



Inrate's ESG Impact Rating Methodology

Corporations (Equities & Bonds)

Dr. Regina Schwegler

January 2018

Zurich Office
Inrate AG
Binzstrasse 23
CH-8045 Zürich
Tel. +41 58 344 00 00
info@inrate.com
www.inrate.com

Geneva Office
Inrate SA
Rue de Berne 10
CH-1201 Genève
Tel. +41 58 344 00 00
info@inrate.com
www.inrate.com

Partnerschaften



Mitgliedschaften



Executive Summary

This paper describes the objectives and methodology of the **ESG Impact Ratings** produced by Inrate. The aim of the rating is to evaluate the positive and negative impact that corporations have on sustainability. In this way, we help our clients to identify the sustainability-related risks and opportunities attached to their equity and bond portfolios. Investors use our ratings in the asset allocation process or in building investable universes for their portfolios or funds. Furthermore, financial analysts benefit from our rating reports as an additional information source when integrating extra-financial information in their traditional research process. Fund providers use our ESG Impact Ratings for identifying innovative companies for thematic funds or structured products. Finally, sophisticated investors and researchers can access selected raw data through the direct access of our database.

There are a number of components to our ESG Impact Rating methodology. At its heart is our **product assessment**. It involves an encompassing, systematic, and scientifically-founded assessment of the impact of the products and services offered by a company across the entire product life cycle. The **CSR (Corporate Social Responsibility) assessment** is a further component of our method. It largely corresponds to a traditional ESG assessment, analyzing to what extent companies are working systematically and effectively to improve their sustainability impacts.

The result is an **absolute ESG Impact Rating** on a scale of A+ to D-. It thus permits a comparison of the impacts caused by the same type of company, by different types of company, and by entire portfolios. It can also be used for **best-in-class approaches** – both the traditional best-in-industry method and Inrate's proprietary **Best-in-Service approach**. The latter is much broader than the traditional best-in-class method. For example, within the Inrate-defined Energy service sector it allows a comparison not only between oil and gas companies, but also between oil and gas, and nuclear, wind, solar, and hydroelectric energy companies. In this way, the Best-in-Service approach identifies those companies which, in relative terms, better satisfy the basic needs of society (i.e. they do so in a (more) sustainable way).

Inhalt

| | |
|---|----|
| Executive Summary | 2 |
| 1. The purpose of ESG Impact Ratings | 5 |
| 1.1. Why Inrate rates the ESG impact of corporations | 5 |
| 1.2. The added value of ESG Impact Ratings | 7 |
| 2. Overall ESG Impact Ratings on an Absolute Scale | 8 |
| 2.1. Products and CSR Assessments | 9 |
| 2.2. Normalization and Weighting of Criteria | 9 |
| 2.3. Absolute ESG Impact Rating Results on a Scale of A+ to D- | 10 |
| 3. Best in Class: Relative ESG Impact Benchmarking | 11 |
| 3.1. Best-in-Service Benchmarking | 11 |
| 3.2. Traditional Best-in-Class Benchmarking | 12 |
| Annex A: Product and CSR Assessment | 13 |
| A.1 Product Assessment and Social Impact | 13 |
| A.2: CSR Assessment: Environmental CSR, Social CSR and Governance | 16 |
| Annex B: Critical Products and Business Practices | 18 |
| B.1 Critical Products | 18 |
| B.2 Controversial Business Practices | 18 |

Figures

| | |
|---|----|
| Figure 1 – Sustainability impacts of companies owing to market failure..... | 6 |
| Figure 2 – Encompassing product assessments are essential | 8 |
| Figure 3 – The structure of ESG Impact Rating | 9 |
| Figure 4 – Weighting system for the oil & gas drilling sector | 10 |
| Figure 5 – ESG Impact Rating scale | 10 |
| Figure 6 – Relative company benchmarking based on the ESG Impact | 11 |
| Figure 7 – Best-in-Service vs. traditional best-in-class Energy | 12 |
| Figure 8 – Best-in-Service vs. traditional best-in-class in the Transportation sector | 12 |
| Figure 9 – Corporate activities – the RWE example | 14 |
| Figure 10 – Nutrition-related impact scores – excerpt from the Inrate Impact Matrix | 15 |
| Figure 11 – Issues targeted by our CSR criteria (selected) | 17 |
| Figure 12 – Issues targeted by our criteria for critical products | 18 |
| Figure 13 – Overview of categories of controversial business practices (selection)..... | 19 |

1. The purpose of ESG Impact Ratings

This chapter starts by explaining how Inrate measures sustainability-related impacts with its ESG Impact Ratings for corporations. It then sets out the added-value of this rating approach

1.1. Why Inrate rates the ESG impact of corporations

With our ESG Impact Ratings for corporations, Inrate aims to help asset owners and other investors to identify the **sustainability-related risks and opportunities** attached to their equity and bond portfolios, and to invest according to their sustainability-related **investment values**.

Our ratings cover more than 3,000 companies, which are drawn from the SPI, the SBI, the MSCI World Index, and the MSCI Emerging Markets Index, and also include a range of unlisted corporations.

To achieve our stated objective, our ESG Impact Ratings focus on **evaluating impacts** that are relevant in the sustainable development context. Corporate activities have positive and negative impacts on their stakeholder groups and the environment. Some of these impacts are fully or largely internalized in market prices, such as those for environmentally-friendly or ethical intermediate products. However, **market failures** mean that market participants such as corporations or consumers do not give many impacts their due consideration. We define these as **sustainability impacts**, because they are pivotal to a society's sustainable development.¹

In this context, positive or negative “external effects”² on the environment and society are a highly relevant market failure. For example, negative external effects³ result in corporations failing to respect their employees' human rights. Alternatively, they might exploit the environment to such an extent that ecosystems are no longer able sufficiently to fulfil their function. Positive external effects, such as those caused by forestry, are another market failure. In this case, society benefits from positive effects on air quality without having to pay for them. When markets are operating freely, products and services which cause positive external effects are generally not provided in sufficient quantities and/or quality. The same applies to “merit goods”⁴. These are products and services that consumers tend to under-consume because they underrate their benefits, as a result of myopic thinking, for example. Examples of merit goods are health, education, and retirement provision.

Sustainability issues are regularly addressed by a variety of stakeholders. For example, regulators toughen up frameworks and attach a price to external effects, for example by imposing an environmental levy, or subsidizing the forestry industry. Consumers make sustainability-aware purchase decisions, and non-governmental organizations (NGOs) and the media bring a certain pressure to bear. In this way, sustainability impacts have **repercussions** for corporations in the form of **opportunities and risks** (see figure below).

As a result of market failures, many corporations produce **negative net sustainability impacts** or, in other words, a negative ecological and/or social footprint⁵. These companies must nonetheless expect, sooner or later, to feel the negative repercussions of those impacts. The Volkswagen scandal which broke in 2015 is a very striking example of this. High negative sustainability impacts, such as exhaust emissions from diesel vehicles, resulted in higher emission standards. Meeting these

¹ On market failure, see e.g. Bator 1958: The Anatomy of Market Failure, in: Quarterly Journal of Economics, Volume 72, no. 3, pp. 351–379.

² See Buchanan/Stubblebine 1962: Externality, in: *Economica*. 29 (116): pp. 371–84.

³ In the case of negative external effects, the producers of those effects do not bear the costs that are incurred by those who are affected. For example, emitters of greenhouse gases do not bear the (full) costs of the damage caused by climate change. See e.g. Kapp 1950: *The Social Costs of Private Enterprise*, Cambridge/Massachusetts. Ideally, sustainability impacts would be measured by valuing and monetizing the damage or loss that has been incurred.

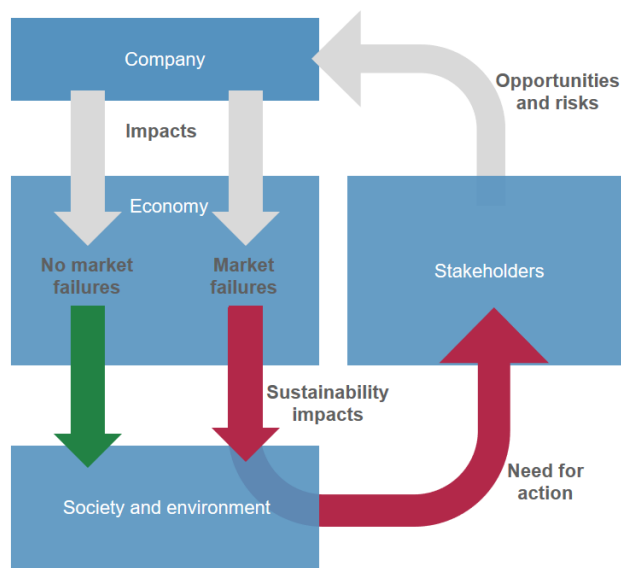
⁴ See Musgrave/Musgrave 1973: *Public Finance in Theory and Practice*, pp. 80-81.

⁵ The “footprint” is a concept that illustrates that human behavior leaves a trace with possibly negative consequences. It was first developed in an ecological context. The “ecological footprint” measures how much nature (“biocapacity”) is available and compares it with the use of that biocapacity (see <http://www.footprintnetwork.org/our-work/ecological-footprint/>). The footprint concept is also applied in other contexts. The “carbon footprint” aims to measure impact on climate change, and the various “social footprint” concepts various kinds of impacts on society or specific stakeholders.

standards was accompanied by a loss of competitiveness, and failure to meet them by legal risks for car manufacturers. Volkswagen shareholders learned that the hard way in the autumn of 2015.

On the other hand, there are many companies that produce a **positive net sustainability impact**, or “**handprint**”⁶, and thus play their part in sustainable development. They do this by, for example, generating positive external effects with extensive training opportunities for their employees and trainees. Alternatively, they might offer substitutes for technologies, products, and services which would have a much greater negative sustainability impact. For example, the generation of electricity from renewable energies itself produces negative external effects, but it can replace nuclear or fossil fuel-based energy generation, which has significantly higher such effects. Corporations which have a positive (net) sustainability impact do not, by any means, have to systematically sacrifice profit as a result. On the contrary, they may be able to secure themselves a position in growth markets, avert the threat of rising costs, anticipate regulation at an early stage, or boost their appeal as an employer on the strength of their positive reputation. These are just a few examples.

Figure 1 – Sustainability impacts of companies owing to market failure



Source: Inrate 2017.

The ESG Impact Rating for corporations analyzes their sustainability impacts. Drawing on this, it evaluates the extent to which the corporate sector as a whole contributes to or hinders a society’s sustainable development. In doing so, the rating considers the following aspects:

- The **product assessment** captures **all aspects** of a company's **sustainability impacts**. These include direct impacts originating from the company, its employees, and processes, as well as indirect impacts throughout product life cycles. This is key for a number of reasons. Corporations share the responsibility for sustainability impacts upstream of their own operations as well as downstream, i.e. while their product is in use, and after it has been disposed of. The indirect impacts of investee companies also hold opportunities and risks for investors. The encompassing product assessment thus forms the heart of the ESG Impact Rating.

⁶ The “handprint” is a complementary measure of the positive sustainability impacts of products, as compared to footprint concepts that focus on negative impacts. The handprint concept was developed by the Collaborating Centre for Sustainable Consumption and Production (CSCP) in collaboration with other universities. It stresses that companies can become active and engage in providing solutions for sustainable development. See URL: http://www.handabdruck.org/index_en.php.

- The **CSR (Corporate Social Responsibility) assessment** analyzes whether or not companies are working systematically and effectively to improve their sustainability impacts. This evaluation corresponds to the classic ESG assessment.
- Inrate's **Best-in-Service approach** is based on the outcomes of the product and CSR assessments. It identifies those companies which, in relative terms, satisfy the basic needs of society better than their peers, i.e. in a (more) sustainable way. To this end, we distinguish between a number of different Inrate service sectors: Transportation, Nutrition, Housing, Communication, Security, Energy, etc. As an example, the Transportation sector covers companies from different industries such as vehicle manufacturing, aviation, shipping, as well as public and non-motorized⁷ transportation.

Definition of the ESG Impact Rating

Inrate's **ESG Impact Rating** for corporations assesses the *encompassing* sustainability impacts of companies' activities on the environment and society *throughout entire product life cycles*. With this assessment, Inrate shows whether companies *contribute to or hinder the sustainable development* of a society. Based on the ESG Impact Rating, Inrate's *Best-in-Service* approach then identifies companies that fulfill society's needs in a more sustainable way than their peers.

Benefit for Investors

Inrate's ESG Impact Rating enables investors to assess the sustainability-related risks and opportunities attached to their corporate equity and bond portfolios. It also allows value-based investors to target their investments at truly sustainable companies.

1.2. The added value of ESG Impact Ratings

Inrate's **ESG Impact Rating** identifies as "sustainable" only those companies which make a genuine contribution to the sustainable development of society. *In the Energy sector, for example, no coal, oil, or nuclear companies are deemed sustainable. Generally, in the Transportation sector, no airlines or vehicle manufacturers are given a "sustainable" rating.*

Inrate's **Best-in-Service approach** is a specially developed best-in-class method. It permits investors to identify those companies which satisfy one of the basic needs of society in a more sustainable way than their peers. This Best-in-Service approach is based on fundamental social needs and would be impossible without a comprehensive ESG impact assessment.

This approach contrasts with the **traditional best-in-class approaches**, which generally draw on CSR-only assessments (the "traditional" ESG assessment), and thus focus solely on measures and management processes, instead of on companies' real-life sustainability impacts. This results in the "best-in-industry" companies in all industries being deemed "sustainable," even if that industry is coal, oil, etc.

Yet this misses the point. Companies with effective CSR management structures and thus good CSR scores may be able to improve their sustainability impact over time. However, they do not necessarily have a better sustainability impact overall, as companies with a high negative impact are more likely to have highly professional CSR management systems, and often publish impressive sustainability reports.⁸

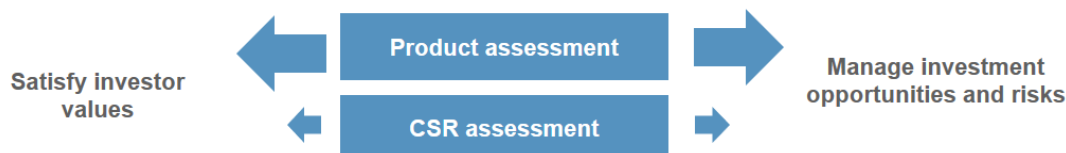
This is why, in our experience, Inrate's ESG Impact Rating results are a better fit with the expectations of **value-based investors** than those of traditional ESG rating results. Furthermore, only encompassing ESG Impact Ratings fully reveal **sustainability-related opportunities and risks**, and

⁷ Non-motorized transportation refers to mobility on foot and by bicycle.

⁸ See for example Crane et al 2017: Measuring Corporate Social Responsibility and Impact, in: Business & Society 56(6), July 2017, pp. 787-795.

thus make them manageable for investors. Risks can be manifold: from reputational risks, such as those from investments in equities that apparently cannot be regarded as sustainable (nuclear, oil, aircraft, etc.), to financial risks, such as those attached to Volkswagen stocks.

Figure 2 – Encompassing product assessments are essential



Source: Inrate 2017. Product assessments are essential to satisfy sustainability-related investor values and manage sustainability-related investment opportunities and risks. They are therefore much more important than CSR assessments.

The Added Value of ESG Impact Ratings and the Best-in-Service Approach

Inrate’s ESG Impact Ratings reveal the sustainability-related impacts of companies. The Best-in-Service approach then selects those companies that contribute most fully to sustainable development. The companies identified as “sustainable” with this approach are a closer fit with the expectations of **value-based investors** than those which emerge from traditional ESG ratings. Furthermore, only encompassing ESG Impact Ratings allow **sustainability-related opportunities and risks** to be fully revealed, thus making them manageable for investors.

Traditional ESG ratings and best-in-class (i.e. best-in-industry) approaches can be misleading. Companies identified as “sustainable” might, in fact, hinder sustainable development (e.g. oil companies) and thus do not satisfy investors’ values. Furthermore, these approaches do not identify relevant sustainability impacts, and thus do not allow the related investment opportunities and risks to be assessed.

The Added Value of Encompassing ESG Impact Assessments

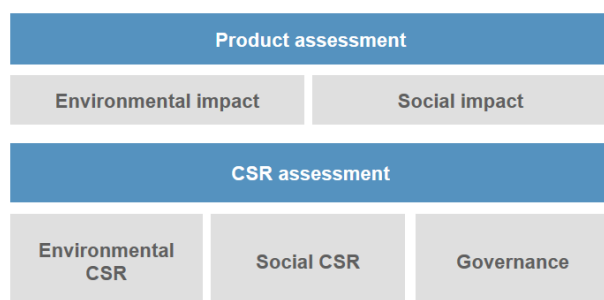
ESG Impact Ratings assess all aspects of the sustainability-related impacts occurring throughout entire product life cycles. In this way, they cover the relevant spheres of corporate responsibility and allow the relevant sustainability-related investment risks and opportunities to be revealed.

Direct impact assessments that merely focus on impacts caused by the company directly, i.e. by its employees and processes, fall short here. For most industries, the most relevant impacts occur in the supply chain or during product usage.

2. Overall ESG Impact Ratings on an Absolute Scale

This chapter gives an overview of the ESG Impact Ratings awarded by Inrate. It examines the key components of the methodology – the product and CSR assessment, as well as the normalization and weighting of the criteria. It then goes on to describe how the absolute ESG Impact Rating result is calculated.

Figure 3 – The structure of ESG Impact Rating



Source: Inrate 2017

2.1. Products and CSR Assessments

The Inrate ESG Impact Rating measures the impact that corporations have on sustainability. To illustrate these impacts comprehensively, the Rating encompasses the following assessments:

1. **Product assessment:** The product assessment evaluates the **sustainability impacts** of companies' products and services on the environment and society
 - where these impacts are actually felt, i.e. throughout the product life cycle – the “cradle to grave” approach;
 - with respect to whether or not these goods and services satisfy basic social needs with a better sustainability-related impact than other companies. This is essential with a view to subsequent Best-in-Service benchmarking.

Please refer to Annex A.1 for further details of the product assessment.

2. **Corporate Social Responsibility (CSR) assessment:** The CSR assessment analyzes whether or not companies are working systematically and effectively to improve their sustainability impacts. It encompasses the environmental, social, and governance aspects of sustainability. Further details of the CSR assessment can be found in Annex A.2.

2.2. Normalization and Weighting of Criteria

The rating criteria that are used to arrive at the impact and CSR assessment are **normalized** on a scale of 1 (very positive impact) to 0 (very negative impact).

The rating criteria are **weighted** according to their importance to the company's sustainability impact assessment. The relative importance of the environmental, social, and governance aspects differs between the various sectors of industry. Consequently, in the sense of a utility analysis, the weightings that are given to those aspects reflect the importance of specific sustainability issues and impacts to a given industrial sector. Environmental criteria are particularly relevant for impact assessments in the oil and gas sector, for example. That is why the environmental aspect of sustainability carries a 50% weighting in the overall rating.

Figure 4 – Weighting system for the oil & gas drilling sector

| | | | | | |
|------------------------|-------------|----------|---------------|------------|------------|
| Sustainability aspects | Environment | | Society | | Governance |
| Weightings | 50% | | 42% | | 8% |
| Assessment level | Env. impact | Env. CSR | Social impact | Social CSR | Governance |

Source: Inrate 2017.

2.3. Absolute ESG Impact Rating Results on a Scale of A+ to D-

The ESG Impact Rating process produces an absolute sustainability assessment on a 12-step scale from A+ to D-. This factors in whether or not, overall (i.e. on a net basis), companies satisfy basic social needs in a more – or less – sustainable way.

Figure 5 – ESG Impact Rating scale

| | | | |
|---|----|---|---|
| A | A+ | Sustainable or promoting the transition to sustainability | The company has a high positive net sustainability impact. Its business practices, products, or services help to reduce social and environment-related problems. The company is thus facilitating the global move to a sustainable economy. |
| | A | | |
| | A- | | |
| B | B+ | On the path to sustainability | The company has a low positive net sustainability impact, i.e. its activities are consistent with a sustainable economy. However, its products, services, or business practices do not yet fulfil all of the requirements for sustainability. The company displays the willingness and capacity to improve its sustainability performance. |
| | B | | |
| | B- | | |
| C | C+ | Not sustainable, but a reduced degree of negative influence | The company has a low negative net sustainability impact, i.e. its activities are not sustainable. Its products, services, or business practices place a heavy burden on the environment and on society. However, the company displays the willingness, as well as a certain capacity, to make its products or business practices more environmentally or socially responsible. |
| | C | | |
| | C- | | |
| D | D+ | Not sustainable | The company has a high negative net sustainability impact, i.e. its activities are not sustainable. Its products, services, or business practices place a heavy burden on the environment and on society. The company displays no willingness or capacity to make its products or business practices more environmentally or socially responsible. |
| | D | | |
| | D- | | |

Source: Inrate 2017.

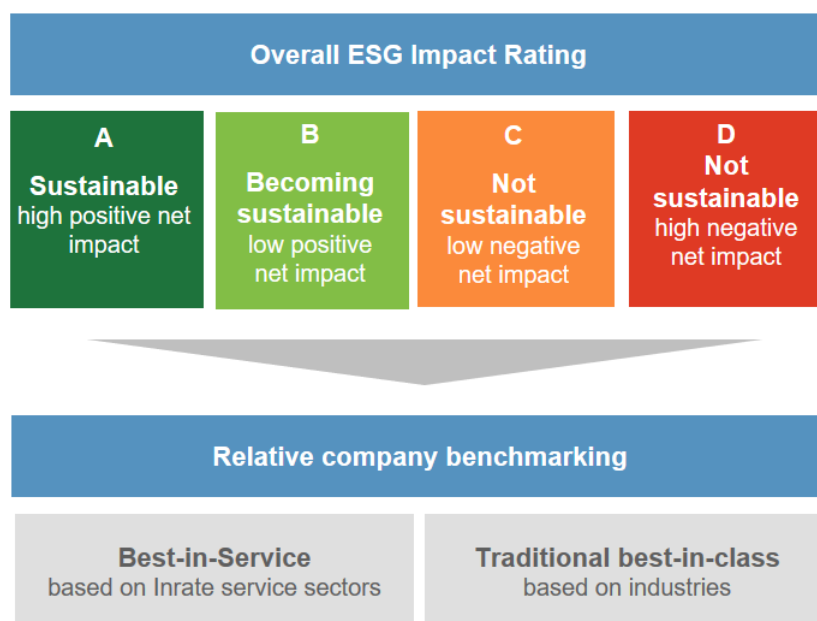
The ESG Impact Rating provides an **absolute measure** of a corporation's impacts on sustainability. It thus permits an assessment of and comparison between companies from different sectors and regions, as well as entire portfolios.

3. Best in Class: Relative ESG Impact Benchmarking

This chapter describes how the absolute ESG Impact Rating produced by Inrate permits relative ESG impact benchmarking, based on the following different best-in-class approaches:

- Inrate's **Best-in-Service benchmarking** on the basis of Inrate-defined service sectors;
- Traditional **best-in-class benchmarking** on the basis of industrial sectors (the “best-in-industry” approach).

Figure 6 – Relative company benchmarking based on the ESG Impact



Source: Inrate 2017.

3.1. Best-in-Service Benchmarking

Inrate's Best-in-Service approach groups companies on the basis of Inrate-defined service sectors. Incorporating a number of industries, these service sectors encompass those companies that satisfy a specific basic social need. Key service sectors include Nutrition, Housing, Transportation, Communications, Retail & Distribution, Security, Financial Services, Energy, Water, Resources, Disposal & Recycling, etc.

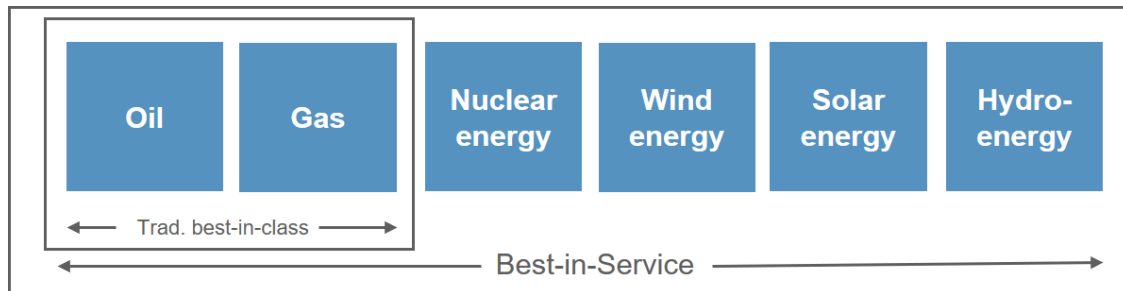
Within these service sectors, the Best-in-Service approach ultimately selects those companies with the best ESG Impact Ratings. It thus identifies those companies which satisfy certain social needs with a better overall sustainability impact than their peers.

Consequently, Best-in-Service benchmarking is significantly broader than the traditional best-in-class benchmarking, which compares companies within a given industrial sector. For example, in the Energy service sector the Best-in-Service approach allows a comparison not only between oil and gas companies, but also between oil and gas, and nuclear, wind, solar, and hydroelectric energy companies⁹. Meanwhile, in the Transportation sector, companies from the vehicle manufacturing, aviation, shipping, public, and non-motorized¹⁰ transportation segments all compete together.

⁹ Coal companies are allocated to the Inrate Resources service sector.

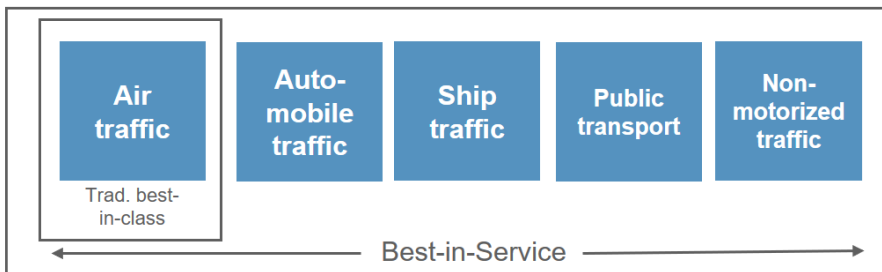
¹⁰ Non-motorized transportation refers to mobility on foot and by bicycle.

Figure 7 – Best-in-Service vs. traditional best-in-class Energy



Source: Inrate 2017.

Figure 8 – Best-in-Service vs. traditional best-in-class in the Transportation sector



Source: Inrate 2017.

Benefit for investors:

The **Best-in-Service approach** rates as sustainable only those companies which make a genuine contribution to the sustainable development of society. This selection process is a much better fit with the values of sustainability-focused investors than is the case with traditional best-in-class approaches.

3.2. Traditional Best-in-Class Benchmarking

Since they have an absolute scale of ratings from A+ to D-, ESG Impact Ratings also permit the use of traditional best-in-class approaches, thereby identifying the most sustainable companies in each sector of industry. The ESG Impact Rating makes it easier to pinpoint the sustainability-related opportunities and risks attached to a best-in-class portfolio.

Annex A: Product and CSR Assessment

Annex A describes the product and CSR assessment methodology in more detail.

A.1 Product Assessment and Social Impact

The Inrate product assessment determines the sustainability impact of a corporation's products and services throughout the product life cycle. In doing so, it distinguishes between the impact on the environment (ecological impact) and the impact on society (social impact).

A company's product assessment is conducted in three steps:

1. Determination of the company's activities;
2. Assessment using the Inrate Impact Matrix;
3. Assessment using other product-related criteria.

1. Determination of the Company's Activities

Corporations differ in their sustainability impacts on the environment and society because they differ in the range of products they offer, and also follow different production processes. This fact is taken into account in the Inrate product assessment, because it classifies each company with regard to its activities (its product portfolio) and the shares of turnover for which they account.

To this end, Inrate has defined a standard set of products and services: The **IBAC ("Inrate Business Activities Classification")**. This currently covers approximately 350 activities and 110 sub-activities. The IBAC is built around two standard classifications: the sectors of the US input-output table, and the North American Industry Classification System (NAICS).

First of all, the company's activities and sub-activities are identified on the basis of its own segment reporting. These are then weighted according to the shares of the company's turnover for which they account.

Figure 9 - Corporate activities – the RWE example

| Example – RWE (Germany, Multi-utilities) | | | |
|--|-------|--|-------|
| Company Segment Reporting | | Inrate IBAC Segmentation | |
| Conventional Power Generation | 13.7% | Natural gas distribution | 26.4% |
| Supply/ Distribution Networks Germany | 33.1% | Retail of purchased electric power from: | |
| Supply Netherlands/ Belgium | 5.3% | • Coal | 4.3% |
| Supply United Kingdom | 11.7% | • Gas | 2.0% |
| Central Eastern and South Eastern Europe | 5.7% | • Oil | 0.2% |
| Renewables | 1.5% | • Nuclear energy | 3.8% |
| Trading/ Gas Midstream | 29.0% | • Hydroelectricity | 1.8% |
| | | • Wind energy | 1.1% |
| | | • Solar energy | 0.4% |
| | | • Other renewables | 0.2% |
| | | Retail of self-generated electricity from: | |
| | | • Coal | 34.9% |
| | | • Gas | 11.9% |
| | | • Oil | 0.4% |
| | | • Nuclear energy | 8.9% |
| | | • Hydroelectricity | 0.4% |
| | | • Other renewables | 3.2% |

Sources: RWE Group: Annual Report 2015, and Inrate 2017.

In the interests of taking due account of other company-specific circumstances, activities and sub-activities may be classified further by applying certain parameters – as in the case of organic foodstuffs. Inrate has defined over 80 different parameters for this purpose.

2. Assessment Using the Inrate Impact Matrix

At the core of the product assessment lies Inrate's proprietary Impact Matrix. It systematically assesses the sustainability-related impacts of a company's products and services along entire value chains.

The Inrate Impact Matrix comprises the following four impact-related indicators:

- **Climate impact**, i.e. greenhouse gas emissions (global warming potential);

- **Other environmental impacts**, which comprise other relevant impacts such as water and land usage, biodiversity loss, emissions, etc.;
- **Direct social impacts**, which comprise impacts on consumers, such as those on health, or product security issues;
- **Indirect social impacts**, which comprise sustainability impacts on society and other stakeholders.

For each activity and sub-activity of the IBAC, the Impact Matrix defines generic impact scores on a scale of 1 (highest positive impact) to 0 (highest negative impact) for each impact-related indicator. The impact scores are based on scientific data and research, such as empirical economic data (input-output tables) in combination with scientific studies. The underlying methodological concepts are those of market failures such as external effects, or merit or demerit goods (see chapter 1.1).¹¹

Figure 10 - Nutrition-related impact scores – excerpt from the Inrate Impact Matrix

| Activities (selected) | Generic impact scores | | | | Explanations (excerpts) |
|------------------------------------|-----------------------|----------------------------------|--|--|--|
| | GHG impact score | Other environmental impact score | Direct social impact score (consumers) | Indirect social impact score (society) | |
| Cattle ranching and farming | 0.36 | 0.27 | 0.55 | 0.55 | Industrial animal farming today contributes substantially to GHG emissions and other negative environmental impacts (use of fertilizers and pesticides, biodiversity loss, groundwater contamination, etc.). The direct impact on consumers and society tends to be neutral. |
| Frozen food manufacturing | 0.27 | 0.55 | 0.64 | 0.64 | Frozen food encompasses mostly industrially processed convenience products. Both the production process and the entire cooling chain are very energy-intensive. Other environmental impacts tend to be neutral, as frozen food can be vegetarian and/or meat or fish. Consumers and society tend to benefit from convenience and the long life of the food. |
| Vegetable and fruit farming | 0.64 | 0.64 | 0.73 | 0.82 | Although fruit and vegetable farming has rather a high impact on the environment (emissions of greenhouse gases, biodiversity loss, etc.), the effects are much better than for cattle farming. Health impacts on consumers and society tend to be positive. |

¹¹ Example of studies include: IMPACT 2008: Handbook on estimation of external costs in the transport sector; produced as part of the study by INFRAS et al. 2008: IMPACT: Internalisation Measures and Policies for All External Cost of Transport; OECD; World Bank 2006: Liberalisation and Universal Access to Basic Services: Telecommunications, Water and Sanitation, Financial Services, and Electricity (OECD Trade Policy Studies).

| | | | | | |
|----------|------|------|------|------|---|
| Wineries | 0.55 | 0.45 | 0.09 | 0.09 | <p>Wineries have rather low GHG emissions. Other impacts on the environment (pest control, etc.) exist, but are limited.</p> <p>The effects of alcohol consumption on consumers and society are highly negative, mainly owing to its addictive potential and, subsequently, its disastrous effects on health, social contact, employability, etc.</p> |
|----------|------|------|------|------|---|

Source: Inrate 2017. Impact scores are normalized on a scale of 1 (highest positive impact) to 0 (highest negative impact).

In some cases, the generic impact scores do not adequately reflect the specific sustainability impacts of a company’s activities, for example if agricultural products are produced organically instead of conventionally. In these cases, the generic impact scores are adjusted using correction factors, leading then to specific impact scores for a company’s activities or sub-activities.

3. Assessment Using Other Product-Related Criteria

Inrate uses further criteria that complement the four impact indicators of the Impact Matrix. These comprise both general and sector-specific criteria. The complementary criteria are necessary for numerous reasons:

- A set of 72 criteria assesses valuable information concerning a company’s sustainability impacts that cannot be translated into “percentage of turnover”, such as the share of sustainable investments within a bank’s total assets under management. Some valuable pieces of information cannot be captured quantitatively at all, such as the quality of sustainability approaches used in the sustainable investments offered by a bank.
- A set of criteria on critical products and business practices is used to complete the picture of a company’s negative sustainability impacts. For further explanations, see Annex B.

A.2: CSR Assessment: Environmental CSR, Social CSR and Governance

The CSR assessment analyzes whether or not companies are working systematically and effectively to improve their sustainability impacts. The assessment is based on 147 general and sector-specific criteria. The criteria scores are displayed on a scale from 1 (full compliance) to 0 (no compliance).

The CSR assessment is broken down into the following three aspects of sustainability:

- **Environment**, i.e. climate impact, resource usage, contamination, waste generation, etc.;
- **Society**, i.e. consumers, employees, suppliers or contractors, and other stakeholders;
- **Governance**, i.e. the strategic management of CSR-related issues.

Figure 11 - Issues targeted by our CSR criteria (selected)

| | |
|------------------------------|---|
| Environmental CSR | <ul style="list-style-type: none">• Environmental policies• Quantitative targets and programs to reduce environmental impacts• Integration of environmental issues into processes• Products with additional environmental value• Data on environmental impacts |
| Social CSR | <ul style="list-style-type: none">• Business ethics and labour-related policies and programs• Quality and labour-related certifications• Customer and employee satisfaction monitoring• Integration of social issues into processes• Products with additional social value• Communication and data on social impacts |
| Governance | <ul style="list-style-type: none">• Policies on governance issues• CSR reporting, related guidelines, and external verification• CST-related responsibilities at the highest level• Board of directors: composition, term of office, etc.• Top management remuneration disclosures |

Source: Inrate 2017.

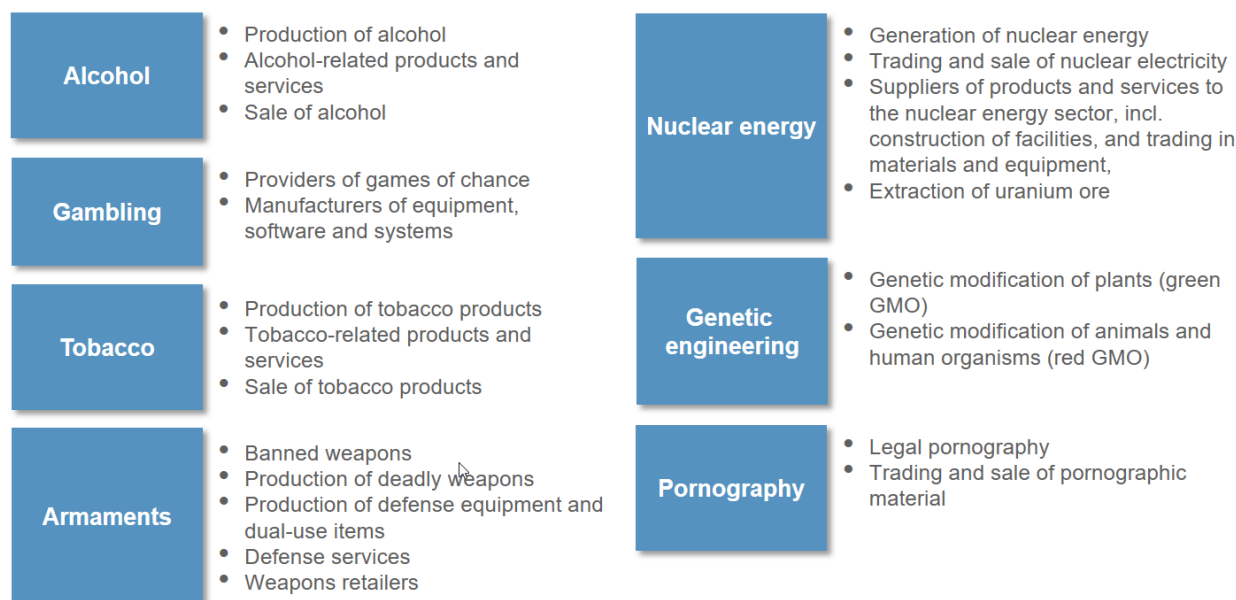
Annex B: Critical Products and Business Practices

B.1 Critical Products

For all of the corporations it analyzes, Inrate systematically records the share of turnover accounted for by critical products. This information adds further, particularly critical sustainability impacts, to the product assessment (see Chapter 2.1 and Annex A.1).

When assessing critical products, Inrate concentrates on the seven product classes of alcohol, gambling, tobacco, armaments, nuclear energy, genetic engineering, and pornography. It divides these product classes into 28 sub-categories, thereby covering the entire life cycle of these products. Furthermore, we also record companies which hold relevant minority shareholdings in companies involved in critical products.

Figure 12 - Issues targeted by our criteria for critical products



Source: Inrate 2017. Inrate also records companies which hold relevant minority shareholdings in companies involved in critical products.

The assessment of critical products is used to supplement the product assessment (see chapter 2.1 and Annex A.1). The assessment of critical products is based on two factors:

- **Involvement of the company:** The involvement of a company with a critical product is assessed via the share of turnover that a company generates with that product.
- **Relevance to a company's sustainability impact:** Weightings per critical product category are applied in the assessment to reflect the relevance of a critical product to a company's environment or social impact.

B.2 Controversial Business Practices

Inrate records controversial business practices using 38 criteria. These cover working conditions, society, the environment, the economy, products, and governance.

Figure 13 - Overview of categories of controversial business practices (selection)



Source: Inrate 2017.

The various cases of controversial business practices in which companies are involved are divided into categories and evaluated in terms of their degree of severity. A number of factors are considered in the latter analysis:

- The **negative impact** on the environment and society;
- The **involvement of the company** in the impact concerned;
- Whether or not the company takes **action** to improve the impact or to prevent it in the future;
- The **credibility** of a controversial case.

The results of these assessments are controversy scores on a scale from 1 (very severe involvement and impact) to 0 (no involvement or negative impact). These are weighted according to their relevance for a company's sustainability impacts. The weighted controversy scores are then used to correct the company's product assessment and/or CSR assessment.

The **product assessment** (environmental or social impact) is corrected in the following cases:

- Environmental impact score:** If controversies are related to the environment;
- Social impact score:** If controversies are related to working conditions, society, the environment, the economy and products.

The **CSR assessment** (environmental CSR, social CSR, and/or governance) is corrected if a company's CSR management is to be held responsible for the impact. To assess this, we distinguish between the following possible causes of a controversial event:

- Deliberate breach of ethics:** In this case, we correct both the governance score and the relevant environmental or social CSR score.
- Inadequate management features:** In this case we correct the environmental or social CSR score. The governance score is not corrected.
- Chance / random circumstances:** In this case, the CSR assessment is not corrected at all.

Furthermore, the **governance** score will be corrected if the controversies are governance-related.



Contact:

Inrate AG
Binzstrasse 23
CH-8045 Zurich
info@inrate.com
+41 58 344 00 00

Inrate – a Leading European Sustainability Ratings Agency

Inrate is an independent sustainability ratings provider based in Switzerland. Since 1990, we have been linking our in-depth sustainability analysis with innovative solutions for the financial markets. Inrate sustainability ratings provide a measure of the impacts that a corporation has on society and the environment with its conduct and its products.

Further information: www.inrate.com

Zurich Office
Inrate AG
Binzstrasse 23
CH-8045 Zürich
Tel. +41 58 344 00 00
info@inrate.com
www.inrate.com

Geneva Office
Inrate SA
Rue de Berne 10
CH-1201 Genève
Tel. +41 58 344 00 00
info@inrate.com
www.inrate.com

Partnerschaften



Mitgliedschaften

