



## Evaluation of business alignment with the sustainable development goals: Proposal and application of an indicator in the context of fluminense companies

### *Avaliação de alinhamento empresarial aos objetivos de desenvolvimento sustentável: proposta e aplicação de indicador no contexto das empresas fluminenses*

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**ABSTRACT:** The paper presents a proposal for an indicator to analyze business alignment with the Sustainable Development Goals (SDGs). The theoretical framework is based on the expression of the current social and environmental crisis as a context for both the emergence of global sustainable development agendas and the questioning of the companies' role in this process. The research, of an exploratory and descriptive nature, resorted to bibliographic review and documentary research as methods. The *SDG Compass* tool was the main technical reference for creating the indicator to assess alignment with the SDGs, which was applied to a sample of companies in the state of Rio de Janeiro. Sustainability reports and other sources officially published by 97 companies in the state were researched and the results revealed a panorama of low alignment of the private sector with the SDGs, in addition to a pattern of action more concentrated on declaration of commitments and reporting in recognized international formats, but less consistent in the dimensions of prioritization, goals and integration of the SDGs in business activities. With the deadline approaching, it is necessary to explore the companies' potential and accelerate their involvement as a way to leverage achievement of the 2030 Agenda in terms of the SDGs.

**Keywords:** sustainable development goals; sustainability; business.

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**RESUMO:**

O trabalho apresenta uma proposta de indicador para análise do alinhamento empresarial aos Objetivos de Desenvolvimento Sustentável (ODS). O referencial teórico está fundamentado na expressão da atual crise social e ambiental como contexto tanto do surgimento de agendas globais de desenvolvimento sustentável quanto do questionamento do papel das empresas nesse processo. A pesquisa, de caráter exploratório e descritivo, empregou como métodos a revisão bibliográfica e a pesquisa documental. A ferramenta *SDG Compass* foi a principal referência técnica para a construção do indicador de avaliação de alinhamento aos ODS, que foi aplicado em uma amostra de empresas do estado do Rio de Janeiro. Foram pesquisados os relatórios de sustentabilidade e outras fontes publicadas oficialmente por 97 empresas do estado e os resultados revelaram um quadro de baixo alinhamento do setor privado com os ODS, além de um padrão de atuação mais concentrada na declaração de compromissos e nos relatos em formatos internacionalmente reconhecidos, porém menos consistente nas dimensões de priorização, metas e integração dos ODS nas atividades empresariais. Com o prazo cada vez mais próximo, é preciso explorar o potencial e acelerar o envolvimento das empresas como forma de alavancar a consecução da Agenda 2030 dos ODS.

*Palavras-chave:* objetivos de desenvolvimento sustentável; sustentabilidade; negócios.

## 1. Introduction

This article focuses on the debate about the business situation in the sustainable development global agendas, with the intensification of the social and environmental challenges in the last decades as context. Based on a critical perspective, the factors inherent to the crisis context and international collective mobilization strategies are explored as elements that challenge the companies' role and responsibility as major transformation and impact agents. As a contribution, the paper presents a proposal for an indicator to assess business alignment in the light of the United Nations (UN) Sustainable Development Goals (SDGs) 2030 Agenda.

As we enter the third decade of the 21<sup>st</sup> century, and considering the seriousness and complexity of the social and environmental crisis, largely characterized by issues such as deep socioeconomic inequalities and climate change (Latour, 2017; Pinto *et al.*, 2020), it becomes increasingly necessary to seek paths and solutions. In 2020, the coronavirus pandemic was imposed, in part, as a consequence of the unsustainable patterns of civilization in

the context of neoliberal capitalism, aggravating existing problems and exposing the vulnerability of institutions to predict and react to emergencies (Santos, 2021).

SDGs consolidate humanity's most urgent challenges and the efforts to overcome them have also been negatively affected by the pandemic, increasing the urgency to accelerate transformation actions aligned with common objectives in an integrated approach (UNDP, 2021). Therefore, the starting point adopted for the debate is the document entitled “Transforming Our World: The 2030 Agenda for Sustainable Development”, launched by the UN in 2015 and based on 17 “Sustainable Development Goals” to be achieved by all signatory countries (UN, 2015).

This article aims at focusing on the role of the private sector in meeting the 2030 Agenda. Such an approach is important: on the one hand, the combination of the disproportionate impact caused by the companies' performance and the amount of resources that they could direct to the SDGs requires serious engagement of this sector; on the other hand, the conjunction between the (still) nonexistent bin-

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ding mechanisms requiring companies to commit to the SDGs and the growing pressure from society for such engagement turn this sector into a fundamental focus of analysis.

The breadth and complexity of the 2030 Agenda require studies and research to investigate how the SDGs are being implemented in specific territories, considering their social, economic, political and environmental characteristics. The territory chosen in this article is the state of Rio de Janeiro (RJ), which we find particularly interesting in two senses. On the one hand, RJ is one of the most expressive national economies and its capital hosted ECO 92 and Rio+20, events in which important steps were taken towards the global creation of a sustainability agenda that culminated exactly in the 2030 Agenda. On the other hand, RJ has been the locus of severe political, economic and environmental crises that impose additional challenges and compromise performance in achieving the SDGs (SDSN, 2021).

The central objective of this article is to evaluate the alignment of the Rio de Janeiro private sector in achieving the 2030 Agenda, taking as context the social and environmental crisis scenario and the relevance of the companies' performance to achieve the SDG targets (UN, 2015).

The research used the following methods: bibliographic review, reinforced by a brief bibliometric study, documentary research, which focused on the sustainability reports published by the 97 large companies or those with a profile of performance in sustainability selected in the sample, and the creation and application of an indicator of alignment with the SDGs in business performance in sustainability, developed based on the *SDG Compass* tool (GRI *et al.*, 2015).

The article is initially structured on the theoretical foundation, starting from the exploration of the social and environmental crisis and its causes, going through the global guidelines and agendas for sustainable development, including the panorama in Brazil and in RJ, and advancing to discuss the companies' role in these agendas and the support tools available. Subsequently, all the methods employed and their application in the diverse information collected are described and the results are analyzed and discussed in the light of the theoretical framework. The last section is devoted to the final considerations.

## **2. Theoretical foundation**

### *2.1. A controversial journey towards the precipice*

Humanity has reached the 21<sup>st</sup> century in an accelerated process of development, largely represented by technological advances in the context of globalized industrial capitalism, which has been significantly transforming social relations and those with nature. As a consequence, the social and environmental impacts were intensified to the point of also affecting the planet at a global scale. Currently, the current of those who believe that human activity is the main transformation force acting in nature is expressive, especially since 1950, when consumption of matter and energy reached unprecedented proportions, causing increasing pressure on natural and human systems (Crutzen & Stoermer, 2000; Steffen *et al.*, 2011).

The modern ideal of development is the core paradigm of this dynamic which recognizes, among

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other factors, separation between man and nature, materialism and unlimited growth (Leff, 2010; Capra & Luisi, 2014; Latour, 2017; Veiga, 2017; Krenak, 2019; Pinto *et al.*, 2020).

The relationship of separation between man and nature has been questioned and pointed out as a cause of major challenges for humanity. Evoking Gaia's theory, Latour (2017) believes that social and ecological crises are constant warnings that man belongs to nature and, therefore, should not depart from it, under penalty of making humanity unfeasible. In the author's words,

ice is melting faster and the species are disappearing at a faster pace than the majestic processes of politics, conscience and sensitivity are progressing. The eternal universe of things? We must not count on that any longer! (Latour, 2017, p. 108-109).

Acselrad (2004) argues that “all objects of the environment, all social practices developed in the territories and all uses and meanings attributed to the environment, interact and connect materially and socially whether through water, soil or the atmosphere” (Acselrad, 2004, p. 2). In the Acselrad's opinion, it is precisely in the inseparable character of the “*society-environment*” binomial that rests the understanding that societies are supported by socio-ecological dynamics. In the same direction, Krenak (2019) relates the socio-environmental crisis scenario to the fundamentals of the very notion of humanity, which, in an illusory way, considers the natural landscape as something fixed that will always exist to meet the desires of men and states: “I do not understand where there is anything other than nature. Everything is nature. The cosmos is

nature. Everything that I can think about is nature” (Krenak, 2019, p. 16 and 17).

As an unfolding of the distanced relationship with nature, materialism is pointed out by Leff (2010) as an elementary part of the scientific-technological-economic rationality of modernity, from a mechanistic perspective that reproduces the dynamics of objectification and homogenization and that converts into unbridled and unsustainable production and consumption processes, without incorporating the real costs of natural resources into the economic value of products and services.

Additionally, the unlimited growth paradigm has driven the impacts of human actions to unprecedented levels in history. Capra & Luisi (2014) highlight three types of growth capable of generating profound negative impacts: economic and corporate growth, which are inherent to the *modus operandi* of capitalism and are generally related to overconsumption and waste, and population growth, which increases poverty and inequality. For the authors, these unlimited growth strands together engender a self-amplifying feedback circle that indefinitely expands all the elements of the growth process.

Therefore, elements that characterize development in modernity are contradictory to the aspirations of sustainable development, which requires social and environmental justice with responsible adaptation in the face of complexities and risks. Thus, the objectives of sustainability and democratization of decisions about activities that affect the community are still far from being achieved, which is evidenced by the differentiated social and environmental risks to which populations with less economic and political power are subjected (Acselrad *et al.*, 2009; Veiga, 2017).

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The lines of thought critical of the traditional development model argue that true prosperity will be made possible by the urgent reconciliation between man and his natural environment, by the abandonment of materialistic compulsion, as well as of the illusion that it is possible to grow indefinitely and at any cost. Given the profound and systemic effects of the social and environmental crisis, only a holistic and truly collective approach that recognizes the limits already overcome can solve the “short-circuit between nature on the one hand and the human masses on the other” (Latour, 1994, p. 54), reintegrating the dimensions into a new and broad vision that drives humanity beyond the fragmented and degrading experience of modern development.

## 2.2. *Global reaction efforts*

The concern about the increasing social and environmental effects of human activity has become more evident since the second half of the 20<sup>th</sup> century. The report released by the Club of Rome in the 1970s, entitled “The Limits of Growth” (Meadows *et al.*, 1973), is considered one of the first more structured and worldwide manifestations on the discussion of the relationship of economic growth with the depletion of natural resources and social degradation. The UN Conference on the Human Environment, held in 1972, and the Brundtland Report entitled “Our Common Future”, published in 1987, reinforced the discourse of concern about the future of the planet and disseminated the concept of sustainable development, defined as one that meets the needs of the present without compromising the ability of future generations to meet their own needs

(WCED, 1987), which has since guided discussions on sustainability (Theodoro, 2011).

The UN conference known as the Earth Summit or Eco-92, held in Rio de Janeiro, was decisive as a call for cooperation and responsibility of all countries in the struggle for sustainable development. However, the feeling of cooperation that was predominant at the beginning of the 1990s gradually lost strength. In the meetings of global leaders that followed, such as Rio + 10, in South Africa, and Rio + 20, and even in attempts at multilateral agreements such as those dealing with the climate issue, for example, what was seen was a frustrating increase in the utilitarian perspective of submitting natural and social resources to economic development (Boff, 2012).

Seeking to increase the engagement of the global community, with the launch of the Millennium Development Goals (MDGs), the UN adopted from the 2000s the strategy of devising global agendas that address objectives and goals by fostering global cooperation to face the main challenges of today. After the 15-year MDG deadline, the Summit of Nations, held in 2015, formalized the adoption of the 2030 Agenda and the SDGs by all UN member countries. The document entitled “Transforming Our World: The 2030 Agenda for Sustainable Development” consolidates the guidelines that oriented preparation of the Agenda and the ambition of the global community in the face of social, environmental and economic challenges (UN, 2015).

The SDGs are therefore the most recent result of global initiatives that the UN has led in the last decades. Although the SDGs are connected to a broader narrative of global alignment for sustainable development, their structure of 17 goals, 169 targets and more than 200 indicators aims at materializing

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and systematizing the challenges of humanity in the most comprehensive way ever done to date. In addition, unlike previous initiatives, the call for alignment encompasses all sectors of society, stimulating the participation of governments, companies and society, always in the perspective of cooperation (UN, 2015).

The alignment of global efforts, as intended by the SDGs, should be mediated by the targets and indicators that represent the consensus on which most urgent measures need to be adopted to reverse the situations of poverty, inequality, environmental degradation and economic instability (Veiga, 2017). Even with criticism for not breaking away from the modern development paradigms, the SDGs are a global language currently in force and effect for the sustainable development.

Although those are global goals, transformations need to occur at the local level, which is why each country is oriented to adapt the targets and indicators to its reality, in order to act on its specific challenges (UN, 2015). Brazil initiated its internalization process in 2017 when the National SDG Commission (*Comissão Nacional dos ODS*, CNODS) was created, which structured a national governance proposal for the 2030 Agenda with the participation of several relevant institutions and providing for the creation of committees for discussion and coordination of actions related to each of the 17 SDGs. In 2018, the Institute of Applied Economic Research (*Instituto de Pesquisa Econômica Aplicada*, IPEA) started the work of adapting the targets to the Brazilian reality and the Brazilian Institute of Geography and Statistics (*Instituto Brasileiro de Geografia e Estatística*, IBGE) launched a digital platform for monitoring the indicators (IPEA, 2018; IBGE, 2018).

The 2019 change in the federal government administration brought about modifications in Brazil's public alignment with the SDGs. A clear sign of the change was the presidential veto to Item VII of article 3 from the National Congress Law Bill No. 21 of 2019, which establishes the Union's Multiannual Plan for the period from 2020 to 2023. The vetoed provision provided for the pursuit of the targets of the United Nations Sustainable Development Goals (Brazil, 2019).

The SDG Index 2019 signals that Brazil will not achieve 15 of all 17 SDGs if it remains at the actual pace. In addition to that, we will not attain the targets in more than half of the indicators prioritized by the study (Sachs *et al.*, 2019). The "Civil Society Light of the 2030 Agenda" report draws the attention to the fact that the federal government drastically retreated democratic governance by signing Decree 9,759/2019, which extinguished federal committees and commissions with the presence of civil society representatives, including the CNODS (GTSC, 2020).

In the specific case of RJ, the political and economic crisis situation of the last years renders a quite challenging scenario and the horizons for achieving the SDGs are far from promising. Prepared from more than 80 indicators related to the targets of the SDGs, the Sustainable Development Index of Cities in Brazil (SDIC-BR) assigns a score to each city, stimulating SDG compliance monitoring. More than 700 municipalities were already included in the Index, with 25 from the state Rio de Janeiro. Figure 1 shows the SDIC of the capital city (SDSN, 2021).

The municipality of Rio de Janeiro, with an SDIC of 57.3/100 and ranking 270 in the classification among 770 cities, displays results that reflect



FIGURE 1 – Performance of the municipality of Rio de Janeiro, Brazil, in the Sustainable Development Goals.  
 SOURCE: Sustainable Development Index for Cities, SDIC-Brazil.

major challenges in at least six SDGs. The indicators are well below the targets in health, education, gender equality, inequalities, sustainable communities and peace, justice and strengthened institutions. The indicators related to nutrition, work and life on Earth are also points of significant attention for the municipality (SDSN, 2021).

The worrying performance of the capital city suggests a negative scenario in terms of achieving the SDGs in RJ. The state does not have governance that stimulates and coordinates actions of the sec-

tors of society to achieve the targets or a structured plan that aligns public policies with the SDGs. As a positive sign, the State Government became a signatory to the Global Covenant in December 2019, as reported on its official website.

### 2.3. Business performance and sustainable development

The official document that launches the 2030 Agenda highlights that companies play a

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fundamental role for the SDGs, as they are social transformation agents and can significantly leverage achievement the targets (UN, 2015). Currently, many companies have capital greater than the Gross Domestic Product (GDP) of nations and are sometimes more powerful than governments, exerting significant influence on the collective development decisions. It is a consensus that this dynamic has been changing the perception of the companies' role in society, either from the perspective of their social function or from that of the negative impacts generated by their activities (Oliveira, 2014; Chomsky, 2017; Mello and Mello, 2018).

In the face of these transformations, companies are driven to consider the human and environmental values in addition to financial results, as well as to orient their business activities towards social well-being. According to Tachizawa (2008, p. 3),

the expansion of collective awareness in relation to the environment and the complexity of current social and environmental demands that the community transfer to organizations the responsibility of inducing a new positioning of entrepreneurs and executives in the face of such issues.

Thus, companies are protagonists in the transformation process of the social reality and are under pressure to rethink their strategies, practices and values in the light of the concepts of social responsibility and sustainability.

However, it is important to recognize that the conditions for an effective reconciliation between the economic and the social spheres are characteristic of a historical inversion process in which the economic returns to its function as a means to serve the social, shifting from the end position in

itself. It is about determining the economic by the social, as the conventional rationality of the market presupposes exactly the opposite. The challenge is great and, at the limit, it is possible that there is certain juxtaposition of both variables that can be better harmonized through new ways of instituting the economic sphere (França Filho *et al.*, 2020).

Whether due to the emergence of a new social awareness or the perspective of risk mitigation, sustainability has become part of the list of dimensions to be considered in the decision-making process. Incorporation of the concept was mainly guided by the *Triple Bottom Line* theory of balance on three pillars: social, environmental and economic (Elkington, 1997). In the author's opinion,

refusing the challenge imposed by these three pillars is running an extinction risk. This matter does not only concern large corporations: they will be forced to pass on the pressure, through the supply chain, to their large and small suppliers and contractors (Elkington, 1997, p. 33).

The changes in perspective on companies' social performance can be observed in the emergence of more convergent business approaches to the sustainability agendas, among which we highlight the idea of Social License to Operate (SLO), which comprises the interlocution and alignment of audiences impacted by business performance aiming at obtaining community agreement on the presence of a company in the territory (Thomson & Boutillier, 2011; Santiago, 2016); the concept of Shared Value Creation (SVC), presented as a potential for redefining capitalism, is a management proposal whose main axis relates the competitiveness of a company with the well-being of the communities

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in its surroundings (Porter & Kramer, 2011); and Impact Business, economically viable business initiatives that at the same time contribute to solving or minimizing social and environmental problems, and may or may not distribute profits (Yunus, 2008).

Over the last decades, several references have also been developed for the organizations' sustainable performance such as international guidelines like the Equator Principles, the Global Compact Principles and other UN declarations, ISO 14000 standards in the environmental aspect, and ISO 26000 for the social aspect, in addition to tools for sustainability, such as the *Global Reporting Initiative* (GRI) reporting standard and Ethos Indicators in Brazil (Barbieri & Cajazeira, 2016).

Diffusion of these tools reflects the relevance of adopting indicators in the business sustainability management strategies. Although the relevance and use of economic, social and environmental indicators are still differentiated, approaches to sustainability need to be holistic and multidimensional (Amato Neto, 2011). Guidelines such as ISO 14000 and 26000 and tools such as GRI and *Ethos* Indicators offer integrated frameworks that bring together material indicators for business action in favor of sustainable development. These systems can both indicate progress towards sustainability goals and point out the trends and profile of engagement in the social, environmental and economic agendas (Bellen, 2006).

Several other guidelines and tools are available for use and support diagnosis, planning, implementation and reporting of results, enabling a methodological and strategic approach to improve sustainable practices (Louette, 2007; Dias *et al.*, 2008; NEXT, 2011; GRI *et al.*, 2015; UNDP, 2021). Similarly, methods and tools already widely

used in business management, such as the PDCA cycle, flowcharts, diagrams and matrices, can be combined as additional support in the identification, analysis and decision-making regarding social and environmental circumstances and their impacts of an organization's activities (Zarpelon, 2006).

Whether due to competitiveness or to risk, impacts management imposes itself as a critical dimension for the business management strategies, especially in large companies. Sustainability tools can assist in this process, both in the business activities and in management of the value chains. Muñoz-Torres *et al.* (2018) reinforce that sustainability management in companies requires identification, evaluation and management of the impacts of all suppliers and emphasize the fundamental leadership role of larger companies, as their sustainability decisions can strongly influence the behavior of companies that integrate their supply chain.

More recently, there has been growing use of the acronym *ESG – environmental, social and governance*, both by companies and by investors who have been incorporating social, environmental and governance aspects as criteria in their investment strategies and evaluations (Betti *et al.*, 2018). In addition to that, in recent decades there has been a strengthening of sustainability indices such as *Dow Jones* in the United States and the Corporate Sustainability Index (*Índice de Sustentabilidade Empresarial*, ISE B3) in Brazil as references in the relationship between investment and performance in sustainability (Oliveira, 2008).

The more sustainable business trend gained wide expression with the open letter released by one of the largest financial asset management institutions in the world, communicating the adoption of an increasingly less tolerant stance to unsustainable

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practices and that, therefore, they are more likely to vote against administrations of companies that are not advancing in practices and reports on sustainability agendas (Blackrock, 2020).

In this sense, the SDGs are guidelines for establishing sustainable management strategies, representing an effective mechanism for maintaining the social license to operate and a framework for communication with the stakeholders. Business alignment with the SDGs can lead growth of markets, while contributing to establishing stable and promising business environments with the emergence of new opportunities and risk reduction for companies (Verboven & Vanherck, 2016).

The SDG 2030 Agenda emphasizes the importance of integrating corporate sustainability strategies with development goals and targets, so that the necessary changes are intensified (UN, 2015). In addition to that, as the problems are effective on a global scale, it is fundamental that there is coordination and alignment of efforts guided by common objectives such as the SDGs, by guidelines and guiding principles of policies and good practices, and by support tools that boost and level the migration flow to more sustainable models of action (GRI *et al.*, 2015).

In this sense, the UN has been developing methodologies to foster the effective integration of the social and environmental issues contemplated in the SDGs into the organizational strategies. In addition to alignment principles and initiatives for the private sector, the UN develops and disseminates studies, tools and methodologies to support the companies seeking alignment of their business activities to the SDGs. One of the first tools launched is *SDG Compass* (GRI *et al.*, 2015), prepared in partnership with the GRI and with the *World Business Council*

*for Sustainable Development* (WBCSD). The tool is a guide that proposes five stages to implement the SDGs in the business strategy: internalization, prioritization, definition of targets, integration in the processes, and report of the progress. A set of actions is recommended for each stage.

*SDG Compass* encourages companies to consider the SDGs as an opportunity for new business, access to resources and risk management, and it provides examples of management principles and models that can be references for alignment with SDG 2030 Agenda. In addition to strengthening ESG strategies, integration of the SDGs as oriented in the *SDG Compass* methodology has the potential to generate benefits such as business opportunities, increased corporate value, strengthening partnership relationships, stabilization of markets and communities and sharing of purpose and unified language with society (GRI *et al.*, 2015).

### 3. Methods

Studying the companies' sustainability actions' alignment with the SDGs is of significant relevance, and is the central point that motivates the research and guides choice of the methods employed. Of qualitative predominance, the paper is of a descriptive and exploratory nature. With the objective of constructing the theoretical framework, a bibliographic search was conducted in the *Scopus* and *Web of Science* databases with the research keywords. Choice of the databases was due to their interdisciplinary profile and significant number of articles available, in addition to the wide variety of knowledge areas indexed. The documentary research method was also employed, as official reports

disclosed by the companies included in the sample were consulted (Vergara, 2009; Gray, 2012). An indicator of alignment with the SDGs was prepared by the authors from the *SDG Compass* tool (GRI *et al.*, 2015), as a method to enable the identification, evaluation and comparison of standards of alignment with the SDGs in the selected companies.

The methodological path to meet the research objectives comprises three main stages:

- (1) conduction of the bibliographic search to construct the theoretical foundations and also to understand the dynamics of the scientific production on the SDGs;
- (2) creation of the alignment indicator, which uses the *SDG Compass* methodological structure a basis; and
- (3) documentary research and application of the indicator in a sample of companies active in RJ.

The results obtained for the group researched are analyzed in the light of the theoretical framework, in order to assess the alignment profile of the Fluminense companies to the SDGs.

3.1. Bibliographic search and academic production on the SDGs

The bibliographic search looked for references in books, websites, publications and articles to structure the theoretical foundation and support the study objectives. At this point, it is worth noting that the literature on the SDGs is still expanding and papers like this are relevant to contribute to the knowledge about integration of the Agenda in the practice, which reinforces the recognition of the importance of the role of academic institutions in the 2030 Agenda (UN, 2015). The academic and scientific context is fundamental for knowledge generation and transmission, training of professionals and leaders, production of information for monitoring and evaluation, in addition to being granaries of innovation and development of solutions to the greatest and most complex challenges of humanity (Purcell *et al.*, 2019; SDSN, 2020), which makes academic production an important indicator to evaluate progress of the SDGs.

In this sense, a brief bibliometric research was carried out that resulted in more than 5,000 articles indexed in the *Scopus* and *Web of Science* databases, based on the search with the research keywords and related terms (Table 1). The databases point to an increase in the number of studies already from 2015, year in which the UN launched the SDGs, indicating the relevance of the topic for the research institutions. However, the distribution of the studies across the different countries and regions of the world is to be considered. The *Vosviewer* software

TABLE 1 – Results of the bibliometric search conducted in the *Scopus* and *Web of Science* databases.

Boolean search	Search filters	Scopus	Web of Science
“Sustainable Development Goal?”		6.258	5.854
“Sustainable Development Goal?” AND “compan*” OR “business” OR “ESG”	Article   2015-2021	749	773

SOURCE: The authors, 2020.

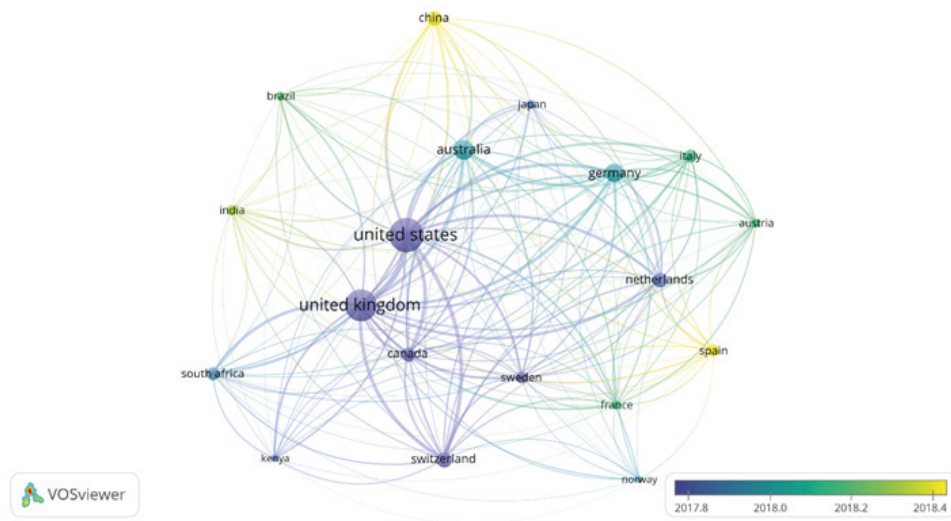


FIGURE 2 – Global distribution of the academic production on the Sustainable Development Goals.

SOURCE: Prepared by the authors with the *Vosviewer* software, 2020.

was used to this end, a tool capable of generating maps of bibliometric networks from files of searches made in the databases of scientific publications.

The databases researched showed that the countries that produced the most scientific articles were the United States and England, followed closely by Australia, Germany and Canada (Figure 2). Brazil is the only representative from South America among the 15 nations that most published research studies about the SDGs, therefore leading the South American ranking. If compared to the BRICS, Brazil is only above Russia. Figure 2 also indicates that China and Europe stand out in terms of most recent scientific research on the SDGs.

With regard to the areas of concentration of the published papers, the research pointed out that the productions are mainly concentrated in the areas of social and environmental sciences, followed by the medical sciences. The areas related to economy

and management are represented by approximately 10% of the publications. These data suggest that, despite the increasing production of articles on the SDGs since 2015, the academic production on the topic is still restricted in less developed countries where socio-environmental challenges are so significant. The reduced number of studies about the SDGs focused on the companies' relationship with the 2030 Agenda is also evident.

### 3.2. *Creation of the indicator of business alignment with the SDGs*

Sustainability indicators and assessment tools are considered means for operationalizing strategies to implement actions for sustainable development, as they are capable of simplifying information on complex phenomena, in addition to making the re-

levance of essential aspects more evident (Bellen, 2006).

Based on this understanding, this article presents an indicator proposal prepared by the authors

to evaluate companies' alignment to the SDGs in their sustainability actions. The choice to create an indicator is due to its purpose of translating in a measurable or describable way the characteristics

TABLE 2 – Parameters for the Indicator of Business Alignment with the SDGs, by stages of the *SDG Compass* tool.

SDG Compass stages		Actions		Description	Fontes	
1 <sup>st</sup>	Understanding the SDGs	1.1	Internalizing the SDGs	1,0	It reports internal dissemination action of the SDGs.	
		1.2	Formal commitment of the top management	1,0	It is a signatory to the Global Covenant or the top management makes a formal reference to the SDG 2030 Agenda.	
2 <sup>nd</sup>	Defining priorities	2.1	Impacts of the operation and value chain	1,0	It reports positive and negative aspects, mapping the value chain and using support methodologies.	
		2.2	Priorities, indicators and data collection	1,0	It prioritizes actions, presents indicators and data collection for measuring.	
3 <sup>rd</sup>	Establishing targets	3.1	Targets, indicators and baselines	1,0	It establishes targets with strategic indicators and baselines.	Annual, Sustainability or Integrated Report
		3.2	Announcement of commitment to SDG targets	1,0	It states the commitment to meeting the targets based on the SDGs.	Progress Communication - Global Covenant
4 <sup>th</sup>	Integration	4.1	Incorporation of sustainability	1,0	It flags the use of management tools or sets compensation targets based on sustainability performance.	Official website
		4.2	Alignment with partnerships	1,0	It informs the establishment of partnerships in the value chain or in the external context, whether with competitors, governments, civil society or 3rd sectors.	
5 <sup>th</sup>	Report and communication	5.1	Report and effective communication	1,0	It discloses a report in internationally-recognized formats.	
		5.2	Communication of performance in the SDGs	1,0	It aligns all the information disclosed to the context and language of the SDGs.	

SOURCE: The authors, 2020.

of a given analysis object. Patterns and trends are used in the identification, as fundamental tools both for public policies and for corporative strategies. Many properties are attributed to the indicators, among which the following stand out: usefulness, herein evidenced by the importance of evaluating business alignment with the SDGs; validity, based on the *SDG Compass* method and on the diverse evidence extracted from reliable official sources; and simplicity, expressed in the objectivity of the scoring system and calculation of the indicator (Ferreira *et al.*, 2007; Jannuzzi, 2014).

Creation of the indicator is based on the *SDG Compass* methodology, prepared and recommended by the UN, in partnership with the GRI and the WBCSD, as a guide to implement the SDGs in companies. The indicator is structured from the five stages and respective actions recommended in the methodology, being calculated in a basic scoring system for identified business actions that meet the criteria of the tool. Table 2 presents the stages with their corresponding and respective descriptions, associated to the score to create the indicator.

Each of the five stages corresponds to two proposed actions, totaling ten actions to which the same weight is attributed, as *SDG Compass* treats all stages as elementary without differentiating the relevance between any of the actions proposed in the methodology. The score is assigned to a given action by verifying at least one corresponding action report in the sources surveyed. Considering the objective of evaluating alignment with the SDGs, it is assumed as a criterion that the score is only assigned if there is an explicit mention to the 2030 Agenda or any of the seventeen goals in the description of a specific action. The explicit mention to the SDGs is important in order to prove that the company is

aware of the Agenda and states having taken the SDGs into consideration to perform sustainability actions. In addition to that, the formula was designed to subtract half a point for each non-sequential stage identified, as the *SDG Compass* methodology is structured in sequential steps for implementing the SDGs in an organization's strategy, with the relevance of the sequential chaining of the stages being evident (GRI *et al.*, 2015).

The indicator does not evaluate the quantity or quality of the reported actions and, therefore, cannot be used to measure the performance or impact of the reported actions, which would require access to information in addition to that usually declared in reports. Therefore, the explicit objective of the indicator to reflect the alignment with the SDGs at the level of the *SDG Compass* stages is emphasized, allowing for a comparison even between companies in different sectors. The indicator points out to greater alignment with the SDGs the closer to a result, according to the following formula:

$$I_{SDG} = \frac{\sum AI - (\sum NNS / 2)}{\sum SDG}$$

Where,

$I_{SDG}$ : Indicator of alignment with the SDGs.  
 $\sum AI$  = Sum of *SDG Compass* actions identified.  
 $\sum NNS$  = Non-sequential stages identified.  
 $\sum SDG$  = Total *SDG Compass* actions.

For the purposes of classifying the alignment level, a scale with four groups is proposed according to the score of the indicator, as follows:

$I_{SDG} = 0$	No alignment
$I_{SDG} = \text{From } 0.05 \text{ to } 0.49$	Low alignment
$I_{SDG} = \text{From } 0.50 \text{ to } 0.69$	Average alignment
$I_{SDG} = \text{From } 0.70 \text{ to } 1.00$	High alignment

Creation of the indicator was oriented towards an objective assessment capable of providing, in a simplified way, a broad framework for aligning corporate sustainability strategies and the SDG 2030 Agenda. Due to this profile, the possibility is inferred that the indicator may be adapted to assess the alignment of organizations from other sectors of society, merely by changing the characteristics of the corresponding actions to reflect the nature of each organization's performance, keeping fixed the stages provided in *SDG Compass*.

### 3.3. Documentary research and application of the indicator of Fluminense companies' alignment with the SDGs

The research focused on large companies headquartered in the state of Rio de Janeiro for access to sustainability reports or other available official sources and subsequent application of the alignment indicator to analyze the results and understand the dynamics regarding alignment of the private sector in Rio de Janeiro with the 2030 Agenda goals. The choice of Rio de Janeiro is justified by its economic expressiveness and development potential on the national scene, but also because it is going through successive crises that aggravate the state's economic, social and environmental challenges.

In addition to that, the city of Rio de Janeiro is a world reference for hosting major UN meetings for sustainable development, such as Rio 92 and, more recently, Rio+20, in which the process of creating the 2030 Agenda was officially launched.

Data collection was conducted based on the documentary research in the sustainability reports issued by the companies themselves or, when not available, in the corporations' official websites. For each company, the report considered was the most recent one published between 2017 and 2019 available in the official website. In the absence of a sustainability report or similar document available, other documents were included in the search, such as the Communication of Engagement (COE) with the Global Covenant Principles and also searches in the institutional sections of the official Internet websites of the organizations.

In total, 97 companies were selected in the sample because they met the criteria of size by billing and sustainability performance profile. The criterion of size by billing was determined by the presence of the company in at least two of the following rankings: *Guia Exame*, Ranking of the largest 500 Brazilian companies, 2019; *Valor Econômico*, Ranking of the largest 1,000 Brazilian companies, 2019; and *Estadão*, Ranking the largest 1,500 Brazilian companies, 2019. In addition to size, companies with a sustainability profile were also considered, including in the sample those that are signatories to the UN Global Covenant and those with presence in the ISE-B3 portfolio at least once in the years 2017 to 2020. A company signatory to the Global Covenant formally assumes the commitment to internalize and promote its principles and the UN sustainability agendas. Likewise, the companies

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listed in ISE-B3 are evaluated and highlighted by their performance in sustainability aspects.

The definition of the criteria for selecting the sample considered the size of the business, as larger companies tend to generate greater impacts and have potentially more capacity to invest resources, in addition to suffering the most pressures for sustainability agendas. The sustainability performance profile was also considered to include those companies that, despite not being among the largest in the state, are recognized as sustainable by ISE-B3 and those that are signatories to the Global Covenant and that, therefore, are publicly committed to following and promoting the principles of the Covenant and the UN sustainability agendas.

The research in the sustainability reports looked for actions that might be related to those foreseen in *SDG Compass*. In the first stage, the SDG internal dissemination actions were observed, such as campaigns and training sessions for employees related to the goals, in addition to the existence of some type of formal mention to senior leaderships on the SDGs. For the second and third stages, it was sought to observe in the reports the use of methodologies and impact assessment tools with coverage in the value chain for prioritization of goals, identification of indicators and definition of targets.

The fourth stage is characterized by reports of SDG integration actions in business operations, such as establishing financial targets of social and environmental performance for managers or directing investments in changes in the production process. This stage also refers to the public commitments assumed by the SDGs and to disclosing actions performed in partnerships. Finally, the fifth stage was evaluated in the light of the way in which the

sustainability report was presented, with reference to the use of international standards such as the GRI and verifying whether the reported actions are being related to the SDG targets.

## ***4. Analysis and discussion of the results***

### ***4.1. Sample qualification and data collection***

As already mentioned, the sample mainly consists of large companies from RJ and all the information was collected primarily from official sustainability reports. However, no sustainability reports were found in 37.1% of the cases. In these cases, official websites focusing on institutional information sections were consulted, a procedure that reduced the proportion of business organizations without any published information on sustainability to 33%.

The sector distribution (Figure 3) showed that, of the total sample companies, the largest representations are from the oil and gas sector, with 19.6%, and from the energy sector with 13.4%. These are the majority sectors in the Rio de Janeiro industry that concentrate large companies with complex supply chains. Being considered as of high impact, companies in these sectors are associated with environmental and social issues, such as emissions that affect the planet's climate and the generation of impacts on local communities (Steffen *et al.*, 2011), for example, which makes their engagement in sustainable development agendas critical (Muñoz-Torres *et al.*, 2018).

The information that approximately one third of the sample does not even disclose information about their actions with social and environmental

agendas is an indication that business adherence to the SDGs in RJ is limited and still insufficient. Non-disclosure of information on sustainability performance refers to companies that still consider the socio-environmental dimensions only as production resources to be explored and operate with the traditional paradigms of capitalism and modern development, seeking to grow unlimitedly and generate the maximum possible profit (Leff, 2010; Capra & Luisi, 2014; Veiga, 2017).

Corporate reports are considered of fundamental importance in communicating with stakeholders and are widely found in consistent corporate sustainability strategies (Barbieri & Cajazeira, 2016). In addition to that, as already seen, there is an increasing pressure on the performance of the private sector in sustainability issues, in addition to the financial market that has been gradually incorporating ESG criteria in its investment and loan decisions (Tachizawa, 2008; Oliveira, 2014;

Blackrock, 2020). Therefore, transparency is a key element for dialog with stakeholders, notably large and of high impact, and absence of this practice in a significant part of the sample suggests that the scenario of action among Rio de Janeiro companies in sustainability still needs to be strengthened.

On the other hand, the results indicate that 44.3% of the companies are signatories to the Global Covenant and are publicly committed to considering principles related to Human Rights, Labor, Environment and Anti-Corruption in their performance. In addition to that, 22.7% of the companies set up business institutes to work in socio-environmental projects. These aspects are positive indicators for the perspective of alignment with the SDGs, as they suggest strategies structured and oriented by global guidelines in the companies from the sample that provide sustainability reports.

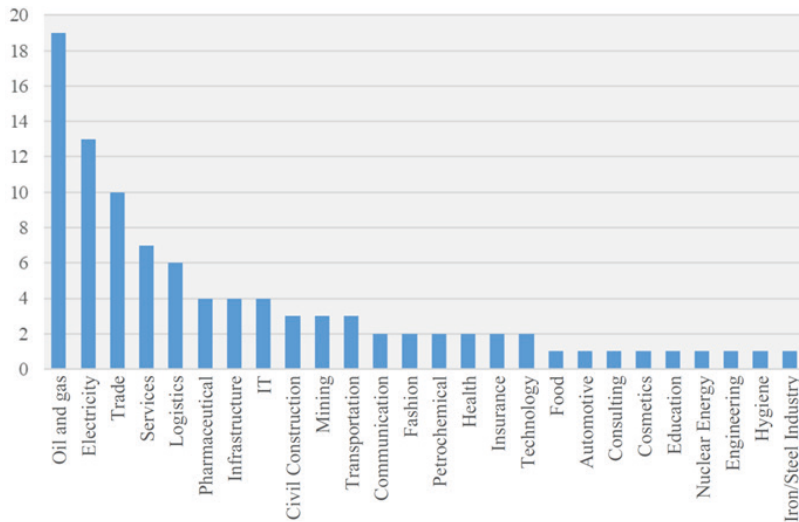


FIGURE 3 – Distribution of the sample of companies in the state of Rio de Janeiro, Brazil, by sector of business activity.  
SOURCE: The authors, 2020.

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## 4.2. Business alignment with the SDGs

The 2030 Agenda makes a clear call for companies to internalize and adopt the SDGs as a reference for their sustainability strategies, actively participating in efforts to achieve the targets (UN, 2015). In this sense, the research sought to understand the alignment scenario from the analysis of all the information reported and applied to the indicator developed.

With regard to the general result of applying the indicator, only 17.5% of the companies surveyed achieved a score above 0.5, being considered as average or high alignment according to the classification proposed. 49.5% of the sample is in the low alignment range, which adds 82.5% of companies with low or no alignment with the SDGs (Figure 4) in addition to the group that does not report. These results corroborate the initial perception of a context of limited adherence and below the challenges addressed by the 2030 Agenda and signals that most Rio de Janeiro companies have not yet aligned or superficially aligned with the SDGs.

The scenario that is pointed out is against the increase in the relevance and visibility of sustainability issues in business strategies (Elkington, 1997; Oliveira, 2008; Barbieri & Cajazeira, 2016). Although there are guidelines, tools and methodologies developed and adapted to support integration with the SDGs (GRI *et al.*, 2015), the results show that efforts are still required to increase the adherence of the RJ sector. In addition, considering that the 2030 Agenda was designed with a view to joint action among all sectors of society, low business adherence hinders establishing partnerships to achieve

the SDGs, as recommended by SDG 17 on means of implementation and partnerships (UN, 2015).

Although the results point to low alignment with the SDGs of the business reports on sustainability in RJ, it is important to highlight the group of companies with average and high alignment that disclose actions related to most of the *SDG Compass* stages, demonstrating structured alignment with the SDGs. The reports of these companies contain diverse information on internalization actions of the Agenda, identification of impacts of the activity, even in the value chain and definition of priorities, with establishment of targets and monitoring of indicators. In addition to that, they report their actions, predominantly in the GRI standard, and indicate the use of management tools for sustainability in their processes. The reports prepared according to internationally recognized standards increase transparency and favor assimilation of all the information by the stakeholders (Barbieri and Cajazeira, 2016). It is worth mentioning that the GRI standard is indicated in the *SDG Compass* tool and that a publication has already been launched to guide companies to align the GRI report with the SDGs (GRI *et al.*, 2015).

The energy sector stands out in the high alignment stratum, representing 23.5% of the companies. Although it is not possible to point out a correlation, the high level of alignment with the SDGs of this sector is in line with the good performance of the capital city of Rio de Janeiro in the SDIC-BR measurement in relation to SDG 7, referring to accessible and clean energy (SDSN, 2021).

In contrast, the group with low alignment tends to report sustainability performance in a restricted manner, presenting generic information and broad data, with no historical series, targets or

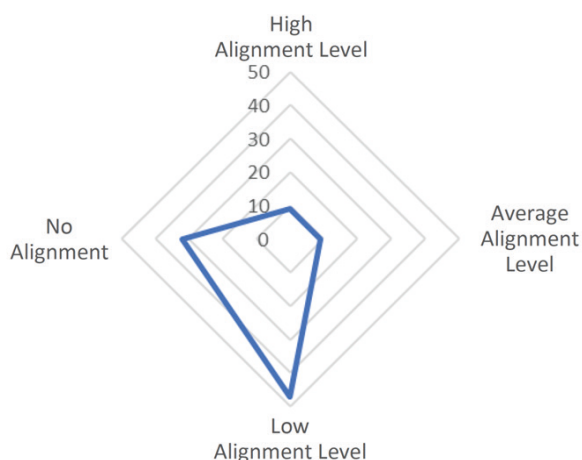


FIGURE 4 – Distribution by alignment level in the sample of companies from the state of Rio de Janeiro with the Sustainable Development Goals.

SOURCE: The authors, 2020.

monitoring indicators. Even with limited reports, these companies demonstrate knowledge about the SDGs, which can be considered a starting point for increasing alignment.

The last group is made up by companies about which it was not possible to find any information referring to the SDGs or even on sustainability. The highest incidence in this group is of companies in the oil and gas sector. In fact, of the total companies in this sector in the sample, more than 80% are in the low or no alignment ranges. This result is significant if the high impact of this activity and the large resources moved by the sector are considered, which is largely associated with environmental issues, such as those addressed by SDG 7 on clean energy and SDG 13 on climate change, and social problems with local and vulnerable communities subjected to the challenges referred to in SDG 1 to eradicate poverty and SDG 10 to reduce inequalities. Considered central points of the current expression of

the social and environmental crisis, these agendas interfere with the reality of high-impact companies that should assume commitments and concrete targets aligned with the SDGs, especially considering the unsatisfactory performance of these SDGs in RJ (IPEA, 2018; SDSN, 2021).

In relation to the alignment profile of the sample, Figures 5A and 5B represent the performance by SDG Compass stages and respective actions (GRI *et al.*, 2015). The data reveal that 50.5% of the companies present reports of actions referring to the first stage foreseen in the methodology that comprises the process of understanding the 2030 Agenda, and only 8.3% of them report institutional SDG internalization actions among employees. The proportion of companies that assume a formal commitment to sustainability principles is more expressive, representing 50.52% of the sample.

The next stage, prioritization, had only 18.6% of the sample reporting actions that indicate impact assessment processes, including the value chain or information on prioritizing indicators. In the third stage, only 10.3% of the researched sources presented information related to the commitment to established targets. In the integration stage clipping, it was identified that only 19.6% of the companies report information on the use of tools and methodologies for incorporating the SDGs and that less than half of this percentage reports partnerships with other companies or sectors of society. In relation to the last stage of reporting, the research indicates that, although 52.6% of the companies present reports in an internationally recognized standard, especially GRI, only 24.7% display their results in line with the SDGs.

The two most reported actions were the top leadership commitment and reporting in an internatio-

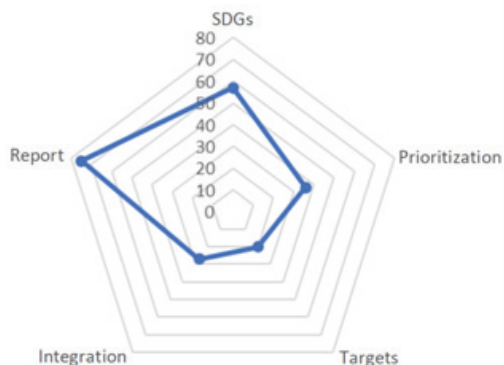


FIGURE 5A – Profile of alignment with the Sustainable Development Goals per step.

SOURCE: Prepared by the authors, 2020.



FIGURE 5B – Profile of alignment with the Sustainable Development Goals by type of action.

SOURCE: Prepared by the authors, 2020.

nal standard, determining factors for the prevalence of the internalization and reporting stages to the detriment of the prioritization, targets and integration stages of the *SDG Compass*. This reading suggests a pattern of signing commitments and standardized reports, although with little evidence of effectiveness in achieving the SDG targets. The stages and respective fundamental actions for structured and committed adherence to the SDG targets are little

evidenced in most of the reports surveyed, which casts doubts on the actual alignment and integration of the 2030 Agenda in the business strategy.

The results characterize a scenario marked by limited and insufficient alignment of Fluminense companies with the SDGs. Even among the companies that are connected in some way with the Agenda, the analyses indicate predominance of inconsistent strategies, especially with regard to aspects inherent to integrating the SDGs into the production processes, backed by compatible targets and indicators. Although there are methodologies, guidelines and tools available to support sustainability activities (Louette, 2007; NEXT, 2011; UNDP, 2021), their use was not reported in most cases, which suggests that these resources still need to be more disseminated and integrated into the market dynamics. In this sense, it is worth emphasizing that *Rede Brasil do Pacto Global* leads initiatives to mobilize and train companies to integrate the SDGs into their business strategy, such as the *SDG Hub*, *SDG Ambition* and *SDG Action Manager*, in addition to the *SDG Compass* workshops, among other actions.

It is also worth noting the low incidence of reports of actions in partnerships, which, on the one hand, may indicate that there is still little interest in advancing collectively with a broad sustainability agenda and, on the other hand, that the governance environment for the SDGs still needs to be better structured in Rio de Janeiro, in order to foster cooperation and the emergence of multisectoral partnerships that enhance efforts to achieve the SDGs (UN, 2015).

The results provided an insight into how corporations with better conditions and a vocation for sustainability are connecting with the SDG

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2030 Agenda in Rio de Janeiro and suggest that Rio de Janeiro companies are far from an ideal commitment to leverage achievement of the SDG targets. The potential resources of the private sector, fundamental in the 2030 Agenda arrangement, do not seem to be being used in a way that is oriented towards the SDGs.

## 5. Final considerations

Carrying out this study provided an overview of the alignment of sustainability activities by Rio de Janeiro companies with the SDGs. The analysis of the research results pointed to a situation of low alignment of the private sector with the sustainable development global commitments.

A limited behavior pattern was revealed by the companies, which seem to concentrate their efforts mainly on the commitment and corporate reporting dimensions and less on strategies that include effective processes of prioritization, definition of targets and integration of the SDGs in business activities. Given this trend, it is possible to assume that actions aimed at value chains are even more limited, compromising the effective management of impacts and the potential of companies for transformation and contribution to sustainable development.

In sectorial terms, it is important to highlight the good performance of companies in the electricity sector that report actions aligned with the *SDG Compass* stages, suggesting sectorial pattern for integrating the SDGs into the business strategy. On the other hand, companies in the oil and gas sector, one of the most important for the economy of RJ, presented a sectorial profile marked by little

alignment and, in several cases, lack of information on sustainability.

It is worth mentioning that partnership actions for the SDGs are among the least reported. This trend goes against the essence of an integrated and collaborative approach as advocated by the SDGs.

Considering the dimension of the challenges and the SDG deadline until 2030, the low alignment indicated by the research results are worrying and compromise achievement of the targets. Thus, it becomes necessary to accelerate the involvement of the private sector by disseminating and expanding the use of methodologies and tools, oriented by global guidelines, which contribute to the effective integration of the SDGs into business practices. Likewise, partnership connections need to be encouraged by building collaborative environments and structuring governance that is favorable to and enhances achievement of the SDG targets.

As a deepening of this research, it is suggested that future papers explore the critical factors that favor and those that limit business alignment. In addition to that, it is recommended that new studies focus on the alignment of other sectors of society and their actions for the 2030 Agenda, seeking to understand how governance is established, in addition to mapping opportunities and challenges for achieving the SDG targets.

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