Coordinating Centre for Africa for Training and Technology Transfer believe that between 400–700 million PCs will be disposed of there by 2030 alone, double the 200–300 million

Andreas von Angerer
SENIOR ANALYST



appliances in industrialised countries (2).

In view of this magnitude, it is only logical that the Sustainable Development Goals also dedicate themselves to this topic. SDG 12 calls for “ensure sustainable consumption and production patterns” (3). To achieve these sustainable production and consumption models, eleven additional targets were formulated, two of which relate directly to waste disposal:

◆ *By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.*

◆ *By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.*

Cities as potential raw material stores

Today's recycling technologies and business models do not yet have suitable options for salvaging the increasing quantities of waste resources. The amount of waste that is actually recuperated therefore remains relatively low. The concept of urban mining could help remedy this situation (4). It regards cities principally as man-made raw material stores which contain resources that can be tapped through dismantling and recycling. Currently, this solution still focuses primarily on the construction sector, where valuable materials are recovered during demolition and dismantling, frequently as a matter of course. But with WEEE meanwhile the world's richest source of waste resources, companies in the electronics sector are also set to play a central role in the concept.

Urban mining encompasses three elements:

- ◆ Resource efficiency
- ◆ Resource substitution
- ◆ Resource recovery.

Especially professional resource recovery—with its ability to improve environmental and health safety, and create new jobs—can make a major contribution towards sustainable development, particularly in developing countries. It is important to note that not only illegally exported WEEE is meant here but, above all, legally imported goods which reach the end of their product life cycles there (5).

Within the EU, the role of companies is covered in the relevant legislation, the so-called WEEE Directive (2015/19/EU) in the form of “Extended Producer Responsibility” (EPR). EPR states that every manufacturer of electrical and electronic appliances is responsible for financing the treatment, recycling and disposal of its own products. In this way, companies should be persuaded to consider the possible retrofitting, re-utilisation and recycling of new appliances already during their design and production (6).

Recycling rather than once-only usage: a challenge for industry

oekom research's Corporate Rating assesses the challenges for IT companies using several indicators relating to the environmental and social ratings; these can be split into three areas:

1. Taking back old appliances and professionally recycling/disposing of them
2. Designing products with consideration for their durability, the ability to repair and recycle them, and suitable options for extending their product life cycles
3. Integrating recycled materials into new appliances.

Taking back old appliances not only covers the provision of users with appropriate information, but also the availability of easily-accessible and cost-free systems for them to return the appliances. Both of these are also required under the WEEE Directive. This only applies in the EU, however, and many other countries do not yet have such legislation.

At 20 per cent of the companies, the number of appliances taken back in relation to revenues rose over the past three years. At Apple and Wincor Nixdorf, already over 70 per cent of their appliances are taken back.

It is also important to prevent illegal exports and ensure professional disposal by qualified firms to avoid environmental damage and unsafe working conditions. Recycling firms should implement environmental and work safety management systems which have ideally been certified or which are at least audited on a regular basis.

25 per cent of all the assessed companies had engaged certified or audited recycling companies with the disposal of their appliances. While 17 companies had also unambiguously renounced the export

of WEEE, only seven of them have this pledge verified through audits of their recyclers.

In view of the growing volumes of waste in developing countries, companies also have to arrange for proper disposal outside their primary sales markets. Only very few companies report on relevant initiatives in this area; these include HP, Dell, Ericsson and Philips, four members of the "Stop-the-E-waste-Problem" (StEP) (7). This consortium of different players, which includes IT companies as well as recycling firms and governmental and international organisations, tries to find holistic approaches to re-processing and avoiding WEEE waste.

There are various possibilities for extending a product's life cycle once it is on the market:

- ◆ Extended guarantee periods
- ◆ Long-term availability of, and economically-priced, spare parts
- ◆ Leasing possibilities and repair manuals
- ◆ Refurbishment possibilities.

To achieve true resource efficiency, electronics companies should also incorporate recycled materials into their products as far as possible. While the use of scrap metal is meanwhile quite commonplace, reservations about e.g. quality, product safety and aesthetics frequently exist for other materials, especially plastics (8). As recycled plastic generally comes from several sources, it is often difficult to verify its exact composition. In this connection, Dell has launched a hitherto unique pilot project in which it has succeeded in closing the loop. Plastics from old Dell appliances are re-processed and used in new products (9). This project nevertheless remains an exception. Well over half of the companies assessed by oekom research does not yet provide any details whatsoever about their use of recycled materials.

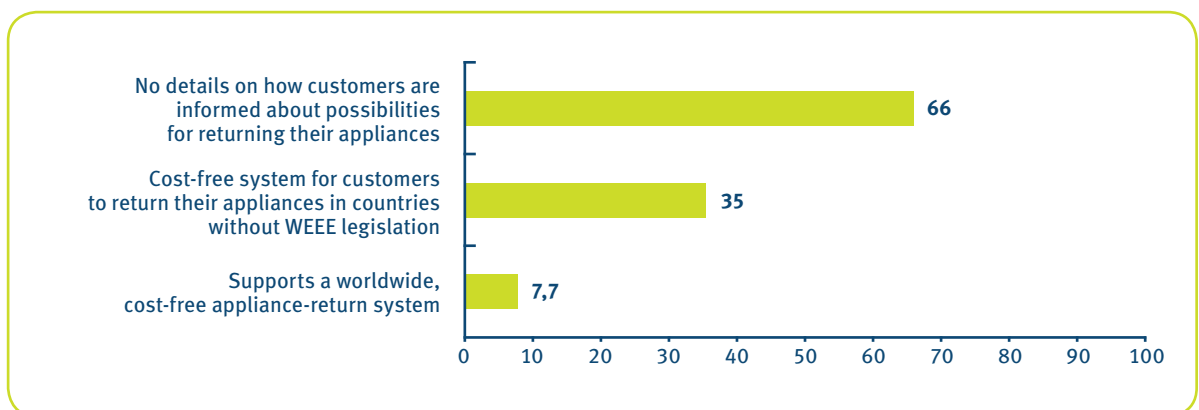


Fig. 15: Manufacturers' undertakings to take back products; in %. As at 31. 12. 2015. Source: oekom research (2016)

Taking as good as you give

The analysis of the electronic devices & appliances sector shows that most companies still have a long way to go before making a fair contribution towards achieving the recycling SDGs. Appropriate legislation certainly plays a significant role and is being passed in more and more countries. The few companies that already do have a worldwide system for taking back their products have a clear advantage here.

Generally, these pioneers can bring about important changes through their innovative pilot projects. Useful initiatives such as StEP should optimally be entrenched throughout an industry. This task could be assumed by the industry association Electronic Industry Citizenship Coalition (EICC), which has already created crucial structures with regard to supply chain management and, in particular, conflict minerals (10). These enable smaller companies, as well, to avoid potentially negative consequences of their business activities.

In view of the rapid pace of technological development, it will be more decisive over the long term for a product and its components to be recyclable than for the product itself to be durable. This will influence the choice of materials and their processing. Pilot projects such as Dell's Closed Loop system should become less of an exception and more the rule, as they become increasingly adapted and adopted by others. In doing so, there is no reason why materials

other than plastics and metals should not be recycled. Only by exploiting every opportunity will it be possible to recover all the riches in urban mines and fulfil SGD 12 by 2030.

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2.10. Tax avoidance: company profits at the state's expense

According to OECD estimates, the organisation's member states lose the equivalent of up to EUR 220 billion in taxes each year through tax avoidance and profit shifting by multinationals (1). Developed countries are best positioned to check these practices as they meticulously audit transactions within companies. It remains problematic, however, for countries whose tax authorities are not in a position to do so. Developing countries and emerging economies and, of those, especially countries rich in raw materials, are particularly vulnerable to lost tax revenues.

Lost taxes through profit maximisation

The goal of SDG 10 "reduce inequality within and among countries" can be made possible if developing countries are enabled to set up effective tax systems and thereby improve their own tax revenues. Experts estimate that currently almost 60 develop-

Susanne Schwind-Elsner
SENIOR ANALYST



A large share of the country's urgently needed revenues is foregone through transfer pricing, as costs are netted off within a company.

While e.g. 70 per cent of profits from raw material exports remain in Norway's state treasury, only five per cent remain in Zambia (2).

ing countries and emerging economies depend on income from the oil, natural gas and mining sectors (3). A study conducted by the NGO European Network on Debt and Development (Eurodad) concluded that developing countries forego between

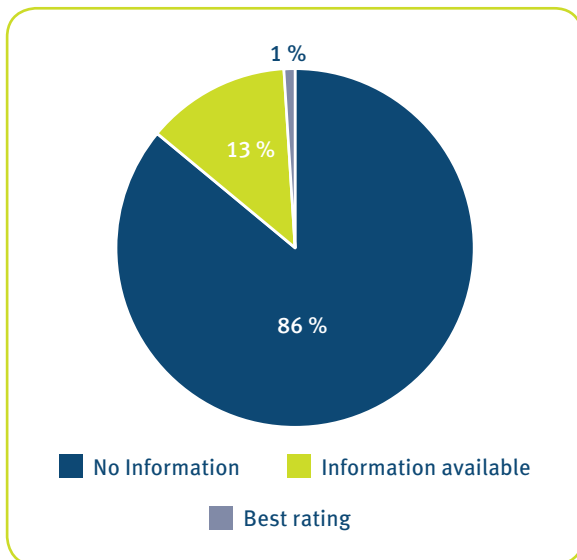


Fig. 16: Distribution of reporting quality in percent. Of all the 3,614 assessed companies, only 485 published information adequate for the lowest rating. The best rating has only been awarded to 24 companies to date. As at 31. 12. 2015; Source: oekom research (2016)

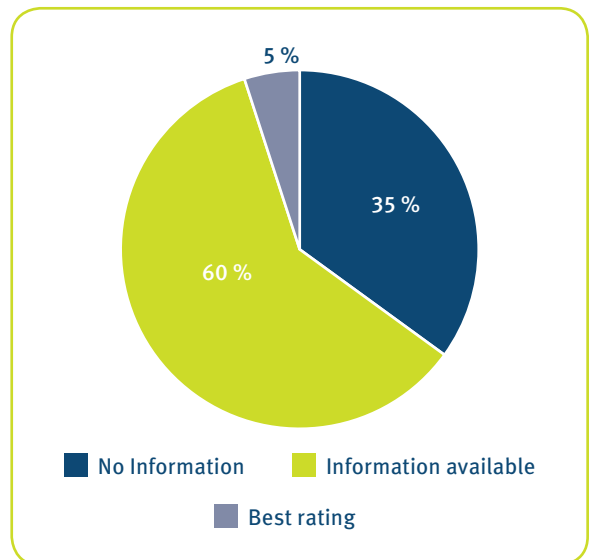


Fig. 17: An above-average number of companies in the oil, gas & consumable fuels (OG&CF) sector were assigned at least the lowest rating category, and more companies, the best results. As at 31. 12. 2015; source: oekom research (2016)

EUR 660 and 870 billion in tax revenues each year, mainly as a result of multinational organisations’ tax practices (4). The countries of central Africa have, for example, some of the continent’s largest raw material reserves, but are ranked at the bottom of the United Nations’ Human Development Index and in the lower quartile of Transparency International’s Corruption Perceptions Index (5). A study published by NGO Oxfam at the beginning of 2016 also identifies a

connection between the use of tax havens and social inequality. According to this, mainly wealthy individuals and large companies are in a position to exploit global tax avoidance mechanisms at all, and thereby avoid their social obligations. Consequently, countries in which social inequality is greatest, and from which profits are shifted to tax havens, do not have enough funds to fulfil their state responsibilities, such as education and healthcare (6).

Intransparency and inadequate reporting as ESG risk

The negative financial and social consequences of tax avoidance mean that this is regarded as critical from the perspective of the sustainability rating.

The oekom research Corporate Rating places particular emphasis on the transparency with which companies report their profits and tax payments. Its assessment of companies is orientated towards the Global Rating Initiative’s (GRI) Sustainability Reporting Guide. This states that companies’ sustainability reports must itemise payments to public authorities, broken down by country if the companies operate internationally. A systematic implementation of comparable forms of country-by-country reporting, as required by other initiatives, results in a relatively good assessment and can already be seen in a few cases.

Participation in sector-specific initiatives such as the Extractive Industries Transparency Initiative (EITI) is assessed as a good step in the right direc-

tion. Thanks to EITI’s and others’ involvements, raw material-intensive industries have started reporting more transparently on their payments to governments. Companies such as Statoil (Norway), Rio Tinto (UK) and Kosmos Energy (USA) all score here with transparency.

oekom research also expects companies to remark on the issue of tax avoidance through transfer pricing in their codes of conduct. Just 53 out of a total of 1,971 companies (2.7 per cent) where this indicator was assessed as at 21/12/2015 did so. Only five of the assessed companies (Atlas Copco AB, Koninklijke KPN NV, MAN SE, National Australia Bank, REN—Redes Energéticas Nacionais) systematically rule out such practices.

The Corporate Rating has a much sharper focus on banks and financial service providers due to the special role they play in the use of tax havens for avoiding taxes. These are assessed, amongst others, for

their strategies towards using tax havens. The best possible rating is only awarded to banks which renounce tax havens altogether. A total of 378 finan-

cial institutions were rated in this assessment area. Around 80 per cent of these declined to make any statement whatsoever in this regard.

Stricter demands on reporting quality and transparency

At the November 2015 G20 Summit in Antalya, the OECD endorsed a programme requiring multinational companies to report their profits on a country-by-country basis in future (7). The objective of the OECD's action plan is already required of financial institutions under EU Directive 2013/36/EU. These must declare annually, and broken down by member state and third countries in which they operate subsidiaries, consolidated information on inter alia: business location, revenues, number of staff, profit or loss before taxes, taxes paid on profits or losses, and any state subsidies received (8). In December 2015, the German government also agreed that, from 2016 onwards, companies with revenues of at least EUR 750 million would be required to disclose to the tax authorities detailed KPIs for all parts of the group, including those parts abroad (global breakdown of profits, paid taxes and other business indicators), and to enable the exchange of information between other countries' tax authorities. The system intends to thwart multinationals' attempts to avoid their tax obligations by shifting profits to those countries with the most favourable tax regimes (9).

Transparency requirements for companies are thus set to become stricter in future. Country-by-country reporting remains the favoured solution and is the central prerequisite for unitary taxation (UT). NGOs such as Tax Justice Network, Attac and WEED regard it as an alternative to today's established international procedure for taxing multinationals. Under UT, multinationals' profits are declared where their goods and services are actually produced, researched and sold. In this way, the country in which the com-

panies's profits are declared, the transfer prices employed within the company, and interest payments and license fees transferred from one country to another all become immaterial. As a result, it would no longer be beneficial for a company to declare profits in a tax haven in which it is not economically active (10/11).

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oekom Inside

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Imprint

oekom research AG
Goethestraße 28
80336 Munich
Germany
Fon: +49- (0)89- 54 41 84-90
Fax: +49- (0)89- 54 41 84-99
info@oekom-research.com
www.oekom-research.com

Executive Board:
Robert Haßler
Matthias Bönning

Editorial Staff:
Matthias Bönning, Kristina Rüter, Dieter Niewierra

Authors:
Andreas von Angerer, Constanze Boulanger, Lisa Kim Breitenbruch,
Karsten Greye, Silke Jolowicz, Malte Kolb, Daniela Knodt,
Susanne Marttila, Dieter Niewierra, Susanne Schwind-Elsner

Layout and Typesetting:
Reihs Satzstudio, Lohmar

Munich, as at March 2016

Printed on 100% recycled paper

Picture credits:
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