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TITOLO DEL PROGETTO: Implementing the 2030 Agenda's Sustainable Development Goals (SDGs) in Italian Companies through specific Key Performance Indicators (KPIs)

### ABSTRACT:

The stipulation of the UN 2030 Agenda has set 17 Sustainable Development Goals (SDGs) to guarantee a better world for people and the planet. Companies are committed to these targets. However, even if they may significantly contribute to them thanks to their management skills, risk appetite and specific-sector knowledge, their contribution is still inadequate. Indeed, translating the SDGs from the global level to the business level is complicated, and this is the motive for this project. This research aims to identify a general set of Key Performance Indicators (KPIs) that reflect all 17 SDGs, to facilitate the introduction of Sustainable Development into companies' strategies. Furthermore, the project works towards identifying how to extend these KPIs into companies' supply chains.

### RICERCA PROPOSTA:

Introduction of the topic in the international academic context

Sustainable development has become an increasingly popular concept over the years and many authors have become supporters of this term. Generally, definitions of Sustainable Development (SD) involve two components: the development itself and the essential conditions of sustainability [1]. One of the main definitions of SD was realised by the *World Commission on Environment and Development* which defines it as a development that "Meets the needs of the present without compromising the ability of future generations to meet their own needs" [2]. Following this definition carried out by "Our Common Future" report, many international institutions have realised







many similar definitions of SD for the business community [3]. In 2002, during the World Summit on Sustainable Development, three dimensions were attributed to the SD: economic, social and environmental [4]. Starting from the results of this Summit, Elkington (1998) translated these three dimensions of SD to private companies, coining the term Triple Bottom Line (TBL): according to the author, businesses have to commit not only to improving their financial performances but also to environmental and social concerns [5].

On 25 September 2015, 193 UN member countries, including Italy, signed the "2030 Agenda for Sustainable Development", an action plan to guarantee a better present and future for the planet and the people who inhabit it. In particular, the Agenda set 17 goals, called "Stainable Development Goals (SDGs)", 169 targets and 240 indicators to be achieved within 2030, based on which nations are (and will be) periodically monitored. The 2030 Agenda is founded on five main aspects:

- People: to eliminate all forms of poverty, hunger and guarantee dignity and equality,
- Prosperity: to guarantee prosperity and harmony with nature,
- Peace: to promote pacific, fair and inclusive societies,
- Partnership: to implement the Agenda through strong partnerships among countries,
- Planet: to protect natural resources and the climate for the next generations [6].

# The 17 SDGs are:

- 1) No poverty,
- 2) Zero hunger,
- 3) Good health and well-being,
- 4) Quality education,
- 5) Gender quality,
- 6) Clean water and sanitation,
- 7) Affordable and clean energy,
- 8) Decent work and economic growth,
- 9) Industry, innovation, and infrastructure,
- 10) Reduced inequalities,
- 11) Sustainable cities and communities,
- 12) Responsible consumption and production,
- 13) Climate Action,







- 14) Life below water,
- 15) Life on land,
- 16) Peace, justice, and strong institutions,
- 17) Partnerships of the goals [7].

The 2030 Agenda goals involve not only the environmental perspective but also the social and economic ones [6].

Concerning the European Union level, Directive (UE) 2014/95 introduced the obligation to draw up the "Non-Financial Declaration" (NFD) for Public Interest Entities with more than 500 employees. This new document made communication about environment, work and the fight against corruption information mandatory starting in 2017 [8]. In Italy, the Directive was implemented through Legislative Decree n. 254/2016 and it gave the possibility for companies to produce the NFD as a separate document in the Balance Sheet or as part of the Management Report, and to use any kind of national or international standards to communicate all required information [9]. The European Commission has recently issued Directive (UE) 2022/2464 that amended the previous norm about the NFD, which now must be included in the Management Report. In particular, the Directive prescribes several pieces of information that must be provided by the concerned companies; moreover, the new European legislation has entrusted EFRAG with the task of elaborating on new sustainability accounting standards for preparing the sustainability communication. The Directive has also increased the number of companies that must provide the NFD, making it mandatory for:

- Entities already obliged to the NFD in force under Directive (UE) 254/2016 from 2024,
- Big companies (even not listed) with more than 250 employees starting in 2025,
- Small and Medium Size listed enterprises starting in 2026,
- Extra-EU companies that have more than € 150 million in turnover within EU countries
   [10].

However, the promotion and reporting of a company's social and environmental impacts could represent not only an activity that complies with European legislation but also an opportunity to obtain specific benefits that could also not be expressed in terms of money, such as: better recruitment and retention of employees, improved internal decision-making and cost-savings, improved corporate image and relations with stakeholders and improved financial returns [11].







In this context, digital technologies, such as the Internet of Things, Artificial Intelligence, Predictive Analysis, and Machine Learning, may improve a company's achievement of several sustainability goals [12]. According to Broccardo *et al.* (2023), digitalisation supports the implementation of Sustainable Business Models, thus creating positive effects on society and the environment. However, it must be treated as a rational and planned process; if not, digitalisation investments can be wasted without achieving improvements in economic, social and environmental performance [13].

### Problem relevance

This research project focuses on the 17 SDGs and the ways to introduce them into business strategies, linking the global perspective with the European one and allowing companies to manage all requirement established by Directive (UE) 2022/2464 and the goals carried out by the 2030 Agenda in an integrated way.

Indeed, private entities can significantly participate in the achievement of the 2030 Agenda's 17 Sustainable Development Goals thanks to their outlook on taking risks and disbursing financing and their managerial and sector-specific knowledge [14]. generally, companies can be involved in SGDs in two ways: through the processes that they carry out and through the goods/services they produce [15]. However, the difficulty lies in the transformation of these Sustainable Goals and Targets from the global level to the business level [16], therefore, the contribution of the private sector to the 17 Goals results inadequate due to companies' lack of knowledge concerning their role [17].

Some studies aim to identify some non-financial KPIs to introduce Sustainable Development concepts to business strategies. Hristov and Chirico (2019) conducted a bibliographic search using the Scopus database to identify all KPIs about sustainability individuated by academic literature and, with the help of a sample of CSR managers, produced a Sustainability Balance Scorecard (SBSC) to use it as a tool that integrates the sustainability dimension into business strategies. The authors identified several KPIs for different sustainability goals divided into the three dimensions carried out by the TBL (economic, social and environmental) and, according to the opinion of the sample of CSR managers, they were selected and put into an SBSC [18]. Hristov *et al.* (2022) have continued the past research and have identified a set of Sustainable Development (SD) KPIs and ways to measure and analyse them, to support and integrate company SD Strategies. The authors, in this









case, expanded the three classic dimensions of SD, adding two dimensions: cultural and organisational. For each dimension, they found a single KPI, a measure, and an index to express it [19].

The Italian Foundation for Business Reporting (O.I.B.R.) (2023) took an in-depth look at the alignment of the international GRI, IRIS+ and SABS Sustainability Standards. These standards provide several indicators for each SDG and targets from which a company could choose to evaluate the impact of its investments and its activity in achieving the 2030 Agenda Goals [20].

This project aims to identify a new general framework of SDG KPIs that may suit all Italian companies to evaluate their impact on SDGs achievement, encouraging competition not only regarding goods and services produced or financial performances but also their SD performances. Moreover, the project works towards creating an innovative informative model that companies can use not only to measure their progress toward the KPIs that will be found but also to spread the culture of SD within their structure and their supply chains.

This project will answer two main research questions:

Rq1. What is the general set of KPIs that best represents the achievement of all 17 Sustainable Development Goals and the 169 Targets in Italian companies?

Rq1a. How do we evaluate the KPIs found?

Rq1b. What are the differences between the KPIs found in industrial and commercial companies?

Rq2. What is the best way to extend the application of those KPIs to the Supply Chain? In this research, the expression "Industrial companies" refers to businesses involved in the manufacturing of goods, unlike "commercial companies", which include businesses that provide transportation and storage services for goods. Instead, with the expression "supply chain" the project refers to not only organisations that take part in the process of transferring goods from the producer to its customers but all the suppliers of a company, such as raw material suppliers, temporary employer agencies, cleaning companies, etc.

Research Methodology and necessary structures and equipment for carrying out the research. To achieve the purpose of this project, the research methodology that will be used is close to the same one carried out by Hristov et al. (2022), but with differences due to a more specific research investigation. The research strategy is the adoption of two typologies of the same investigative







tool, a survey questionnaire and an interview questionnaire, which will be articulated in 7 steps, indicated below.

## 1. Identification of the first general sample

This first step aims to identify a sample of Italian companies that will be involved in the new Directive (EU) 2022/2464 (Corporate Social Responsibility Directive) from 2025 to 2028. To do this, the AIDA database will be employed, then, once a list of national companies is elaborated, for all entities, the CSR Managers' (or other professionals involved in their companies' CRS activities) email will be found using the companies' web sites, main social network pages or other information available on the Internet. An Excel database will be elaborated using this information (name, CRS manager and email for each company).

# 2. Sending of the survey questionnaire

The first questionnaire will be sent through email to all addresses identified in *Step 1* and will contain basilar requests about the companies and the CSR Managers (e.g., number of employees, age, gender). Three main questions will be asked, and they will be about:

- The managers' years of experience in the field of CSR,
- The main CSR initiatives carried out by the company both in the past and in the present,
- If the companies are interested or not in continuing the research with a subsequent online interview.

### 3. Selection of the final sample

Once all the responses have been received, the sample of companies that will have participated in the survey will be narrowed down. Indeed, only companies that are interested in continuing the research and, among those, a selection considering the CRS managers' years of experience, the quantity and the quality of the sustainability initiatives carried out and the type of industry in which the companies operate will be done. Selecting companies with these criteria permits the identification of a final sample composed of experienced CSR managers (or other professionals involved in CRS initiatives) that operate in companies where sustainability themes are already part of their business culture. Furthermore, the selection based on the type of industry will be carried out to better represent all productive







sectors and, therefore, to produce results that can be as general and representative as possible of the Italian business environment.

4. Interview of the final sample

The CSR Managers of the selected companies will first be contacted by email to schedule the meeting and then they will be interviewed using video calling software (e.g., Zoom, Google Meet).

The interview protocol will be elaborated, before the interview, upon considering:

- All 17 Sustainable Development Goals, 169 targets and over 240 indicators contained in the 2030 Agenda;
- The information required by all international sustainability standards, such as
  those made by the following international standard setter: GRI (Global Reporting Initiative), EFRAG (European Financial Reporting Advisory Group), ISSB (International Sustainability Standard Board), GIIN (Global Impact Investing Network);
- The information that must be provided by companies under the Directive (UE) 2022/2464;
- The indicators produced by all the academic literature in the field of Sustainability, Non-Financial KPIs, SDGs, the 2030 Agenda, TBL and Sustainability KPIs, using the Scopus database and Google Scholar.

Moreover, the managers will have to indicate how to extend the use and evaluation of the SDG KPIs to their supply chain. Two possible ways identified by O.I.B.R. (2023) will be proposed, but the interviewees will be free to propose other ways:

- "Push" approach: a company can collect information on its suppliers in achieving the target on SDG KPIs by administering questionnaires to them. Once the results are received, a rating score will be attributed to it by the company, and this will be used as a benchmark for future purchasing decisions;
- "Pull" approach: a company can build a partnership with its suppliers to achieve common and agreed goals.
- 5. Data collection and analysis







The data will be collected to identify the most indicated KPIs by managers and how to introduce them into their supply chain.

### Purposes and expected results

The main purpose of this research program is to identify a series of general KPIs that reflect the 17 Sustainable Development Goals of the 2030 Agenda, helping companies to integrate these global priorities into their business strategies. In particular, the research project would like to identify a general framework of SDGs' KPIs, which might be different between the commercial and industrial companies, that permit private entities to evaluate their progress toward achieving global goals and to communicate the social performance to their stakeholder. Indeed, with a set of SDGs indicators, a company can set some KPI goals and periodically monitor their achievement. If this general framework of SDGs' KPIs is found through this research, and if many companies, even international, use it, customers, investors and all the other stakeholders, could compare the performances of competitor companies based on a set of common KPIs which reflect the global SDGs at the business level.

Moreover, if a set of Sustainable Development Goals is identified, and are used by a plurality of companies in various industries, national and international institutions may be facilitated in evaluating the progress of a certain industry (e.g., pharmaceutical, textile, mechanical engineering) in achieving the global SDGs and their targets.

The results of this research may also be useful for companies that, applying Directive (EU) 2022/2464, must provide non-financial information in their Management Report according to EF-RAG Sustainability Standards [10].

Lastly, depending on the course that the research will take, it may be useful to establish a collaboration with a software programmer to develop an integrated digital information system that permits the detection of information about a company and its supply chain and managing SDGs' KPIs.

## **BIBLIOGRAFIA:**

- [1] D. Mitlin (1992), "Sustainable Development: a Guide to Literature", *Environment and Urbanization*, vol. 4, no. 1, pp. 111-124.
- [2] World Commission on Environment ad Development (1987), "Our Common Future", UN.







- [3] T. Thomas A., M. Kyveli E., K. Dimitrios and I. E. Nikolaou (2020), "New challenges for corporate sustainability reporting: United Nations' 2030 Agenda for sustainable development and the Sustainable Development Goals", *Corporate Social Responsibility and Environmental Management*, vol. 27, pp. 1617-1629.
- [4] B. Moldan, S. Janousková e T. Hák (2012), "How to understand and measure environmental sustainability: indicators and targets", *Ecological Indicators*, vol. 17, pp. 4-13.
- [5] J. Elkington (1998), Cannibals with forks: The triple bottom line of 21<sup>st</sup>-century business, Gabriola Island: British Columbia: New Society.
- [6] ASVIS, "L'agenda 2030 dell'Onu per lo Sviluppo sostenibile", [Online]. Available: <a href="https://asvis.it/l-agenda-2030-dell-onu-per-lo-sviluppo-sostenibile/#">https://asvis.it/l-agenda-2030-dell-onu-per-lo-sviluppo-sostenibile/#</a>. [Accessed 11 June 2023].
- [7] Department of Economic and Social Affairs, "The 17 Goals", [Online]. Available: https://sdgs.un.org/goals. [Accessed 11 June 2023].
- [8] Directive (UE) 2014/95.
- [9] Legislative Decree n. 254/2016.
- [10] Directive (EU) 2022/2464.
- [11] A. Carol and A. Zutshi (2004), "Corporate Social Responsibility: Why Business Should Act Responsibly and Be Accountable?", *Australian Accounting Review*, vol. 14, n. 3, pp. 31-39.
- [12] D. Le (2020), "Digital Transformation Can Take Sustainability to New Heights. 2020", [Online]. Available: <a href="https://www.jdsupra.com/legalnews/why-digital-transformation-can-take-33879/">https://www.jdsupra.com/legalnews/why-digital-transformation-can-take-33879/</a> [Accessed on 25 June 2023].
- [13] L. Broccardo, A. Zicari, F. Jabeen, Z. A. Bhatti (2023), "How digitalization supports a sustainable business model: A literature review", *Technological Forecasting & Social Change*, vol. 187, pp. 1-16.
- [14] P. Berrone, J. E. Ricart, A. I. Duch, V. Bernardo, J. Salvador, J. Piedra Pena and M. Rodriquez Planas (2019), "EASIER: An Evaluation Model for Public-Private Partnerships Contributing to the Sustainable Developments Goals", *Sustainability*, vol. 11, no. 2339, pp. 1-25.







- [15] J. A. Van Zanten and R. Van Tulder (2021), "Improving companies' impacts on sustainable development: A nexus approach to the SDGs", *Business Strategy and the Environment*, vol. 30, pp. 3703-3720.
- [16] K. Sullivan, S. Thomas and M. Rosano (2018), "Using the industrial ecology and strategic management concepts to pursue the Sustainable Development Goals", *Journal of Cleaner Production*, vol. 174, pp. 237-246.
- [17] S. Pizzi, F. Rosati and A. Venturelli (2020), "The determinant of the business contribution of 2030 Agenda: Introducing the SDG Reporting Score". *Business Strategy and the Environment*, vol. 30, pp. 404-421.
- [18] Hristov and A. Chirico (2019), "The Role of Sustainability Key Performance Indicators (KPIs) in implementing Sustainable Strategies", *Sustainability*, vol. 11, no. 5742, pp. 1-19.
- [19] Hristov, A. Appoloni e A. Chirico (2022), "The adoption of key performance indicators to integrate sustainability in the business strategy: a novel five-dimensional framework", Business Strategy and the Environment, pp. 1-15.
- [20] OIBR Foundation (2023), "Integrare gli SDGs nella misurazione delle performance".