

**New Rules Of Business Conduct: An Investigation  
About Sustainability Issues In The Chemical  
Sector**

*İşletme Yönetiminde Yeni Kurallar: Kimya Sektöründe  
Sürdürülebilirlik Konuları Üzerine Bir Araştırma*

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Nisan/April 2009, Cilt/Vol: 11, Sayı/Num: 2, Page: 187-206  
ISSN: 1303-2860, DOI: 10.4026/1303-2860.2009.0107.x

**Makalenin on-line kopyasına erişmek için:**

<http://www.isgucdergi.org/?p=makale&id=360&cilt=11&sayi=2&yil=2009>

**To reach the on-line copy of article:**

<http://www.isguc.org/?p=article&id=360&vol=11&num=2&year=2009>

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**“İşGüç” Endüstri İlişkileri ve İnsan Kaynakları Dergisi**  
**“İşGüç” Industrial Relations and Human Resources Journal**

Nisan/April 2009, Cilt/Vol: 11, Sayı/Num: 2

ISSN: 1303-2860, DOI: 10.4026/1303-2860.2009.0107.x

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# New Rules Of Business Conduct: An Investigation About Sustainability Issues In The Chemical Sector\*

## İşletme Yönetiminde Yeni Kurallar: Kimya Sektöründe Sürdürülebilirlik Konuları Üzerine Bir Araştırma

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### Abstract:

Corporate sustainability is a new and flourishing management paradigm that addresses to the new understandings and policies of company management. The new model suggests attaching equal importance to social, environmental and economic aspects of business operations. The aim of this study is to analyze the web sites of chemical sector companies belonging to Istanbul Stock Market (ISE) to have an insight about their level of sustainability. 20 companies with web sites have been examined via content analysis method. Analyzing the sites, 96 variables were used for eight main titles: (1) Home Page (2) Menu Title (3) Annual Reports (4) Reporting Attributes of the Companies (5) Stand alone Reporting (6) Rewards and Certificates (7) Declared Management Approach , and (8) Various. The findings reveal that 65% of the participated companies have placed "sustainability related information" as an especial item in their site maps. 85% of them have assorted certifications as ISO9001, ISO 14001, and OHSAS18001. The number of the companies which has SA 8000 certificate is only one. Three companies have stand-alone report; one of them uses GRI Performance Indicators and one of them uses Responsible Care Performance Indicators in their reports.

**Key Words:** Corporate sustainability, Sustainability reporting, Chemical sector, Company web sites, Content analysis.

### Özet:

Şirket sürdürülebilirliği yeni ve gelişen bir yönetim paradigmasıdır. Bu paradigma işletme yönetiminde yeni bir bilince ve iş görmenin yeni kurallarına vurgu yapmaktadır. Şirket sürdürülebilirliği, işletme faaliyetlerinde sosyal, çevresel ve ekonomik boyutlara eşit ağırlıkta önem verilmesini önerir. Bu çalışmanın amacı, Türkiye İMKB'de listelenmiş kimya sektörü işletmelerinin web sitelerinde sürdürülebilirliğin izini sürmektir. Web sayfası olan 20 Şirketin web sayfaları "içerik analizi" yöntemi ile incelenmiştir. Web sayfalarının içerik analizinde sekiz boyut üzerinden 96 değişken kullanılmıştır. Bu boyutlar, (1) Ana sayfa, (2) Ana Menü, (3) Faaliyet Raporunda Bölüm, (4) İşletmenin Raporlama Yaklaşımı, (5) Ayrı Rapor, (6) Ödül ve Sertifikalar, (7) Yönetim Yaklaşımı ve (8) Diğer'dir. Araştırma bulgularından bazıları şunlardır: Şirketlerin %65'i "sürdürülebilirlikle ilgili bilgi"yi ana sayfada ayrı bir başlık altında açıklamışlardır. İşletmelerin %85'i ISO9001, ISO 14001 ve OHSAS 18001 gibi sertifikalara sahiptir. Şirketlerden sadece 3 tanesinin ayrı bir sürdürülebilirlik raporu ve bir tanesinin de SA 8000 sertifikası vardır. Bu işletmelerden bir tanesi raporunda GRI Performans Göstergelerini kullanırken bir tanesi de Responsible Care Performans Göstergelerini kullanmıştır. Anahtar Kelimeler: Şirket sürdürülebilirliği, Sürdürülebilirlik raporu, Kimya sektörü, İşletme web siteleri, İçerik analizi.

\* Initial version of this paper is presented in "International Conference on Environment: Survival and Sustainability", 19-24 February 2007, Organized by Near East University of Northern Cyprus.

## 1. Introduction

In traditional management models, the word success used to be defined with the terms as growth and profit since the motto "Maximize your profits!" has always been a domineer view. Theodore Levitt and in later times Milton Friedman were the defenders of this view, and they used to state that the main responsibility of the managements were to get the largest possible magnification and they had to be responsible only for their shareholders (Mc Williams, Siegel and Wright, 2006: 3). Rapidly increasing world population and contaminated nature; accordingly, the worries about outcomes of pollutions have come with some obligations for companies' responsibilities (Altunbaş, 2003-2004: 119). The changes with the understandings and expectations about the responsibilities of the corporations have forced them to care about not only financial and social aspects but also the environmental ones. Since 1972 (Stockholm Conference), the success of corporations have been assessed with those three aspects in an integrated fashion, and the models have progressively been devised. "Sustainable enterprise" approach has been reformed as an alternative to traditional, profit/growth/control oriented models, and it has been everlastingly improved for twenty years by the governments, investors, consumers, company leaders and the activists. Table 1 shows the main differences between the two approaches.

The corporations which adopt the shift of the paradigm make clear commitments to improve the environmental and social performance. Some of them have adopted the "Sustainability" as a goal and some prefer the term "Triple Bottom Line" in their operations (Molnar and Mulvihill, 2003:167). "Corporate Responsibility" and "Sustainable Development" terms are used interchangeably, and they are aspects or elements of a common goal. The common concern of them is attaching equal importance to the social, environmental and economic operati-

**Table 1.** The shift of paradigm

Profit/Growth/Control	Sustainable Enterprise
Profitability	Sustainability
Growth	Balance
Control	Integration
Materials	Information
Labour	Intelligence
Design for style	Design for environment
Technical efficiency	Environmental efficiency
Domination over nature	Harmony with nature

*Source: Clarke and Clegg, 1998: 370.*

ons of business issues and taking those aspects as key elements of long-term achievements (Risk Management, 2002:50).

## 2. The Concept of Corporate Sustainability

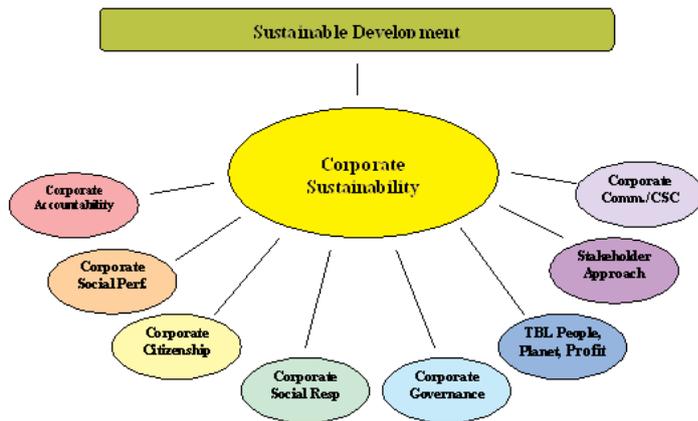
Corporate sustainability is a new and flourishing management paradigm that addresses to a new value system, consciousness, worldview and rules for business acts (Edwards, 2005). Corporate sustainability treats the social and environmental goals as important as economy related ones, such as growth of the corporation and profit raising.

Introduced in the Brundtland Report of the world Commission on Environment and Development in 1987, the concept of "sustainable development" tries to conciliate the forces as economic efficiency, social justice and environmental consciousness as principal values (Signitzer and Prexl, 2008:1). Sustainable development balances three principal requirements: (a) The needs of the society- i.e the social objective; (b) The efficient management of rare resources – i.e the economic objective -; (c) The need to reduce the load on the eco-system in order to maintain the natural basis for life – i.e the environmental objective. (www.cefic.be).

The focus of sustainable development for any business is to ensure that it contributes to a better quality of life today without compromising the life quality of the prospective

generations. If industry is to respond to this challenge, it needs to demonstrate a steady improvement of triple bottom, i.e. economic, social, and environmental performance in new and evolving governance systems. This general concept is known as corporate sustainability (Azapagic, 2003: 303).

**Figure 1.** Corporate sustainability and related terms.

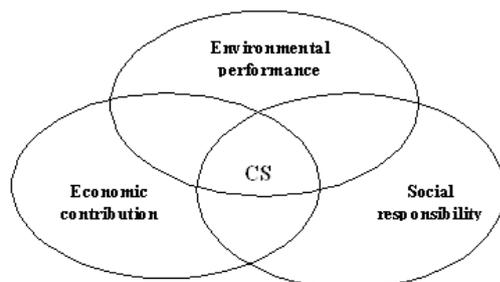


Source: Signitzer and Prexl, 2008: 3.

Source: Signitzer and Prexl, 2008: 3..

Corporate sustainability is cultivated from four concepts: Sustainable Development, Corporate Social Responsibility, Stakeholder Theory and Corporate Accountability Theory (Wilson, 2003). Corporate sustainability is not an “add-on” rather it should be viewed as an “umbrella” term for corporate social responsibility and corporate citizenship but also for other concepts such as corporate social performance, corporate accountability

**Figure 2.** Corporate sustainability (CS) and the triple bottom line.



Source: Azapagic, 2003: 304

lity/triple bottom line, people-planet-profit, corporate governance, stakeholder approach (Azapagic, 2003: 304; Signitzer and Prexl, 2008: 3). In another words, corporate sustainability helps business identify and manage economic, environmental and social risks in an integrated way.

The initial studies on sustainability came mostly about the environment since the connection between the humanity and natural circle used to be taken as the fundamental issue. Considering the environmental issues on international basis and seeking for the solutions were the principal roles of the World Business Council for Sustainable Development (WBCSD). Those roles have been perceived as sustainable development which helps the corporations to lessen their negative effects on natural sources and systems and as a need for amendment of environmental performances (Whiting and Bennett, 2001:9; Nemli, 2000-2001). However, in recent terms, the environmental performances have been taken as an integrated approach consisting social responsibility and economic growth.

### 3. The Chemical Sector and Corporate Sustainability

Viewing the industrial corporations, it can be surely stated that the nature caring applications have been scaled up since 1960's. The movement starting in 1970's with the measurements of air pollution included minimizing toxics and prevention of toxication during manufacturing process in 1980's. In 1990's, the industries which strive for minimizing the amount of toxication by changing the types of their raw materials and productions focused more on stewardship and life cycle analysis (Aktan and Börü, 2006). Throughout this new process, the chemical sector was especially inspected since it was surely accepted that it was the most contaminating one for the nature and its products were not the mostly preferred ones (Hoffman, 1999: 354; Yüksel, 2004: 303). The public opinion

polls made in the USA state that the chemical sector does not have auto control, it does not care the public opinion, it is not liable for protecting the nature, and it does not act responsible for the productions and manufacturing (Rees, 1997). The attitudes toward this sector made it urgent that the chemical sector take more precautions compared to the other sectors. The table on the next page lists the important events affecting the perceptions related to the chemical sector and needs for inserting the sustainability practices (See Table 2).

The negative perception attributed to the whole chemical sector activated the industrial association. With such an industry self-regulation, companies gather to regulate their collective action to avoid a common threat or to provide a common good by establishing a standard code of conduct (King and Lenox, 2000: 698; Clarke and Clegg, 1998: 394). Responsible Care (RC) program was created in 1985 to promote continuous improvement with member companies for environment, health and safety performances to satisfy public concerns and to assist members' introducing their improvements to critical public audiences. "Responsible Care" is the chemical industry's global prog-

ram on voluntary basis for the companies through which their national associations work together to continuously improve their performances related to health, safety and environment, and to communicate with the stakeholders about their products and processes ([www.responsiblecare.org](http://www.responsiblecare.org)).

Sustainability is a concept that has started to become embedded certainly in Europe and in certain Asian countries (ACCA, April 2005; KPMG, 2005). Sustainability is an evolving concept in Turkey, especially for chemical industries. Turkish Chemical Manufacturer Association (TCMA), officially established in 1986, has continuously been striving to provide professional assistance to the Turkish chemical industry along with relevant representation of TCMA in the international arena and to raise the level of scientific and research-based activities for the domestic chemical industry ([www.tksd.org.tr](http://www.tksd.org.tr)).

TCMA intensified its efforts on the environmental issues shortly after becoming a member of CEFIC (Conseil Européen de l'Industrie Chimique / European Chemical Industry Council.) member in 2001. At that time, the most exciting aspect of the CEFIC

**Table 2.** The Institutional History of Chemical Industry Environmentalism

Stage 1 1962-70	Stage 2 1971-82	Stage 3 1983-88	Stage 4 1989-93	Stage 5 1994+
<i>Major Events</i>	<i>Major Events</i>	<i>Major Events</i>	<i>Major Events</i>	<i>Major Events</i>
<ul style="list-style-type: none"> <li>• Publication of Silent Spring, 1962</li> <li>• Fish kills on the Mississippi River, 1963</li> </ul>	<ul style="list-style-type: none"> <li>• Erath Day, 1970</li> <li>• Formation of the EPA, 1970</li> </ul>	<ul style="list-style-type: none"> <li>• Tenure of Ann Burford Gorsuch as administrator of EPA, 1981-83</li> </ul>	<ul style="list-style-type: none"> <li>• Bhopal, India, 1984</li> <li>• Ozone hole discovery, 1985</li> <li>• Toxics Release Inventory, 1987</li> <li>• Montreal Protocol, 1987</li> <li>• United Nations forms climate change panel, 1988</li> <li>• Exxon Valdez spill, 1989</li> <li>• Responsible Care Program, 1990</li> <li>• Earth Summit, 1992</li> </ul>	<ul style="list-style-type: none"> <li>• World Summit on Sustainable Development, 2002</li> <li>• International Council of Chemical Associations ICCA-Dubai Conference 2006 (RC Global Charter, Global Product Strategy, HPV Chemical Initiative, LRI Long Range Research Initiative)</li> </ul>

Source: Adopted from Hoffman, 1999: 359.

membership was the Responsible Care initiative of the world chemical industry, which had already received due attention in most of the developed countries. Responsible Care initiative was more than "just a program". National chemical industry associations are responsible for implementing RC in their own countries. The initiative is, therefore, at different stages of development and has different emphasis in each aspect. Responsible Care initiative is known as "Üçlü Sorumluluk" term in Turkey.

#### **4. Announcement of the Sustainability Efforts to the Public**

World companies have been exposed to increasing pressure to conduct their businesses in a transparent and responsible manner. For greater transparency and better disclosure of accountability, there is a growing demand for public information about the way that companies conduct their businesses in the context of sustainable development (Lenzen, Dey, Murray, 2004:238; Dunphy, 2003:6). Business leaders have recognized its importance, and they know that it has a big impact on their names and reputation. Recently publications, experts and academicians have been discussing about this idea and, how it is being embraced worldwide. Beside its indicators, the way it is reported, reviewed and verified have been discussed.

The web sites of the companies have become increasingly ambitious and elaborative about their operations in terms of information transfer related to environment (Campbell and Beck, 2004: 100). Beside the traditional method of reporting, companies now also use their websites to disclose a broad spectrum of corporate information. Websites not only contain a much broader range of information but also provide for information needs of a broader range of stakeholders. Because of this, websites are important means to inform sustainability related information and reports to stakeholders as well as company information, products, investor relations etc.

Reporting on the websites has some advan-

tages and disadvantages about "visibility and accessibility", "timeliness of data", "ease of use", "additional aspects of reporting", "environmental impacts of publishing" and "quantity of reported data" ([www.sustainabilityreporting.ca/content](http://www.sustainabilityreporting.ca/content)). For example, one of the most important advantages of a website is that information can be distributed to a broader range of stakeholders at a fairly low cost (Matherly, 2005). In addition, by making feedback easier, websites can achieve high response rates; websites can be more interactive and enjoyable to use. For example, companies can use audio and video content, which is not possible in a typically printed report. In today's economy, company websites that contain limited information could be at a competitive disadvantage (Matherly, 2005). However, the users may not be convinced that web-pages and data verifications are up to date (thereby detracting from their credibility). This is related to disadvantages of websites reporting.

Sustainability reporting practices are widely seen as the best practices as companies seek to report and communicate their social and environmental performance as a means of protecting and enhancing their reputation and brands. The other key drivers behind sustainability reporting are attracting talents, supplying chain pressures, getting support and encouragement by regulators, increasing influence of non-governmental organizations, advances in communication technologies and financial markets' interest (ACCA, 2005).

The benefits of sustainable reporting include, (a) an improved risk management way through stakeholder consultation, involvement of employees, sound governance systems and monitoring of performance, (b) more informed decision making as a result of identifying concerns of key stakeholders and developing sound information collecting and reporting processes, (c) the best employees practice ethical and sustainability values, (d) a competitive advantage with customers, suppliers and providers of finance (Adams, 2004; Heemskerk, Pistorio

and Scicluna, 2002: 15; [www.junglerring.nl/ /english](http://www.junglerring.nl/)).

Sustainability reporting is still largely a voluntary practice in many countries as well as in Turkey. However, some countries such as France, Germany and the Nordic countries have mandatory requirements for sustainability reporting (ACCA, April 2005:9).

## 5. Methodology

In this paper, authors decided to analyze the web sites of Chemical sector companies included in the ISE (Istanbul Stock Exchange) in Turkey. The web sites 20 companies' were analyzed because 23 companies are listed in the ISE and 3 of them do not have web sites. Web sites' links are listed in the end notes. The web sites chemical sector companies' were examined by content analysis method. The web sites were examined in September 2006. The data were processed by SPSS.

After reviewing the websites eight dimensions were classified. The websites were examined by looking for all 96 variables over eight dimensions to evaluate web sites' content in terms of how much information they provide about sustainability. Eight dimensions of sustainability issues on Web sites are: (1) Location (Main level, Second level), (2) Menu Title (HSE, Environment, Social etc), (3) Section in Annual Reports, (4) Reporting Attributes of Company, (5) Stand Alone Reporting (Title of report, Key indicators, 3rd party verification etc.), (6) Third Party Certification and Awards, (7) Declared Management Approach, (8) Other (Feed-back, FAQ, Glossary, Presentations, Forum etc.). Corporate Governance Principles Compliance Reports in web sites are excluded. Because authors examined voluntary information about sustainability and sustainability reporting but these Corporate Governance Principles Compliance Reports are mandatory.

After all the web sites of 20 companies are reviewed, sustainability related menu titles, text and files are determined. Authors agreed on eight dimensions and 96 variables coding table. Web sites were independently

coded, differences discussed, and the coding instruments revised and extended until there was believed to be sufficient convergence of views.

## 6. Findings

### 6.1. The Distribution of Sustainability Issues in Companies' Websites

The distribution of sustainability issues in companies' web sites are summarized and details can be seen in Table 3.

- 65% of all companies have placed "sustainability related information" as a separate item in their main navigation.
  - We found that "environment" is the mostly used title in the main navigation. 54% of companies disclose about environmental issues.
  - Besides, the environment "Corporate Social Responsibility (CSR)/Community (31% of companies)" and "Health, Safety and Environment (HSE) (23% of companies)" are placed on the first pages.
- 85% of all companies have placed "sustainability related information" as a separate sub-menu item in their web sites.
  - Principles and Policies, HSE and CSR/Community titles are mostly emphasized subjects by 30%.
  - Environment is secondly emphasized sub-menu item by 24%.
- 70% of all companies have "2005 annual reports" in their web sites. 64% of them have section about sustainability issues in their annual reports.
  - Human Resources/Training and Education is the first in the order by 67%.
  - Occupational Health and Safety is secondly placed by 33% and Environment is the third (22%), and Social Responsibility (22%) follows it.

## 6.2. Certificate and Awards Profile of Chemical Companies Listed in ISE

The certificate and awards profile of companies are summarized and details can be seen in Table 4.

- 85% of all companies have various third party certifications about sustainability.
  - 94% of them have ISO 9001.
  - 59% of them have ISO 14001
  - 41% of them have OHSAS 18001
  - Only one company has SA 8000 certificate.
- 40% of all companies have national and/or international awards about sustainability.

## 6.3. Content of Stand Alone Sustainable Reports

The contents of stand alone sustainability reports are summarized and details can be seen in Table 3.

- 15% of all companies (3 companies) have stand-alone report about sustainability.
  - Two of them use the "Sustainable Development" title, and one company uses "Responsible Care" title.
  - Only one of them uses "GRI Performance Indicators" and one of them uses "Responsible Care Performance Indicators".
  - Three of them are reported in PDF format, but only one of them has "English" version

## 6.4. Reporting Attributes of Companies

The reporting attributes of companies are summarized and details can be seen in Table 4.

- One of the companies that has a stand-alone report about sustainability has been publishing annual sustainable reports re-

gularly since 2002.

- Another one of the companies that have stand alone report about sustainability publishes regularly annual sustainable reports since 2004.
- One of them published one report that covers a three-year period.
- Reports are not subject to external verification, but one of them has assurance about management systems in their stand-alone report.

The findings make it clear that all of the companies that have stand-alone report have third party certificates and awards related to sustainability issues. All of the companies that have stand-alone report make room for sustainability issues both in the main navigation and in sub-topics. Only one of them did not place sustainability information in its annual report.

We investigated that sustainability related information is supported by visual materials like tables, graphs and photos in any level of web sites. However, none of the web site includes FAQ, glossary or on line ordering facilities about sustainability. Even if sustainability issues are accepted as a part of non-financial reporting, quantitative information is rapidly increasing and becoming standards

## 7. Conclusion

The sustainability of the corporations in terms of economic, social and ecologic aspects has been the mostly challenging issue for the corporations since the beginning of this century. It has been emphasized that the corporations which strive for sustainability and capable of having the necessary changes will get vitally important winnings. It is clear that a sustainable world can be afoot with the efforts of all the corporations, citizens, and governments in a collaborated way. (Dunphy, Griffiths and Benn, 2007)

Sustainability ideas are evolving, and they are steadily becoming more complex and

challenging. Producing a sustainable development report is a challenging process that requires top management commitment, clear lines of responsibility and sufficient resources.

Chemical companies have recently initiated sustainability reporting and adopted their own individual understandings. Therefore, there are not standardized reports for them. Moreover, the "one size fits all" approach does not work for sustainable development reporting. Each company will determine its own approach depending on its own situation and needs. However, it does not mean that a common framework is not necessary. Report name can be "environmental report", "social report", "environment, health and safety report", "sustainable development report", "sustainability report" or "triple bottom line report". All these various reporting forms contribute toward sustainable development reporting.

The Responsible Care Codes of Management Practices help companies improve their performances in health, safety and the environment. These flexible and goal oriented codes challenge companies to go beyond what regulations require; cover every aspect of chemical operations and be widely applicable by the supply and distribution chain. Being a member of CEFIC since 2001, TCMA has been conveying all the current developments at international level to its members, along with successful implementation of the "Responsible Care" initiative in Turkey since 1993. Although RC performance indicators are not comprehensive compared to Global Reporting Initiative (GRI) performance indicators, chemical sector companies in the worldwide become pioneers in sustainable reporting according to the KPMG International Survey of Corporate Responsibility Reporting 2005.

Findings of this research are that 65% of all companies have placed "sustainability related information" as a separate item in their main navigation. Environment is the most common title. Beside the environment, Cor-

porate Social Responsibility/Community and HSE are placed on the first page. 85% of all companies have placed sustainability related information as a separate sub-menu item in their web sites. Principles and Policies, HSE and CSR/Community titles are mostly emphasized subjects. 70% of all companies have 2005 annual reports in their web sites. 64% of them have section about sustainability issues in their annual reports. Human Resources/Training and Education is the first in order.

Even if only three companies have stand-alone report about sustainability, chemical sector companies are the first examples of "sustainability reporting" in Turkey. Here, it is essential to underline the importance of the new role of industrial associations. As chemical companies increasingly use their websites to disclose sustainability related information to wide stakeholders, the amount of voluntary disclosure on sustainability will continue to increase.

**Table 3. The Distribution of Sustainability Issues in Companies Websites**

	Company name	First level of home page	Second level of home page	Number of paragraph (If informal information)	Availability of annual report 2005 in web	Section in annual report 2005	Number of paragraphs in annual report
1	Advansa Sasa	<ul style="list-style-type: none"> <li>Health, Safety and Environment (HSE)</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability related</li> <li>HSE related</li> <li>Commitments (Principles&amp; Policies)</li> </ul>	51-60	Not Available	---	---
2	Aksa	<ul style="list-style-type: none"> <li>Environment component</li> <li>CSR/Community</li> <li>Business Excellence</li> </ul>	<ul style="list-style-type: none"> <li>Environment component</li> <li>Sustainability</li> <li>HSE</li> <li>CSR/Community</li> </ul>	41-50	Available	<ul style="list-style-type: none"> <li>Donation and Social Welfare</li> </ul>	6-10
3	Alkim Kimya	<ul style="list-style-type: none"> <li>Environment component</li> </ul>	<ul style="list-style-type: none"> <li>CSR/Community</li> </ul>	1-5	Available	<ul style="list-style-type: none"> <li>Environment</li> </ul>	1-5
4	Aygaz	<ul style="list-style-type: none"> <li>CSR/Community</li> </ul>	<ul style="list-style-type: none"> <li>Environment component</li> <li>Sustainability</li> <li>CSR /Community</li> </ul>	51-60	Available	---	---
5	Brisa	<ul style="list-style-type: none"> <li>Business Excellence</li> </ul>	<ul style="list-style-type: none"> <li>Environment and Occupational Health and Safety</li> </ul>	5-10	Available	---	---
6	ÇBS Boya	---	<ul style="list-style-type: none"> <li>Social component</li> </ul>	11-20	Not Available	---	---
7	Deva Holding	---	---	---	Not Available	---	---
8	Dyo Boya	<ul style="list-style-type: none"> <li>Environment component</li> <li>CSR/Community</li> </ul>	<ul style="list-style-type: none"> <li>CSR/Community</li> </ul>	21-30	Available	<ul style="list-style-type: none"> <li>Social and Cultural Activities</li> <li>Human Resources' Training and Education</li> </ul>	21-30
9	Eczacıbaşı İlaç	<ul style="list-style-type: none"> <li>Environment component</li> </ul>	<ul style="list-style-type: none"> <li>Commitments (Principles&amp; Policies)</li> </ul>	11-20	Available	<ul style="list-style-type: none"> <li>Human Resources' Training and Education</li> </ul>	1-5
10	Ege Gübre	---	---	---	Not Available	---	---
11	Ege Plast	---	---	---	Not Available	---	---
12	Good Year	<ul style="list-style-type: none"> <li>Environment component</li> </ul>	<ul style="list-style-type: none"> <li>Social component</li> <li>Environment</li> </ul>	21-30	Available	---	---
13	Hektaş	<ul style="list-style-type: none"> <li>Environment component</li> </ul>	<ul style="list-style-type: none"> <li>Environment</li> </ul>	11-20	Available	---	---
14	Marshall	---	<ul style="list-style-type: none"> <li>CSR/Community</li> </ul>	101+	Available	<ul style="list-style-type: none"> <li>Human Resources' Training and Education</li> <li>Social Responsibility</li> </ul>	31-40

**Table 3. The Distribution of Sustainability Issues in Companies Websites (Continued)**

	Company name	First level of home page	Second level of home page	Number of paragraph (If informal information)	Availability of annual report 2005 in web	Section in annual report 2005	Number of paragraphs in annual report
15	Petkim Holding	<ul style="list-style-type: none"> <li>Environment component</li> </ul>	<ul style="list-style-type: none"> <li>Environment and Occupational Health and Safety</li> </ul>	11-20	Available	<ul style="list-style-type: none"> <li>Occupational Health and Safety</li> <li>Environment</li> <li>Human Resources' Training and Education</li> </ul>	21-30
16	Petrol Ofisi	---	<ul style="list-style-type: none"> <li>HSE</li> </ul>	41-50	Available	<ul style="list-style-type: none"> <li>Human Resources' Training and Education</li> <li>Social Responsibility</li> </ul>	11-20
17	PİMAŞ	---	<ul style="list-style-type: none"> <li>Social</li> </ul>	1-5	Not Available	---	---
18	Soda Sanayi	<ul style="list-style-type: none"> <li>Health, Safety and Environment (HSE)</li> </ul>	<ul style="list-style-type: none"> <li>Commitments (Principles &amp; Policies)</li> </ul>	101+	Available	<ul style="list-style-type: none"> <li>Occupational Health and Safety</li> <li>Environment</li> </ul>	1-5
19	Turcas Petrol (Shell & Turcas)	<ul style="list-style-type: none"> <li>CSR/Community</li> </ul>	<ul style="list-style-type: none"> <li>HSE</li> <li>Commitments (Principles &amp; Policies)</li> </ul>	21-30	Available	<ul style="list-style-type: none"> <li>Occupational Health and Safety</li> <li>Environment</li> <li>Human Resources' Training and Education</li> </ul>	1-5
20	Tüpraş	<ul style="list-style-type: none"> <li>Health, Safety and Environment (HSE)</li> </ul>	<ul style="list-style-type: none"> <li>HSE</li> </ul>	21-30	Available	<ul style="list-style-type: none"> <li>Human, Community and Environment</li> </ul>	21-30

**Table 4. Certificate and Awards Profile of Chemical Companies Listed in ISE**

	Company name	Chemical, Plastic and Petroleum Sector	IMKB Index 2005	Third party Certification related to sustainability issues	Awards related to sustainability issues	Mentioned management approach and systems within the organization
1	Advansa Sasa	Other	XU 100	ISO 9001	---	---
2	Aksa	Chemical	XU 050	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• ÖKO TEX100</li> <li>• OHSAS 18801</li> <li>• ISO 9001</li> </ul>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Responsible care</li> <li>• TKSD-R&amp;D</li> <li>• TKSD-Community Panel</li> <li>• Energy Savings</li> </ul>	---
3	Alkim Kimya	Chemical	Other	<ul style="list-style-type: none"> <li>• ISO 9001</li> </ul>	---	---
4	Aygaz	Petroleum and coal	XU 100	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• ISM</li> <li>• CE&amp;PI</li> </ul>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Most Successful Company</li> <li>• National Quality Award,</li> </ul>	EFQM Excellence Model
5	Brisa	Rubber products	XU 100	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• ISO 9001</li> <li>• QS 9000</li> </ul>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• National Quality Award</li> <li>• Social Responsibility</li> <li>• European Quality Award</li> </ul>	EFQM Excellence Model
6	ÇBS Boya	Other chemical products	Other	<ul style="list-style-type: none"> <li>• ISO 9001</li> </ul>	---	---
7	Deva Holding	Other chemical products	XU 100	---	---	---
8	Dyo Boya	Other chemical products	Other	<ul style="list-style-type: none"> <li>• ISO 9001</li> </ul>	---	---
9	Eczacıbaşı İlaç	Other chemical products	XU 050	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• ISO 9001</li> </ul>	Environment	Integrated Quality Management System
10	Ege Gübre	Chemical	Other	---	---	---
11	Ege Plast	Plastic	Other	<ul style="list-style-type: none"> <li>• ISO 9001</li> </ul>	---	---
12	Good Year	Rubber products	XU 100	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• EMAS</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• QS 9000</li> </ul>	Environment	---
13	Hektaş	Other chemical products	Other	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• ISO 9001</li> </ul>	Responsible Care	---
14	Marshall	Other chemical products	Other	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• RC Certificate</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• SA8000</li> </ul>	---	---
15	Petkim Holding	Petroleum and coal	U 030	<ul style="list-style-type: none"> <li>• ISO 9001</li> </ul>	Environment, Social Responsibility	Responsible Care Programme

**Table 4. Certificate and Awards Profile of Chemical Companies Listed in ISE (Continued)**

	Company name	Chemical, Plastic and Petroleum Sector	IMKB Index 2005	Third party Certification related to sustainability issues	Awards related to sustainability issues	Mentioned management approach and systems within the organization
16	Petrol Ofisi	Petroleum and coal	XU 030	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> </ul>	---	---
17	PİMAŞ	Plastic	Other	<ul style="list-style-type: none"> <li>• ISO 19001</li> </ul>	---	---
18	Soda Sanayi	Chemical	Other	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• HACCP</li> <li>• GMP</li> </ul>	Responsible Care	Responsible Care Programme
19	Turcas Petrol (Shell&Turcas)	Petroleum and coal	XU 100	---	---	---
20	Tüpraş	Petroleum refinery	XU 030	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> </ul>	---	EFQM Excellence Model

**Table 5. Content of Stand-Alone Sustainable Reports**

Company name	Chemical, Plastic and Petroleum Sector	IMKB Index 2005	Stand Alone Report Title	Key elements of report	Key performance indicators for measuring and reporting	External verification or assurance	Availability of Report in Different Languages	Report's number of pages
Aksa	Chemical	XU 050	Sustainable Development	<ul style="list-style-type: none"> <li>• CEO Statement, Vision and Strategies</li> <li>• Organization profile</li> <li>• Management Systems</li> <li>• Performance (Economic, Environmental and Social) Highlights</li> <li>• Targets</li> </ul>	GRI (Global Reporting Initiatives)	Available (Only on Management Systems)	--	119
Aygaz	Petroleum and coal	XU 100	Sustainable Development	<ul style="list-style-type: none"> <li>• CEO Statement</li> <li>• Organization profile</li> <li>• Energy and LPG Markets</li> <li>• Human Resources</li> <li>• Stakeholder Relations</li> <li>• Environment</li> <li>• Economic Sustainability</li> <li>• Community</li> </ul>	Non defined	Non-available	--	32
Soda Sanayi	Chemical	Other	Responsible Care (2001-2003)	<ul style="list-style-type: none"> <li>• CEO Statement</li> <li>• Organization profile</li> <li>• Health, Safety and Environment Policies</li> <li>• Management Systems</li> <li>• Occupational Health and Safety</li> <li>• Environment Protection</li> <li>• Making Community conscious of Responsible Care</li> <li>• Product Responsibility</li> <li>• Process Safety</li> </ul>	RC (Responsible Care)	Non-available	English	30

Table 6. Reporting Attributes of Companies

Company name	What period of time does the report cover?	Latest Date of the report	Availability of previous years reports in website	Date of the first report	Regularity of Report	Third party Certification related to sustainability issues	Awards related to sustainability issues
Aksa	One year	2005	Yes	2004	Since 2004 regularly	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• ÖKO Tex100</li> <li>• OHSAS 18801</li> <li>• ISO 9001</li> </ul>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Responsible care</li> <li>• TKSD-R&amp;D</li> <li>• TKSD-Community Panel</li> <li>• Energy Savings</li> </ul>
Aygaz	One year	2005	Yes	2002	Since 2002 regularly	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• ISM</li> <li>• CE&amp;PI</li> </ul>	<ul style="list-style-type: none"> <li>• Environment</li> <li>• Most Successful Company</li> <li>• National Quality Award</li> </ul>
Soda Sanayi	Three years	2003	Yes	2003	First report	<ul style="list-style-type: none"> <li>• ISO 14001</li> <li>• OHSAS 18001</li> <li>• ISO 9001</li> <li>• HACCP</li> <li>• GMP</li> </ul>	Responsible Care

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