

SUSTAINABILITY REPORTING - A NEW CHALLENGE FOR FINANCIAL ANALYSTS AND AUDITORS IN ENVIRONMENTAL INVESTMENT MANAGEMENT

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ABSTRACT: Themes related to the sustainability of financial, human and natural capital are currently social issues and too complex to be the subject of research based on testing causal relationships between a few measurable variables. International governmental bodies (UN) and the Organization for Economic Cooperation and Development (OECD) or non-governmental organizations (International Sustainability Standards Board - ISSB, International Federation of Accountants - IFAC, Global Reporting Initiative - GRI, etc.), aware of the dangers affecting the world, seeks to suggest tools that can guide social change, including civilization. Against the background of recurring social and environmental problems, European institutions are committed to promoting sustainable development that meets the needs of current and future generations, creating new opportunities for work, investment and economic growth. These commitments are the guiding principles of European economic policies and strategies for investing in sustainable growth, the ecological transition and building services for citizens, Based on the structured analysis of specialized literature and European law, by studying countless scientific works developed by various researchers in the field, as authors of this scientific approach, we focused our attention on: the impact of replacing the expression "non-financial information" with the expression "sustainability information", the relationship between legal norms and the social state, challenges in the activities of financial analysts and auditors in the context of Directive EU/2022/2464 [7] Reporting on sustainability and Regulation EU/2020/852 [4], regarding. establishing a framework to facilitate sustainable investment. At the same time, I developed a practical study in which sustainable investments were determined, analyzed and evaluated from the environmental point of view, at a company listed on the Bucharest Stock Exchange.

KEYWORDS: sustainability, sustainable investment, financial analysts and auditors, sustainability reporting, green transactions, ESG, CSR.

JEL Classification: M41, M42, M48, Q56.

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1. INTRODUCTION

Currently, sustainability reporting is one of the most important topics discussed by researchers and specialists. It aims to provide a set of non-financial information, including corporate participation in ESG (Environmental, Social and Governance), which relates to environmental, social and corporate governance issues. Despite the breadth of ESG issues (such as correct identification, measurement and presentation), there is also an interesting attempt to link sustainability reporting with financial reporting, i.e. to examine the financial implications of ESG activities. With the appearance of Directive 2014/95/EU on non-financial reporting, with local transposition by the Romanian Ministry of Finance, through O.M.F.P. no. 1802/2014 [35] and O.M.F.P. no. 2844/2016 [34], entities with more than 500 employees are required to assess the impact on the environment, social aspects and the way they treat employees and create a document focusing on efforts to respect human rights, eliminate corruption, bribery and ensure diversity in the boards of the entity (in terms of age, gender, competitive and professional background).

Publishing non-financial information is indeed an important part of managing the transition to a sustainable global economy that combines long-term benefits with social justice and environmental protection. In this context, the presentation of non-financial information helps to measure, monitor and manage the entity's performance and its impact on society. The European Parliament therefore invited the Commission to submit a legislative proposal on the publication of non-financial information by entities, allowing a high level of flexibility in action to take into account the multidimensional nature of entities/corporate social responsibility (CSR) and the diversity of CSR policies applied by them. The approach was associated with a sufficient



level of comparability to meet the needs of investors and other stakeholders, as well as the need to provide consumers with easy access to information on the impact of entities on society.

But, in addition to all this, nowadays, information is becoming an essential resource in the development of modern societies, evolved in political, economic and social terms. Information creates a foundation for action and decision, ultimately leading to economic well-being and sustainability. In our opinion, as the authors of this scientific approach, regardless of the approach, sustainable/sustainable development must simultaneously ensure economic development, social well-being and environmental protection. In an integrative vision, sustainable development and sustainable information are nothing more than necessary interventions to ensure the well-being of future generations, a multidimensional and constantly evolving concept.

With the emergence of the European Green Deal, there is a need to find unified criteria for reporting activities that can be considered environmentally sustainable, criteria that ensure increased efficiency and consistency in the classification of these activities ("taxonomy") and the limitation the risk of ecological misinformation, article 8 of the Taxonomy Regulation 852/2020 [15], which requires large financial and non-financial entities to provide information to investors about the environmental performance of their assets and economic activities. The overall objective of this delegated act is to increase market transparency. The intention is to provide information to financial market players so that they can design financial products and portfolios based on data provided by financial and non-financial entities.

In other words, after the emergence of the European Green Pact, there was a need to develop harmonized reporting standards for economic activities considered ecologically sustainable, standards that would ensure greater transparency and consistency in the classification of these activities and limit the risk of ecological misinformation. Therefore, in June 2020 it appeared Regulation EU/2020/852, which applies to financial statements issued from 1 January 2022 for the previous financial year (2021). In Figure no. 1, the environmental objectives pursued through the implementation of this Regulation are presented schematically.

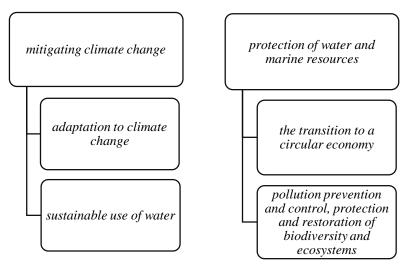


Figure no.1.: The environmental objectives specified in the regulation *Source:* authors' projection, based on information from Regulation EU/2020/852.

In order to demonstrate that business activities are environmentally sustainable, it is necessary to analyze business activities from this perspective. Under these conditions, this regulation requires companies applying Directive 2014/95/EU on non-financial reporting to include in their non-financial statement or consolidated non-financial statement also information on how and to what extent the entity's activities are related to sustainable activities from the point of view economic, in addition to the previously mentioned aspects according to Regulation EU/2020/852.

When preparing non-financial statements, entities must consider several key climate performance indicators, such as the percentage of turnover generated by products or services related to the economic activity certified as environmentally sustainable in accordance with regulatory requirements, the percentage of capital expenditure, the percentage of operating expenditure related to assets or processes related to economic activities certified as environmentally sustainable. To prepare this report, entities must analyze their turnover, tangible and intangible assets and operating expenses in relation to eligible activities according to the taxonomy and determine the proportion of activities considered sustainable among the financial components.



This approach involves identifying the entity's activities according to the classification referred to in the taxonomy (mainly based on the CAEN Code), verifying whether they qualify from the point of view of the taxonomy dealing with regulation, verifying whether these activities meet the technical criteria contained in taxonomy, their substantial contribution to one or more environmental objectives, respectively, and the absence of significant damage to an environmental objective. All these processes must respect human rights and be carried out according to minimum guarantees. When setting technical standards, entities pursuing the environmental objective of mitigating climate change must take into account regulatory requirements, such as a significant contribution to stabilization by avoiding or reducing greenhouse gas emissions or increasing the absorption of greenhouse gases greenhouse gas emissions and alignment with the long-term targets for limiting (global) climate warming set out in the Paris Agreement. These environmental objectives must be interpreted in accordance with relevant European Union legislation, including Directive 2009/31/EC of the European Parliament and of the Council [10].

So far, this taxonomy has only been developed for a part of the six environmental objectives specified in the regulation. The regulation does not contain changes related to the audit of financial statements that already benefit from the requirements included in non-financial reporting. These requirements will change with the adoption of a new directive on corporate sustainability reporting. The requirements of this regulation were replaced at the local level by Order 1239/October 2021 promulgated on October 22, 2021 [32], applicable from January 1, 2022. In this context, commercial entities should inform themselves about the new requirements contained in the regulation and be prepared to collect the necessary information for the presentation of indicators in their non-financial reports, also corroborated with the requirements of Directive 2022/2464 /EU on corporate sustainability reporting/Corporate Sustainability Reporting Directive (CSRD) which will amend the Non-Financial Reporting Directive (NFRD), starting from financial year 2024.

Regulation EU/2020/852 on laying the foundations for the promotion of sustainable investments, represents the regulation on "taxonomy" which is part of a series of actions aimed at achieving the three aspects of the action plan (Figure no. 2):

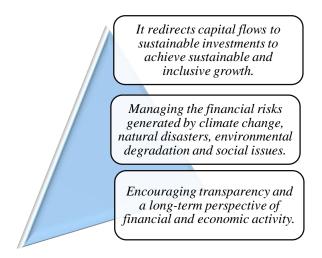


Figure no. 2.: The three aspects regarding the promotion of sustainable investments

Source: authors' projection, based on information from Regulation EU/2020/852.

The purpose of imposing an EU tax (taxonomy) is to improve capital flows for sustainable activities in the EU. If Europe wants to be climate neutral by 2050, it is essential that we give investors the opportunity to redirect their investments towards sustainable technologies and businesses. The taxonomy is a science-based transparency tool for companies and investors. It defines a common language that investors can use when investing in projects and economic activities that have a significant positive impact on the climate and environment. The taxonomy also introduces reporting obligations for financial market entities and participants.

Although the European Union has common climate and environmental objectives, defining the national energy mix is a matter for member states and varies from country to country, some still relying heavily on coal mining, which generates high CO2 emissions (carbon dioxide). The taxonomy helps organize private investors to achieve climate goals and includes energy activities that reflect the different contexts and starting points of Member States. The inclusion of temporary gas and nuclear power activities is part of the overall focus of the EU taxonomy which emphasizes renewable energy. Renewable energy will continue to be at the center of attention of green investors and the creation of green financial products, the European Commission confirms.



Since Romania adopted the environmental acquis, the financing needs of investments in the field of environmental infrastructure are a great challenge from an economic, financial and administrative point of view, especially in the conditions of the global economic-financial crisis. In broad terms, sustainable finance means reorienting and increasing investments that help meet sustainability goals.

Green finance is part of sustainable finance and refers to investments that contribute to the achievement of environmental policy objectives regarding sustainability. Boosting green finance is important because meeting environmental goals is, to a large extent, an investment challenge. Taking into account the scale of environmental, social and governance issues along the investment chain helps direct capital to long-term sustainable activities. It also helps to identify and manage possible systemic risks to financial stability.

2. STRUCTURED REVIEW OF SPECIALTY LITERATURE

Sustainability reporting at the corporate level includes a transparent presentation of all the activities carried out by companies, with an emphasis on the requirements included in the Global Reporting Initiative - GRI (Ortas, Alvarez, Garayar, 2015) [13]. Sustainable development and integrated (sustainability) reporting represent important global trends that cannot be implemented without the support of internal analysts and evaluators, in their capacity as producers of financial information, but also as auditors (James, 2014) [21], The analysis of these categories of information supports the assessment of sustainable sustainability performance (Labuschagne, Brent, and van Erck, 2005) [23]; Visser, 2002) [52], as well as the degree to which social and environmental aspects reported by listed companies are beneficial to all stakeholders in decision making. The implementation of principles regarding sustainable development at the business level has allowed companies to obtain competitive advantages, compared to those that do not apply such principles (Lopez, Garcia, Rodriguez, 2007) [26].

As a conclusion, in business, solutions that ensure maximum economic benefit can only be adopted if the overall economic, social and environmental impact is taken into account (Labuschagne, Brent, van Erck, 2005) [23]; (Hockerts, 1999) [19]; However, given that allocating resources to invest in sustainable development goals involves costs or reallocation of resources, this may have a negative impact on company performance (Lopez, Garcia, and Rodriguez, 2007) [26]; (Orlitzky, Schmidt, and Reynes, 2003) [36].

An entity's contribution to sustainable development can only be valued based on the information presented by companies in their Corporate Social Responsibility (CSR) reports (Lungu et. al, 2011) [27]; Farcaş, 2015) [16]. CSR requires the structuring of business by putting into practice the fundamental elements regarding social responsibility at the corporate level that guarantee that stability between the activities carried out by the company, the environment and society (Fauzi, Svensson, Rahman, 2015) [17].

Directive 2014/95/EU [11]; regarding the provision of non-financial information and various information by certain entities and large groups, was transposed in Romania in the second part of 2016, and the companies concerned have the obligation to provide information regarding the policies, risks and achievements in which they are involved in reports on management activities, information on policies, risks and achievements regarding the environment, employees and other social factors, respect for human rights, the fight against corruption, the diversity of management teams. The stated purpose of this supplemental reporting to financial reporting is to provide all stakeholders with a clearer picture of the company's performance globally. However, sustainable development information is often published on a voluntary basis, with insufficient oversight by independent bodies. But the credibility of sustainability and performance reports ensures the usefulness and relevance of the information to investors and helps establish the company's market value (Lackmann et. al., 2012) [24].

To ensure credibility, Directive 2014/95/EU recommends that such reports be audited to express the auditor's opinion on this type of non-financial information published by eligible companies. In the case of sustainability reports, the indicators used should provide the necessary information on how the company makes its contribution to sustainable development (Perdan and Azapagic, 2000) [38]; (Azapagic, 2004) [1]; (Krajnc and Glavic, 2005a) [22]. However, it should be noted that only some of the sustainability indicators or key performance indicators (KPI) are used to evaluate the development of the sustainability of entities and have an integrated approach, taking into account environmental, economic and social aspects (Singh, Murty, Gupta, and Dikshit, 2009) [46].

The connections between performance indicators and those of sustainable development over time have been studied by many authors (McGuire, Sundgren and Scheneweiss, 1988) [29]; (Preston and O"Bannon, 1997) [39]; (Stanwick and Stanwick, 1998) [50]; (McWilliams and Siegel, 2000) [30]; (Bansal, 2005) [2]. The development of specific methodologies and additional indicators to measure progress and corporate performance in terms of sustainable development is extremely necessary under the given conditions (Krajnc & Glavic, 2005b) [22]. In principle, the indicators used to assess the sustainable development of companies are based on composite indices that can reflect the performance of companies listed on the market (Singh, Murty, Gupta and Dikshit, 2009) [46].

Investments in renewable sources, which are already prioritized in the taxonomy, are of particular importance today.



This is our future. This proposal ensures transparency so that investors know what they are investing in. "Today brings much-needed clarity to the EU's position," said McGuinness, the commissioner responsible for financial services, financial stability and capital markets union. Inclusion of transitional gas and nuclear energy activities, (EU Delegated Regulation/2022/1214, amends EU Delegated Regulations/2021/2139 and EU/2021/2178 [44] it is a part of the whole EU taxonomy that focuses on renewable energies. Renewable energies will continue to be the focus of green investors and the creation of green financial products, the European Commission assures.

3. WORKING HYPOTHESES

European regulations have developed in the last decade and through the introduction of conceptual changes, full of meaning and promoters of new values, which have led to legal innovation. Therefore, the term "non-financial information" used in Accounting Directive EU/2013/34, precisely in its provisions on the publication of non-financial information, introduced in Directive EU/2014/95, is gradually eliminated, to finally retain the expression "sustainability information" from Directive EU/2022/2464. The commitment to review and replace the new directive five years after its application still raises many questions about the reason, content and sector of application of these changes. For this, we propose to review the developments, especially conceptual, axiological and practical, from Directive EU/2022/2464, as well as the elements of a legal nature and their practical innovations, in order to be able to come up with solid arguments during this scientific approach.

Considering the objectives pursued in the present scientific approach, the results presented in the specialized literature and the research opportunities, the following working hypotheses were formulated:

II: The arguments underlying the development of sustainability reporting constitute an essential condition regarding the area of sustainability information for the implementation of European directives but also for the successful transformation of certain professions, including those of financial analysts and auditors. The need to remove the phrase "non-financial information" to eventually retain the phrase "sustainability information" embedded in Sustainability Reporting, is a fundamental component in the development of the Annual Manager's Report and ESG (Environment, Sustainability and Governance) Reporting.

I2: In order to effectively exploit the economic potential of a country, it is necessary to adapt both the legal framework and the policies and strategies to support long-term sustainable institutions, in conjunction with the provisions of the European Green Pact and the relationship between legislation and reality social created by Directive EU/2022/2464 - Reporting on sustainability and Regulation EU/2020/852 on Taxonomy, such as the creation of a framework that promotes sustainable investments and leads to an efficient organization of the management structure, essential for understanding the specific needs of each activity sector.

13: The significant influence of accounting professionals, the professional judgments, interpretations and management models of financial analysts and auditors, as well as the analysis and refinement of management reports, requires extensive technical expertise in which all stakeholders participate. University programs and continuing professional training need to be rethought to enable a global approach to an entity's performance. Performance comes from the financial performance of the entity and transfers to the social performance of its value chain.

14: The activities of the natural gas producer and supplier company "V" are considered unconsolidated at group level with the storage activity without taking into account the results generated by the implementation of financing projects to promote sustainable development, renewable energy and emissions reduced by gases.

4. RESEARCH METHODOLOGY

To achieve the research objectives of the present study, a positivist approach was used [48] which is a logical type model [4], in the first phase by carrying out an analysis of the cash flows generated by the investments over the entire reference period (2020-2025), using the cost-benefit method to determine what are the benefits that can be obtained on the basis of sustainable investments with regard to the environment, after which graphic models were used to analyze and evaluate the results obtained based on several variables, relevant to the present scientific endeavor.

Considering the results shown in the literature on sustainable development, reporting sustainability information, determining, analyzing and evaluating environmentally sustainable investments, *we focused* on a series of general and functional testing and verification studies regarding the financial and sustainability reports of the analyzed company, scientific articles published internationally that penetrated the field. Based on the usefulness of the information on the variables presented in table no. 3, we proposed to use them for: assessing the sustainability/profitability of investments and estimating risk.

Based on the same sample of variables selected for the evaluation of the financial and sustainability information of the entity in question that includes economic, environmental and social information, we want to test the hypotheses of this scientific approach about the information regarding the sustainable development of the company, the profitability of investments and materiality.

For the graphic realization of the materiality matrix, we analyzed the context of sustainable development at the European level for the Oil and Gas sector, the main standards and methodologies established in the set of GRI Standards, the G4 supplement specific to the Oil and Gas sector, as well as the Sustainability Accounting Standards Board-S.A.S.B., as well as articles from the specialized literature, as well as the company's sustainability reports. All of them were the basis of the elaboration of this



scientific approach for the analyzed period. Astel, I discovered a series of non-financial (sustainability) aspects, the most relevant ones being presented.

5. THE IMPACT OF REPLACEMENT OF THE EXPRESSION "NON-FINANCIAL INFORMATION" WITH THE EXPRESSION "SUSTAINABILITY INFORMATION"

Sustainable development has long been at the heart of the European Union project, as its social and environmental themes have already been incorporated into the Union's founding treaties. According to Article 11 of the Treaty on the Functioning of the European Union (TFEU), "Environmental protection requirements are integrated into the definition and implementation of Union policies and actions, in particular with a view to promoting sustainable development" [51]. This Directive EU/ 2022/2464 of December 2022 with reference to sustainability reporting by entities/companies reformed Accounting Directive 2013/34/EU39, more specifically, its provisions on the publication of non-financial information, introduced by Directive 2014/95 / EU [8].

This change presents new requirements to improve the reporting of social and environmental information within entities, to increase the accuracy, probability and relevance of information and to serve as a lever in the transition to the insertion of a more sustainable economy. Shortly after the first application of Directive EU/2014/95, in December 2019, the European Commission expressed its intention to review the provisions of one of the aforementioned reference documents, the European Green Deal. Under these conditions, Directive EU/2022/2464 indicates a break with Directive EU/2014/95, first of all, at the terminological level, by replacing the expression "non-financial information" with "sustainability information". Article 8 of the directive makes the following arguments in favor of this change (argument 8) [9]:

- > the lack of precision of the term, since the adjective "non-financial" would mean "that the information in question has no financial relevance":
- > the current practice of a significant number of entities, initiatives and practitioners that "concern sustainability information":
 - > the increasing relevance of this type of financial information.

Volume: 13 Issue: 05 | September-October-2025,

However, beyond these aspects, another argument could be made for changing the term/expression. First, there is no consensus on the current meaning and academic definition of the term "non-financial information". Very conclusive in this sense is a study by a group of French researchers on the content of publications in reference journals on the subject of non-financial information, carried out between 1980 and 2012 [28]. Following this study, which was based on publications from these journals, several hundred articles containing the term "non-financial" [40], however, only 14 provided a definition of the concept, while 56 did not define it, but developed research or reflections based on themes or examples that were clear and detailed enough to help define them. Other texts address issues related to this concept without providing any definition or concrete examples that could help clarify it" [40].

The 14 definitions, although different in content, indirectly support the idea that the concept of non-financial information refers to information presented outside of financial reports and not from accounting. This approach also reflects the FASB's view that non-financial information is defined as information that is not presented in the basic financial statements, namely the Balance Sheet, Income Statement, Statement of Cash Flows and Notes to the Balance Sheet. The definition proposed by the authors of this study is based on the same logic: "non-financial information covers all quantitative or qualitative information that is provided outside of financial statements, that is not produced by accounting and financial information systems and that does not have a direct and easily measurable link with financial performance" [40]. Directive EU/2014/95 has the same approach, non-financial information contributing, in the spirit of this directive, to the understanding of the evolution of "the activity, the performance, the situation of the enterprise and the impact of its activity, at least in terms of environmental, social and personnel, respect for human rights and the fight against corruption". The information requested in the non-financial statement concerned five priority areas: business model, policies related to the above aspects, results of these policies, risks, non-financial performance indicators [6].

"The vague nature of the term and the perspective of the approach affects the relevance, reliability and comparability of information and therefore the quality of social, environmental and governance reporting, justifying a change in wording. Compared to the term "non-financial information", the term "sustainability information" refers to a clear idea that carries a precise meaning, leading to the idea of "permanence" of things, human and natural systems. Its connection with the current reality and representation in the collective consciousness is a priori easier to perceive, especially in relation to social and environmental emergencies, with the challenges of sustainable development" [28].

Directive EU/2022/2464 is also based on the implicit assumption that information is performative: it creates reality; it changes behaviour. "Saying is doing." Article 1 point 4, para. 3, states that "Large, small and medium-sized entities, with the exception of micro-enterprises, include in the administrator's report information that helps to understand the entity's impact on sustainability issues, as well as the information necessary to understand how sustainability issues affect development, the performance and position of the entity/company". Stating that policy is a commitment, a promise, creates an obligation.



The change in expression is important because of its symbolic effect, as it produces changes in the representation of actors and individuals [18]. But, the statement itself is not performative. Performativity (the realization of discourse predictions) requires a collective commitment involving both those who create "performative utterances" and the audience of these presentations.

Directive EU/2022/2464 makes sustainability information more effective through the meaning, value, content and status of statements. The transition from the expression "non-financial information" to "sustainability information" took place progressively, following the logic of European thinking starting from the general aspects related to the construction of a sustainable and inclusive European market, to realize the proposal of European sustainability, standards with global applicability. This logic corresponds to the microeconomic level of the decision-making process, starting with financial decisions and investment options, up to operating decisions. The changes have necessarily been delivered in a progressive, step-by-step manner, resulting in a development of information and reporting requirements.

Therefore, general policy documents such as the European Green Deal and the Action Plan: financing sustainable growth, which set the objective of achieving climate neutrality by 2050, respectively the transposition of capital flows into sustainable investments, were accompanied in 2019 by the Regulation on reporting in matter of sustainability in the sphere of financial services and, in 2022, the Directive on the publication of information on the sustainability of entities.

This increasing trend is manifested, among other things, in the frequency of the keywords "sustainable" and "sustainability" in European law related to the consideration of environmental, social and governance requirements on the publication of information. Also, gradually expressions including these terms increase their frequency or new expressions appear such as "sustainability factors", "sustainability criteria", "sustainability of the value chain", "sustainability vigilance", with an information load of interest conceptually and empirically major.

5.1. THE RELATIONSHIP BETWEEN LEGAL RULES AND SOCIAL STATE

The relationship between the legal system and the social state in which it operates can be treated under three aspects: law, legality and efficiency. In the spirit of the Enlightenment, "legality" is associated with freedom, reason, and the role of the state in ensuring safety, freedom, and equality among people. European law, where "there is no law in the sense of expressing the will of the sovereign people, European legality is therefore an original legal law, which is explained by the capacity, especially economic and within the institutions in a generic manner of the European Community [47]. European legality "works by observing, controlled by a court, a network, an archipelago of principles" [47].

This is measured by adherence to the underlying principles and values that guide action and adaptation to climate change, as well as to determine whether economic activity significantly undermines other environmental objectives, in terms of legitimacy in general, "with which it conforms, not only laws, but also morality, reason" [47]. Etymologically, legitimacy is "the characteristic of something based on law and/or justice".

Therefore, it only shows what can be proven from the point of view of law/justice or justice, especially human actions, insofar as they take place in a social context that defines effective, acceptable and unacceptable, conforming and non-conforming norms, convenient and inconvenient [25]. Efficacy refers to the effects of a law or right "determined by itself and the manner in which it is enforced" [31], whether or not it is achieved by changing the practices or performances of the actors.

The effectiveness of the law also relates to the effectiveness and efficiency of the regulation, as the effectiveness of the regulation once enacted must be evaluated. The requirement to replace the expression "non-financial information" with "sustainability information" implies a new relationship between legal norms and social realities, both at the level of the representation of the participants and at the modification of their practice and effectiveness. Figure no. 3 shows the foundations of the new legal framework in terms of sustainability.



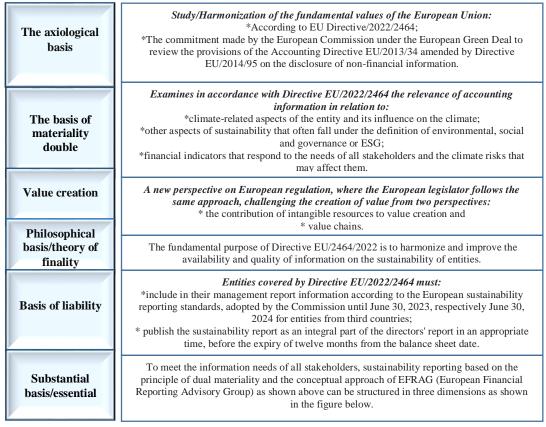


Figure no. 3.: The foundations of the new legal framework in terms of sustainability

Source: Authors' own projection, adapted according to: Directive EU/2022/2464; Maria Niculescu, Alain Burlaud, (2023) Article (Draft)" From non-financial statement to sustainability reporting: new challenges for financial analysts and auditors", https://shs.hal.science > halas-04175087 > file.

Figure no. 4. shows, schematically, the sustainability reporting framework:

DOUBLE MATERIALITY / ACHIEVING THE FINANCIAL GOAL THREE CATEGIRIES

Partial A certain All domains entity Three spheres of activity: Three poses, regarding: Strategies and policies Environment Sociable Integration Performance evaluation

Figure no. 4.: Sustainability reporting framework.

Source: authors projection, adapted from: Exposure Draft ESRS - Presentation, Outreach France, 2 June, 2022 EFRAG, https://www.efrag.org/

This approach assumes the presence of multidimensional information that meets the expectations and needs of various users and an increasingly complex and dynamic reality.

5.2. DETERMINATIONS OF FINANCIAL ANALYSTS AND AUDITORS

Volume: 13 Issue: 05 | September-October-2025,

The accounting profession has evolved over time driven by the financial paradigm, naturally expanding from finance to accounting and financial analysis. Spremann identifies two main financial paradigms that summarize this evolution: the "traditional" paradigm and the "neoclassical" paradigm. According to the traditional paradigm, finance is just a means of



bringing money into the real economy, distributing household and business savings, and expecting a return. In this case, the financial analysis focuses on the efficient management and repayment of the available funds (analysis of the financial structure, analysis of liquidity and solvency, analysis of resources and results, etc.).

The neoclassical paradigm that has dominated economic life since the second half [49] of the 20th century is based on the assumption of an efficient, fully competitive financial market capable of generating equilibrium prices that represented the intrinsic economic value of financial assets. "Finance" is no longer primarily about financing businesses, but about creating wealth for shareholders. Financial analysis pays particular attention to the financial performance of the entity/company, through the perspective of maximizing corporate dividends and market value, respectively, in order to reduce shareholder risk.

Despite the obvious differences between the two paradigms, neither meets contemporary demands and priorities because it ignores the challenges of sustainable development. The theory of sustainable finance is gaining ground, being transposed to the accounting level by the CARE model (Comprehensive Accounting in Respect of Ecology) [41], by expanding the scope of analysis. This model represents a conceptual step forward, suggesting the integration of a new function of capital used for value creation, the preventive function, alongside the traditional exploitative function.

This method is based on the expansion of the traditional accounting system, in accordance with the requirements of sustainability and the approval of the financial reform of sustainable activities. In this context, financial analysts face new determinations, as can be seen in Figure no. 5:

Recognizing the need to change profession

It is not a simple profession, but it is nevertheless facilitated by a series of fundamental notions:

- * basically, all data expressed in the same unit of measure, the monetary unit, which facilitates processing; everything is calculable, measurable, reducible to the same monetary unit;
- *the priority of numbers over literary expression allows a strong standardization of content, increased verifiability, giving a sense of scientificity and therefore of truth;
- *the basic ideology is simple: the function of the company is to maximize its profit, provided it has a positive treasury.

CHANGING FINANCIAL ANALYSIS INTO A SUSTAINABLE TRANSITION TOOL

The set of European legal norms regarding sustainability obliges the accounting profession, in general, and financial analysts, in particular, to include new topics and reference requirements in the field, but also in their professional reasoning:

- *expanding the scope of analysis in accordance with the new reporting requirements, to link sustainability aspects with financial aspects;
- *analysis to include important activities, risks and opportunities due to business relationships with other stakeholders, beyond the scope of financial reporting;
- * the value chain must be the transversal axis of the analysis, becoming indispensable in formulating professional judgments and reducing the gap between traditional financial analysis and sustainability analysis; *traditional analysis oriented towards company results and market value of "production" should be supplemented with analysis of "results" and long-term impact;
 - * includes aspects of access to natural and social resources, sustainability of access and access conditions, opportunities and related risks;
- * analysis of the company's position in the sustainable transition trajectory, according to the requirements of the Taxonomy Regulation;
- * deepening the analysis by activity category: analysis of eligible activities from a taxonomic point of view, analysis of the alignment of eligible activities and analysis of the contribution of the aligned activities to the general activity of the company (based on the analysis of the mentioned indicators, the share of the turnover of the eligible activities, part of the expenses of capital related to the eligible activities and part of the operating expenses related to these activities) was part of the consulting practice of companies and large groups, etc.

REDUCING DIFFICULTIES BY USING RATING AGENCIES

International Journal of Research in Engineering Technology and Management

*financial rating agencies are called upon to objectively and independently assess/measure the risks and degree of repayment of claims or non-payment by an economic entity issuing debt securities or bonds; *informs investors about the risks they are exposed to when granting loans to a commercial company; *the grades assigned are the results obtained based on an unknown algorithm, after a thorough analysis of the economic and financial indicators, they are the result of a collegial decision of the agency's analysts, a model that was also the basis for the creation of ESG rating agencies.

Figure no. 5.: Determinations of financial analysts One company = one grade! [3]

Source: authors own projection, adapted from: Spremann, K. "Old and new financial paradigms". In G. Eilenberger, S. Haghani, A. Kötzle, K. Reding, & K. Spremann (Eds.), Current challenges for corporate finance: A strategic perspective; Rambaud, A. et al., "Mesure et definition d'impacts extra-financiers des investments: retour des théories et pratiques de l'Impact Investing et apports possibles de la comptabilité", Paris, ANC; Burlaud A., Accounting. L'empire des nombres. EMS; Maria Niculescu, Alain Burlaud, (2023) Article (Draft)" From non-financial statement to sustainability reporting: new challenges for financial analysts and auditors", https://shs.hal.science > halas-04175087> file.

Beyond the social challenges that all professionals face, financial analysts also face technical challenges as increased reporting obligations transform the very nature of their work. *The European Green Deal* emphasizes sustainable and inclusive growth which "will require significant public investment and increased efforts to channel private capital towards climate and environmental action" [37]. This allocation of resources relies heavily on the work of financial analysts who can connect entities with investors and guide capital, as "the private sector will be decisive in financing the ecological transition" [37]. By providing such direction to the profession, financial analysts can help focus investment on sustainable operations/activities and gradually transform financial analysis and the financial system as a whole into a tool to support a sustainable transition.

At the same time, management reports, sometimes hundreds of pages long, exceed the level of technicality and complexity of the meanings given to various concepts, accounting, legal and financial skills of almost all investors. This has led to financial rating agencies filling the void and compensating for such difficulties by offering a rating, of a grade, which alone sums up the whole. Rating is a word whose literal translation means "evaluation", denoting, at the same time, a process - risk analysis, as well as its final result - the qualification/score or grade obtained.

One can, of course, criticize the value of these estimates/notes. Their calculation method is a "kitchen secret". Rating agencies are not a model of transparency, but legally they do not want their trade secrets to become public. However, it appears that large groups have become aware of the requirements for their social and environmental responsibility and have contributed to a sharp increase in the amount of capital managed by socially responsible funds. Investors using ratings are better able to predict a bond's performance over time in terms of economic returns and losses. One of the largest rating agencies in France, created in 2002 to promote socially responsible investment (SRI), is Vigeo, which has now become a subsidiary of the American rating agency Moody's.

Determinations for financial auditors. Directive EU/2464/22 on the publication of sustainability information also amends Regulation EU/537/2014 on the statutory audit of public interest entities [43] and Directive EC/2006/43 on the statutory audit of annual and consolidated accounts [12]. An important change relates to the responsibility of auditors to ensure the reliability and therefore the effectiveness of sustainability information.

The change in the title of Chapter 8 of the Accounting Directive from "Audit" to "Audit and assurance of sustainability information" is significant. The experience gained since 1978, when the first statutory audit directive was published, has been fully used to approach statutory audit from a sustainability perspective. This innovation brings new responsibilities and opportunities for financial auditors, as highlighted in Figure no. 6:



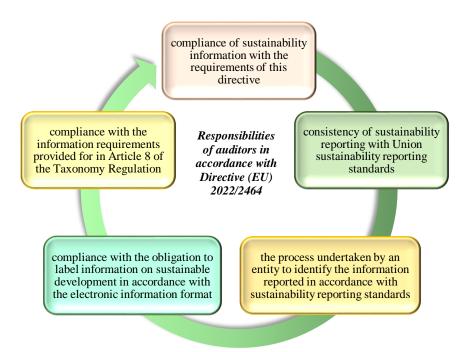


Figure no. 6.: Review of the expansion of the responsibilities and opportunities to develop the skills of financial auditors

Source: authors' own projection, adapted according to: article 34 of the Accounting Directive, the statutory auditor or the audit entity declares an opinion on: (i) the consistency and/or logic of the administrators' relationship with the financial statements; (ii) drawing up the administrators' report in accordance with the applicable legal requirements; Directive EU/2022/2464, art.3 and argument 60; Article 19 bis or Article 29 bis of Directive 2013/34/EU includes in its non-financial statement or consolidated non-financial statement information on the extent to which the entity's activities are related to economic activities that can be assessed as environmentally sustainable in accordance with articles 3 and 9 of this regulation; Maria Niculescu, Alain Burlaud, (2023) Article (Draft) "From non-financial statement to sustainability reporting: new challenges for financial analysts and auditors", https://shs.hal.science > halas-04175087> file.

In accordance with the requirements of Directive EU/2022/2464, statutory auditors and audit firms (authorized to carry out statutory audits) will go beyond their traditional responsibilities [20], to ensure annual sustainability reporting and integration. They must give an opinion on the compliance of the sustainability information with the requirements of the European Union (art.3 and argument 60) [9]. The legislator provides for the gradual establishment of insurance levels by moving from limited insurance to reasonable insurance. This caution stems, at least in part, from the lack of sustainability standards, such as those of the International Federation of Accountants - IFAC, the International Sustainability Standards Board - ISSB or the European Financial Reporting Advisory Group - EFRAG.

In practice, the transition to a reasonable operation of verifying the compliance of the sustainability report with the Union requirements will be possible when the Commission adopts the assurance standards for the reasonable verification of the durability report using the actions delegated to it by 1 October 2028, at the latest (argument 60) [9].

Increasing requirements for professional skills. Whether certifying financial statements or sustainability information, the financial auditor belongs to a regulated profession because it performs a public service function. Therefore, the professional must be accredited by an independent body. It can then audit annual accounts and/or sustainability information. Accreditation requires a systematic/regulated training, the auditor being able to practice only after reaching the university admission level, completing the entire theoretical education program, completing the practical training and passing the professional skills exam. The professional skills exam or the final exam is a challenge and ensures theoretical knowledge of relevant aspects from a sustainability perspective, such as: standards regarding the preparation of annual and consolidated sustainability reports; sustainability analysis; the ongoing due diligence process on sustainability issues; legal requirements and assurance standards for sustainability reporting. The practical training is at least three years, of which at least 2/3 at a professional office. A special possibility is granted to professionals who have been working for at least 15 years or are recognized in another EU country. EU member states are required to establish a quality assurance system for statutory auditors through public oversight, such as ASPAAS in Romania (Authority for Public Supervision of Statutory Audit Activity) or H3C in France (High Audit Committee).



Increasing difficulties in the audit mandate. The financial auditor expresses his opinion on the information prepared and presented in accordance with European standards. The audit report on sustainable development is not an advertising, "greenwashing" or "eco-disinformation" communication document of the entity, but a technical document drawn up according to mandatory and clearly defined technical rules. As in the case of a statutory audit, the financial auditor is obliged to comply with the "rules of ethics, independence, objectivity, confidentiality and professional secrecy". Regarding independence, the directive specifies that "the fees established for the statutory audit and the confirmation of sustainability information" are not determined by and do not depend on the provision of additional services to the audited entity; they are not conditional" (argument 60) [9]. Effective, appropriate and change-inducing sanctions are provided for violations.

The accounting directive entrusts the management bodies (Board of Directors, Supervisory Board,) with the task of ensuring that the financial statements are drawn up in accordance with the legal requirements in the sphere of joint and several liability. Directive EU/2022/2464 intensifies this responsibility for sustainability reporting. As part of the mission towards collective responsibility, the Accounting Directive requires the governing bodies (the Board of Directors, the Supervisory Board,) to ensure that the financial statements are drawn up in accordance with the legal norms.

In addition, if it is a public utility entity, an audit committee must be established. Therefore, the principle of separation of information preparation and control must be observed in both cases [5]. The difficulty of developing and auditing certain complex, multidimensional and multidisciplinary information as described above is clear. Many professions are out of their comfort zone. It will likely take many years to develop a device of such fundamental proportions for humanity.

6. ANALYSIS AND DISCUSSIONS

Determination and analysis of environmentally sustainable investments for a Romanian natural gas producer and supplier company listed on the Bucharest Stock Exchange "V" from Romania listed on the Bucharest Stock Exchange The company producers and suppliers of natural gas is one of the most relevant producers and the main supplier of natural gas in Romania, which has set out to improve the efficiency of its business with the achievement of net zero carbon dioxide emissions by 2050.

At the end of 2023, it records:

- > turnover 13,359,653 thousand lei;
- ➤ value of assets 14,328,059 thousand lei and;

Volume: 13 Issue: 05 | September-October-2025,

> number of employees - 5,627.

The strategy and policies regarding the sustainable development aspects of the "V" company. At the moment one of the main strategic directions of the "V" company provided in the "Development Strategy for the period 2021-2030" and the time horizon of 2050, is to strengthen the position in the energy supply markets and reduce the emissions of carbon, methane and other gases with a minimum of 10%. Through integrated technical, economic and management strategies, the company increases production and indirectly increases the recovery rate of natural gas reserves, depending on profitability, safety, reliability and sustainable development. In the field of electricity production, the "V" company proposed to make its activity more efficient by making investments to increase the efficiency of the Iernut Thermal Power Plant to at least 55%, comply with environmental requirements and increase operational safety. Through the Decarbonization Policy, it aims to develop some renewable energy generation capacities of 180 MW, with the activation of a photovoltaic capacity of 60 MW by the end of 2023 and the feasibility analysis of the perspective of the construction of power plants, based on natural gas, using green energy and hydrogen, under the conditions of ensuring project financing and with the possibility of accessing non-reimbursable funds.

Company "V" annually publishes the Sustainability Report in accordance with the principles and guidelines established by the Global Reporting Initiative reporting standard (GRI 11 Oil and Gas Sector Standard 2021), and with the GRI G4 supplement specific to the Electric Utilities sector, as well as with the requirements of the Order of the Ministry of Public Finances from Romania, no. 1,802/2014 on annual financial statements and which partially transposes the provisions of Directive 2014/95/EU on the presentation of non-financial information and information on diversity.

At the same time, the non-binding Guidelines of the European Commission on the reporting of non-financial information and climate-related information were taken into account. In addition, in the Sustainability Reports of the "V" company group in Romania, information is presented in accordance with the requirements of Regulation 2020/852/EU on the creation of a framework to stimulate sustainable investments (EU Taxonomy), in order to communicate to all interested parties the performance of sustainability achieved and, at the same time, to present the objectives to which the "V" company group is committed and through which it wants to contribute to a better future for current and future generations.

In the first phase, defining the objectives is essential, representing the starting point for the evaluation and which must answer the following question: What are the benefits that can be obtained based on sustainable investments regarding the environment?



The analysis of the pursued objectives consists in: Establishing the variables (indicators that must measure their level of achievement) and the specific objectives of the European Union policies, which can be successfully achieved and can influence the achievement of the pursued objectives through investments. Identifying the investment, defining the objectives (GRI 203-1 Investments in infrastructure and supported services). The investments of the "V" company play a decisive role in reducing the natural decline of production both by discovering new hydrocarbon reserves and improving the current degree of recovery, by rehabilitating, developing and modernizing existing facilities, but also in capitalizing on new growth opportunities and diversification.

Table no. 1 shows, schematically, the proposed investment program for the period 2020 – 2025:

Table no. 1.: The investment program proposed for the period 2020-2025 by the "V" company

Crt. no.	Invesment	2020	2021	2022	2023	2024	2025 (sem.I)	Total of billions oflei
0	X	1	2	3	4	5	6	8
1	Natural gas production	822	619	930	980	1.307	724	5.382
2	Electricity production	208	195	883	1.316	820	239	3.661
3	Diversification- petrochemistry	-	2	350	400	400	23	1.175
4	Associations/partnerships	110	1.834	574	790	1.102	1.065	5.475
*	Total:	1.140	2.650	2.737	3.486	3.629	2.051	15.693

Source: authors' projection, made on the basis of information from the "V" company's Development/Investment Strategy. Figure no. 7 shows the forecasts and developments of the investment program in the reference period:

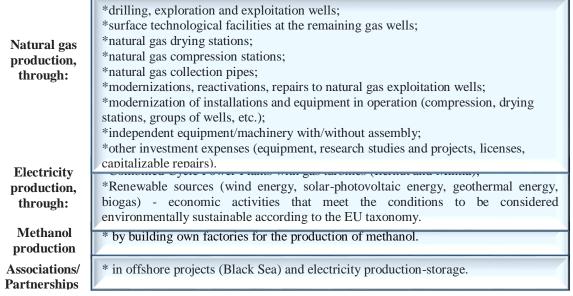
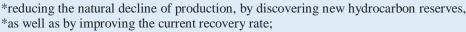


Figure no. 7.: Forecasts and developments of the investment program for the reference period

Sursă: proiecție autori, realizată pe baza informațiilor din Strategia de Dezvoltare/ Investiții Compania "V".



Figure no. 8 shows the benefits predicted to be obtained based on sustainable investments:



- *profitability, development and modernization of existing facilities;
- *identification, capitalization of new opportunities for growth and diversification;
- *continuation of geological research works through new drilling and geological *prospecting for the discovery of new natural gas reserves;
- *developing production potential by providing new capacities on existing structures;
- *improving the performance of facilities and equipment and increasing synergy in operation;
- *increasing the interconnection of energy systems and policies regarding the creation of a decentralized and renewable energy-based future and the elimination of greenhouse emissions.

Figure no. 8.: The benefits that can be obtained based on sustainable investments regarding the environment

Source: authors' own projection, based on information from the "V" Company Development/Investment Strategy.

"Strategy of Development through Investments" of the "V" company, for the period 2020-2025, a firm commitment to sustainable development. Through this strategy, decarbonization is pursued as a priority concern for this "V" company, a fact for which, in the context of global climate changes, the future ambition is to obtain profit through the production and sale of hydrocarbons and electricity, including from sources renewables, under the conditions of efficiency and business development with the reduction of net zero carbon dioxide emissions, until 2050.

"V" Company aims to continuously develop its resource portfolio with a focus on mitigating the impact of climate change, focusing on sustainable hydrocarbons, operational safety and reliability. Electricity and low-carbon energy, with the use of renewable energy sources at scale, while seeking positions in hydrogen and developing a customer portfolio for gases to complement these low-carbon energies, are also directions of growth. action resulting from the defined strategic options. The estimated structure of funding sources is presented in Figure no. 9:

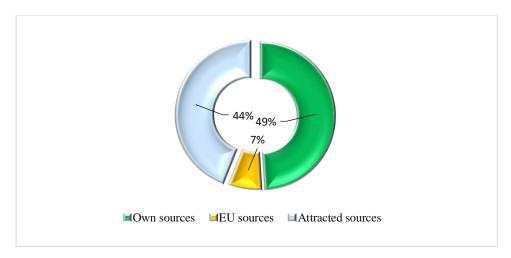


Figure no. 9.: Estimated structure of financing sources

Source: authors' projection, based on information from the "V" company's Development/Investment Strategy.

Figure no. 10 shows the priority investment objectives:

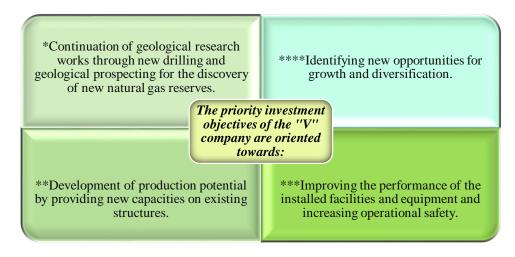


Figure no. 10.: Priority Investment Objectives of Company "V"

Source: authors' projection, based on information from the "V" company's sustainability reports.

In order to determine what are the benefits that can be obtained based on sustainable investments regarding the environment, in the first phase we performed an analysis of the cash flows (Table no. 2) generated by the investment over the entire reference period, based on the cost-benefit, for which net present value (NPV) = 0 for internal rate of return (IRR).

Indicator	Implementati	forecast						
thousands	on period	Period						
of lei		Year 1	Year2	Year3	Year4	Year5	Year6	
Investment	156.930	Realiza	Realiza	Realizat	Prognoza	Prognozat	Prognozat	
		t	t		t			
Income	0	47.845	58.403	176.797	353.594	884.355	1.653.708	
Costs	0	16.082	17.071	72.571	36.126	9.126	5.954	
Cash flow	0	31.763	41.332	104.226	317.468	875.229	1.647.574	
Date for IRR	-156.930	31.763	41.332	104.226	317.468	875.229	1.647.574	
Internal rate				84,26%				
of return								
(IRR)								
Net present				0,00				
value								

Table no. 2.: Cash flow analysis

Source: author's own processing, based on the existing data in the reports published by the "V" company.

The Net Present Value (NVA) represents the value of the cash flows generated by the investment over the entire reference period and also reflects the opportunity cost of capital.

$$NVA = \sum_{n=1}^{t} \frac{cFt}{(1+RIR)t} = -C0 + \frac{cF1}{(1+RIR)1} + \frac{cF2}{(1+RIR)2} + \dots + \frac{cFt}{(1+RIR)n} - C0$$
 (1)

in which:

t - the analyzed period in years;

CF- chas flow, respectively cash flow;

C0 - the value of the initial investment.

Volume: 13 Issue: 05 | September-October-2025,

Applying the above formula, we were able to determine the internal rate of return, respectively the yield/efficiency of the analyzed investment. Considering the fact that the cumulative financial flow is positive for the entire reference period, it can be stated that the investment can be supported from a financial point of view and there will be no risk of recording treasury deficits during the exploitation period.

The IRR value of 84,26% indicates in this analysis that the investments create performance and lead to an increase in the value of the company (Figure no. 11):

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thousands ot

Volume: 13 Issue: 05 | September-October-2025,

lei

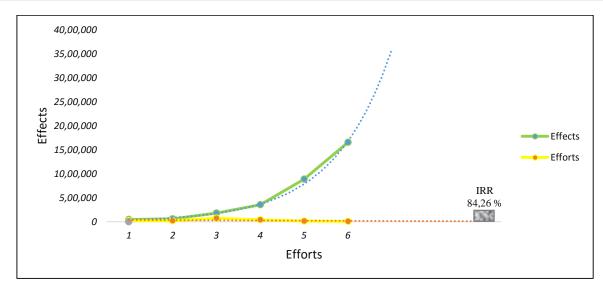


Figure no. 11.: Evolution of the effects in different stages *Source:* authors' projection based on the data processed in table no.2

In figure no. 11, the curves represent different situations in which, for certain efforts, a different result is expected. As can be seen, the economic effects of investments increase as efforts increase. At a certain level of efforts, several variants for the maximum effect are recorded, but with increasingly reduced efforts (see the period 2023-2025). Analyzing the ratio between expenses, respectively income for the period 2021-2023, it can also be observed that at approximately the same level of effort 94,2 in 2021, respectively 106,14 in 2022, and the effects for the same years analyzed are in 2021 of 81,92%, and in 2022 by 122,06%, which indicates that only one of the variants at which the level of effort reaches economic efficiency reaches the maximum level, this being considered the optimal variant.

At the same time, we can observe that starting from 2023 and until 2025, when the investments tend towards the end of the forecasted period, the level of effects is increasingly high, and the level of efforts made is increasingly low, which shows us an increased efficiency, confirmed by the positive result obtained following the analysis of the internal rate of return (IRR) of 84,26% at the end of the period.

As a conclusion, a high economic efficiency is due to a modern technology that has made the most of raw materials and energy, ensuring high quality products at an optimal cost. The efficiency of production and especially of the use of products in the national economy or their valorization on the internal/external market depends, today, not only on the productivity of the work that makes these products, but also on their technical and qualitative level, on the level of material and energy consumption, which represents a decisive parameter of quality and a factor of competitiveness on the market. At the same time, the justification of financial sustainability is carried out through the activities that will be carried out during the entire period of the investment with the help of the infrastructure and the revenues recorded from these activities. In order to achieve an effective assessment of the sustainability of the "V" company, regarding the profitability obtained from the investments already made (period 2021-2023), we agreed to develop an analysis of some variables/indicators, presented in Table no. 3:

Variables	Variable calculation formulas	Result			Remarks
		2021		2023	
			2022		
ROI	ROI = Pbi/VP- Ci/Ci x 100	7,1	6,63	88,18	Performance
		2023	2024	2025	indicator.
		98,78	63,6	66,57	
Mpbi	Mpbi=Ci/Pbi x100	33,61	29,23	41,00	Performance
		2023	2024	2025	indicator.
		10,21	1,03	0,36	
ROA	$ROA = Pn/TA \times 100$	13,47	16,95	17,77	Efficiency indicator.
ROE	$ROE = Pn/CP \times 100$	16,02	21,32	25,27	Profitability/efficienc
					y indicator.
MC -	MC = CA - Cost of goods sold	4.056.27	5.571.33	13.176.0	Profitability
	_		1	1	_

6

Table no. 3.: Analysis of variables and evaluation of investment profitability

7

75

monitoring indicator.



VA -	MC + Pe – EXTERNAL	7.057.40	9.997.23	24.079.0	Performance
thousands ot lei	EXPENSES	3	0	02	indicator.
VAS -	VA/NS x100	124.403,	170.513,	403.265,	Employee
thousands ot		36	9	8	performance/efficienc
lei					y indicator.
Kf	$Kf = Ch.p/VA \times 100$	10,87	7,66	3,51	Performance/efficienc
					y indicator.
Kai	$Kai = Ch.A/VA \times 100$	9,52	6,85	2,28	Efficiency indicator.
CMPC	CMPC = P / V * Cp + D / V * Cd * (1 - Ic)	5,68	8,22	7,71	Risk indicator.
CI - thousands	CI =TD+CP and equivalent	9.694.16	14.890.4	16.354.1	Efficiency indicator.
ot lei	equity investments (invested	2	56	49	
	capital/investment costs) + non-				
	operating chash				
EVA -	$EVA = Pn - (CI \times CMPC)$	697.276	690.992	1.285.80	Performance
thousands ot	CI- Invested capital			7	indicator.
lei					
RC	$RC = Pn/ Sale (CA) \times 100$	30,62	32,71	19,06	Liquidity indicator.
PE	$PE = Re \times (1 - Cb) - Cc \times Ca$	6.049,81	3.784,68	10.849,7	Performance
thousands ot				5	indicator.
lei					
CTFM -	$CTFM = [(Q \times Ob)-Qr]$	979,216	289,021	938,038	Environmental
thousands of	accomplished] x 2 lei/kg				indicator (efficiency
lei; annual					and responsibility).
obligation to					
manage waste					
85%					
Emissions	$Qt = f \times A$	536.866,	406.973,	640.739,	Average indicator
(tons)		18	33	70	(efficient and
Emision factor					responsible).
55.430 g/Gj					

Source: authors' own processing, based on information from the Financial Reports and Sustainability Reports of the "V" company, made public.

Note 1:

*ROI - Annual rate of return on investments; Pbi - Profit/gross investment income; VP - market value (no. of shares x price/share); Ci - investment cost; Mbpi - Gross profit margin on investments; ROA - Rate of return on assets; Pn - Net profit; TA - Total assets; ROE - Return on equity or financial; CP - Equity; MC - Commercial margin; CA - Turnover; VA - added value; Pe - Production of the exercise; VAS - Added value employees; NS - Number of employees; Kf - The contribution of the human factor to the formation of added value; Ch.p. - Personal expenses; Kai - The contribution of immobilized assets to the formation of added value; Ch.A - Depreciation expenses; CMPC - Weighted average cost of capital; P - The market value of the company's equity; $\mathbf{V} - \mathbf{P} + \mathbf{D} = \text{total market value of the company's financing; } \mathbf{D}$ - the market value of the company's debt (equity and liabilities); Cp - Cost of equity; Cd - Cost of debt (total cost of interest incurred / Total debt * 100); (1-Ic) -1profit tax rate; P / V - the percentage of financing that is equity; D / V - the percentage of financing that is debt; CI - Invested Capital; TD- Total debts; EVA - Economic value added; RC -Commercial profitability; PE - Impact on the supply chain; Re - Operating result/gross profit; Cb - Benefit tax coefficient (16%); Cc - Cost of capital (dividends + interest received) Ca capital employed (own capital + long-term liabilities (financial); CTFM - Total contribution to the environmental fund; Q -Amount of waste; Ob - Annual obligation to manage waste %; Qt - Amount of pollutant emitted in tons; f- emission factor is CO2 determined in writing by the economic operator, in agreement with the county environmental protection agency EMEP, US EPA/AP-42 or other methodologies available at the industrial sector level; A - the amount of fuel, raw materials, or the amount of finished products; 1Kg of waste = 0.001 tons 55,430 g/Gj in the case of the analyzed company (The emission factor for CO is 55.430 g/Gj (for burning natural gas) [14].

**The emission factor for CO2 is 55.430 (g/Gj; Gj=gram/Gigajoule - 1KJ = J/1000; 1Kg of waste = 0,001 tons.

Note 2:

Volume: 13 Issue: 05 | September-October-2025,

ROI - The optimal level of the rate of return on the resources consumed is in the range of 9% - 15%; **Mpbi** - A margin between 1% and 15% indicates a stable situation. A margin above 15% can indicate a fluctuating situation that can change quickly. A profit margin below 1% indicates an unstable situation; **ROA** - Efficiency indicator. Practice suggests an optimal reference



range between 3%-9%, with an upward trend; **ROE** - . Reference range 9-15%; **VA** - The optimal level of added value depends on the optimization of supply and production-sales flows. This expresses the level of wealth of the company, which can be expressed by the increase in sales, CA; **Kf** - The average coefficients regarding the degree of performance of employees 3,45%-3,8%, according to some specialists, respectively 3-4,5%, corresponding to the level of the job requirements. 4,5-5% very good, the employee ranks above the job requirements. (Regulation on the evaluation of professional and individual performances); **CMPC**- Represents the average annual rate of return expected by shareholders and creditors, in exchange for their investment, and IRR must be greater than or equal to CMPC; **CI** - The total amount saved by an entity by issuing debt to bondholders and securities to equity shareholders. The investment was made by increasing equity and debt, we can say that the company contributed to the investment of these funds; **EVA** - A value greater than 0 means that shareholders respect the desire to achieve positive results (expected profit), as well as managers, employees and collaborators; **RC** - The reference intervals, the level of inflation in each analyzed year. 2021-3,8%; 2022, -8,2%; 2023-16,4%, end of the year; **PE** - A positive PE therefore corresponds to an enrichment of shareholders, a negative PE corresponds to a destruction of wealth.

Figure no. 12 presents the analysis of the correlations between the return on investments and other indicators, in the period 2021 - 2023.

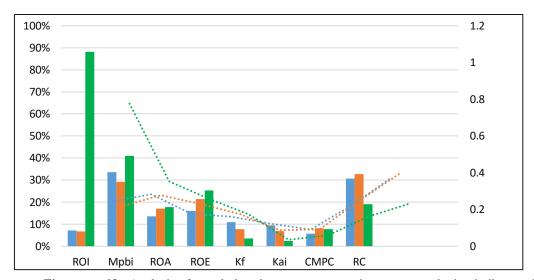


Figure no. 12.: Analysis of correlations between return on investment and other indicators for the period 2021-2023

Source: authors' projection based on the data processed in table no. 3.

The trend lines in Figure no. 12 indicates the level of mobility or variability of the results obtained based on the information processed in table no. 3 Analyzing the variables in table no. 3, we can say that, ROI- Rate of return on investments, for the year 2021 of 7,1%; the year 2022 of 6,63%; the year 2023 of 88,18%, indicates an upward/large trend that contributes both to the increase in the value of the company and to the increase in the interest of investors and entrepreneurs.

At the same time, we can observe a close connection with the indicators: ROE - Return on equity or financial with values between 16,02 - 25,27% which indicate the efficiency of the use of invested capital, and the values of this indicator above the optimal level (9-15%) make us notice that we are facing a small material investment from the shareholders transformed into a high level of high profitability for the period 2021-2023 of 62,64%, which can develop the risk of high debt dependence.

ROA - Rate of return on assets, for the year 2021 13,47%: the year 2022 of 16,95%, the year 2023 of 17,77, reflects the efficiency of production factors, or Mpbi - The rate of gross margin of investments with values of 33,61% in 2022; 29,23%; 2023 41%, but it also draws our attention to the possibility of facing a fluctuating situation, which can change quickly, but also to the degree of use of assets. Analyzing and evaluating the results of the indicator that represents the average annual rate of return expected by shareholders and creditors, in exchange for their investment, with a significant impact on the increase in the return on investments CMPC- The weighted average cost of capital for which in 2021, a percentage of 5 is obtained, 68%, in 2022 a percentage of 8,22%, and in 2023 a percentage of 7,71%, where the RIR (Internal Rate of Return) is higher than the CMPC, which leads us to the conclusion that the entity taken into account study is doing quite well. However, another extremely important link, with particular significance in reaching the level of profitability of investments and not only, has the Kf indicators - The contribution of the human factor to the formation of added value, which is based on the knowledge and competence of employees.



The values obtained in 2021 of 10,87%, in 2022 of 7,66%, respectively 3,51% in 2023, confirm the fact that the employees of the "V" company have a high level of training in the period 2021-2022, and in 2023 the results indicate a decrease in the level of performance but which falls within the level of the job requirements given the fact that the reference range indicates 3% - 4.5%, as well as average performance coefficients for employees, provided for in the Performance Evaluation Regulation professional and individual.

Another indicator with a major impact on the added value of investments is Kai - The contribution of fixed assets to the formation of added value, in 2021 9,52%, in 2022 of 6,85%, respectively in 2023 of 2,28%, shows us that the level of expenses of exploitation is increasingly reduced, which indicates that the company is equipped with cutting-edge technology, registering a high efficiency of the exploitation level, as can be seen from the analysis and evaluation of the indicators in table no. 3.

At the same time, the indicator RC-Commercial profitability (liquidity indicator), shows us a very high level of efficiency of the commercial activity on total activity with a direct impact also on the income from the investments made already expressed in percentages in 2021 of 30,62%, in 2022 of 32,71%, and in 2023 the percentage of 19,06%, shows us a profitability that registers an increase of only 2,66%, compared to the level of inflation at the end of 2023. So, the commercial profitability rate exceeds the inflation rate, the indebtedness effect is positive, a favorable situation for the company.

Note: Return on investment = Profit from investments 2021-2023/Total investment income x 100 (2)

In Figure no. 13 presents the analysis of the results regarding the return on investment based on the forecasted information.

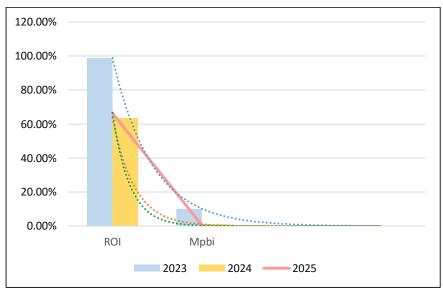


Figure no. 13.: Analysis of investment return results based on forecasted information, for the period 2023-2025

Source: authors' projection based on the data processed in table no. 3.

Trend lines represent exponential growth, growth that is proportional to the value of the forecasted investment for the analyzed time period. Consequently, the variation is increasing compared to the previous period. This expansion could outpace energy production leading to linear growth, i.e. constant growth over time.

According to the forecasted information in table no. 2 and processed based on the variables in table no. 3, ROI- Rate of return on investments, for the years 2023 of 98,78%, 2024 63,6% and 2025 of 66,57%, we indicates a continuous upward/high trend that contributes both to increasing the company's value, developing long-term sustainability, and increasing the interest of investors and entrepreneurs. At the same time, Mpbi - The gross margin rate of investments with values of 10,21% in 2023; 1,03% in 2024, and 0,36% in 2025, for the same forecast period, draws our attention to the fact that we are facing a fluctuating situation, with a decreasing gross margin rate compared to the period 2021- 2023, but stable until the end of 2024, and 2025 indicates a situation of instability, but which can change quickly, also signaled in figure no. 13, by the continuous trend line. Under these conditions, we note that this is an indicator with a short-term impact because it does not show the company's actions to maintain long-term profitability, such as investments.

However, evaluating the ROI - Rate of return on investments, we notice that this indicates a sharp increase for the forecasted period, which positively influences the growth rate of the company's value over the same period, due to the effects over time with the completion of the investments carried out on the basis of the program proposed (table no. 3).

Figure no. 14 shows the analysis of the correlations between several indicators and the return on investments.

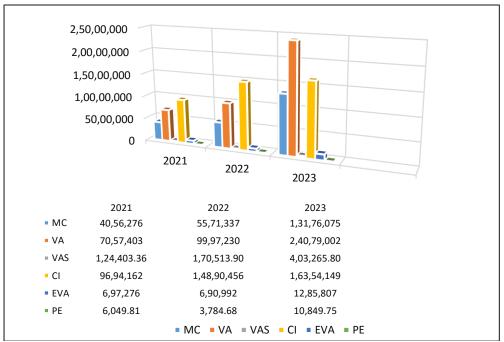


Figure no. 14.: Analysis of the correlations between the indications: MC; VA; VAS; CI; EVA, PE and return/profitability of investments

Source: authors' projection based on the data processed in table no. 3.

In order to overcome certain impediments, the company decided that it must monitor the profitability/profitability of the investments made by also evaluating the results obtained based on the determination of the MC- commercial margin, which is directly related to: ROI, ROA, ROE, RC, VA. Determining the MC, for the period 2021-2023, with a high level of high profitability for the period 2021-2023 only from the investment activity of 62,64% and an average degree of profitability of 97,76% on the total activity carried out by the company we can conclude that the results obtained confirm to us once again the growing value of the company and the growing interest of investors, who particularly follow the professional management, the evolution of the company's profitability, the financial results obtained in the last three years and the reputation of the entrepreneur behind it.

Note: Profitability of the company on total activity 2021-2023, depending on $MC = MC \times 100/CA$ (3)

Correlating the purpose of the company, the stakeholders and the pursuit of value creation, the results desired by them, provides a basis for evaluating success. Thus, VA - positive added value, for the analyzed period, as can be seen in figure no. 14, shows us the company's ability to create profit and is influenced by ROA, which reflects the efficiency of production factors, by ROI - the degree of return on investment, which indicates an upward/high trend thus contributing both to the increase in the value of the company (table no. 3) and the supply process. The optimal level of added value depends on the optimization of supply and production-sales flows. Analyzing the variable PE-impact on the supply chain, in the present case we can see that the obtained values of 6.049,81 thousand lei in 2021, 3.784,68 thousand lei in 2022, respectively 10.849,75 thousand lei in 2023 (figure no. 14), are positive in growth, indicating the level of wealth of the "V" company and, last but not least, the level of shareholder enrichment, expressed by the increase in sales, turnover, of 4.074.893 thousand lei in 2021, 5.852.926 thousand lei in 2022 and 13.359.653 thousand lei in 2023. Also analyzing the report,

$$PE/CA \times 100$$
 (4)

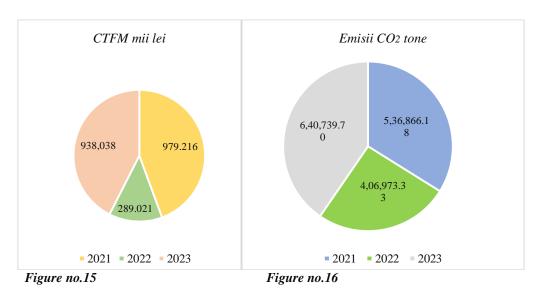
for the same period, we will observe that in 2021 we have an impact on the supply chain of 0,148%, in 2022 of 0,064%, respectively 0,081 in 2023. We can conclude that the supply strategies, the policies and standards applied by the company's management, the performance of the employees, the periodic analyzes on the optimization of the supply chain with the help of market studies, correlated with customer requirements, were the basis for obtaining these results, which show us the level of performance of the "V" company, the professionalism with which it acts to achieve success and a sustainable development on long term. *Following, further, the results of the analysis developed by the authors, for the variables:* VAS;CI; EVA, PE and profitability/profitability of investments, the results were evaluated, concluding the following: VAS - value added per employee recorded positive increasing values, in 2021 of 124.403,36%, in 2022 of 170.513,9%, respectively in 2023 of 403.265,8%, which shows us their performance and skill in creating value, but also the fact that we are not faced with a staff turnover, which



would lead to a reduction in financial profitability; CI - the invested capital, increasing throughout the analyzed period, tells us what is the total amount raised by the company by issuing debt to bond holders and securities to equity shareholders.

As can be seen in figure no. 3. "The forecasted structure of financing sources", an investment of 49% of the forecasted own funds, was achieved by increasing equity and debt, so we can say that the company invested these funds and implicitly contributed to the profitability of the investments already made; EVA - The added economic value of 697.276 thousand lei in 2021, of 690.992 thousand lei in 2022 and 1.285.807 thousand lei in 2023, indicates that the company creates added economic value by having a favorable evolution of the market value and vice versa, influencing the value actions and their performance. A value greater than 0 means that shareholders respect the desire to achieve positive results (expected profit), as well as managers, employees and collaborators, and PE - the positive impact on the supply chain indicates the enrichment of shareholders, significantly influences the added value expected, profitability, profitability, performance, which ensures the company's success/sustainability.

In Figures no. 15 and 16 are presented environmental indicators regarding the management of waste and greenhouse gas emissions.



Figures no. 15; 16.: Analysis of waste management indications and CO2 greenhouse gas emissions

Source: authors' projection based on the data processed in table no. 3.

Considering the fact that in order to determine and analyze sustainable investments from an environmental point of view, we cannot say that the company has achieved its goal and we can declare sustainability without taking into account environmental indicators, more specifically waste management and of greenhouse gas emissions, indicators that in accordance with Regulation EU/2020/852 of the European Parliament and of the Council of June 18, 2020 establishing a framework for facilitating sustainable investments and amending Regulation EU/2019/2088 (Text with relevance to the EEA), cannot be excluded from the present scientific endeavor.

When evaluating the results obtained by analyzing the variables in table no. 3, (figure no. 15) based on the information made public by the "V" company, regarding CTFM - the contribution to the environmental fund for regenerating resources and protecting the environment, reducing pollution, reducing waste generation, more efficient use of resources and efficient supply strategies and CO2 emissions (figure no. 16), associated with the fight against climate change, greenhouse gases [33] we found that the values obtained for the year 2021 of 979,216 thousand lei, for the year 2022 of 289,021 and for the year 2023 of 938,038 thousand lei, taking into account the annual obligation to manage waste of 85%, respectively the values obtained based on the analysis of CO2 emissions of 536.866,18 tons, for 2021, of 406.973,33 tons for 2022 and 640.739,70 tons for 2023, indicates a responsible involvement on the part of managers for the application of appropriate strategies, as well as well-informed employees regarding security measures, for health, the non-existence of personnel fluctuations, obtaining their performance and creating added value.

The greenhouse gas emission intensity of [45] 0,188 t CO2e/to is within the value achieved by the industry in terms of increasing the absorption of greenhouse gases and is in line with the long-term objective of limiting climate warming mentioned in the Agreement of Paris.



Taking into account all other results obtained and presented in table no. 3, regarding the high degree of profitability and profitability, we can observe the perfect connection between the variables, which shows us that the investments, as well as the entire activity at all its levels, prove a long-term and future sustainability, also confirmed by the data presented in table no. 4, regarding the sustainability of investments.

Table no. 4.: Sustainability of investments

X	Total profit	Degree of risk
Investment 156.930	3.017.592	0,0004%
thousand lei		
Profitability level-Period 6	95,05%	very low/ non-existent
years		
Level of profitability-	177.321	0,0003%
Investment 2021-2023		
achieved		
2021-2023	62,64%	very low/ non-existent

Source: authors own processing.

Note: Calculation of investment profitability detection indications for the entire period:

- 1. Profitability of the investment = Profit obtained from total investments/Total income from investments x 100;
- 2. Average investment return risk = Average investment return (6 years, respectively 3 years)/Total investment costs.

6.1. ANALYZE MATERIALITY

Volume: 13 Issue: 05 | September-October-2025,

By performing the materiality analysis, a preliminary step in the present scientific approach, which was also the basis for the preparation of the Sustainability Report of the "V" company for the year 2023, we identified the economic, environmental and social aspects on which it has a significant impact, such as and those aspects that are of particular interest to all stakeholders. Analyzing the context of sustainable development at the European level for the Oil and Gas sector, the main standards and methodologies established in the set of GRI Standards, the G4 supplement specific to the Oil and Gas sector, as well as the Sustainability Accounting Standards Board-S.A.S.B., articles from the specialized literature, as well as the company's sustainability reports, we discovered a series of non-financial aspects that are among the most relevant.

After the rigorous analysis carried out on the mentioned materials and the results obtained throughout the scientific approach, we also developed an analysis of the identification and prioritization of the interested parties, at the company level: in a first stage, we carried out an analysis of the information about the potential parties interested parties, of information regarding the employees within the departments, services, offices where they operate, identifying approximately each relevant interested party; the influence of all stakeholders on society; the impact of society on stakeholders. The results of the prioritization process could be identified based on the results obtained by analyzing the variables in table no. 3 and evaluated in figures no. 12,13,14,15,16, as well as consulting the company's sustainability reports as an integral part of our scientific approach, after which we developed a matrix, based on the results obtained. Following the evaluation of all the results obtained, we have identified a series of non-financial/sustainability aspects (economic, social and environmental) detailing their management, as well as the performance achieved by the company in 2023, as can be seen in the matrix of materiality presented in Figure no. 17.

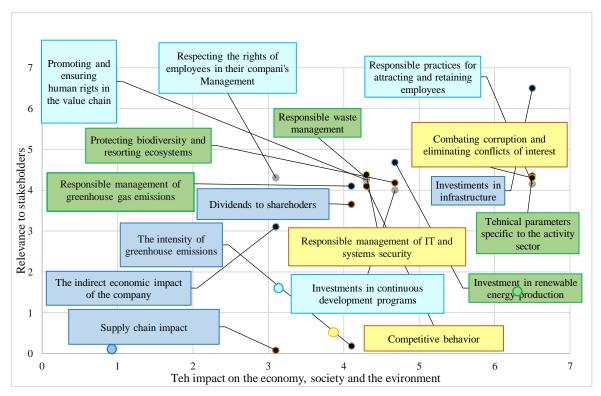


Figure no. 17.: The matrix of materiality

Source: authors' own projection, based on the results processed in this scientific endeavor

Note: Economic performance; Responsibility and ethics in business; Responsibility siciable; Attention to the evironment

CONCLUSIONS:

Volume: 13 Issue: 05 | September-October-2025,

Current sustainability trends are represented by initiatives such as the proposals and standards of the Corporate Sustainability Reporting Directive - CSRD as well as the EU initiatives promoted, respectively, by the European Financial Reporting Consultative Group - EFRAG. European regulations have evolved over the last decade by introducing conceptual changes, incorporating new implications and value factors and generating legal innovations. Therefore, the term "non-financial information" used in Accounting Directive EU/2013/34 has been phased out to finally retain the expression "sustainability information" in Directive EU/2022/2464.

The idea of creating a combination between the financial information contained in the financial reports and the sustainability information, which leads to the development of an integrated sustainability report, which contains economic, environmental and social information, constitutes the fact that entities undertake the identification of risks and opportunities related to of sustainability and climate, followed by the evaluation of their impact on a business model, strategy and financial results in the short, medium and long term. In reality, it is not only about the reporting requirements, but most importantly about the changes and adaptability of the policies and strategies of the business entities. In order to identify and quantify the effects of risks and opportunities related to sustainability and the environment, entities/companies must ensure that they have a complex workflow that involves rigorous work for the development of sustainability reports, especially when we talk about risk quantification.

Finally, it means significant investment, involving expenses, time, human resources and building an integrated reporting system supported by a reporting methodology, policies and procedures. Sustainability information should have a more reasonable cost and harmonize standards to be understood by all stakeholders. However, the shift from "non-financial reporting" to "sustainability" or "ESG reporting" reflects today's corporate practices. More and more businesses are taking an active role in this, integrating sustainability into their business strategies. Sustainability challenges should be seen as business opportunities, not threats.

The main idea is the performativity of the information published by the entities. In other words, the goal of sustainability of the three types of capital: economic, social and environmental can be achieved by informing all interested parties about the impact of sustainability aspects on the subject and the impact of the subject's activities on the environment and society as a whole.



But, with the emergence of the new European directives, we are also faced with an increase in the complexity of the information to be reported, accompanied by a broadening of the scope of the actors who fall under this obligation. Sustainability information is closely related to financial reporting and must be analyzed and audited by authorized professionals to be credible. Another important legal innovation is related to the introduction of the value chain concept, which extends the responsibility of a legal entity (or even a consolidated group) beyond of the activities for which it is directly responsible. Either way, they will have a significant impact on the accounting profession, the professional judgment, and the interpretation and control models of financial analysts and auditors.

Analysis and certification of management reports will require interdisciplinary expertise. So, for example, engineers, physicists, chemists or biologists will be called to the discussion table to determine indicators related to their disciplines to fuel the argumentation, so far predominantly financial. Finally, university programs and continuing professional development will need to be reviewed to ensure a global approach to performance that evolves from the financial performance of the organization to the social outcomes of the organization's value chain. This is a very extensive "ongoing process" covering all countries and all professions. The environment knows no bounds.

In this context, through the mentioned conclusions, we can say that the hypotheses: I1, I2, I3, which refer to the objectives pursued throughout this scientific approach, namely: the impact of replacing the expression "non-financial information" with the expression "sustainability information", such as and the relationship between legal norms and social status, as well as the delimitations in the activities of financial analysts and auditors in the context of Directive EU/2022/2464, have been validated. In order to also validate hypothesis I4, in response to the objective regarding "determining and analyzing sustainable investments from an environmental point of view for Company "V", which was based on the implications of EU Directive 2022/2464 - Reporting on sustainability and Regulation EU/2020/852, we mention the fact that when drawing up the proposed investment program for the period 2020-2025 (table no. 1), multiple economic crises were taken into account, with a multitude of blocked sectors and deeply affected economic exchanges, that there is a degree of uncertainty in the forecasts, as no scenarios are available at the time regarding the evolution of demand and supply.

Under these conditions, the assumptions of the decision-makers who were the basis of the strategies regarding the investment program, especially from the point of view of revenue estimates, with a direct impact on the sources of financing and the proposed investment projects, they begin to maintain the profits and to eliminate possible risks, carefully following the most important economic-financial, social and environmental indicators, without taking into account the impact of aggressive economic crises on them, given the fact that at the international level there is no data with a level of certainty that can be the basis of a forecast.

However, the results of the analysis and the evaluations of the variables that were the basis of this scientific approach, show us that the "V" company is a performing one, registering a level of profitability of 95,05% for the entire forecasted reference period 2020-2025, with a degree of risk of 0,0004%, very low/nonexistent, and for the period 2021-2023, it recorded a profitability of 62,64%, with a degree of risk of 0,0003%, very low/nonexistent (table no. 4), which confirms to us the long-term sustainable development of the company and a future based on policies and strategies with a high degree of professionalism anchored in a competitive environment, responsibility and involvement on all levels: economic, social and environmental, also confirmed by the materiality analysis, represented graphically in figure no. 17.

The implementation of the new directives and the harmonization of standards is not easy. Despite the good intentions of the EU bodies, the transfer of theory into practice can be troublesome, especially with regard to international initiatives. It is worth mentioning here that EU Directives apply to member states with different national jurisdictions and experience in various issues.

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