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# Integrated Reporting: A Template for Energy Companies

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Gülçin Yıldırım, Tuğçe Uzun Kocamış and  
Figen Öker Türüdüoğlu

Additional information is available at the end of the chapter

<http://dx.doi.org/10.5772/intechopen.68921>

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## Abstract

Integrated reporting (IR) is an accelerated corporate reporting approach over the last few years. The idea underlying integrated reporting is to report not only on the company's strategy, management, and financial performance, but also on its social, environmental, and economic impacts. Integrated reporting can also be defined as a holistic report aiming to present annual reports and sustainability reports in a single report, as well as short-, medium-, and long-term goals and strategies of the institution. In the integrated reporting framework prepared by the International Integrated Reporting Council (IIRC), companies aim to make company value measurable and therefore more understandable and comparable by quantifying the environmental and social implications, as well as the financial statements. In this study, firstly the conceptual framework of integrated reporting and the process of extending to integrated reporting, and then the work done in this area in Turkey were given. In the last part of this study, energy companies which are very important in the world trade and which are coming to the agenda due to environmental problems are considered. In this section, integrated reports of seven companies operating in the energy sector and publishing integrated reports are examined. Lastly, it proposes an integrated report template for the Turkish energy sector to contribute to future work.

**Keywords:** integrated reporting, International Integrated Reporting Council, sustainability reporting, energy companies

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## 1. Introduction

Together with the economies growing in parallel with the globalization trends, it is seen that the financial structures of the enterprises changed and the financial transactions increased

in volume and variety. It has become increasingly important that information about business activities is accessible, understandable, reliable, and comparable. The complexity of the business world has led to an increase in requests from companies for information provided in financial performance, management, corporate governance, and sustainability records. Integrated reporting has been developed as a new reporting system in which a firm's strategy, management model, performance, and future expectations can be expressed together in a summarized and understandable way. The purpose of integrated reporting is to ensure that the company's short-, medium-, and long-term future value is expressed by taking into account the company's sustainability results, targets, and expectations, and by linking financial information.

Energy is one of the most important factors in determining the competitiveness of the countries, and the energy sector is an important tool in economic growth. In recent years, energy-environment relation has begun to gain importance in world energy policies. The partnership of these two fields is based on the production of energy for the welfare of the people and the protection of the environment at the same time. In this context, energy companies, in the ever-increasing energy market, are the companies with the highest number of corporations in the world. It is obvious that Turkey cannot stay behind this development.

The interest of the academic and the business world in integrated reporting in Turkey is increasing day by day. Our study summarizes the development process of integrated reporting in the world, including the integrated report proposal for the energy sector where economic and environmental impacts are high.

## 2. Development of corporate reporting

At the beginning of the 1970s, Adam Smith predicted that the corporate report should act and be responsible for the executive board as a "representative" of a broader set of principles than its shareholders, whose focus is more traditionally the narrower "responsibility" perspective. Therefore, the corporate report suggests greater accountability within the legal rights that lenders, employees, customers, suppliers, the local community, and even the public have for published information [1]. Corporate reporting has undergone significant changes over the last century and is being questioned today whether businesses present their current and future performance correctly [2].

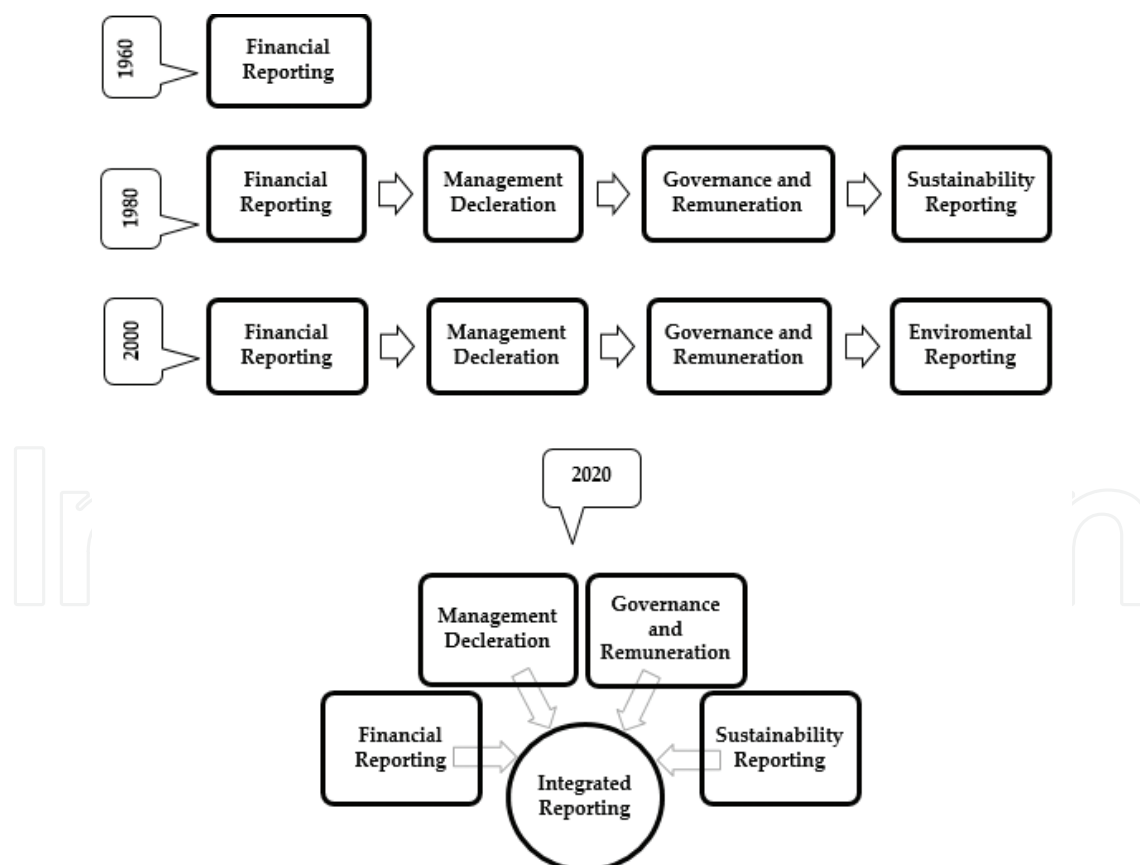
Effective corporate reporting should present a clear strategy and a set of goals for the company based on solid trends and issues, all of the financial risks and opportunities that the company needs to understand and respond to, the sustainability of key stakeholders and relationships that need to be sustained, how the elements of the business model and value chain reflect all, and how they help create environmental and social values [3]. Ideally, reporting should aim to inform the vision and strategy adopted to serve the interests of stakeholders and other factors that may affect future business performance [4].

As seen in **Figure 1**, the corporate reporting process that started with financial reporting has been sustainability reporting in 2000s and eventually integrated reporting. Reporting process is expected to continue with the integrated reporting system.

In summary, when looking at the development of integrated reporting, it is basically possible to mention two cases [6]:

- (1) Traditional financial statements and audit reports prepared by the rule-based mandated by different public authorities.
- (2) Non-financial reports whose publication is not currently enforced by public authorities and which are focused on environmental and social activities. The main ones of these reports, which have many names and formations in themselves, are social responsibility accounting and sustainability reporting.

At this point, it is worthwhile to focus on sustainability reporting, which is the most important step forward for integrated reporting.



Source: Adapted from "IIRC, Towards Integrated Reporting: Communicating Value in the 21st Century"

**Figure 1.** Development of corporate reporting [5]. Source: Adapted from "IIRC, Towards Integrated Reporting: Communicating Value in the 21st Century".

## 2.1. Sustainability reporting

As a result of the contradiction of “profit” and “social responsibility” in the business world, sustainability concept has gained importance [7]. Sustainability has become one of the foundations of today’s business activity. As an integral part of successful financial performance, companies and stakeholders are increasingly interested in sustainable business development. The term “sustainability,” together with various meanings and definitions, may be defined as “Sustainability is the impact of the action on the future usability of the future” [8].

It is possible to describe the sustainability report as a report on the economic, environmental, and social impacts of a company or organization’s activities.

With sustainability reporting, organizations can measure their economic, environmental, social, and managerial performance and share with information users. In this way, they can set more realistic goals and manage changes more effectively. The sustainability report is the main platform for communicating the positive or negative effects of sustainability performance.

Sustainability reporting is becoming increasingly popular. This can be explained in part by technical developments and the widespread use of the Internet, and as a result, any information about any company can be freely accessed [9]. These developments worry shareholders more about the company’s behavior and force businesses to actively participate in the sustainable business development process. The environmental and social accounting disclosures in the report are extremely informative and vital for the companies of certain industries in Europe. Many companies have begun to integrate social and environmental information into their annual reports, or even to publish sustainability or corporate social responsibility reports on their own [8].

The number of companies reporting sustainability performances around the world is increasing [10]. While some companies have included in the activity reports their steps on sustainability, some of them have opened a separate title on their Internet sites to inform their stakeholders and a significant part of them have prepared a separate “sustainability report.” In order for companies to be able to open, clear, and transparent sustainability reporting, there are different reporting frameworks accepted around the world. These standards are constantly updated in accordance with stakeholder demands and evolving needs [11].

The need to prepare sustainability reports within a specific standard has emerged at the beginning of the 2000s. Thousands of companies in the world are preparing sustainability reporting, and standards are needed to make a comparative analysis and evaluation in a systematic way. In this regard, companies generally prepare sustainability reports according to the Global Reporting Initiative (GRI) or Global Compact (GC) [12].

World-class reporting frameworks are shown in **Table 1**.

GRI is a world-wide organization with a large number of stakeholders who are not profit-minded. Its mission is to develop globally applicable sustainability reporting rules and to disseminate sustainability reporting by making it routine and comparable as financial reporting. The GRI guide provides a framework for reporting on the environmental, economic, and social activities of companies and the results of these activities [14].

Year	Name of reports	Definitions
1997	Global Reporting Initiative (GRI)	It is the widely accepted initiative about comprehensive reporting in the world. It establishes principles and indicators about economic, environmental and social performance.
1999	AA1000 (AccountAbility 1000)	Account Ability's AA1000 Series of Standards are principles-based Standards and Frameworks used by a broad spectrum of organizations – global businesses, private enterprises, governments and civil societies – to demonstrate leadership and performance in accountability, responsibility and sustainability.
2000	UN Global Compact—UNGC	This contract contains principles for companies to adopt, support and implement a range of core values in the areas of human rights, labor standards, environment and anti-corruption in the area of their impact.
2000	Communication on Progress—COP	Every year, the companies that sign the UN Global Compact must sign "The Communication on Progress" (COP). This declaration is based on the implementation of 10 principles.
2000	The OECD Guidelines for Multinational Enterprises	The OECD Guidelines for Multinational Enterprises are recommendations addressed by governments to multinational enterprises operating in or from adhering countries.
2006	IFC Performance Standards	IFC's Sustainability Framework articulates the Corporation's strategic commitment to sustainable development, and is an integral part of IFC's approach to risk management.
2008	Carbon Disclosure Project—CDP	The CDP works to change the way the business world works in order to mitigate climate change and protect natural resources.
2016	Integrated Reporting—IR	Integrated reporting defines the link between the organization's strategy, management and financial performance and the economic, environmental and social factors in the area in which it operates.
2016	ISO 26000	ISO 26000 aims to contribute to the sustainable development of organizations. The standard encourages legislative harmonization as a requirement of social responsibility, and that the foundation fulfills its legal duties as a basic approach.

Source: [13].

**Table 1.** Sustainability frameworks.

## 2.2. Sustainability reporting in Turkey

In 2013, an agreement has been signed between Borsa Istanbul and Ethical Investment Research Services Limited for the calculation of BIST Sustainability Index. Based on the performance of companies in terms of environmental, social, and corporate governance, this index is aimed at increasing the knowledge, understanding, and practices on sustainability issues in Borsa Istanbul companies and also the others throughout Turkey. With the index, companies will



be able to meet corporate sustainability performances both in Turkey and globally. The index will allow investors to distinguish and invest in companies that adopt sustainability and corporate social responsibility principles. The BIST Sustainability Index has been calculated and published since November 4, 2014 [15]. **Table 2** shows the companies in the Bist Index.

1	ADEL	ADEL KALEMCİLİK	23	PETKM	PETKİM
2	AKBNK	AKBANK	24	SAHOL	SABANCI HOLDİNG
3	AKSEN	AKSA ENERJİ	25	SISE	SİSE CAM
4	AEFES	ANADOLU EFES	26	HALKB	T. HALK BANKASI
5	ARCLK	ARÇELİK	27	TSKB	T.S.K.B.
6	ASELS	ASELSAN	28	TATGD	TAT GIDA
7	BRISA	BRİSA	29	TAVHL	TAV HAVALİMANLARI
8	CCOLA	COCA COLA İÇECEK	30	TKFEN	TEKFEN HOLDİNG
9	DOHOL	DOĞAN HOLDİNG	31	TOASO	TOFAS OTO. FAB.
10	DOAS	DOĞUS OTOMOTİV	32	TUPRS	TÜPRAS
11	EREGL	EREĞLİ DEMİR ÇELİK	33	THYAO	TÜRK HAVA YOLLARI
12	FROTO	FORD OTOSAN	34	TTKOM	TÜRK TELEKOM
13	GARAN	GARANTİ BANKASI	35	TTRAK	TÜRK TRAKTÖR
14	GLYHO	GLOBAL YAT. HOLDİNG	36	TCELL	TURKCELL
15	ISCTR	İS BANKASI	37	ULKER	ÜLKER BİSKÜVİ
16	ISGYO	İS GMYO	38	VAKBN	VAKIFLAR BANKASI
17	KCHOL	KOÇ HOLDİNG	39	VESTL	VESTEL
18	KORDS	KORDSA GLOBAL	40	VESBE	VESTEL BEYAZ ESYA
19	MGROS	MİGROS TİCARET	41	YKBNK	YAPI VE KREDİ BANK.
20	NETAS	NETAS TELEKOM.	42	ZOREN	ZORLU ENERJİ
21	OTKAR	OTOKAR			
22	PGSUS	PEGASUS			

**Table 2.** Companies in the Bist Index in November 2016–October 2017.

There are few studies on sustainability reporting in Turkey. The work done by Topçu and Korkmaz in 2015 is about the phases of integrated reporting in order to achieve the present meaning and try to make some differences with other reports such as corporate governance, environment, and sustainability, especially financial reporting [16].

Aracı and Yüksel reviewed the sustainability reports of 15 organizations who were traded in the BIST Sustainability Index between November 2014 and October 2015, and they found the sustainability report of two organizations prepared in accordance with the GRI reporting

principles, eight of these organizations were not prepared in accordance with GRI reporting principles, and four organizations disclose their principles, practices, and activities on sustainability issues to their information users on the Internet site and found that one of the operators included sustainability information in a part of the annual report. They stressed that the use of the GRI G4 reporting principles would be more appropriate for standardization of reporting, transparency, and accountability [17].

Pamukçu and Özdemir examined the sustainability reports of the companies included in Borsa Istanbul Sustainability Index. Among the companies included in the Sustainability Index, they have found that companies have been publishing reports continuously since 2007, and they have come to the conclusion that businesses share their social, environmental, and management performances clearly with their investors as well as financial reporting [18].

Kocamış and Yıldırım examined the corporate portal of sustainability.com which is a communication platform created as a result of the GRI Regional Data Association Agreement. They researched the sustainability applications in Turkey by examining the reports in portal, and they found a total of 136 sustainability reports prepared between 2014 and 2016. One hundred twenty-one of these reports are GRI based [14].

In a study by Gökten on the systematic definition of what the principle view put forward in the framework of integrated reporting implies, a road map has been sought in terms of how the integrated reporting can be done, especially in terms of potential implementers, and it is emphasized that in particular the audit and sustainability reports will be the attachment to the integrated report [19].

### **3. Integrated reporting**

#### **3.1. Definition**

With globalization, the results of operations are followed by many groups called financial statement users; investors, customers, suppliers, stakeholders, employees, financial institutions and public authorities. Investment decisions are based on financial decisions. Although financial statements is indispensable, they are not sufficient to meet the needs of the decision makers. They can not reveal the value created by the enterprises in the rapidly changing market conditions [20]. Today, only looking at financial results; it is not possible to attract the attention of potential investors and raise corporate reputation.

In addition to economic effects, business activities have social and environmental impacts. These effects are not sufficiently included in traditional reporting systems. The incomplete aspects of traditional reporting have been tried to be complemented by activity, corporate governance, social responsibility, and sustainability reports that have gained importance in recent years, but reaching and understanding these reports with different dynamics has created problems for decision makers. As a result of these developments, companies have begun to look for ways to express themselves better and the process has brought the business world to a new reporting framework called "Integrated Reporting." Integrated reporting arises from



the need to link financial with non-financial information so that financial information users can fully understand the corporate performance of a company and conduct risk analysis of the company. The aim of the integrated report is to ensure that the company's short-, medium-, and long-term future value is expressed by taking into account the company's sustainability results, targets, and expectations and linking them with financial information.

At the end of 2009, the International Integrated Reporting Council (IIRC) was established to serve this purpose. The International Integrated Reporting Council is a worldwide coalition of regulators, companies, investors, non-governmental organizations, and financial experts.

The International Integrated Reporting Council defines integrated reporting as: "Integrated Activity Reporting is the process by which a company's strategy communicates its governance structure, its performance and how its objectives create value in the short, medium and long term."

The integrated report is created by adding additional information about the company's strategy, governance structure, and performance to the existing financial reporting structure. The main objective of integrated reporting is to draw a holistic picture of the company [21].

### 3.2. Integrated reporting in the world

The integrated reporting concept was introduced in South Africa in 2009 through the corporate governance report King III. The Johannesburg Stock Exchange adopted King III Principles for all companies traded on the stock exchange [22].

In "Accounting for Sustainability-A4S" on December 17, 2009, under the auspices of Prince Charles, the decision to pass integrated reporting and to establish the International Integrated Reporting Council has been taken [23].

The first integrated reports began to be published in 2010, and the first implementation draft of integrated reports was published in 2011 by the IIRC [5]. In this draft, content and principles of integrated reports are included. The IIRC has launched a pilot program in 2012 involving about 100 companies. With this program, until the end of 2013, it was aimed to create the framework of integrated reporting as a new global standard. Eventually, the framework was published in December 2013 [24].

South Africa is the first country to implement integrated reporting. In South Africa, the Integrated Reporting Board has provided the development of integrated reporting with working groups, such as the King's Committee, led by Professor Mervyn King. In South Africa, publicly traded reports are prepared according to the King III guidelines. While not being another country with a mandatory requirement outside South Africa, it is expected that in the future, there will be an increase in the number of voluntary applications and the number of countries that are compulsory.

Parallel to these developments,

- Companies with more than 500 employees in countries subject to the European Union are required to report transparency, sustainability, human rights, corruption, etc. in their

annual reports. The transition to integrated reporting, where the topics are located, has begun.

- In the United States, a guide to transparency, sustainability issues related to the integrated reporting was prepared according to the Sustainability Accounting Standards Board (SASB) (Mandatory 10-C form).
- IR studies have started in Brazil, Austria, Japan, and New Zealand [25].

The International Integrated Reporting Council is a global coalition of regulators, investors, companies, standard setters, professional accountancy organizations, and non governmental organisations (NGOs). The IIRC is making efforts to raise awareness about creating value as a next step in the development of corporate reporting. The IIRC defines its mission “The IIRC’s mission is to establish integrated reporting and thinking within mainstream business practice as the norm in the public and private sectors” [26]. The IIRC workshops are shared with interested parties at [www.integratedreporting.org](http://www.integratedreporting.org). On the IIRC portal (<http://examples.integratedreporting.org/home>), integrated reports are published worldwide. General information on these reports is provided in **Tables 3** and **4**.

Year	2011	2012	2013	2014	2015	2016	Total
Number of reports	46	32	53	86	59	8	284

**Table 3.** Number of reports published.

Region	Europa	Africa	Asia	South America	Australia	North America	Total
Number of reports	132	81	29	14	14	14	284

**Table 4.** Distribution by region.

### 3.3. Integrated reporting in Turkey

Turkey is still at an early stage in integrated reporting, just like many other countries. Financial reports in Turkey are presented considering the International Financial Reporting Standards for publicly held companies. Sustainability reporting is carried out within the activity reports or as a separate report. Along with the increasing awareness of sustainability reporting, there is a growing interest in integrated reporting.

The sustainability platform established at the Istanbul Stock Exchange places great emphasis on integrated reporting and conducts awareness raising activities. IIRC’s corporate representation in Turkey is conducted by the Corporate Governance Association of Turkey (TKYD) and the Integrated Reporting Working Group formed by the Business World and Sustainable Development Association (SKD Turkey). The working group, which continues its activities to raise awareness in the field of integrated reporting both in the private and public sectors, also carries out activities to improve the framework of reporting [25].

In Turkey, Çimsa Çimento Corporation, and Garanti Bankası Corporation as pilot companies, they carry out integrated reporting studies. The nonprofit Argumental Governance Academy was the first company to publish Turkey's integrated report [27].

### 3.4. Integrated reporting framework

An integrated reporting framework that integrates financial and non-financial information of organizations with a single report and aims to use common standards is a process that needs to be integrated and that enables the company to periodically report and communicate the value it creates over time.

At the core of the integrated reporting conceptual framework lies the extension of the company's reporting to include all the resources that it uses as input to its business activities. The IIRC defines the term "capital" in six chapters, namely financial, production, intellectual, human, social and relationship, and natural resource to illustrate these sources [28]. In addition, the framework requires the definition of the business model of the company. How the business model and the underlying strategies integrate with these six capital elements must be explained in the report. Another issue that IR differs from traditional financial statements is the need for more forward-looking information, taking into account short-, medium-, and long-term rather than reflecting past transactions and events. In this way, key opportunities and risks are identified and valuable information can be given to stakeholders on the company's future survival capability [29].

The purpose of the framework is to provide guidelines and content items that regulate the total content of an integrated report and to explain the underlying concepts underlying them.

#### 3.4.1. Guiding principles

The following guidelines are used as a basis for preparing an integrated report, which provides information on the content of the report and how it is presented:

- **Strategic focus and future orientation:** An integrated report should provide insight into the strategy of the foundation and its ability to create value in the short, medium and long term, and how it relates to the use and interaction of capital elements.
- **Interlinking information:** An integrated report should provide a holistic picture of the combination of factors that affect the value creation ability of the organization over time, their relationship to each other, and their dependencies.
- **Relations with stakeholders:** An integrated report should provide information on the nature and quality of the relationships established by the stakeholders with the stakeholders and show how the stakeholder understands the legitimate needs and desires of the stakeholders.
- **Materiality:** An integrated report should provide information on issues that significantly affect the ability of the organization to create value in the short, medium, and long term.
- **Be short and simple:** An integrated report should be short and concise.
- **Reliability and completeness:** An integrated report should contain all material aspects, both positive and negative, in a way that is balanced and does not contain any material error.

- **Consistency and comparability:** The information in an integrated report should be presented in a way that (a) is based on a consistent basis over time, and (b) allows the organization to compare with other organizations in terms of their ability to create value over time.

### 3.4.2. Content items

There are eight content items in an integrated report that are based on each other and do not mutually exclude each other:

- **Corporate overview and external environment:** What is the business that organization is doing and under what conditions does it operate?
- **Corporate governance:** How does the corporate governance structure of the foundation support the ability to create value in the short, medium, and long term?
- **Business model:** What is the establishment business model?
- **Risks and opportunities:** What are the specific risks and opportunities that affect the ability of the establishment to create value in the short, medium, and long term, and how does the organization address them?
- **Strategy and resource transfer:** What is the goal of the establishment and how is it intended to reach it?
- **Performance:** To what extent has the organization achieved its strategic objectives for the period and how have the results influenced the capital items?
- **Overview:** What are the potential difficulties and uncertainties that may arise when implementing the strategy of the establishment and what are the potential impacts of them in terms of their business model and future performance?
- **Based on the presentation:** How does the organization determine the issues to be included in the integrated report and how are these issues being examined or evaluated?

It is possible to say that the integrated reporting principles are consistent with the Fundamental Concepts and Policies of Accounting and are based on the “fair value” approach which is the basis of international financial reporting standards.

## 4. Examination of integrated reporting application for energy sector

On the basis of ecological economics, nature is not only a passive waste repository and raw material source, but also a manufacturer with its own unique technologies. The ecological economy emphasizes the importance of multidimensional optimization for maximum quality of life in the following dimensions:

- Products and services of nature, environmental conditions
- Social conditions
- Monetized production
- Unmonetized local production (nature or human).

The energy sector that is indispensable in today's world causes many environmental problems in the stages of production, transmission, and consumption. Greenhouse gases and other pollutants are released mostly by energy companies during the energy production, energy consumption, or energy conversion operations. These companies are liable to generate more human-oriented and environmentally sustainable politics while they are maximizing energy supply and consuming energy.

Today, achieving energy which is the basic need is important for economic and social development [30]. The structure of the global energy sector is shaped by environmental factors with the impact of climate change [31]. Energy efficiency policies are one of the areas that need to be addressed sensitively because of the direct relevance of economic growth and social development goals to sustainability, and on the other hand, as a key role in reducing total greenhouse gas emissions.

Fossil fuels (petroleum, natural gas, coal, lignite, asphaltite), hydropower, and nuclear energy, which meet 95% of the world's energy needs, are shown as traditional energy sources of our time. Despite this high utilization rate, because of the limited resources and the negative effects on the environment (fossil fuels, nuclear energy, hydraulics), the use of energy sources that are safer, renewable, and cannot adversely affect the environment and live life became a necessity [32].

Turkey is among the most important energy consumers of the world with its developing economy. In 2014, natural gas Turkey's primary energy demand, which is 123.9 million tons of petroleum equivalent (TPE) (867.3 million barrels), is in the first place with 32.5%, while coal is 29.2%, and petroleum follows them with 28.5% [33].

Within the recent 10-year period, Turkey has emerged as one of the countries with the fastest growing energy demand. After China, Turkey has become the second country with the highest demand to electricity and natural gas. Projections show that Turkey's demand to oil and natural gas will continue to grow in the medium and long term. Due to very limited oil and natural gas reserves, Turkey imported 99% of natural gas mostly from Russia, Iran, and Azerbaijan, and 89 % of oil mostly from Iraq, Iran, and Russia in 2015.

In 2015, Turkey's total energy demand was 264 TWh and met by natural gas 35%, coal 28.5 %, oil 27%, hydro 7%, renewables 2.5% of total demand. According to the official statistics, approximately 25% of total energy demand of Turkey is covered by domestic sources, while 75% is imported from mostly Russia and middle east countries in 2015 [34].

Turkey continues to put intensive efforts on increasing the share of renewable energy sources in the national energy mix and adding nuclear energy to the energy grid, with the aim of reducing energy dependency which is one of the most important issues of many countries.

Issues such as energy saving and efficiency, ensuring energy supply security, reducing risks of external dependence, protecting the environment, and increasing the effectiveness of the challenge against climate change are accepted as the most important components of energy policies [35].

Having important effects on politics and also strategic power, energy industry is in the center of attention throughout the world. With integrated reporting, it is targeted to provide useful information to stakeholders about important issues, including economic, environmental, and social



issues that affect the organization's ability to create value. In accordance with the structure of the issuing organization, the reports can be formatted on the basis of guidelines and content items principles. The expectation of information users is essential when preparing the report.

There is no standard format of integrated reporting [36]. It is expected that the integrated report should contain information that is satisfactory to the reader. These information are on

- Organization,
- Governance,
- Opportunities and risks,
- Strategy and resource allocation,
- Business model, and
- Performance.

In this context, the reports of the seven energy companies in Turkey located on the IIRC's online platform are reviewed [37–43]. The integrated report template highlighting the most important issues in this sector is given below (**Tables 5 and 6**).

In this section of study, it is appropriate to refer to the natural capital elements in the IR framework of the energy companies. In the IR framework, natural capital is defined as all renewable and nonrenewable environmental resources and processes that provide goods or services that support the past, current, or future prosperity of an organization. It includes air, water, land, minerals, forests, fossil fuels, agricultural crops and biodiversity, and the others in the coverage of ecosystem.

Sector	Number of report
Basic materials	40
Consumer goods	33
Consumer services	26
Financial services	67
Healthcare	14
Industrials	37
Professional services	11
Public sector	1
Oil and gas	13
Real estate	7
Technology	5
Telecommunication	9
Utilities	21
<b>Total</b>	<b>284</b>

**Table 5.** Sectoral distribution.



Section name	Definition
Organization	<ul style="list-style-type: none"> <li>- The mission of the company,</li> <li>- Vision,</li> <li>- Ethical values,</li> <li>- Partnership and management structure,</li> <li>- Main activities,</li> <li>- Product services,</li> <li>- Competition structure of the market,</li> <li>- Financial information.</li> </ul>
Governance	<ul style="list-style-type: none"> <li>- Leading staff and management structure of the company,</li> <li>- The expertise and diversity of the managers,</li> <li>- How the institutional culture was created,</li> <li>- Risk management practices.</li> </ul>
Opportunities and risks	<ul style="list-style-type: none"> <li>- Risk factors and uncertainties,</li> <li>- Risk management,</li> <li>- Reduce top risks.</li> </ul>
Strategy and resource allocation	<ul style="list-style-type: none"> <li>- Company strategy,</li> <li>- Company's short, medium and long term strategies,</li> <li>- Resource distribution plans,</li> <li>- Measurement of reaching targets (KPI).</li> </ul>
Business model	<ul style="list-style-type: none"> <li>- Distribution channels,</li> <li>- Innovation policies,</li> <li>- Buildings and other equipment</li> <li>- Human health and safety</li> <li>- Know-how and capabilities</li> <li>- Experience</li> <li>- Relationship with stakeholders (such as organizations, government, society, associations, universities, etc.)</li> </ul>
Performance	<ul style="list-style-type: none"> <li>- Financial sources,</li> <li>- Production source,</li> <li>- Natural capital,</li> <li>- Social and relationship capital,</li> <li>- Intellectual capital,</li> <li>- Human resources</li> </ul>

**Table 6.** Basic presentation topics.

In the integrated reports, natural capital is evaluated as a crucial part of the report which informs the users about what measures are taken to keep the natural resources and which actions are planned to reduce the operations harmful to the environment.

In this study, the reports of seven companies operating in the energy sector [44–50] and publishing integrated reports were examined, and the key performance indicators (KPIs) for the six capital elements under the performance heading were analyzed. KPIs are measurable values that show how effective a company is in achieving its core business objectives. Organizations use KPIs at multiple levels to assess how successful they are in achieving their goals. In this context, IR suggests that quantitative indicators such as KPIs and monetized measures can be extremely useful in explaining how a corporation creates value in an integrated report and how it uses and influences various capital elements. Organizations share the performance of six capital elements by means of their KPIs.

**Table 7** shows the key performance indicators (KPI) offered based on energy sector-specific information in the analyzed reports.

Headings	Performance indicators
Financial capital	Sales volume
	Sales revenues
	Operating profit
	Net working capital
	Earnings per share
	Equity profitability
	Earnings increase
	Cash flow from activities
	Investment expenditure
	Cash flow per unit production
	Unit cost per production
	Activity per unit production
	Debt equity ratio
Productive capital	Production volume
	Counterfeit usage rates
	Investment cost
	Change in productive capacity
	Operational efficiency
	Reserves
	Reserve renewal rate
	Unit shipping costs

Headings	Performance indicators
Natural capital	Renewable energy use
	Renewable energy production (mW)
	Renewable energy capacity (mW)
	Energy consumption (mW)
	Operational oil/gas leaks
	Surface water, underground water and network water consumption
	Source based water supply
	Water resources used
	Quantities of drained and recycled water
	Protected areas
	Strategies developed on biodiversity
	Study areas under biodiversity reliance
	Direct and indirect greenhouse gas emissions
	Other indirect greenhouse gas emissions
	Activities related to greenhouse gas emission reduction
	Ozone drilling emissions information
	Nox, Sox and other air emission types
	Water discharge information
	Total waste volume and disposal methods
	Information on the amount produced or generated water quantities
	Hydrocarbons released to air
	Total waste volume
	Waste drilling studies and improvement strategies
	Import, export and transportation wastes
Social and relationship capital	Settlement areas affected by waste water discharge
	Employee satisfaction
	Customer happiness
	Supplier satisfaction
	Unionality rate
Intellectual capital	Donations and sponsorships
	Cases and compensation
	R & D investments
	Patent applications
	Buying patents

**Table 7.** Performance criteria—basic performance indicators (KPI).

## 5. Conclusion and recommendations

In the future, integrated reporting is likely to take the place of existing institutional reports. It is important for organizations to decide how to present their financial and non-financial information to the attention of information users. It is appropriate to have different sub-headings for different sectors in integrated reporting because of the fact that there are significant sectoral differences as well as the general framework.

Instead of adding directly the activity report prepared by the companies previously or the sustainability report to integrated report, this report should contain the core information prepared in accordance with the content items.

Businesses that have started to prepare a sustainability report are prepared enterprises for the integrated report preparation. By the integration of financial statements and financial indicators in these reports, integrated reports can be easily prepared.

Integrated reporting for businesses that have not prepared corporate governance and sustainability reporting will require intensive work. Reporting efforts will play a role in motivating self-inquiry, knowledge creation, learning, and various internal control mechanisms for these enterprises and will contribute to the development of enterprises. The companies that do not have experience to prepare the activity reports yet, it would be more appropriate to gradually pass to integrated reporting.

There is not yet an audit framework in Europe and the United States also. Various studies are being carried out in this direction. Firstly, an audit framework should be established by regulatory agencies. The next step should be to identify the auditors to evaluate the non-financial information contained in the integrated reports.

As a result, companies which prepare integrated reports are expected to their corporate image by fulfilling their duty of transparency, accountability, and social responsibility.

Integrated reporting should not be considered as just a report, it is a process that informs all interest groups such as employees, investors, customers, suppliers, trade unions, public institutions, and non-governmental organizations for corporate sustainability and therefore helps to transform and develop society. Businesses should be informed and supported to prepare these reports.

## Author details

Gülçin Yıldırım<sup>1</sup>, Tuğçe Uzun Kocamış<sup>2</sup> and Figen Öker Türüdüoğlu<sup>1\*</sup>

\*Address all correspondence to: [figenturuduoglu@gmail.com](mailto:figenturuduoglu@gmail.com)

<sup>1</sup> University of Bahçeşehir, İstanbul, Turkey

<sup>2</sup> University of Istanbul, İstanbul, Turkey

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