SASB – BLOOMBERG
ALIGNMENT REPORT

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Center for
Sustainable Business

iCompli Sustainability
from BPA Worldwide

Contents

INTRODUCTION

The Sustainability Standards Accounting Board (SASB) is a US non-profit organization established to develop and disseminate standards that help public corporations disclose material, decision-useful sustainability information to investors. SASB's innovative approach in assessing the materiality of sustainability-related corporate issues is intended to reduce reporting costs, standardize disclosures, and increase data transparency. The materiality assessment in SASB has three distinguishing features that separate it from other sustainability reporting frameworks:

1- It is grounded in the US Supreme Court's definition of materiality: "a substantial likelihood that the disclosure of the omitted fact would have been viewed by the reasonable investor as having significantly altered the 'total mix' of information made available."

2- It positions investors as primary stakeholders with a compelling interest in the content of a company's sustainability disclosures. Therefore, any issue that can reasonably have a material impact on the financial condition or operating performance of a company is deemed to be material.

3- It offers industry-specific accounting standards derived from a rigorous materiality assessment of issues in a given industry by investors and companies, including technical guidelines to be followed during the sustainability disclosure process.

While SASB is new, a number of companies have already started to adopt the framework:

- **JetBlue (Airlines)**
- **Barclays** (Financials)
- **Delta Air Lines** (Transportation)
- **FMC Corporation** (Resource Transformation)
- **Hewlett-Packard** (Technology & Communication)

- **ING** (Financials)
- **Microsoft** (Technology & Communication)
- **Owens Corning** (Non-Renewable Resources)
- **Praxair** (Resource Transformation)
- **SAP** (Technology & Communication)

- **Solvay** (Resource Transformation)
- **State Street** (Financials)
- **Symantec** (Technology & Communication)
- **Volvo** (Transportation)

Due to the growing interest in reducing sustainability reporting costs, getting access to standardized data, and linking financial performance with sustainability, we expect to witness a significant increase in the number of companies that adapt the SASB framework in the near future. For this reason, iCompli Sustainability and The Center for Sustainable Business at NYU Stern School of Business have conducted a joint research project to assess the readiness of the existing ESG data infrastructure for collecting and disseminating SASB information. The research is also intended to help identify the next steps for companies and data providers to get up to speed with SASB's disclosure requirements.

METHODOLOGY

For this research, we surveyed 889 ESG and non-ESG data fields in the Bloomberg Terminal, one of the main ESG data providers in the market with more than 20,000 active ESG data users. While there are many other ESG data providers in the market, Bloomberg serves as a major hub, collecting and distributing data from most of these providers, providing over 700 different ESG-related data fields, as well as hundreds of others that are not tagged with "ESG" but can also be used to assess ESG performance. Therefore, Bloomberg's coverage represents a significant portion of the current data fields in the CSR environment. Analyzing the alignment of these fields with SASB's metrics can provide insights into the readiness of the market for gathering and reporting SASB data.

Once the initial survey of the 889 Bloomberg data fields was completed, we categorized these fields under 56 categories to better represent the sustainability topics that are commonly addressed by ESG reporting frameworks. We used tags such as "water," "energy," "compensation," "waste" and others to create these categories. Some of these categories cover a large number of Bloomberg data fields, while others might address only one or two data fields. The distribution of these categories by the number of Bloomberg data fields covered is presented below.

Categories	Number of Data Fields	Categories	Number of Data Fields
Compensation	212	Auditors	5
Emissions	91	Community & Customers	5
Sector: Utilities	83	Education and Training	5
Board	55	Sector: Construction	4
Energy	38	Tenure	4
Sector: Banking	37	Employee Turnover	3
Water	32	Sector: Mining	3
Goals	28	Sustainable Finance	3
Carbon/GHG Intensity	26	Data Security	2
Operational Policy	26	Environmental Fines	2
Management	25	External Initiatives	2
Emissions Trading	17	Forestry	2
Health and Safety	17	Insurance	2
Shareholder Rights	17	Renewable Tech	2
Diversity	14	Sector: Airlines	2
Risks and Opportunities	12	Sector: Financials	2
Third Party Score	12	Spills	2
Sector: Metals & Mining	11	Climate Change Risks	1
Materials	10	Communication	1
Highest Amounts	9	Customer Satisfaction	1
Waste	9	Env Grants	1
Fuel Use	8	Environmental Budget	1
Reporting	8	Investments	1
Supply Chain	7	Legal Risks	1
Alternative energy	6	Sector: Constructuion	1
Disclosure	6	Sector: Energy	1
Employee Stats	6	Sector: Telecom	1
Sector: Energy - E&P	6	Unionization	1

It should be noted that these categorizations help identify how each Bloomberg data field align with a SASB metric, but the differences in the number of data fields that fall under each category does not necessarily represent how much data is being disclosed under each category or how much each category is aligned with a SASB metric.

SASB has 1081 metrics in total, addressing sustainability-related issues specific to 10 sectors and 79 different industries. In this research, we analyzed each of these 1093 metrics in order to answer two questions:

1- How many of the data fields in Bloomberg (both ESG and non-ESG) are aligned with the SASB metrics?

2- For those metrics that are aligned with data fields in Bloomberg, what is the degree of alignment?

To answer these questions, we analyzed the technical protocol of each SASB metric compared to the ESG and non-ESG data fields in the Bloomberg Terminal. During our analysis, we first examined the description of each SASB metric focusing on what type disclosure is required to see if Bloomberg has any data field with the same or similar content requirement. Second, for cases where a Bloomberg field addresses the same issue with a SASB metric, we assessed the degree of alignment by looking at the measurement units, normalization units, and the coverage of the disclosure. We also identified the gaps that occur due to differences in data types (quantitative, qualitative, and binary), where Bloomberg and SASB do not provide the same type of data, although they address the same ESG topic. Finally, we analyzed our findings to derive conclusions as to the overall degree of alignment between two data sources -- which ESG topics have a better degree of alignment and what problems are likely to occur if an analyst tries to collect SASB data by using the current data infrastructure. For detailed information about the methodology or findings, please contact Karl Pfalzgraf at kpfalzgraf@bpaww.com, Krupa Patel at kp1524@stern.nyu.edu, or Sophie Rifkin at srifkin@stern.nyu.edu.

FINDINGS

1. Number of SASB Metrics and Bloomberg Data Fields that Align with Each Other:

We found that of the 1081 SASB metrics, 471 of them (43%) match at least one of the Bloomberg data fields. 157 (15%) of these matches are exact matches, where both SASB and Bloomberg request the disclosure of the same data point. 314 (29%) of these matches are partial, where only some of the SASB requirements can be collected through Bloomberg data fields. In total for 43% of the SASB metrics, there are already existing data collection practices recognized by big data platforms such as Bloomberg, whether in the exact same manner as SASB requires or with a slightly different focus.

Type of SASB - Bloomberg Matches

The distribution of the partial and exact matches by sector is presented in the following two charts (for industry level comparison, see Appendix A). If the number of metrics in each sector is not taken into consideration (non-normalized), the Consumption Sector has the highest number of total and partial matches; Infrastructure has the highest number of exact matches. However, when results are normalized by the number of metrics in each sector, Non-renewable Resources has the highest percentage of metrics with a match; Infrastructure has the highest percentage of metrics with an exact match while Resource Transformation has the highest percentage with a partial match.

Renewable Resources and Technology & Communication has the lowest number of matches, but when normalized with the total number of metrics, Health Care and Financial are at the bottom of the list in terms of percentage matches. The Health Care sector has also the lowest degree of exact matches, both in absolute and normalized figures, followed by Technology and Communication.

Match Type by sector (Absolute)

Match Type by sector (Normalized)
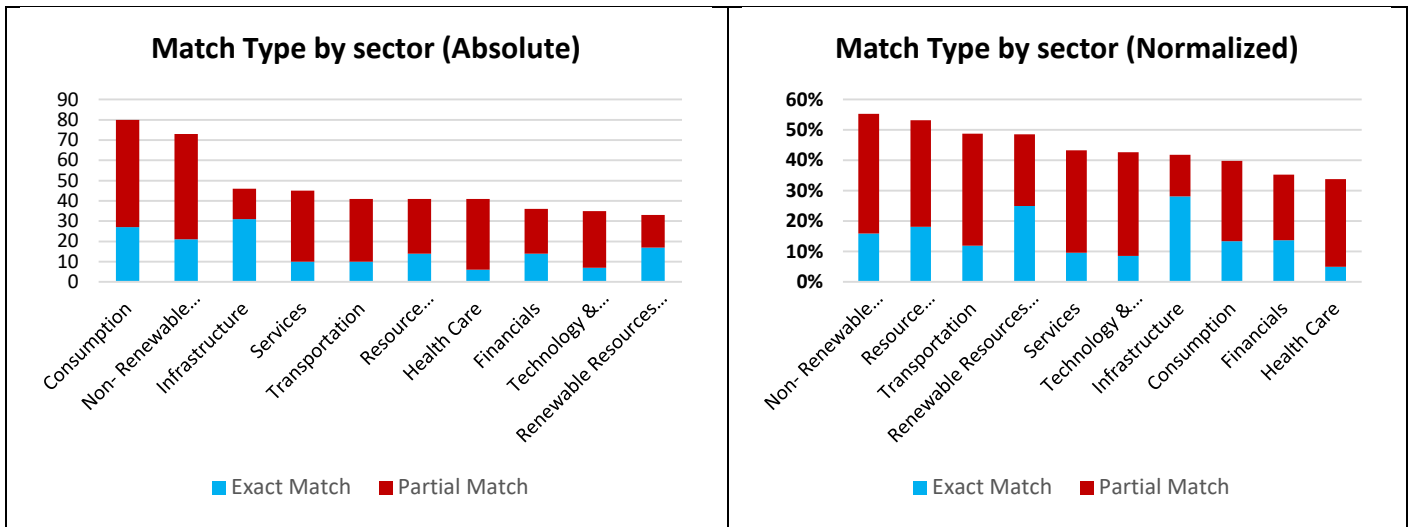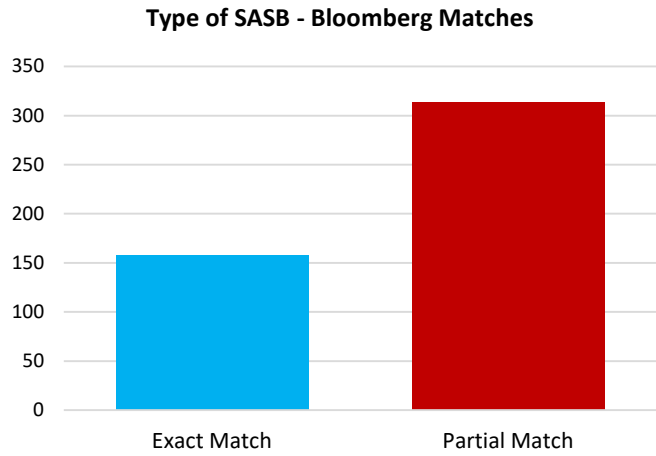
At the industry level, Iron & Steel Producers, Pulp & Paper Products, Road Transportation, Electric Utilities, Containers & Packaging, and Rail Transportation have the highest rate of matches (above 70%). At the bottom of the

list (below 20%) are Appliance Manufacturing, Real Estate Services, Security & Commodity Exchanges, Apparel, Accessories & Footwear, Consumer Finance, and Car Rental & Leasing. Grouping industries by the highest and lowest degree of matches reveals some commonalities, which might also shed light on why some industries match better than others. For the industries with the highest degree of matches, environmental impacts, workplace safety, and security are the common material issues. For this reason, most of the SASB metrics developed for these industries address GHG and other emissions, air quality, water use, material use, waste management, climate change policies, and workplace safety. These topics have also been within the scope of sustainability reporting frameworks for over a decade and therefore, most of the data platforms such as Bloomberg have developed several data points to capture impacts on these topics.

For industries on the bottom of the list there are two conditions that prevent them from achieving a higher match rate. One is the lower number of metrics per industry (10 or below), which reduces the chances of matching a Bloomberg data field; the other is the industry-specific character of the existing metrics. For example, the Car Rental & Leasing industry has only four metrics, which address *Percentage of rental fleet vehicles with overall 5-star safety rating, Number of vehicles recalled, Weighted average rental fleet fuel economy* and *Fleet utilization rate.* Real Estate Services has only six metrics which are also industry-specific such as *Brokerage revenue from dual agency transactions* or *Floor area and number of buildings under management provided with energy and sustainability services.* Since the data requested by these metrics is not common across many industries, they are typically not addressed by more established reporting frameworks such as GRI; and therefore, are not being collected by platforms such as Bloomberg.

In order to further examine the reasons behind these variations among sectors in percentages of SASB metrics that match at least one Bloomberg field, it is necessary to understand what data fields are available in Bloomberg and how they address the ESG issues deemed to be material by SASB.

Our research shows that out of the 56 data field categories from Bloomberg, 36 of them are aligned with at least one SASB metric. In several cases, one SASB indicator is aligned with more than one Bloomberg field. For example, SV0202-01, a SASB metric specific to the Hotels and Lodging industry, requires the disclosure of three types of information: "total energy consumed, percentage grid electricity and percentage renewable." Total energy consumed and percentage of renewable energy are two different data fields in the Bloomberg Terminal, therefore this metric matches with two different data fields. However, percentage of grid electricity is not available on Bloomberg, therefore SV0202-01 is recorded as a partial match, but not a total match. In this case, both *Energy* and *Alternative Energy* categories were credited as matching categories.

The chart below shows the distribution of ESG categories from the Bloomberg data fields based on how many times they are addressed by a SASB metric. Our findings show that *Operational Policy, Emissions, Health and Safety, Water, Energy, Diversity, Alternative Energy, Materials, Legal Risks, Supply Chain,* and *Sector: Banking* are categories with more than 20 matches with a SASB metric.

Number of SASB Metrics that fall under each Bloomberg ESG data category
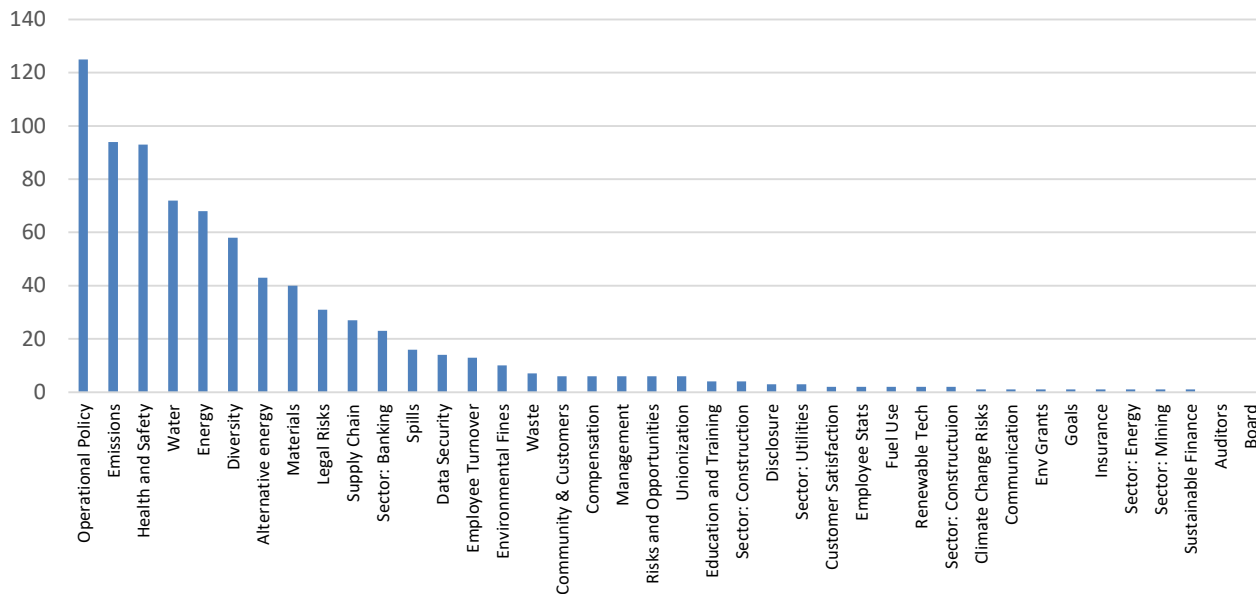
Operational Policy represents an ESG category for a set of Bloomberg data fields that are different from the rest. While all the other data fields present numerical (e.g. amount of GHG emissions, percentage of water reductions) or string values (e.g. texts, descriptions, definitions, etc.), data fields under *Operational Policy* are binary values (Y/N). They simply represent if a company follows a specific policy or not, without providing further detail. Examples of *Operational Policy* are "Biodiversity Policy," "Water Policy," and "Climate Change Policy." There are 26 ESG-related data fields on Bloomberg that fall under the *Operational Policy* category; 125 of the SASB metrics match at least one of these data fields. Nevertheless, due to the binary character of these data fields on Bloomberg, none of these are exact matches. The SASB metrics that address ESG policies require companies to provide narratives that describe the details of each policy, whereas data fields under *Operational Policy* in Bloomberg do not provide such detail. Although the data fields are binary, Bloomberg users are given the chance to click on each existing policy to see the original reference document (a public policy document, disclosure on company website or a report) to see the extent of the existing policy, whether a few sentences or a comprehensive company policy document. However, this information is not available at first glance, nor it is downloadable for further data analysis. Additionally, since SASB's technical protocols have very specific disclosure requirements, even when a company has a comprehensive policy in place, this is no guarantee that it will match SASB's disclosure guidelines.

If *Operational Policy* is separated because of its distinguishing character, *Emissions, Health and Safety, Water, Energy, Diversity, Alternative Energy, Materials, Legal Risks, Supply Chain* are the top nine categories with the highest rate of alignment with SASB metrics. One reason why these categories make the top of the list is because these issues represent systemic risks or opportunities for many industries, which has led to extensive research in identifying widely-accepted indicators and measurement tools. As a result, Bloomberg has several data points designed to collect data about these issues and SASB has introduced at least one metric to address these issues for most of the industries. In other words, these categories can be characterized as the "sweet spots" of the sustainability reporting field, where both data platforms and data reporting guidelines agree on their materiality.

Following the same logic, the right hand of the graph shows categories with fewer SASB indicators matching, which can be an indication of either Bloomberg not having the specific data field to match with SASB's metric or SASB not having enough metrics for this category, or both. In all cases, these ESG categories are likely to represent issues

where the industry has less agreement in determining the materiality of issues and/or developing suitable metrics to measure these issues.

The variations among SASB sectors in percentage of metrics that match with a Bloomberg data field can also be explained by the prevalence of ESG fields that represent a systemic risk. For the three sectors with the highest rate of match, Non-renewable Resources, Infrastructure and Resource Transformation, the topics deemed to be material by SASB are the topics that represent systemic risks, such as emissions, energy efficiency, water management, health and safety and supply chain. For this reason, many of the metrics listed under these industries have a matching data field on the Bloomberg Terminal. On the contrary, for the Health Care sector SASB has identified metrics that are very specific to the industry, such as "Total weight of regulated medical waste generation," "Number of Serious Reportable Events (SREs) as defined by the National Quality Forum," or "Amount of Medicare Disproportionate Share Hospital (DSH) adjustment payments received." Due to the industry-specific character of these metrics, it is less likely to find matching data fields for these metrics in Bloomberg.

The only exception to this situation is the Banking Sector. Both Bloomberg and SASB have very specific data fields/metrics for the banking sector that match. For this reason, "Sector: Banking" is the eleventh Bloomberg data category with the highest rate of SASB match although it is a sector-specific category with fields unique to the banking sector (Net New Card Accounts, Tier 1 Capital Ratio, Actual Loan Losses, etc.).

2. Degree of Alignment

Our analysis shows there are three main reasons why a metric might not have an exact match with a Bloomberg data field, but a partial match:

1- Difference in calculation methods
2- Difference in measurement units (lbs. vs metric tonnes)
3- Missing information to fully meet the disclosure requirement of the SASB metric

We have identified over 200 unique cases where a SASB metric can only be partially matched with a Bloomberg Field and recorded our reasoning for each of them. Below is a list of examples for those cases that represent the most frequently encountered types of variations.

Examples of situations where SASB metrics only partially match Bloomberg data fields
Percentage grid energy is not available
The units for the operational energy consumption were not gigajoule
Number of incidents for non-compliance regarding water management
Percentage from renewable sources are not available
Percentage of water from stressed areas is not available
No conflict mineral data available on Bloomberg
Bloomberg does not provide the breakdown of waste production
Bloomberg does not provide the breakdown of environmental fines
Bloomberg does not provide the breakdown of data privacy fines
Calculation differences
Absolute values are available, but normalized values are not
HAPs (hazardous air pollutants) are not available on Bloomberg
Only workforce related accidents are available, other type of accidents are not available.
Percentage materials from renewable sources is not available on Bloomberg
Amount of recycled water that is delivered to customers is not available on Bloomberg
SASB asks for injury rate, Bloomberg provides incident rate

SASB asks for gigajoules but Bloomberg gives the energy consumption in megawatts

Total hazardous waste and percentage recycled is not available

Near miss frequency rates are not available

SASB is asking for DART data, Bloomberg is providing LTIR. Incidents vs Injuries.

SASB is asking for recycled fiber, Bloomberg data provides amount of recycled paper

Bloomberg does not provide the breakdown of voluntary and involuntary turnover rates

List of priority beverage ingredients and discussion of sourcing risks

Injuries per million customers is not available

Total number of new card holders is available but the % of accounts held by first-time card holders is not

Emission data for emissions for Pb, manganese and PAHs are not available

Number of recalls and the total units recalled products are not available in Bloomberg

CONCLUSION

For the last 20 years, sustainability reporting has witnessed a significant transformation. Since the inception of the "Sustainability Reporting Guidelines" by CERES and Tellus Institute, sustainability reporting has moved from being a small set of voluntary environmental disclosures to being a key element of the mainstream corporate reporting process. During the last five years, the percentage of S&P500 companies issuing a sustainability report increased from 36% to 79%. While the number of reporting companies has increased, the structure of reporting has also changed. As the scope of reporting guidelines has expanded to cover more social and economic indicators, disclosure of the data that is valuable to stakeholders and relevant to company operations is even more crucial. For this reason, "materiality" gained an increasing significance in shaping sustainability reports and determining what type of information is disclosed.

While materiality is a key concept in contemporary sustainability reporting, its definition and the stakeholder groups it addresses can vary among reporting organizations. Many of the widely-used reporting frameworks, such as GRI, do not require companies to align themselves with an existing materiality definition, but allow them to define the boundaries of their own materiality. For this reason, the scope, content and criteria of "materiality" can vary significantly among sustainability reports. Additionally, they are not always aligned with what is defined to be material in financial reports.

SASB established in 2011, differs from the existing approach by specifically aligning its materiality definition with that of the Supreme Court. By doing so, it narrows down the list of possible stakeholders of a company to only those interested in the financial performance of an organization. Therefore, it should be stressed that SASB metrics are not always sufficient for the wide range of stakeholder interests that are relevant for a company. In addition to this explicit definition of materiality and its investor orientation, SASB also differentiates itself from the other sustainability reporting frameworks by introducing industry-specific sustainability accounting standards. Acknowledging that each industry has different sustainability characteristics and different challenges, SASB replaces the "one size fits all" approach with industry-specific disclosures, which translate into fewer metrics with more standardization. Following the "less-is-more" approach, SASB sets the floor for a more efficient sustainability reporting process where disclosure is aligned with what is material for a company's financial performance.

While the industry-specific character of the SASB standards and the explicit definition of materiality help companies produce more efficient, investor-oriented sustainability reports, the data requested by SASB is not always readily available in existing company disclosures and may not be captured by data service platforms such as the Bloomberg Terminal. Typically, as the data points get more industry specific, the data is harder to find in these data platforms. To assess the validity of this assumption, we analyzed the degree of alignment between the SASB indicators and the existing data points in the Bloomberg Terminal, which has an extensive data coverage representing a significant portion of the current data fields in the CSR environment. In doing so, we asked two questions:

1- How many of the data fields in the Bloomberg Terminal (both ESG and non-ESG) are aligned with the SASB metrics?

2- For those metrics that are aligned with data fields in Bloomberg, what is the degree of alignment?

Our research shows that 43% of the SASB metrics match at least one of the Bloomberg data fields with 15% being exact matches, where both SASB and Bloomberg request the disclosure of the same data point. 29% of these matches are partial, where only some of the SASB requirements can be collected through Bloomberg data fields.

The rate of matches is not equally distributed among sectors or industries. For sectors or industries with higher impacts on the environment and workplace safety, the degree of match is higher. This is mainly because these issues have been frequently addressed for over a decade by many reporting frameworks including GRI. It should also be

noted that many of the environmental and workplace safety issues are strictly regulated by legal authorities, especially in more advanced markets. For these reasons, data collection platforms such as the Bloomberg Terminal have several data fields addressing these issues.

Contrary to this, for sectors or industries where SASB introduced fewer metrics with more industry-specific data, the match rates fall significantly. Many of the industries that make the bottom of the list are in the Service sector with little environmental impact but higher social impacts on issues such as labor relations, consumer satisfaction, community engagement, and financial stability. While SASB metrics for these industries help capture the specifics of how each industry impacts these issues, many do not have a matching field in other reporting frameworks or in data platforms such as Bloomberg.

Based on these findings there are four steps that can be taken by the reporting industry, data providers and reporting companies to help improve sustainability reporting, management and data collection practices:

1- Industries with low matching rates can take the lead in advocating for the development of more indicators and data collection tools to address the industry-specific issues that are material to their industries. Research conducted by SASB shows that these issues have the potential to impact both the sustainability and financial performance of companies. The non-existence of data points for these issues in data platforms such as Bloomberg does not mean that this data doesn't exist. However, it is an indication that company performance on these issues is not visible on widely-used data platforms and stakeholders might need additional effort to access the data.

2- Data platforms such as Bloomberg that collect and redistribute ESG data can create additional data fields that go beyond the scope of existing sustainability reports, which usually do not have industry-specific indicators. Most of the indicators in the sustainability reports issued during the last 10 years address systemic risks that cover most industries (climate change, emissions management, waste management, diversity, etc.). However, only a few of these reports have industry-specific metrics, which are mostly guided by the GRI sector supplements. With the introduction of the industry-specific SASB standards, a growing need exists to reshape data creation, collection and redistribution practices. By introducing new data fields that will capture these industry-specific disclosures, platforms such as Bloomberg will not only enrich their data offerings, but provide a more complete picture of the sustainability performance of companies, while encouraging them to disclose more ESG data.

3- Our research shows that there are three aspects where discrepancies appear between the reported and redistributed data: *a) Differences in calculation methods, b) Differences in measurement units, c) Inability to cover all the required data points from a disclosure requirement.* Establishment of better communication channels between the reporting initiatives, standards developers, reporting companies, and data collection platforms can reduce these discrepancies and achieve better alignment among ESG data creation, reporting and distribution practices.

4- Binary data fields, such as whether or not a sustainability policy exists (yes or no), are very useful for addressing the existence of qualitative data; however, they are not sufficient to reflect the complexity of the policy or evaluate a company's ability to manage the issue. In many cases, further information is needed to understand the management approach of a company on a particular topic, such as the scope of the policy, its compliance with certain standards, issuance date, updates provided and the highest responsible body for implementation. In many cases, SASB asks for these details where companies are required to describe their policies on certain issues. To better meet these requirements and improve data quality, reporting companies and data collection platforms can work together to introduce new data fields that will address these details.

APPENDIX – A: INDUSTRY LEVEL COMPARISON OF EXACT AND PARTIAL MATCHES

Legend: Exact Match, Partial Match
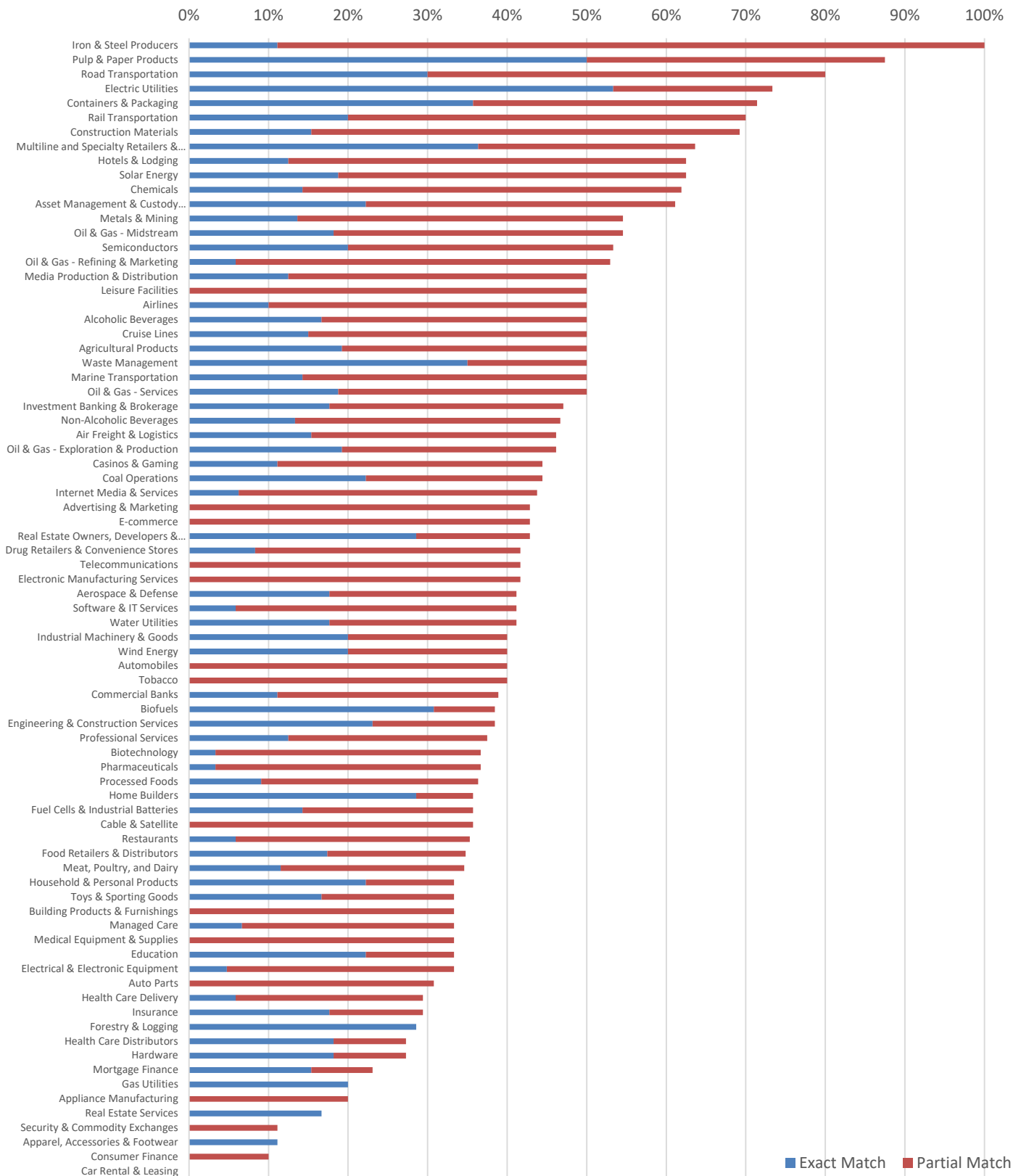
About Stern Center for Sustainable Business

The NYU Stern Center for Sustainable Business envisions "a better world through better business." Its mission is to ensure current and future business leaders develop the knowledge and skills to address environmental and social challenges, so their business can reduce risk; create competitive advantage; develop innovative services, products, and processes; while building value for society and protecting the planet. It delivers popular sustainability courses for undergrad, graduate and executive students and develops and disseminates original research, targeted at improving uptake and performance of sustainable practices in key industries.
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About iCompli Sustainability

iCompli Sustainability (iCompli) is a division of BPA Worldwide, the world's largest media audit company. A not-for-profit organization established in 1931, BPA's audit services have expanded to include external assurance of government and industry standards and independent verification of companies' sustainability claims. iCompli provides a research-driven systems approach to help organizations make defensible decisions about their sustainability initiatives. We offer diagnostic and assessment services, data verification and report assurance, and third-party certification to industry sustainability standards.
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