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About This Report

The first sustainability report published by Tekfen Holding AŞ (Tekfen), presents information about Tekfen’s sustainability priorities and performance. Strategic material issues identified in light of stakeholder values and company strategies provided the framework for this report. Tekfen’s goal is to continue keeping its stakeholders transparently informed on an annual basis about its sustainability vision, targets, and performance.

This report has been prepared in accordance with the GRI Standards: Core option and it presents information supplied by Tekfen Holding, the Tekfen Contracting Group (Tekfen Construction, Tekfen Engineering, Tekfen Manufacturing), the Tekfen Agri-industry Group (Toros Tarım), the Tekfen Real Estate Development Group (Tekfen Real Estate, Tekfen Tourism), and Tekfen Insurance. Although this report covers the period 1 January 2018 to 31 December 2018, it also includes data from previous years so that comparisons may be made.

Data sets other than those pertaining to environmental performance cover Tekfen operations in all countries. In order to ensure compliance with Carbon Disclosure Project (CDP) climate change and water reporting standards, environmental-performance data cover the group’s Turkish operations. Tekfen Tarım is included in the 2018 environmental performance data set.

Please send any opinions and/or suggestions you may have about our sustainability reporting to surdurablebilirlik@tekfen.com.tr.

1 These companies account for about 92% of Tekfen Holding’s consolidated turnover.
Foreword

Esteemed friends of Tekfen:

Our world's natural environment is confronted by an increasingly greater level of damage. Vital natural resources such as soil, water, air, plant and animal life, and biodiversity are all suffering from levels of pollution, depletion, and destruction that surpass systems’ ability to renew themselves by far.

Life on our planet is threatened not just by the destruction of nature and ecosystems but also by rapid population growth and by developed countries’ excessive consumption and wastefulness. Problems like desertification, water stress, climate change, and food security are no longer dreamed-up scenarios: they're realities. While all of us have a responsibility to be aware of and to deal with such threats, a consequence of that awareness is that companies which serve as society's economic engines are especially obliged to behave carefully, respectfully, and responsibly towards our planet and the localities and communities of which they are a part in the conduct of their operations.

Here at Tekfen we have been mindful of and diligent about the sustainability-related issues of ethical behavior, employee welfare, social wellbeing, and environmental health ever since the company’s very first day of life. Working together with Tekfen's other two founding partners, the late Feyyaz Berker and Necati Akçağılılar, we not only championed many professional organizations but also spearheaded countless social, cultural, and environmental initiatives and likewise supported NGOs with similar aims.

Nature and the environment are two fundamental issues to which I have dedicated myself. I have always regarded social responsibility and the principles of sustainability as indispensable elements of my professional career and personal endeavors. Rather than approaching a problem by blaming others or waiting for “government” to “do something”, I've always chosen to ask myself “What can I do?” Efforts that serve the wellbeing of nature however have always been the ones closest to my heart.

Speaking on my own behalf, I believe that people and nature can coexist in peace, that growth can be achieved while also being eco-friendly, and that caring for the natural
world is an important part of doing business. Nor am I alone in this conviction: my partners Berker and Akçağılar believed it too and gave it their own support as well. Here at Tekfen we have always believed in the value of ecology-centered economics— in eco-economics if you will—and we have always conducted our activities so as to be at peace with nature.

It gives me great satisfaction to see that so many of the values that we have upheld as Tekfen ever since the beginning are now being taken up by other companies as well under the heading of what’s being referred to as “sustainability” today. Some of the principles and values that we have always regarded as tenets of our unwritten constitution have been institutionalized as internationally-accepted standards and that is something that has my heartfelt support. So it is with this in mind that I thank everyone who had a hand in the preparation of this Tekfen sustainability report and I offer my best wishes that it will be only the first of many more to come.

Very truly yours,

Ali Nihat Gökyiğit
Founding Partner & Honorary Chairman
A message from the Chairman of the Board of Directors

Valued stakeholders:

Having recently completed a successful operational year, it gives me pleasure to present you with the Tekfen Group’s first sustainability report. Having always adhered to approaches that favor consistent and steady growth over short-term gains and having made such approaches core elements of its business culture throughout its life as a company, Tekfen Holding regards this report as being of particular importance because it documents, in compliance with international standards, its efforts on behalf of sustainability. In this report we submit, for your attention, both the steps that we take to amalgamate the values that are the products of Tekfen’s deep-rooted corporate traditions with internationally-recognized sustainability principles and the progress that we have made in that direction over the last three years.

Critically important issues for society as a whole, the five so-called “megatrends” (Shift in Global Economic Power, Demographic Change, Rapid Urbanization, Rise of Technology, and Climate Change/Resource Scarcity) are especially crucial for businesses. We are currently going through a process in which conventional business approaches have become so incapable of dealing with these huge onslaughts that change is inevitable. Just as companies must reconsider their ways of doing business and their objectives, they must also make their operations compatible with the needs of a sustainable future and must strive to integrate the opportunities thrown up by changing conditions into their own business models.

As Tekfen we seek to be a role model for dealing with such issues by bringing our many years of continued business-line leadership into the domain of sustainability as well. Our goal is to manage the impact of those five megatrends on our business processes within the framework of our sustainability strategies.

At the Tekfen Holding Company level we have set up a sustainability committee and a sustainability coordinator’s office whose multidimensional and broadly-inclusive efforts throughout the year provide the basis for our sustainability strategy.

When formulating that strategy we have sought the benefit of shared wisdom. A materiality analysis that we carried out with the active involvement of Tekfen Group
companies provided us with much in the way of guidance. Through an analysis that was enriched by the views of our internal and external stakeholders, we identified the areas in which we are strong and in which we need to improve and also what our priorities should be. With this information, we were able to create a roadmap for moving forward.

In its most straightforward form, our sustainability approach may be summed up in our “Bridging Prosperity” motto, which draws attention to the contributions we make to meeting the needs of people in different parts of the world for food, shelter, and basic services, which is to say our contributions to social wellbeing through our operations in fertilizers, contractor services, and real estate development. In that sense, as Tekfen we contribute to societies’ socioeconomic development and help them achieve affluence.

While striving to increase social wellbeing in general, our efforts are also guided by the United Nations’ Sustainable Development Goals, which focus on such matters as the relationship between industry and infrastructure, sustainable cities, human rights, sustainable approaches to production and consumption, and combatting climate change.

The core elements of all approaches to sustainable development consist of protecting our planet, eradicating poverty at every level throughout the world, and good health and wellbeing for everyone. For our own part, we respond to the call for universal action by seeking to minimize the environmental impact of our operations, making the most efficient use of natural resources, putting our employees’ health and safety ahead of every other priority, and engaging in social responsibility projects that give some of what we have gained from society back to society.

The path on which we have embarked is one which has no end and which requires us to constantly renew ourselves in our unremitting efforts to press on ahead and do more. I therefore take this opportunity in Tekfen’s first sustainability report to thank our employees and all of our other stakeholders for accompanying us on this journey and for giving us their help and support.

Very truly yours,

Murat Gigin
Chairman, Tekfen Holding Board of Directors
A message from the Group Companies President

Esteemed Tekfen stakeholders:

Continuing to grow and recording a turnover amounting to TL 12,147 million in 2018, the Tekfen Group is mindful not only of creating value for its shareholders but also of contributing to the wellbeing of society. Tekfen companies seek to erect their operations on a sustainable foundation that is focused on more than just material gain.

Aware that social progress will also create business opportunities for companies, Tekfen positions itself as a bridge by means of which such progress can be made in keeping with its “Bridging Prosperity” vision. Tekfen contributes to economic and social development through its operations in the business lines in which it is active. In the course of its 62 years of life, Tekfen has grown from a small venture of three partners into a corporate group whose shares are traded in the Istanbul stock exchange’s BIST 30 Index and which enjoys international recognition. While doing so, Tekfen has also regarded contributing to the general welfare of those on which it has an impact as an important means of supporting social progress. It is for this reason that Tekfen always regards it as its responsibility to support the employees, suppliers, contractors, local communities, farmers, and all other stakeholders who make up its value-creation chain.

Tekfen Holding today consists of 43 subsidiary and 11 associate companies, the majority of which are the leaders of their respective business lines. Besides the economic value and employment that it creates, the Tekfen Group earns about USD 1,440 million in hard currency for the Turkish economy every year. In addition to its own operations, Tekfen also makes significant contributions to local economies by employing workforces of which up to 70% are recruited locally and by working with about 12 thousand suppliers, some 93% of which are also local businesses.

Climate change, seen as one of the most serious problems confronting the world today, exposes the Tekfen Group’s core operations in agri-industry, contracting services, and real estate to serious risks. For this reason Tekfen regards combatting climate change as one of its strategic priorities and it engages in meaningful efforts to do this. As a participant in the Carbon Disclosure Project’s Climate Change Program,
the Tekfen Group reported the greenhouse gas emissions of its Turkish operations for the first time in 2017. That report earned the group a place in the CDP “B” list and ranked it among the top three most successful entrants in the industrial concerns category. Giving even more attention to addressing climate change and energy efficiency issues beginning in 2017, the Tekfen Group made significant progress by reducing its Scope 1 and Scope 2 greenhouse gas emission density per USD of turnover by up to 50% over the following two years.

As part of its own natural resource management efforts, in 2018 Tekfen Holding also published its first CDP Water Security report, in which it declared how it assesses water risks; stated what its water-related risks, opportunities, and, commitments are; and disclosed its performance indicators. This report qualified the group for inclusion in the CDP Water Program’s “B” list, which ranked it among “Turkey’s Water Leaders” as one of the top five companies with the best performance results.

The companies in Tekfen Holding’s Contracting, Agri-industry, and Real Estate divisions focus on “climate change and energy”, “innovation”, and “employees” issues in the formulation of their strategies and regard erecting their business models on sustainable foundations as one of their fundamental priorities. Tekfen Holding and Tekfen Group companies make such changes as may be necessary to make their products and services compatible with their sustainability approaches while also investing in product and service improvements and additions that will create useful, innovative, and added value for people and the environment and help themselves keep pace with changing global trends.

Synergies among Tekfen Group companies possessed of different areas of expertise and competency are seen as being essential to the development of sustainability approaches that are common to all of them. Entities such as Tekfen Ventures, Toros R&D Center, and Tekfen Engineering that support technological innovation play important roles in fostering the spread of innovation culture throughout the entire organization, while also helping to ensure that business models are truly sustainable.

The sustainability strategy that was formulated in 2018 provides Tekfen Holding with an even more robust foundation on which to pursue its efforts to improve the wellbeing of people and the environment. It gives me pleasure to be submitting this first report in which we lay out our sustainability strategy and publicly disclose our social, environmental, and corporate governance performance. I therefore thank both those who had a hand in preparing this report and my colleagues for giving that
process their support as well as all of our other stakeholders for taking the time to read and evaluate it.

Very truly yours,

**Cahit Oklap**  
President, Tekfen Group of Companies
TEKFEN HOLDING SUSTAINABILITY MILESTONES

<table>
<thead>
<tr>
<th>Event</th>
<th>Year</th>
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<tbody>
<tr>
<td>Becomes a founding member the TEMA Foundation</td>
<td>1992</td>
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<td>First independent audit of consolidated results</td>
<td>1993</td>
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<tr>
<td>First ISO 9001 Quality Management System certification</td>
<td>1997</td>
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<tr>
<td>Tekfen Foundation for Education, Health, Culture, Art, and Protection of Natural Resources established</td>
<td>1999</td>
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<tr>
<td>First OHSAS 18001 Occupational Health and Safety Management System certification</td>
<td>2002</td>
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<tr>
<td>Baku Sangaçal Terminal receives BP Helios award</td>
<td>2003</td>
</tr>
<tr>
<td>International Pipeline and Offshore Contractors Association (IPLOCA) environment award</td>
<td>2004</td>
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<tr>
<td>ISO 14001:2004 Environmental Management System certification</td>
<td>2004</td>
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<tr>
<td>Becomes a founding member of the Environmental Friendly Green Building Association (ÇEDBİK)</td>
<td>2007</td>
</tr>
<tr>
<td>Initial public offering</td>
<td>2007</td>
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<tr>
<td>Receives first Green Building (LEED) certification</td>
<td>2011</td>
</tr>
<tr>
<td>First Tekfen Group carbon-neutral meeting held</td>
<td>2016</td>
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<tr>
<td>Tekfen Ventures established</td>
<td>2016</td>
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<tr>
<td>Tekfen Holding shares included in BIST Sustainability Index</td>
<td>2016</td>
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<tr>
<td>Tekfen Holding Sustainability Coordinator’s Office created</td>
<td>2017</td>
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<td>Tekfen Holding Sustainability Committee formed</td>
<td>2017</td>
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<tr>
<td>IPLOCA (International Pipeline and Offshore Contractors Association) Social Responsibility Project award</td>
<td>2017</td>
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<tr>
<td>First CDP climate change report issued</td>
<td>2017</td>
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<tr>
<td>Becomes member of SKD (Business Council for Sustainable Development – Turkey)</td>
<td>2017</td>
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<tr>
<td>Subscribes to United Nations Global Compact</td>
<td>2018</td>
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<tr>
<td>First CDP water security report issued</td>
<td>2018</td>
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<tr>
<td>First stakeholder analysis to identify material sustainability issues</td>
<td>2018</td>
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<tr>
<td>Toros Tarım receives “Protect &amp; Sustain” certification</td>
<td>2018</td>
</tr>
<tr>
<td>First Tekfen sustainability report issued</td>
<td>2019</td>
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2 BP received an award from BP for “encouraging social development in education and new business lines” on account of its successful conduct of the Sangaçal Terminal capacity increase project.

3 Tekfen received IPLOCA’s 2004 environmental award for its work on the Sangaçal (Azerbaijan) and BTC (Turkey) projects.

4 Tekfen received an IPLOCA social responsibility award for its efforts to improve the living and hygiene conditions of seasonal agricultural workers along the route of the TANAP Lot 3 Pipeline Project.
About Tekfen Holding

With roots that reach back to 1956, Tekfen Holding is active in three main business lines (Contracting, Agri-industry, Real Estate Development) and conducts its operations through 43 subsidiary and 11 associate companies, each of which is a leader of its respective sector. Responsible for oversight of the activities and operations of all of the firms in its portfolio, Tekfen Holding’s publicly-traded shares are included in the İstanbul Stock Exchange’s BIST 30 Index.

Contracting

The Tekfen Contracting Group’s close to 400 projects that have been undertaken to date make it a successful international standard-bearer of Turkey’s contractor services industry.

With extensive and deep-rooted experience especially in oil, gas, and petrochemical facilities, the Tekfen Contracting Group supplies its customers with mostly turnkey-delivery EPC (engineering, procurement & construction) solutions in such areas as pipelines, land and sea terminals, tank farms, oil refineries, off-shore platforms, pumping and compressor stations, power plants, industrial facilities, highway and rail system projects, sports complexes, infrastructure projects, and other civil engineering projects.

The engine of the Tekfen Contracting Group and also the oldest Tekfen company is Tekfen Construction. As a provider of engineering design, procurement, and project management services for both Tekfen Group and non-group projects, Tekfen Engineering is a leading Turkish engineering firm whose competencies enable it to effectively take part in technologically-demanding projects that require superior knowhow. Tekfen Manufacturing & Engineering is a Tekfen Group company that produces cylindrical and spherical storage tanks, pressurized vessels, process columns, reactors, heat exchangers, waste-heat recovery boilers, pressurized pipe systems, and heavy steel construction for use in the petroleum, petrochemical, and chemical industries and for industrial applications in gas plants, iron & steel mills, and power stations.
**Agri-industry**

Founded in 1974 and providing a wide range of products and services that center on agricultural activities, the Tekfen Agri-Industry Group’s lineup of products and services and its business volume and market share make it Turkey’s biggest privately-owned concern in the sector.

The Tekfen Agri-Industry Group’s flagship company is Toros Tarım, one of Turkey’s 100 biggest industrial firms. Toros Tarım together with its subsidiaries and associates are active primarily in the manufacture and marketing of fertilizers, the production of grafted and non-grafted seedlings, marine terminal services, and the management of free zones and fuel stations. With three plants located in Ceyhan, Mersin, and Samsun, Toros Tarım accounts for 38% of Turkey's total installed fertilizer production capacity and supports its sectoral leadership with an extensive network of dealers and authorized sellers that gives it the ability to reach even the remotest parts of the country. The company provides marine terminal services such as piloting, tugboat, shipping agency, and the like at Turkey’s Ceyhan and Samsun seaports.

Set up in 2017 in order to engage directly in agricultural production, Tekfen Tarım seeks to combine the Tekfen Group's nearly forty years of knowledge and experience in the production of agricultural inputs together with Tekfen’s corporate vision, scientific and innovative approach, and financial strength. Tekfen Tarım is active principally in the areas of crop seeds, techno-agriculture, and fruit and fruit-tree sapling production and export.

**Real estate development**

Founded in 2000 to be active in the areas of real estate investment, project development, construction management, and facility management and carrying out innovative real estate projects which are superior in quality and which are harmonious with and add value to their surroundings, Tekfen Real Estate commands an important position in its sector. Focusing on sustainability and energy efficiency in all of the projects that it undertakes, Tekfen Real Estate was the author of Turkey's first “green building” projects.

Regarding the investment, development, design, construction management, and facility management stages of every project as a complete package, the Tekfen Real
Estate Group is able to provide integrated services in the conduct of its operations. Tekfen Real Estate provides the group's real estate development and project management services while Tekfen Services is responsible for the group's real estate management operations.

Other

Tekfen Insurance started out in life in 1982 as an agency for La Suisse Umum Sigorta, a Turkish subsidiary of Swiss Re. Today the company acts as an agent for 23 of Turkey's and the world's leading insurers. Active in all insurance branches, the company provides corporate insurance products and services to Tekfen Group companies as well as to many other firms.

“Bridging Prosperity”

Tekfen's sustainability vision is conceptually embodied in the group’s “Bridging Prosperity” motto.

The primary goals of all economic activity are to increase social wellbeing and to improve the quality of life of the individuals who make up a society. Tekfen Holding’s core business activities of contracting, agri-industry, and real estate exactly embrace all of the factors—such as infrastructure services, food, energy, and access to shelter—that are the bedrock of a society's collective wealth. Through its operations, Tekfen serves as a bridge that gives individuals access to the essential elements of material comfort while also paving the way to a sustainable future.

The anchor-points of our sustainability vision

The three basic elements of Tekfen's “Bridging Prosperity” strategy consist of “Strategic Drivers”, “Operational Roots”, and “Enablers”.

“Strategic Drivers” are defined as climate change and energy, employees and society, and innovation.
“Operational Roots” make reference to Tekfen Holding’s business priorities and practices as one of the engines of the Turkish economy for more than sixty years. The issues of economic performance, corporate governance, and customer loyalty have always been the cornerstones of the company’s future and will always remain so.

“Enablers” are ways and means that help make Tekfen’s “Bridging Prosperity” strategy a reality; foremost among them are Operational Excellence, Digitalization, Talent Management, and Occupational Health & Safety.

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<td>Megatrends</td>
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“Megatrends” such as Demographic Change, Rise of Technology, and Climate Change/Resource Scarcity are bringing about radical changes in how business is done, just as they are shaping the rest of the world. The goal of Tekfen’s “Bridging Prosperity” strategy is to be able to respond sustainably and flexibly to the changes implied by the redefinition of its business practices.

| Participating in the global agenda |

Tekfen's vision is to develop a sustainable business model that embraces its entire value-creation chain and thereby to help contribute to the fulfillment of the United Nations’ Sustainable Development Goals (SDG). These seventeen goals, which address such issues as eliminating poverty and hunger, protecting our planet, and making it possible for everyone to enjoy peace and affluence make up a global agenda that demands the attention of all actors from national governments to local administrations and from public agencies and organizations to business concerns. Tekfen Holding seeks to create shared value by incorporating aspects of SDG that are applicable to its operations into its sustainability vision.
Sustainability management

Tekfen Holding seeks to play a leading role by also addressing sustainability issues in its operational areas and to continue doing the same within the framework of its “Bridging Prosperity” strategy by including all of its stakeholders in the process.

In order to determine the path that Tekfen should follow in order to achieve this, the Tekfen Sustainability Committee was set up as a first step in 2017. Tasked with carrying out a materiality analysis, this committee identified what the priorities of Tekfen's sustainability vision should be and what its action plans should be based on. In the next step of this process, Tekfen plans to draw up a detailed sustainability roadmap and have the progress of specific actions monitored by working groups under the sustainability committee’s supervision.

SPOT

Both a Tekfen Sustainability Committee and a Tekfen Sustainability Coordination Office were set up in 2017 in order to more effectively manage Tekfen's sustainability processes and to ensure that sustainability-related issues are properly understood in all Tekfen Group companies.

The Tekfen Sustainability Committee was set up and authorized with the approval of Tekfen Holding’s board of directors. This committee is chaired by Tekfen Holding’s vice president for corporate affairs and its activities are overseen by the Tekfen Corporate Governance Committee. The committee’s membership consists of management-level personal appointed by the general managers of Tekfen Holding, Tekfen Construction, Toros Tarım, Tekfen Engineering, Tekfen Manufacturing, Tekfen Real Estate, Tekfen Tourism, and Tekfen Insurance.

The Tekfen Sustainability Committee is responsible not only for formulating the Tekfen Group’s sustainability strategies, roadmaps, objectives, policies, and reporting criteria but also for integrating sustainability efforts in line with Tekfen Holding’s priorities and for ensuring that all group companies are actively involved in dealing with sustainability issues.
In 2018 Tekfen Holding moved another step forward in the management of sustainability issues by subscribing to the United Nations Global Compact. By doing so, Tekfen Holding declared that it had committed itself to the ten universal principles which the United Nations had defined under the headings of “Human Rights”, “Labor”, “Environment”, and “Anti-Corruption” and that it would strive to promote adherence to the same principles among any individuals and organizations over which it has influence.

**Materiality analysis**

Tekfen Holding had a materiality analysis conducted in order to determine what the strategic priorities of its sustainability efforts should be and what areas its sustainability reporting should focus on. The goal of this analysis was to determine areas in which Tekfen’s priorities and those of its stakeholders overlap.

**Tekfen’s priorities**

Three different datasets were included in the analysis in order to determine what issues Tekfen Holding should give priority to as a company: the results of a Sustainability Vision Workshop in which group company managers took part, the views of Tekfen Holding Board of Directors members and the objectives set out in the company's strategic plan, and the results of a Strategy Workshop.

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**FRAME**

**Vision Workshop**

A Vision Workshop that was conducted on 2 April 2018 was tasked with formulating a vision that would shape Tekfen’s sustainability activities. The workshop was attended by about seventy Tekfen Holding and Tekfen Group company managers, who were divided into twelve groups and asked to come up with specific vision, focus, and action recommendations. The results of this workshop served as input for the identification of sustainability priorities as well as of Tekfen’s sustainability vision.

**Stakeholder priorities**

Stakeholders’ priorities were determined by means of stakeholder and external trend analyses, during the conduct of which different stakeholder groups were contacted through surveys that asked them to state not only what issues they viewed as having
priority but also what their expectations of Tekfen were with respect to sustainability issues.

Tekfen Holding’s stakeholders were divided into separate groups identified as “Employees”, “Customers”, “Suppliers”, “Solution partners”, “Public agencies & regulatory authorities”, “Non-governmental organizations & professional bodies”, “Media”, “International organizations”, and “Universities”. A total of 2,578 people were contacted by the survey and the response rate was on the order of 50%. An internationally-recognized Accountability Stakeholder Engagement Standard AA1000SE served as the reference for the conduct of our stakeholder analysis processes. Details of the methods (including frequency and channel) whereby stakeholder communication was conducted during the year are provided in Appendix 1.

According to the findings of this stakeholder analysis, the issues which stakeholders think that Tekfen Holding is good at managing are these:

- Profitable economic growth
- Occupational health & safety
- Employee and human rights
- Business ethics and compliance
- Contributions to local economies and employment

The issues whose management stakeholders think that Tekfen Holding needs to improve are these:

- R & D and innovation
- Corporate governance
- Equal opportunity and diversity

Tekfen intends to include, in line with stakeholders’ expectations of the company, the three areas in which it is deemed to be in need of improvement in its strategic plans; it also intends to expand the communication channels through which information about its efforts are made public.

Along with determining stakeholder priorities, an external trend analysis was also conducted in order to take sectoral risks and trends into account as well. This analysis made it possible for issues that are important at the global level to be identified in main outline.
Material issues and “Bridging Prosperity”

The priorities that both Tekfen Holding and its stakeholders share are mapped in the “Materiality Matrix” given below. Headings contained within the red arc are those whose management the greatest priority needs to be given to. These are also the issues that serve as the basis for determining Tekfen’s “Bridging Prosperity” strategy.

Three high-priority issues (“Profitable economic growth”, “Corporate governance”, and “Customer satisfaction and quality management”) number among Tekfen’s Operational Roots. Owing to the nature of the group’s principal business activities, “Occupational health & safety” is foremost among high-priority issues and is also one of Tekfen’s Enablers.

Two issues (“Digitalization” and “R&D and innovation”) number among the “Megatrends” referred to earlier and are matters of very high priority for Tekfen Holding. “Employee development and talent management” and “Employee loyalty and satisfaction” are two areas in which near-term investments are planned. “Climate change and energy” also ranks very high in this materiality map owing to its being another issue that is of significant importance to the sectors in which Tekfen Holding is active.

Climate change, innovation, and employee and social wellbeing are all matters which Tekfen regards as having strategic value. Although this sustainability report concentrates on issues that are deemed to have the greatest priority, it also addresses those in the “High-priority” and “Priority” domains as well.
Materiality Matrix

Priority | High Priority | Greatest Priority
---|---|---

Strategic Priorities + Tekfen Holding Board of Directors + Sustainability Vision Workshop
OPERATIONAL ROOTS

With roots that go back to 1956, Tekfen Holding is one of Turkey’s oldest companies. Ever since its inception, Tekfen has striven to create value in every business line in which it is engaged and this mindset has earned it a respected position in Turkey’s business circles. Tekfen’s business approach is rooted in the principles of economic performance, corporate governance, and customer loyalty. Ever since its founding, these principles have been the pillars that sustain Tekfen’s progress and future.

Economic performance

In the course of sixty-three years, Tekfen has grown from a small startup venture to one of Turkey’s leading corporate groups whose shares are included in the İstanbul Stock Exchange’s BIST 30 index. An organization whose name is associated with such concepts as “Trust”, “Honesty” and “Quality”, the Tekfen Group invests in such strategic sectors as infrastructure, fertilizer, and real estate and supports the same sectors with operations in such high value-adding sectors as engineering, industrial manufacturing, and services with the aim of combining economic performance into prosperity and thus creating value that can be shared both by the group itself and by society at large. Ever since its inception, Tekfen has been creating value for its stakeholders through profitable and sustainable growth and has been contributing to Turkey’s sustainable economic development through companies that are trailblazing leaders of their respective sectors.

Active in seven different countries, the members of the Tekfen Contracting Division secure 73% of their revenues from their international operations and sales, which also generate 14% of the revenues of Toros Tarım, the group’s agri-industry concern. As a result of its international operations and exports, Tekfen secures USD 1,440 million in hard-currency earnings for the Turkish economy every year.

Contributing to local economic wellbeing and employment wherever it carries out its operations whether in Turkey or abroad is also one of the Tekfen Group’s fundamental priorities. Some 70% of the people employed by the Tekfen companies covered by this report are local hires. In addition to recruiting locally, Tekfen companies also give priority to procuring locally as well, a practice that supports the economic growth and development of their operations’ localities. Tekfen Group companies as a whole procure their inputs from some 12,000 suppliers, 93% of which are local to those companies.
Since 1993, the Tekfen Group has been monitoring and managing its overall economic performance by means of independently-conducted external audits. Tekfen Holding’s publicly-traded shares are included in the İstanbul Stock Exchange’s BIST 30 index. In 2018 the holding company registered a turnover worth TL 12,147 million and increased its total assets to TL 12,036 million. That performance corresponds to year-on-year increases of 62% and 28% respectively.\(^5\)

<table>
<thead>
<tr>
<th>2018 (1,000)</th>
<th>TEKFEN HOLDING CONSOLIDATED</th>
<th>CONTRACTING DIVISION</th>
<th>AGRI-INDUSTRY DIVISION</th>
<th>REAL ESTATE DIVISION</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>12.147.171</td>
<td>9.005.740</td>
<td>2.964.560</td>
<td>134.465</td>
<td>42.406</td>
</tr>
<tr>
<td>(% BREAKDOWN)</td>
<td>100%</td>
<td>74,14%</td>
<td>24,41%</td>
<td>1,11%</td>
<td>0,35%</td>
</tr>
<tr>
<td>Operating costs</td>
<td>10.867.564</td>
<td>8.196.073</td>
<td>2.441.508</td>
<td>138.932</td>
<td>91.051</td>
</tr>
<tr>
<td>(% BREAKDOWN)</td>
<td>100%</td>
<td>75,42%</td>
<td>22,47%</td>
<td>1,28%</td>
<td>0,84%</td>
</tr>
<tr>
<td>Community investments</td>
<td>2.019</td>
<td>570</td>
<td>320</td>
<td>1</td>
<td>1.128</td>
</tr>
<tr>
<td>(% BREAKDOWN)</td>
<td>100%</td>
<td>28,23%</td>
<td>15,85%</td>
<td>0,05%</td>
<td>55,87%</td>
</tr>
<tr>
<td>Economic value retained</td>
<td>1.277.588</td>
<td>809.097</td>
<td>522.732</td>
<td>-4.468</td>
<td>-49.773</td>
</tr>
<tr>
<td>(% BREAKDOWN)</td>
<td>100%</td>
<td>63,33%</td>
<td>40,92%</td>
<td>-0,35%</td>
<td>-3,90%</td>
</tr>
<tr>
<td>Investment outlays</td>
<td>261.961</td>
<td>186.234</td>
<td>71.542</td>
<td>551</td>
<td>3.634</td>
</tr>
<tr>
<td>(% BREAKDOWN)</td>
<td>100%</td>
<td>71,09%</td>
<td>27,31%</td>
<td>0,21%</td>
<td>1,39%</td>
</tr>
</tbody>
</table>

**SPOT**

Owing to the company’s successful corporate governance, environment, and social-welfare performance, Tekfen Holding’s shares have been included in the BIST Sustainability Index since 2016.

\(^5\) At Tekfen Holding and in all Tekfen Group companies.
Corporate governance

In order to strengthen its leading position in the sectors in which it is active, Tekfen gives as much importance to its corporate governance performance as it does to its economic performance and it therefore takes steps to make its corporate structure more functional, productive, and dynamic. The creation of a governance mechanism that ensures compliance with corporate governance principles, is sustainable, effective, transparent, is mindful of shareholders and other stakeholders’ interests, and is accountable is one of Tekfen’s top priorities.

Tekfen embraces good corporate governance practices and sees compliance with international corporate governance standards as being important. Fairness and ethical behavior have been accepted as fundamental principles of Tekfen’s management since the day Tekfen was founded. For Tekfen, a commitment to honesty and uprightness is as much a benchmark of success as is economic performance. This attitude and adherence to these principles is seen as a fundamental priority at every level throughout the group. Values such as people, social benefit, and eco-awareness have been at the heart of all of the group’s operations since the very first day.

The Tekfen Holding Board of Directors consists of eleven members, four of whom are independent directors. Four of the company’s directors are women. In line with accepted corporate governance principles, the duties of board chairman and company general manager are performed by two different individuals. Committees have been set up which are individually responsible for formulating strategies and policies, for monitoring compliance with action plans, for assessing performance, and for dealing with similar issues and which are responsible to the board. The company’s audit committee, corporate governance committee, risk detection committee, and remuneration committee all function within this framework. A sustainability committee that reports to the corporate governance committee was also set up in 2017.

Having made impartiality, transparency, accountability, and responsibility the basis of its own corporate governance principles, the Tekfen Group therefore embraces CMB Corporate Governance Principles to the same degree and takes all due care to

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6 Detailed information about Tekfen Holding’s board is available at http://www.tekfen.com.tr/english/investor.asp?n=1&p=10
7 Detailed information about committees, their memberships, and their duties board is available at http://www.tekfen.com.tr/english/investor.asp?n=1&p=11
apply those principles correctly. Tekfen Holding has been publishing corporate
governance principles compliance reports since 2007.8

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**FRAME**

**Corporate memberships and supported initiatives**

**As Tekfen Holding**

**Tekfen Holding is a founding member of:**

- Turkish Industrialists’ and Businessmen’s Association (TÜSİAD)
- The Turkish Foundation for Combatting Soil Erosion, Reforestation, and the Protection of Natural Habitats (TEMA)
- Technology Development Foundation of Turkey (TTGV)
- Educational Volunteers Foundation of Turkey (TEGV)
- Third Sector Foundation of Turkey (TÜSEV)
- Turkish Family Health and Planning Foundation (TAPV)
- Corporate Communicators Association (KİD)

**Tekfen Holding is founding member of:**

- Turkish Economic and Social Studies Foundation (TESEV)
- Corporate Governance Association of Turkey (TKYD)
- Ethics & Reputation Society (TEİD)
- United Nations Global Compact
- Business World and Sustainable Development Association (SKD)
- Learning and Development Platform Association of Turkey (TEGEP)
- Clean Seas Association (TURMEPA)
- The Turkish Institute of Internal Auditing (TİDE)
- Foreign Economic Relations Board (DEİK)
- İstanbul Foundation for Culture and Arts (İKSV)
- American-Turkish Council (ATC)
- Institute of International Finance (IIF)
- Search and Rescue Association (AKUT) sponsor

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Tekfen Group companies are members of:

- International Pipeline & Offshore Contractors Association (IPLOCA)
- Turkey Contractors Union (TMB)
- Turkish Construction Industry Employers’ Association (İNTES)
- International Fertilizer Industry Association (IFA)
- International Plant Nutrition Institute (IPNI)
- International Zinc Association (ZINC)
- Environmental Friendly Green Building Association (ÇEDBİK) founding member
- Urban Land Institute (ULI)
- Port Operators Association of Turkey (TÜRLİM)

Risk management

Effectively dealing with operations-associated risks by correctly identifying them in advance, quantifying their potential impact, dynamically monitoring them, and determining and taking measures to counter them are indispensable elements of management at Tekfen Holding and all Tekfen Group companies. In line with this, uniform standards and approaches have been developed which specify how Tekfen Group companies are to manage and report possible risks under the coordination of Tekfen Holding.

An organizational structure necessary for conducting and reporting risk management activities has been set up at every group company. Risk reports are prepared by individual companies within this framework and sent to Tekfen Holding’s risk management department, where they are analyzed and consolidated. The unit’s findings are submitted to the Tekfen Risk Detection Committee, which consists of members of the Tekfen Holding Board of Directors and which is chaired by one of the board’s independent directors. This committee convenes twice a month. During these meetings, the committee examines the risk reports received from group companies and afterwards informs the board about what risks group companies are dealing with and how they are managing them so that the board may take such decisions as may be required. These risk reports are also made available to external auditors.

Tekfen Holding classifies its risks under five main headings: Financial, Strategic, Compliance, Operational, and Reputational. Within each of these classifications, risks that are associated with external factors are dealt with under a separate heading. In light of the increasingly greater environmental, social, and economic impact of risks
associated with climate change in recent years, steps are currently being taken to manage these risks and to integrate them into business plans as well.

**Business ethics and compliance**

The Tekfen Group regards ethical behavior as a core component of its corporate culture. All dealings with employees, suppliers, customers, shareholders, other stakeholders, and the public at large are grounded in the principles of honesty, accountability, and rightfulness. Tekfen Holding has therefore formulated a set of ethical guidelines\(^9\) which set out rules governing the matters of honesty, confidentiality, conflicts of interest, and statutory compliance when interacting with customers, employees, shareholders, suppliers, business partners, or competitors or when addressing environmental- or social-responsibility issues.

Tekfen Construction, Tekfen Manufacturing, and Tekfen Engineering employees receive training focusing on business ethics and on combatting bribery and corruption when they are recruited and they are required to sign a statement declaring that they have read and understood these matters before they are hired. Ethical guideline refresher training is also provided once a year to headquarters personnel; personnel working on projects receive the same training under the supervision of a compliance officer or their project compliance representative. During 2018, Tekfen Contracting Division personnel received a total of 35,178 personhours of anti-corruption and anti-bribery training, 43,972 personhours of ethical behavior training, and 8,794 personhours of human rights training. In keeping with Tekfen’s belief that its attitudes should embrace its entire value-creation chain, importance is likewise given to ensuring that subcontractors and suppliers also comply with its ethical guidelines and human rights approaches: subcontractors receive merit assessments and both suppliers and subcontractors are encourage to provide their own employees with appropriate training. Under a project that was carried out in 2017, a total of 2,038 personhours of such training was provided to subcontractor personnel.

A 24/7 “Ethics Hotline” for reporting and managing ethical-behavior and human-rights issues was set up in 2018. This system embraces Tekfen Holding and all Tekfen Group companies. Group company employees may anonymously report any issue they deem to be a violation of ethical guidelines by telephone (0212 257 0110), by email (etikhat@tekfen.com.tr), or online (www.etikhat.com). Complaints may be

submitted in Turkish or English. After this hotline became operational in March last year, Tekfen Holding headquarters employees and Tekfen Group company employees working at Tekfen Tower were provided with two hours of classroom training about the system; the same training was provided to other Tekfen personnel in online format. Posters and brochures concerning ethical guidelines and the Ethics Hotline were also prepared and distributed among employees.

In 2018 a compliance committee was set up at Tekfen Holding. This committee consists of the director of internal audit and the compliance coordinator and is headed by a member of the Tekfen Holding Board of Directors. An internal compliance officer and a compliance committee responsible for implementing and monitoring ethical guidelines have also been appointed by the boards at every Tekfen Group company. Working together with the Tekfen Holding Compliance Coordinator, these individuals and committees submit monthly reports on compliance-related issues to both their respective boards and to the Tekfen Holding Board of Directors.

All ethics-related tickets opened since the launch of the Ethics Hotline in March 2018 have been finalized as of this writing. None of these tickets were concerned with complaints about bribery/corruption or human rights issues and all of them were dealt with at the compliance-committee level in accordance with ethical and disciplinary rules.

**Customer loyalty**

Tekfen’s products and services are the primary points of contact between the company and its customers. A level of quality arising from the approach to excellence that is historically inherent in Tekfen’s genes is one of the main factors underlying Tekfen’s more than six decades of success. Tekfen positions its customers as strategic partners with whom it enters into long-term relationships. Combined with an attitude requiring that commitments be fulfilled completely and in accordance with quality standards, this approach makes it possible for Tekfen to establish very close relationships with its customers.

Tekfen Construction, Tekfen Manufacturing, Tekfen Engineering, and Tekfen Real Estate all keep track of customer satisfaction levels by means of regularly-conducted surveys.
As an international contractor, Tekfen Construction systematically monitors its quality performance, which it assesses on the basis of such criteria as project and workplace error rates, repeat-business volumes, field test results, discrepancies, and material loss. Tekfen Construction received an 86.00% quality performance score in 2017 and increased it to the 88.45% level in 2018. Among the company’s customers, its bid prequalification successful pass rate was 99% last year.

At Toros Tarım, fertilizer production line outputs are sampled once every two hours and these samples are sent to laboratories for analysis to determine products’ compliance with quality standards. In addition to manufacturing quality, dealers also play an important role in ensuring customer satisfaction and for this reason, dealers are regularly checked at their premises and are also invited to attend meetings. To ensure the satisfaction and loyalty of dealers identified as being of crucial importance, regional visits and meetings in which company senior managers take part are organized at least once every quarter. Such interactions are also beneficial in that they allow business and product-related needs to be spotted in the field.

Any product-related complaints received from dealers or farmers are looked into as soon as possible. If necessary, a dealers will be visited at their premises in order to examine complaints on location. If a complaint is deemed to be justified, defective products are recovered and corrective and preventive measures are taken as soon as possible to prevent any recurrence of the problem.

FRAME

Customer feedback

“Tekfen Construction is known for the superior-quality petroleum and natural gas industry projects which it has successfully carried out in countries around the world and which rank it among the contracting services sector’s most respected companies not just in Turkey but in the international arena as well. Its superior performance when dealing with OHS and environment-related issues contribute to a sustainable future. Tekfen management’s consistently diligent efforts to overcome the kinds of problems that inevitably must rise in mega projects like the Trans-Anatolian Natural Gas Pipeline (TANAP) for example ensured that the work was completed on time. We thank the Tekfen team for its absolute commitment to quality, OHS, and the environment.”

TANAP Doğalgaz İletim A.Ş.
“Here at ASHGAL we have been working with Tekfen Construction for more than eleven years. Tekfen delivers the project-standard-compliant performance that we expect. We believe that they will maintain that performance and continue to further improve themselves in the areas of OHS and quality.”

ASHGAL, Qatar

“Although big farmers always look first at price, in the end they always return to Toros. That’s because farmers want to be sure that the composition of the fertilizers that they use is going to remain the same and that its quality is going to be tip-top not just next year but ten years down the line too. What our farmers think is “If Toros does something, it’s gonna do it well; Toros will never give you shoddy goods.”

Toros Tarm dealer, Kumluca, Antalya

“I've been a farmer for years and this is the first time I've taken part in a Toros Mobile Farmer Training meeting like this one. They gave us information and they tried to come up with solutions to our problems. Thank you very much Toros Tarm.”

Farmer, Kayseri

“We’ve had an excellent relationship with Tekfen Engineering for twenty-two years and we regard them as a successful engineering firm. Tekfen Engineering is an outstanding company that is conspicuous for its reputation, service quality, compliance with local and international laws and regulations, and its health & safety practices but especially for its commitment to business ethics.”

Tüpraş

“Tekfen Manufacturing is a working partner whose approach is focused on resolving problems from the project-planning stage onwards, who works quickly, who gives importance to full compliance with laws and regulations, and whose communication skills are solid. Tekfen is a company that leads the way when dealing with issues like not just complying with current health, safety & environment rules but exceeding their requirements and like keeping abreast of national and international standards and delivering superior-quality service.”

Aytemiz Akaryakıt Dağıtım

“We have been working with Tekfen Manufacturing for more than twenty years and both our company and theirs value the long-term business relationship that we have. Successfully-concluded big projects, dedication to quality, and the holding company’s global footprint are Tekfen’s most outstanding features. Tekfen understands
customers’ wishes and responds to them quickly; Tekfen makes proper and appropriate use of communication channels when dealing with problems and satisfies our expectations; Tekfen is a company that keeps up with innovation and comes forward with new ideas.”

Aksa Akrilik Kimya Sanayi

“We’ve been working with Tekfen Tourism for fourteen years during which time the company has constantly been developing its systematically customer-focused operations. We are pleased with all of the services that Tekfen Tourism provides at Tekfen Tower from the building’s amenities to its security. We also look forward to their increasing the diversity of their technical services in the period ahead as well.”

Mitsubishi Corporation

“Tekfen Insurance stands out by virtue of the consistency of its service quality, the confidence that it inspires, and its business ethics. The experience to give companies the right guidance and a willingness to stand by a customer in the fulfillment of insurance processes are what underlie our long-term and enduring relationship with Tekfen Insurance.”

Özka İnşaat

“I've known Tekfen since I was a kid and it's always been a company whose hallmark is rock-solid reliability. Tekfen Real Estate absolutely keeps its word about project plans and schedules and it always gives the greatest attention to its customers.”

Homeowner, Tekfen HEP İstanbul Project

Operational excellence

Just like product and service quality, operational excellence is also another touchstone by which Tekfen has always been known. Keeping abreast of international standards and adopting the best practices of every sector in which it is active are two of Tekfen’s greatest strengths. Standardized management processes not only increase productivity but also make it possible to achieve excellence and straightforwardness at every stage of production and value-creation.

In line with this, Tekfen Holding publishes internal regulations (called “Unified Regulations”, in Turkish “TDY”) governing business processes that apply to all Tekfen
Group companies. As of 2018, 216 TDY had been issued. TDY are reviewed and revised as necessary every year.

Tekfen Group companies also conduct their operations in accordance with internationally-recognized management system standards. Quality, OHS, Environment, and Information Security management systems have been installed at every group company. The effectiveness and adequacy of system-related practices are regularly checked by means of internal and external (third-party) audits, with improvements being made as may be required. The accompanying chart shows the management systems currently deployed at Tekfen Group companies.

<table>
<thead>
<tr>
<th>MANAGEMENT CERTIFICATE</th>
<th>Tekfen Construction</th>
<th>Tekfen Manufacturing</th>
<th>Toros Tarım</th>
<th>Tekfen Engineering</th>
<th>Tekfen Real Estate</th>
<th>Tekfen Holding</th>
<th>TOTAL TURNOVER COVERED</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 9001</td>
<td>▲</td>
<td>▲</td>
<td>▲</td>
<td>▲</td>
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<td></td>
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<tr>
<td>ISO 14001</td>
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<td>▲</td>
<td></td>
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<tr>
<td>OHSAS 18001</td>
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<tr>
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<td>▲</td>
<td>▲</td>
<td></td>
<td>▲</td>
<td></td>
<td>%95</td>
</tr>
</tbody>
</table>

As an industrial and manufacturing concern, in 2017 Toros Tarım began introducing “lean production” practices with the involvement of its employees as well. A total of 2,850 personhours of lean-production training was provided to company personnel. After the completion of the road mapping and priority-identification stages at all workplaces, work was then begun on initiating problem-solving and Kaizen-culture procedures. As part of the same project, “Lean Days” are conducted during which the entire organization is encouraged embrace the “Lean” and “Continuous Development” philosophies. The goal of this project is to make “Lean” culture an essential element at every stage of the company’s business model.

The Tekfen Group’s approach to operational excellence both enjoys management-level support and is grounded in the group’s history and it leads to many benefits that
range from reducing environmental impact to increasing customer satisfaction. When combined with the group's store of knowledge and experience, the search for operational excellence, which seeks to improve the group's productivity and optimization through a holistic approach, creates a significant advantage in achieving the operational performance that is necessary to fulfill the group's sustainability vision.

**STRATEGIC DRIVERS**

**Climate change and energy**

With the signing of the Paris Agreement in 2016, combating climate change also became a matter of some importance in the sectors in which Tekfen conducts its operations. According to the World Economic Forum's Global Risks Report, climate change and extreme weather events number among the most pressing risks that the world faces today.

Tekfen Holding also regards climate change as one of the most important of the sustainability risks with which it must contend. Risks associated with climate change are dealt with under the heading of “Operational & compliance risks” from the standpoint of the company’s corporate risk management processes.

Construction and agriculture are the business lines that account for the biggest share of Tekfen's operations and climate change has a direct impact on both of them. The group's contracting division in particular is deeply involved in sectors with the potential to be greatly affected by climate change: for example the group’s projects are exposed to higher risks of suffering from severe storm and flood damage. The agri-industry division likewise must deal with risks such as changes in precipitation patterns, severe weather events, and a rise in average temperatures as well as water resource depletion and drought that could have a serious impact on agricultural production. For similar reasons, climate change worsens the group's risk exposure and increases costs in the conduct of its insurance and facility management operations.

In order to counteract climate change, it is necessary both to minimize operational emissions and to develop new ways, means, and solutions for combatting it. By creating a need for more environmentally-aware products and services, this situation similarly has the potential to open up new business lines and present new
opportunities. So while taking its own measures to reduce the impact of climate change, Tekfen Holding also sees adding climate-change management to its lineup of business activities as a matter of strategic priority. Minimizing operational emissions and coming up with solutions to combat climate change is a matter of great importance for Tekfen Holding from the standpoint of managing its climate risks and opportunities. While Tekfen Engineering supports group companies by coming up with new solutions for mitigating the effects of climate change, Toros Tarım is working on developing both fertilizers that will reduce greenhouse gas emissions and seeds that are more resilient to changing climate conditions. With sustainable cities bringing brand-new dimensions to urban planning and development attitudes, Tekfen Real Estate also makes its own contribution to that vision of the future in the form of sustainable buildings and infrastructure services.

Climate change management

The primary climate change-associated risks that Tekfen sees as potentially impacting on itself in the medium term are the introduction of an emissions-trading system and/or a carbon tax in Turkey, increased pressures from activist NGOs and the public at large, changes in the demand for existing products and services, the physical impact of extreme weather events on plants and operations, contractions in operational business lines (such as those that make use of or are associated with fossil fuels, and especially the likelihood of increasingly more severe water scarcity throughout the Mediterranean region. All of these are issues which need to be taken into account when determining strategies. For this reason, Tekfen Holding has begun to incorporate climate-change and water-stress risks into its corporate risk management processes and to integrate those risks into its strategies.

Since 2020, the Tekfen Board of Directors has been monitoring the Tekfen’s climate change performance through the group’s internal reporting system and it has been sharing the progress it makes on such issues with non-group actors through the annual reports that it prepares as part of its involvement in the Carbon Disclosure Project’s climate change program.
Tekfen Holding joined the CDP program in 2017 and reported the greenhouse gas emissions of its operations in Turkey for the first time the same year. On the basis of this initial report, Tekfen Holding was included in the CDP “B” list as one of the three most successful performers in the “Industrials” category. The company was included in the same list once again in 2018 and ranked among the top twenty firms with the highest reporting scores.

**Energy Consumption (MWh)**

- Fuel: 49%
- Total purchased electricity: 18%
- Renewable energy consumption: 33%

**Total Energy Consumption (MWh)**

- 2016: 531,710
- 2017: 496,120
- 2018: 433,565
Because it takes a systematic approach when dealing with climate change issues, Tekfen Holding invests in technologies and equipment that allow energy and natural resources to be used more efficiently and reduce the Tekfen Group’s overall carbon footprint. The main focus in this effort is on Tekfen’s agri-industry, petroleum, and natural gas operations as these are the biggest sources of the group’s GHG Protocol Scope 1 and Scope 2 emissions. Below are provided examples of some of the energy-conservation measures that are being taken by Tekfen Group companies.

- In recognition of its energy-efficiency practices, Toros Tarım’s Mersin plant received the Ministry of Energy and Natural Resources General Directorate of Renewable Energy’s “Energy-Efficient Industrial Facility” award in 2016 for the first time and then again for the second year in a row in 2017. This “Energy Efficiency In Industry Project Competition” award is given annually to industrial concerns that have reduced their energy density by the greatest margin. By reducing its average energy density during the last three years by 33.3% as compared with the 2008-2012 Reference Energy Density benchmark, the Toros Tarım Mersin plant ranked in first place in the Chemicals & chemical products manufacturing subsector.

- The regeneration frequency was extended by membrane-replacement the at Toros Tarım’s Samsun plant and reduced the frequency from once every two days to once every four days. By reducing the need to use water pumps, this improvement saves 19.8 MWh of electricity a year.

- Electricity is produced from heat generated by burning waste at Toros Tarım’s Mersin and Samsun plants, which reduces both plants’ carbon footprints significantly. Some of this electricity is used to meet the plants’ own needs and the excess is supplied to the national grid. About 221 thousand MWh of electricity is now being generated from waste heat, which corresponds to a
50% increase over the last two years and to savings on the order of TL 50 million.

- Tekfen Real Estate designs and executes the ventilation, heating, insulation, and lighting systems of its buildings to be energy-efficient in line with the requirements of LEED Green Building specifications. Thanks to such efforts at the company’s HEP İstanbul project for example, the amount of natural gas needing to be used was reduced by 22 thousand m3 a year, a performance that corresponds to the annual average natural gas consumption of about 20 households.
- Tekfen Construction encourages its subcontractors to deploy solar-power systems rather than diesel generators for exterior illumination at their worksites.

**SPOT**

As the author of Turkey’s first projects to qualify for “Green Building” certification, Tekfen Real Estate has been awarded LEED certification on every project that it has undertaken since 2008. The Al Thumama Stadium project on which the company is currently working in Qatar was awarded a five-star rating under the Global Sustainability Assessment System, the first performance-based system in the Middle East and North Africa developed for rating green buildings and infrastructure.

A significant portion of Tekfen Holding’s greenhouse gas emissions are the result of producing nitric acid at Toros Tarım’s Mersin plant. As part of efforts to combat climate change, work has begun on ways in which to reduce nitrous oxide (N₂O) emissions. Tekfen is working with the Nitric Acid Climate Action Group in addressing
the issues of technical support, feasibility, plant-specific technology selection, and finance with the aims of undertaking essential technology investments in 2019 and of reducing the group's greenhouse gas emissions by at least 80%.

In 2017 a CAN Unit Prilling Tower Flue Gas Cleaning System was commissioned at the same plant at an investment cost of about TL 35 million. This project, which was undertaken on a voluntary basis inasmuch as it is not one that is currently required by environmental regulations currently in effect in Turkey, has further enhanced the eco-friendliness of the Toros Tarım Mersin plant and also given the plant the ability to operate at emission levels that are below those mandated by law in EU countries.

SPOT
Thanks to the priority that they have been giving to combatting climate change and to improving energy efficiency since 2016, Tekfen Group companies have reduced their greenhouse gas emissions by 50% and 36% on a per-USD-revenue and per-employee basis respectively.

Tekfen regards carrying out its operations so as to have the least possible impact on the environment as a fundamental priority. For this reason, Tekfen Group companies take a systematic approach when dealing with environmental-management issues. Moreover they are not satisfied merely to comply with the minimum requirements of local environmental laws and regulations in the conduct of their operations but instead they outperform those requirements in the majority of cases. Tekfen Construction (headquarters and project sites), Toros Tarım (headquarters & Samsun, Ceyhan, and Mersin plants), and Tekfen Manufacturing (headquarters and Derince plant), which together account for about 90% of Tekfen Holding's total turnover, all conduct their operations and manage their environmental impact in accordance with ISO 14001 Environmental Management System standards.

The ISO 14001 Environmental Management System provides organizations with a systematic framework for dealing with the full range of environmental-management issues from controlling pollution at its source to energy conservation and from increasing productivity to constantly improving environmental performance. At places where the ISO 14001 Environmental Management System is being implemented, risk assessments are carried out based on environmental parameters while measures are taken in light of the importance and priority of those risks. In addition to this, training and auditing is also conducted as appropriate.
Tekfen Holding gives importance to entering into collaborations and to acting in concert with stakeholders in order to expand the impact of effective environmental management. As one of the founding members of non-governmental organizations like TEMA (a foundation that combats erosion, supports reforestation, and protects natural resources) and ÇEDBİK (a professional “green building” association), Tekfen also plays an active role in climate change and water resource training programs, workshops, and other activities organized by such groups as the Sustainable Development Association and the Turkish Industrialists’ and Businessmen’s Association.

Tekfen Group companies are undertaking and exploiting ways in which to mitigate the potential adverse impact of climate change on their existing operations, to make their products and services compatible with sustainability concepts, and to turn new opportunities into profitable business lines.

- Tekfen Construction has set up a unit that keeps a close watch on such issues as generating energy from solar, geothermal, wind, and solid waste resources in order to protect itself against the risks of reduced investment in oil and gas plants and infrastructure, the building of which is one of the company’s core business activities. The company also sees climate-resilient infrastructure projects as a business line with strong growth potential.
- Toros Tarım is working on the development of fertilizers that contribute greenhouse gas emission reduction and of seeds for crops that are more resilient to changing climate conditions. At its R&D center, the company is also working on the development of new liquid fertilizers to replace solid ones in order to counter the effects of water resource depletion and drought and to help improve agricultural productivity.
- With climate change, clean water accessibility, and similar environmental issues proliferating, “sustainable-city” and “green-building” concepts are becoming increasingly more important. Research shows that about 40% of the world’s energy and about 30% of its water is used for or by buildings. For this reason, Tekfen Real Estate undertakes intelligent and eco-friendly construction projects that are environmentally aware. Since 2008, all of the company’s projects have qualified for US Green Building Council certification under that organization’s Leadership in Energy and Environmental Design (LEED) program. Tekfen Real Estate is currently focusing on ways in which
respond to the needs of urban renewal programs in accordance with modern urban development and sustainability principles.

**Natural resource and waste management**

In addition to their own gains arising from improvements in their operational excellence and efficiency, Tekfen Group companies also help all of their stakeholders reduce their environmental impact by supplying them with products and services such as green buildings that are mindful of water and waste management from the design stage onward and fertilizers that require less water to be used.

**Water management**

- Climate change, over-consumption, and pollution pose increasingly more acute risks to the world's vitally-important fresh water resources. It is expected that there will be a serious or very significant increase in water stress by 2020 in the places where Tekfen conducts its operations. Water risks are among the factors with substantial potential to adversely affect the activities of the company, particularly in its agri-industry and insurance business lines.

- Recognizing that water is one of the world's most precious natural resources, Tekfen Holding has formulated and published for the benefit of its employees and other stakeholders a Tekfen Water Policy which has been signed by the Tekfen Group’s president and in which are set out the group’s principles and commitments concerning these resources' management.

When approaching and dealing with water-management issues, Tekfen:

- Identifies and assesses water-related risks;
- Incorporates water-related risks into its business strategies, manages the risks accordingly, and reports the results;
- Identifies water-related objectives and targets and then comes up with and implements innovative solutions to make those objectives and targets a reality;
- Monitors, measures, and analyses its water use in order to steadily reduce its water footprint.
Having joined the Carbon Disclosure Project’s Climate Change Program in 2017, Tekfen Holding also joined its Water Security Program in 2018 and began reporting its water risk assessment methods, its water-related risks and opportunities, and its water management approaches, strategies, objectives, targets, commitments, and performance indicators the same year. This report qualified the group for inclusion in the CDP Water Program’s “B” list, which ranked it among “Turkey’s Water Leaders” as one of the top five companies with the best performance results.

Tekfen Group companies undertook many projects aimed at reducing their water consumption during the reporting period.

- At its Samsun plant, Toros Tarım replaced the air compressors that were used for cooling with new ones that reduce the volume of water used by about 432 thousand m3 a year. This corresponds to the amount of water that would be consumed by 8,500 people during the same period. Changes in the plant’s as extended regeneration frequency after membrane replacement also cut water use by about 25,650 m3 a year, an amount that would be used by about 500 people. Investment has begun on a new project that will recover water for reuse by the plant’s sulfuric acid and demineralization units. When this system becomes operational it will conserve as much water (about 561,600 m3) as would normally be used by 11 thousand people a year.

- Under a project initiated by Tekfen Tourism at Tekfen Tower in 2013, fifteen publicly-accessible urinals and another eleven located on floors used as Tekfen Construction office space were replaced with waterless units that do not require flushing. As a result of this change, about 3,900 m3 of water—the amount that would be used by 80 people on average—is saved every year.

As of end-2018, the total value of all the water-efficiency and waste-water-management investments planned or undertaken by Tekfen Group companies was more than USD 10.7 million.

Besides managing the water-use requirements of its own operations, Tekfen also engages in efforts to encourage stakeholders to reduce their water consumption through its products and services and by means of awareness campaigns.
• Tekfen Real Estate complies with LEED green-building certification requirements in the projects that it develops. This means, among other things, that it contributes to water conservation by giving preference to more water-efficient plumbing and fixtures and to less water-thirsty plants for use in landscaping.

• Tekfen Construction promotes awareness about using natural resources efficiently among its project worksite personnel by means of regular training and information campaigns.

• Toros Tarım helps farmers make more knowledgeable and effective use of water and fertilizer resources by means both of training programs and of its “Toros Çiftçi” app.

• Tekfen Tourism prefers water-efficient plumbing fixtures for use in the common areas of buildings under its management while also encouraging its tenants to do the same.

Waste management

Along with the increasingly greater importance of “circular economy” concepts, those of “waste management” and “resource management” are converging. In this approach, goods and materials whose useful lifetimes have run out are seen as potential resources whose economic value needs to be captured through effective recovery methods with only those parts which cannot be recovered being disposed of in such a way as to cause at least possible harm to the environment. Not only does this approach result in significant savings in raw materials and production costs but it also helps ensure resource sustainability.

Tekfen Holding carries out its waste management processes with a focus on reducing the environmental impact of all of its companies and business partners but with particular attention being given to its contracting and agri-industry operations as these have the greatest potential to impact. In this approach, one goal is to keep track of the environmental impact of all physical inputs over the course of their useful lifetimes. Another core goal is to maximize resource efficiency, recycling, and reuse.

Efforts are made at every Tekfen Group company to prevent waste from being created in the first place and to minimize such waste as may be unavoidable.

• A substantial volume of any construction waste that may be generated at a project being undertaken by a member of the Tekfen Contracting Division is sent for
recycling or reuse. Reusing asphalt waste at temporary worksites has the additional benefit of helping to minimize dust formation.

- On construction projects that Tekfen Real Estate undertakes with the aim of qualifying for LEED green-building certification, preference is given to building materials with specified content-recoverability percentages.
- In the conduct of its restaurant and similar operations, Tekfen Tourism separates organic waste and waste cooking fats and sends them to properly-licensed firms for disposal. It does the same with its electronic and other recyclable waste.
- No process-based disposable waste is generated by Toros Tarım in the conduct of its fertilizer plant operations. Any potential waste is reused at appropriate points in production processes in line with quality principles.
- Liquid waste collected from ships at Torosport’s Ceyhan terminal is first subjected to dewatering before the water is sent to the purification plant. Oil-bearing sludge is sent to properly-licensed firms for use in energy generation. Work is currently in progress on a project at Torosport’s Samsun terminal to install a similar dewatering unit for waste generated by vessels there.
- Under the TANAP pipeline project, about a million cubic meters of water that was used during various stages of the project was either purified for reuse or else was sampled and analyzed before being discharged if reuse was not possible. Horizontal directional drilling methods were employed at four major river crossings (Delice-1, Delice-2, Sakarya, Kızılırmak) so as to mitigate any ecosystem harm. All waste generated at camps and worksites during the project was collected at regular intervals and sent to licensed recycling or disposal plants.

**Protecting biodiversity**

Our planet’s biodiversity is being reduced by many anthropogenic problems such as climate change, deforestation, habitat fragmentation, and pollution. Biodiversity loss poses significant long-term risks owing to its possible impact on sources of raw materials procurement and on food production. Because many Tekfen Group companies are in business lines (such as construction and agri-industry) with the potential to have an adverse impact on biodiversity, due measures are taken to protect ecosystems and their species during the conduct of their operations.

Efforts to safeguard biodiversity are informed by both systematic and project-specific approaches within the frameworks of biodiversity action plans, ecological-management plans, and environmental impact assessment reports. Beginning with the onset of the planning stage, action plans are developed that call for observing local fauna, proactively protecting it, relocating species living in project sites to other
but similar habitats when necessary, rehabilitating project sites when work is completed, and so on. Efforts are made either to completely eliminate or at least minimize the impact of operations on wildlife.

Tekfen companies also carry out reforestation and landscaping projects and they cooperate with environment-focused non-governmental organizations in order to contribute to biodiversity conservation efforts. These companies’ subcontractors are also encouraged to engage in similar efforts themselves.

FRAME

TANAP: An exemplary project

The Trans-Anatolian Natural Gas Pipeline (TANAP) provides a good model for showing how the impact of such a gigantic construction project on environmental, plant, and wildlife assets can be minimized. In the conduct of this project, a Tekfen Environment Team traveled along the pipeline’s route before construction work began in order to identify any ecologically at-risk areas while action plans were drawn up in order to deal with such risks. During the conduct of pipeline construction operations, efforts were made to protect ecosystems’ topsoil, endemic-species, wetland, and water-course assets.

In 170 cases, wildlife identified as being too close to the pipeline was relocated to a safe distance to prevent the animals from being adversely affected by construction work. Specific methods were likewise employed to protect two invertebrate, three fish, and eight plant endemic species that were encountered along the route. More than ten thousand seeds that had been collected before the start of work were later planted in the areas from which they had been taken. When a nest containing the eggs of a Eurasian stone curlew (Burhinus oedicnemus) was discovered at one worksite, operations were suspended there for two months to give the eggs time to hatch and for the chicks to fledge.

Although very little of the route along which the pipeline passed qualified as officially recognized forest in Turkey, Tekfen worked with the forestry directorate to plant nearly twelve thousand trees in seven areas deemed to be in need of rehabilitation near the route.

At 86 of the watercourses that the pipeline traversed, various measures were taken to
combat erosion. Slope breakers that were built at 174 locations that were exposed to erosion risks were also revegetated.

**Innovation**

Besides adding momentum to economic growth by directly affecting productivity and efficiency, digitalization and innovative technologies provide businesses with significant development potential by creating new business lines. New products and services inevitably make it necessary to change business models as well. When investing in innovative, value-adding, and socially-beneficial products and services in parallel with new directions in worldwide trends, Tekfen constantly reviews its business models in light of changing conditions.

In addition to overseeing such innovation-fostering entities as the Toros R&D and the Agripark R&D centers, Tekfen Ventures, and Tekfen Engineering, Tekfen Holding also regards propagating its innovation culture throughout its entire organization and developing its business models in line with that culture as one of its most important priorities. Tekfen achieves this not only by encouraging synergies among the group’s companies but also by exploring and exploiting opportunities to collaborate with external stakeholders to the same end.

In order to centralize digitalization processes within the Tekfen Group and manage companies’ digital transformations in line with the needs of their particular sectors, a Tekfen Holding Group Companies Department of Information Technologies was set up in 2017. This unit is responsible, among other things, for comprehensively assessing digital-transformation risks and opportunities, developing value-adding digital solutions that will make a difference in products and services, coming up with operational-excellency solutions that will enhance profitability and efficiency, and making effective use of information technologies within the group.
R&D & innovation practices

One benchmark by which countries’ economic development is measured nowadays is the importance which is given to science and technology. Throughout the world, information is now seen as having the greatest impact on economic growth and development. In order for companies to fit in and to compete at the global level and to continue growing and developing sustainably, they crucially need to give importance to R&D and innovation. Investing in both R&D and innovation makes it possible for companies to create competitive advantages for themselves by offering high added-value products and services. Through R&D and innovation, companies can also shield themselves from unfavorable market conditions and from destructive competition.

With a name that is derived from the Turkish words for “technology” (teknoloji) and “science” (fen), Tekfen regards keeping a close watch on innovations that will create added value and making effective use of innovative technologies in the conduct of its operations as two of the most fundamental requirements of its own sustainability. For this reason, Tekfen invests heavily in research and development.

In its capacity as Turkey’s biggest privately-owned agri-industrial concern, in 2017 Toros Tarım authored a first in the country’s fertilizer-manufacturing industry by opening an R&D center at its Mersin plant. This plant, which has been awarded Ministry of Industry and Technology certification, is the first center of its kind in Turkey devoted to plant nutrition and nutrients. Engaging in scientific studies to meet the agricultural sector’s demands and needs, the center gives priority to the development of new products that will help improve agricultural productivity. Employing a staff of 33 people, the center’s goals include developing new products that will further diversify Toros Tarım’s plant nutrients portfolio as well as addressing such issues as improving existing products, developing production processes, optimization, production-related energy conservation, and reducing environmental impact.

Toros Tarım and the Çukurova technocity operated by Çukurova University’s Technology Transfer Office have entered into an agreement to collaborate on research looking into sustainable-agriculture issues. The goal of this agreement, which was signed in 2016, is to develop high-yield plant nutrition and fertilizing practices which are also eco-friendly.
Toros Çiftçi (Toros Farmer) is a mobile app for smart phones and tablets which was specially created by Toros Tarım to support “smart-farming” and “Agriculture 4.0” concepts and which was introduced in 2016. Made available to farmers free of charge, the Toros Farmer smart-farming and fertilizing app helps farmers make timely production and operations-related decisions correctly by combining field-specific weather forecasting together with soil and crop parameters. Tekfen’s Toros Farmer app placed first in the “Agricultural Informatics” category of the 2016 Growtech Eurasia Innovation Awards.

Located in Adana is Tekfen Agricultural Research’s Agripark R&D Center, which engages in the production of disease-free seeds and seedlings using the plant tissue-culture method. This company also works on the improvement of crop seeds using both modern and classical methods. Agripark is Turkey’s first and still one of only a handful of techno-agriculture research centers in the country. In 2018 it was certified as an R&D center qualified to engage in molecular breeding and plant production. The center also collaborates with universities in the conduct of biotechnological research aimed at developing Turkish agriculture.

Benefitting from Turkey’s rich biodiversity as a resource in the conduct of its operations, the center engages in many different activities, one of the more important of which is a wheat-breeding project which was started a few years ago under the TÜBİTAK Technology and Innovation Grant Program Department’s “Priority Areas for Research Technology Development and Innovation Funding” programs. One of the aims of this project is to breed high-quality and high-yield bread wheat varieties that are resistant to the different biotic and abiotic stress conditions that exist in Turkey’s ecological zones. Work is currently in progress on developing and conducting eight different R&D projects at Agripark.

In order to be in the vanguard of the construction and agricultural industries’ innovation and digital transformation processes, Tekfen Holding set up Tekfen Ventures, a US-based venture capital firm with USD 50 million in funding.

Seeking to secure technological advantages for the Turkish economy as well as for itself, Tekfen Ventures invests mainly in innovative startups anywhere in the world that Tekfen believes will lead to changes associated with the business lines in which it
is active. Tekfen Ventures also serves as a bridge connecting Tekfen Group companies with technological innovation and digital trends around the globe. Although Tekfen Ventures usually invests in startups capable of coming up with solutions addressing problems which Tekfen Group companies encounter in agriculture and construction as well as in other areas, it does not confine itself exclusively to the business lines in which the Tekfen Group is active but rather keeps a close watch on other new undertakings with promising potential.

Generally supplying startups that have reached the so-called “early” stage with between one and three million dollars in capital, Tekfen Ventures is especially interested in manufacturing-industry ventures, keeping its eye particularly on “Industry 4.0” firms with the potential to come up with productivity and efficiency-enhancing solutions. The company’s investment portfolio contains stakes in a diverse assortment of technology producers ranging from companies which develop sensors capable of protecting workers’ health and safety and reducing accident risks in industrial settings on the one hand to genetic research companies exploring ways to make farming more sustainable and productive.

Tekfen Taahhüt Grubu bünyesinde faaliyet gösteren ve teknolojik açıdan zorlu projelerde yer alabilecek yetkinliğe sahip Türkiye’nin öncü mühendislik şirketlerinden biri olan Tekfen Mühendislik, farklı sektörlerdeki Grup şirketlerine, özellikle teknolojik desteğe ihtiyaç duyulan operasyonlar ve projeler kapsamında katkı sağlamaktadır. Sirket, Grup’un çevresel ve sosyal fayda yaratan farklı projelerinde aktif rol almaktadır:

- **Digital Initiative** is a collaborative effort started by Tekfen Engineering that brings together Tekfen Ventures, portfolio investment companies, and technology suppliers and whose aim is to make the solutions which these companies come up with available to its own customers as well. Tekfen Engineering is involved in the development of the initiative’s system integration and digitalization solutions.

- Under a **Carbon Capture Project**, Tekfen Engineering collaborates with TÜBİTAK and İstanbul Technical University in the development of membrane-based technologies capable of capturing CO2 emissions generated by natural gas extraction and energy production.

- The **Alanar Meyve Processing Plant** belongs to Alanar Meyve, a subsidiary of Tekfen Tarım that supplies and processes fresh fruits. For 10

10Detailed information about Tekfen Ventures is available at www.tekfenventures.com.
this company’s plant, Tekfen Engineering designed robotic packaging systems which are capable of handling six different kinds of fruit and whose combined processing capacity is about 23,500 tons. It also designed the plant’s production monitoring and autonomous forklift and shuttle systems. Designed to be a LEED-certified building informed by the principles of zero waste, advanced technology, and renewable energy use, the plant will be benefitting from technologies developed by Soft Robotics, a company in which Tekfen Ventures has a stake.

- The Qatar Eco-Life Project calls for converting wetlands in Doha into a bird sanctuary. Its aim is to create an ecosystem that is completely sustainable in all respects, including the energy systems which it uses.
- Work is currently on Eco-Village, a project to design an ecologically-sustainable village in Turkey.

Tekfen Manufacturing also provides manufacturing and installation services for the storage tanks, pressurized vessels, heat exchangers, and other industrial equipment which Tekfen’s contracting division may require. In 2017 the company was awarded Ministry of Science, Industry and Technology Design Center certification. Designing and executing the equipment that it produces from scratch, Tekfen Manufacturing most recently took part in an R&D project with TÜBİTAK to cut, form, and weld titanium steel for use in the manufacture of pressurized vessels. The first undertaking in Turkey ever to employ this technology, this project’s products have been granted a CE certification mark.

**R&D & innovation culture**

In the conduct of all of its business processes, Tekfen encourages not only its own employees but also external stakeholders to take part in order to elicit and nurture innovative ideas as well while likewise facilitating the development of those processes through collaborations. When deemed to be necessary, competitions and reward systems are employed in order to attract and support innovative approaches for dealing with issues. In-house entrepreneurship and open-innovation channels are two elements of Tekfen Holding’s three-year plans.

An essential element of Tekfen’s corporate culture is to support employees’ efforts to play a role in innovation. For example in 2016 Tekfen Engineering encouraged doctoral candidates on its payroll to take part in an R&D project being carried out by Boğaziçi University’s mechanical engineering department and it supported that
project’s efforts to design and manufacture impellers, a key component of centrifugal pumps, turbines, and compressors. In 2017 the company set up R&D groups to explore issues related to modular design, steel structures, and cable-stayed bridges.

**SPOT**

Tekfen Engineering supports a Turkish Industrialists’ and Businessmen’s Association entrepreneurship program whose aim is to inspire innovative and entrepreneurial ways of thinking among university students.

**Digitalization**

Developments taking place today in such areas as Industry 4.0 technologies, smart technologies, artificial intelligence, and the Internet of Things (IoT) are transforming companies’ business models and opening up new avenues for their across-the-board growth. It is estimated that the impact of such technologies on companies’ business processes and on their products and services could generate additional value amounting to something on the order of USD 3.7 billion.\(^{11}\) Besides supporting the development of their existing business lines, digital transformation provides companies with numerous opportunities to improve sustainability on issues ranging from reducing operational costs to improving process efficiency, from more successful customer communication to more effective risk management and more productive use of resources.

Digital technologies are among the most important means available for creating both competitive advantages and value in strategically important areas through product and service diversification. Being a “digital company” also implies being a nimble and flexible company that is capable of responding more quickly to changes in trends.

Recognizing the great importance of digital transformation processes to sustainability, in 2017 Tekfen Holding set up a separate information technologies department in order to institutionalize those processes throughout the Tekfen Group. This department has put together a three-year plan for creating value and supporting profitable growth through the digital transformation of Tekfen companies’ business.

\(^{11}\) “The Next Economic Growth Engine”
models and processes. Besides setting out ways to improve and optimize business processes through their digitalization, the plan also calls for the development of digital competencies and the improvement of data analysis performance.

An important aspect of Tekfen’s digitalization process involves improving in-house communication channels throughout the group. In line with this, in 2018 a comprehensive communication platform embracing Tekfen Holding and all Tekfen Group companies was launched. By providing the infrastructure for personnel and teams working in different parts of the world to communicate with one another through audio-visual systems and instant messaging, this platform has reduced the need for employee travel. A Tekfen intranet portal that will make it possible to connect with all group companies, share ideas and best practices, and increase work productivity is also on track to become operational in 2019.

Other aspects of Tekfen companies’ digital transformation involve the creation of a document management system platform, a business processes management platform, a business intelligence and reporting platform, and an information technologies support system. Of these, the business intelligence and reporting platform became operational in 2018 with the launch of Financial Dashboard”, a feature that makes it possible to display the financial status of every group company on a day-by-day basis.

One of the priority issues addressed at Toros Tarım in 2018 was the development of planning hardware and software capable of optimizing the company’s overall procurement, production, and distribution costs. Software developed to better manage all production and sales-process variables compatibly with market dynamics and to formulate different procurement, production, stock-control, and distribution scenarios according to different sales projections is expected to contribute significantly to the company’s ability to make healthier strategic decisions and to maximize its profits.

2018 saw the launch of TekNET, an information technology and security project to create network infrastructure that is to be used by all Tekfen Group companies. As an undertaking that will require a comprehensive and long-term effort, the first phase of this project is planned to become operational during 2019. The goal of this project is to create an IT infrastructure that is better and more efficient, is flexible enough to be kept regulatorily compliant, and is more robust in dealing with cybersecurity threats.

The ongoing digital transformation is also an issue that is of importance to the contracting division’s operations in the future. The conversion of archives to digital
format, a changeover to an Enterprise Resource Planning (ERP) system, and the introduction of a Supplier Management System that will allow headquarters and project-based units to manage their procurements more effectively are just three of the projects that have been initiated under this heading.

The digitalization of all of its project-management processes is a matter of great importance for Tekfen Construction. In such an environment, it will be possible for the company to oversee, plan, and cost-control projects from the initial proposal-submission stage onwards. All of the processes which Tekfen Construction used to have to manage manually are now being automated through specially-written software. Under its IoT project, Tekfen Construction has assigned electronic tags to all of its heavy-duty machinery and equipment and it has begun to keep track of who is using it, for how long, how much fuel it consumes, and where it is located. This contributes to operational excellence through improved efficiency analysis and more effective management.

Whenever new equipment is to be procured for any of the contracting division’s production units, attention is given to digital compatibility. The software used in engineering work is chosen so as to achieve the highest level of productivity. All engineering units make use of the most advanced intelligent 3D/4D design software currently available. Tekfen Engineering is playing a leading role in the industry with its introduction of Building Information Modelling (BIM), a technology that has added a whole new dimension to project design in recent years. The company deploys BIM processes in its industrial projects as well as in its construction projects. This modelling system not only speeds up engineering design work while making it more efficient and easier to manage effectively but also helps reduce the environmental impact of projects and makes it possible to work together with subcontractors, designers, and project owners to identify potential risks and to manage them more effectively from the very beginning of design work. Tekfen Real Estate is another Tekfen Group company that plans to integrate BIM technology into its own business processes.

Tekfen Insurance supports its online insurance and digital distribution services by strengthening its information technology infrastructure. Supplying all of its insurance products and services exclusively online, the company’s website hosts such features as offer-comparisons, electronic-format policy-issuance, process management, report generation, and payments.
Recognizing that digital transformation also poses a variety of security risks as well as of advantages, Tekfen Holding has drawn up a Tekfen Information Security Policy and has also applied to be audited for compliance with ISO 27001 Information Security Management System certification in order to demonstrate that it is capable of managing such risks effectively. The goal is to complete the auditing process during 2019. Tekfen Construction, Tekfen Manufacturing, and Toros Tarım—three Tekfen Group companies that together account for about 90% of Tekfen Holding’s turnover—have already been awarded ISO 27001 certification. The plan is to have other Tekfen Group companies qualify for the same certification in the years ahead as well.


Employees and society
Employees and Society

Tekfen regards its employees as its most precious resource and its employees’ abilities as the greatest guarantee of its own product and service quality. Interacting with about 12,000 personnel when its own and those of its subcontractors are included, Tekfen's approach to labor relations is informed by a corporate culture of being a company which is respectful of human rights, which provides employees with a satisfying workplace environment, and which is inclusive. Tekfen believes that contributing to the prosperity of employees in the value chain as well as society at large is crucial to its ability to be one of the cornerstones of the future.

As a business concern with international operations that encompass many different sectors, the impact of Tekfen's activities is wide-ranging; the company interacts closely with local communities in many different countries owing to its construction projects and with a broad range of customers owing to its real-estate operations; it also works with extensive dealer and supplier networks as well. For these reasons, Tekfen engages in effective stakeholder-engagement practices and it develops solutions that are capable of responding not only to its own needs but also to the needs of groups in its value-creation chain and of the greater community.

Talent management

As a deep-rooted company, Tekfen values its employees and gives importance to entering into long-term relationships with them. Because Tekfen's own ability to achieve its goals and to innovate is directly related to its employees' abilities, Tekfen understands that the way to create strategic value for itself is to support employee development and to invest in their future talents and competencies. Seen as a matter of the utmost importance to Tekfen's future, investing in employees is one of the company's priority-development concerns.

Tekfen Holding’s human resources department was reorganized in 2018 with standard practices being formulated so as to be applicable to all group companies. This reorganization focused especially on the issues of strategic recruitment, individual goal-based performance and reward management, talent management, and career progression. Two matters of fundamental concerns are holding onto existing talent and attracting newly-recruitable talent to Tekfen by addressing their particular expectations. Other priority issues for Tekfen in human resources management are

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12 This is the number of employees given in the 2018 annual report.
occupational health and safety, employee development and talent management, employee loyalty and satisfaction, and employee and human rights.

In 2018 Tekfen Group companies employed a total of 9,486 people, 32% more than in 2016 and 10% more than in 2017. Some 38% of Tekfen employees are covered by collective bargaining agreements. An uncompromising respect for human rights, including an absolute ban on child and compulsory labor, is a cornerstone of Tekfen’s human resources management approach. No complaints about either child or compulsory labor have ever been made to the Tekfen Ethics Hotline.

Tekfen is opposed to any form of discrimination and it provides every employee with equal opportunities. Tekfen supports women in their efforts to be active members of society and to undertake duties at every level of its own organization. A review of positions held by employees in group companies reveals an equitable gender-based distribution. Of the forty-six seats available in Tekfen Group company boards, eleven (24%) are held by women.

**SPOT**

At the 2018 Conference of Women on Boards in Turkey, organized by the Sabancı University Corporate Governance Forum, Tekfen received the gathering’s “Women-Empowered Board” award. Of the 403 companies listed on the İstanbul Stock Exchange, Tekfen Holding ranks third among companies with the most women holding director-level positions: of the eleven seats on its board of directors, four are women and three of those are independent directors.

In the conduct of its human resources practices, Tekfen Holding gives particular attention to supporting the principles embodied in United Nations Sustainable Development Goals numbers 4 (“Quality Education”), 5 (“Gender Equality”), and 8 (“Decent Work and Economic Growth”).

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13 Tekfen personnel employed in companies covered by this report.
Total number of employees

<table>
<thead>
<tr>
<th>Year</th>
<th>Employees</th>
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<td>2017</td>
<td>8,644</td>
</tr>
<tr>
<td>2018</td>
<td>9,486</td>
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</table>

Local Employment

- 70% of employees are locally employed
- 30% of employees are not locally employed

Employees by collar

- 58% are white-collar workers
- 42% are blue-collar workers
Employee development and satisfaction

Tekfen Holding believes that gaining a competitive advantage and realizing its objectives are possible only by employing qualified human resources. For this reason, Tekfen continues to devote the same care and attention to personnel career progression as it does when it recruits and hires employees in the first place. Tekfen personnel are chosen on the basis of their ability to work in coordination as members of a team, to come up with ideas, to exercise their creativity, and to make effective and insightful decisions. The company for its part supports these talents through a variety of programs.

Performance management is another human resources management issue to which Tekfen gives importance. The Tekfen Performance System which was introduced in 2017 as a pilot project and whose final form took shaped on the basis of that project’s feedback, has since been expanded to encompass all of the personnel of Tekfen Holding, Tekfen Engineering, Tekfen Manufacturing, Tekfen Tarım, Tekfen
Construction, Tekfen Real Estate, and Tekfen Tourism. A presentation, a video, and a guide have been prepared to inform Tekfen employees about how this performance system works and how it will benefit their careers. Tekfen Holding and group company managers have also taken part in workshops during which both the overall system and the “SMART” intelligent-target concept are explained.

Human resources departments are responsible for the management of the Tekfen Performance System, under which white-collar personnel undergo target and competency-based reviews and assessments at the end of each year. This system also addresses such issues as identifying individual employees’ strengths and potential weaknesses as well as competencies that serve as input for training and progression plans.

Based on the results of performance evaluations, areas in which Tekfen Holding and Tekfen Group company employees are in need of personal and/or professional development are identified, after which training is formulated as part of the talent management process. In addition to training covering such issues as project management, finance, risk management, occupational health and safety, quality management, team management, stress management, and effective communication, Tekfen Construction employees are also provided with Learning Management System (LMS) training online.

Leadership and training programs

Training programs are the most important component of employee progression and talent management. With the support of an international consultancy, in 2017 Tekfen began rolling out a new series of training programs based on personal and leadership-inventorying concepts and these programs have gained increasingly more momentum since then. The talent management process is informed by the results of personal inventories, whose aims are to create awareness of managers’ abilities and to provide input for a pool of future potential management talent. Intended for higher-position managers, leadership inventories are designed to analyze and shape the future’s management cadres in line with Tekfen Holding’s strategies and goals. These employees’ near-term progression plans are designed and nourished according to the results of their leadership inventories.
An in-house Tekfen Workshop was originally established at Tekfen Construction for the purpose of coming up with alternative solutions for addressing the various needs of contracting division companies. In 2019 the scope of the workshop was enlarged so as to encompass the training requirements of all Tekfen Group companies under the same roof. In its expanded form, the workshop seeks to create employee awareness through individual-level assessments and to contribute to employee development through corporate-level training and seminar programs. A series of online training programs focusing on three main areas—Technical Issues, Management & Development, and HSE & Quality—is being planned and will be made accessible to employees throughout the year. Accessible at the outset only to Tekfen Construction personnel, the online platform will gradually become available to those of other Tekfen companies as well.

Under the heading of leadership training, a “Leadership Program” was conducted for Tekfen Construction middle and upper-level managers in 2018 in collaboration with Koç University. The main subjects covered by this program are such things as personal awareness, strategy, leadership, change management, and digitalization. The plan is to expand the scope of the program to include the middle and upper-level managers of all Tekfen Group companies in 2019. The goals of this training are to contribute to leaders' personal development and to make them familiar with current global trends in a variety of areas.

The Tekfen Leadership Program is an extension of the Tekfen Manager Development Program, which is something that all first-level managers in all Tekfen Group companies must take part. This program will focus on such issues as managerial skills, feedback, and management by objectives. Its main goal is to contribute to participating managers’ personal development and leadership skills.

### Toros Academy

In 2017 Toros Tarım brought all of its employee training and development operations together under the auspices of Toros Academy with the aim of supporting the development of human resources whose qualifications are compatible with the company’s corporate vision. A fundamental principle of Toros Academy is to ensure the sustainability of success and the continuity of development.
Toros Academy's goal is to proactively support developmental processes of each employee at every level so that Toros Tarım is able to achieve both its short and its long-term aims. In 2017 the academy launched its Leadership School in partnership with Bilgi University. The goal of this school is to foster a shared leadership culture that is compatible with the company’s vision of the future. Under its “Leader Manager Coaching Program”, the school supports upper-level managers by assigning them coaches who have specialist knowledge about dealing with their particular management development issues. For lower and middle-level managers, the school also runs a “Basic Leadership Program”.

Under these programs, participants attended university classes and designed individual projects which they believed were capable of furthering their careers. These project proposals were submitted to a jury of Toros Tarım senior managers and university faculty members, who judged them based on what they believed would be the added value which the projects would generate for the company. Six of the ten project proposals were greenlighted for deployment while their owners were rewarded for having come up with value-creating projects for the company and for having contributed to Toros Tarım’s in-house entrepreneurial mindset. In 2018, 120 managers who attended and successfully completed the first round of Leadership School were awarded certificates as evidence of their participation. Last year Toros Academy also launched “You Are The Future”, a similar competency management program whose aim is to ready Toros Tarım’s specialist and engineering personnel for other duties as they pursue their careers.

In 2017 Toros Tarım launched a comprehensive program aimed at raising workplace health and safety standards, helping employees to develop their individual competencies when dealing with such issues, and cultivating a sustainable safety culture throughout the company. Dubbed “Not Without You!”, this safety campaign was supported with the addition of a “Safety Academy” in 2018, whose aim is to serve as a “best-practices” model not just for Toros Tarım’s own sector but for others as well.

In 2018 Toros Academy expanded the boundaries of its ecosystem beyond its own employees by reaching out to farmers all over Turkey. A remodeled bus done up as a mobile training vehicle and classroom for farmers travels around the country, thereby giving Toros Academy’s teams of technical marketing specialists and academicians access to hundreds of farmers in Turkey’s Southeastern Anatolian, Central Anatolian,
Communicating with employees

Tekfen Holding and Tekfen Group companies pay attention to their employees’ opinions and ideas in order both to increase employees’ job satisfaction and to support a workplace environment that people want to work in. They also provide various means and channels through which these opinions and ideas may be communicated to the employer. One of these is the Tekfen Ethics Hotline, which was launched in 2018 and which may be used for all employee feedback.

Both Tekfen Construction and Toros Tarım, which together employ 94% of the people on Tekfen's payroll, regularly conduct employee satisfaction and loyalty surveys. In 2018 Tekfen’s first “Employee Effectiveness Survey“ was conducted, under which all of the employee surveys hitherto conducted by group companies were amalgamated so as both to quantify groupwise employee loyalty and to solicit employees' views on the effectiveness and efficiency of the various benefits and other resources provided to them. The results of this survey, to which 96% of Tekfen Group companies’ personnel responded, revealed an employee effectiveness rating of 46%.

Also to be conducted is an Internal Customer Survey, which seeks to understand inter-unit operational dynamics among Tekfen Group companies and to identify employees’ domains of effectiveness while also creating awareness of productivity-related and other issues that may exist. As a first step in this process, the current situation is to be investigated after which areas that are in need of improvement and/or change will be identified, and action plans will be developed to improve internal service quality and especially internal communication.

Another employee communication channel is the Tekfen Human Resources Mobile App. This app provides employees with information about new projects, news about events and activities, annual training programs, and so on. Employees using the app can also create a personal profile which they can then use to apply for position-vacancy announcements in group companies and to submit feedback to their human resources unit. Besides making it possible for the company to communicate more effectively with employees, this app also helps keep the Tekfen employee talent and candidate pool up to date.
Work has begun at Toros Tarım to qualify for Investors in People (IIP) certification, an internationally-recognized human resources management standard. IIP provides an action plan for maximizing an organization’s human resources management performance. This involves conducting online surveys and engaging in face-to-face meetings with Toros Tarım employees in order to identify the company’s strengths and weaknesses in this area. Having done so, action plans will be drawn up, finalized, and put into effect with the ultimate aim of receiving accreditation in the next couple of years.

Provided every year without exception since 2004, service awards play an important role as a treasured tradition and element of Tekfen’s corporate culture. To date, 3,592 people have been recognized with awards commemorating their 10th, 20th, 30th, and 40th year of service in Tekfen’s employ.

SPOT

In 2016 a tradition of planting a tree to mark the birthday of each Tekfen Holding head-office employee every year was begun. This practice not only fosters employees’ environmental awareness but also helps reduce their carbon footprints as well.

**Occupational health & safety**

A Zero-Accident Vision informs Tekfen Holding’s activities in every business line in which it has operations. According to this vision, providing employees and subcontractors with a healthy and safe workplace environment is one of the company’s most fundamental duties. Tekfen has established and conforms to international-standard-compliant occupational health & safety (OHS) systems and these are what enable group companies to achieve their superior accident-free performance records, especially in the highly accident-prone construction industry, which is one of its principal business lines. Group companies’ OHS practices goes beyond the minimum requirements of laws and regulations.

In order to ensure that its Zero-Accident Vision is fulfilled and that OHS rules are strictly obeyed, an effective OHS performance-auditing mechanism has been set up at every Tekfen Group company. Daily field inspections, weekly field inspections, internal audits, and third-party audits are conducted in order to determine the suitability, adequacy, and effectiveness of systems, regulations, and procedures. Until recently, group companies’ quality and health, safety & environment (HSE) systems were audited only by their own quality and HSE internal auditors; beginning in 2019,
such audits will also be conducted by the Tekfen Holding HSE and Quality Coordinator's Office as well.

Efforts are made to constantly improve the system's effectiveness while the adequacy of every group company's management systems is reviewed at least once a year by its senior executives. An OHS system that complies with the OHSAS 18001:2007 Occupational Health & Safety Management System standard are installed at all of Toros Tarım's and Tekfen Construction's workplaces as well as at Tekfen Manufacturing's headquarters and Derince plant. As such, this system covers 96% of all of Tekfen's personnel. Tekfen Holding keeps track of its subsidiaries' OHS performance by means of monthly and yearly reviews conducted by Tekfen Holding HSE & Quality Coordinatorship. The data from these reviews is analyzed and steps are taken as necessary to improve performance.

**SPOT**

In 2018, Toros Tarım's efforts to achieve its goals of sustainable growth, operational excellence, and continuous development made it the first company in Turkey to be awarded International Fertilizer Association (IFA) “Protect & Sustain” certification. This IFA certification is evidence that Toros Tarım complies with OHS, environment, product safety, and security standards that are higher than mandatory regulatory requirements.

**FRAME**

**Attention to OHS creates value**

As a company that is experienced and successful in the area of OHS, in 2018 Tekfen Holding conducted a stakeholder analysis in order to increase stakeholder awareness and value. Questionnaires were sent out to about six hundred stakeholders representing employees, analysts, business partners, public and regulatory authorities, media, customers, NGOs, professional organizations, and universities. Responses to 75% of these queries were received.

The results of this stakeholder analysis revealed that among the areas in which improvements needed to be made were training, leadership, and auditing and the propagation of a safety culture throughout the entire group. Among the proposed
solutions that were identified were focusing more on practical training, making
greater use of technology, and including OHS performance among the key
performance indicators on which all human resources processes (but especially
salary raises, bonuses etc) are based.

These analysis results also serve as the basis for Tekfen Holding’s OHS strategic
action program and will be used to inform projects that will be undertaken in the
period ahead.

HSEQ Coordination Group

Tekfen Group companies manage their OHS systems and their environmental
management systems through their HSE (health, safety & environment) teams. As of
end-2018, a total of 380 HSE personnel including medical personnel were on
Tekfen’s payroll.

In order to minimize inconsistencies in HSE and quality-related practices among
Tekfen Group and to cultivate a shared Health, Safety, Environment & Quality culture
throughout the group, an HSEQ Coordinatorship was set up within Tekfen Holding in
2017. This Coordinatorship is responsible for constantly monitoring group
companies’ HSE performance and for taking steps to improve it. The HSE behavior
which Tekfen Holding expects of its subsidiaries is spelled out for them in a series of
Uniform HSE Methods and HSE Regulations that have been written up and published.
During 2018, Tekfen Holding published one HSE plan and nineteen HSE regulations
as guidance for Tekfen Group companies when addressing HSE issues.

In 2017, the HSEQ Coordinationship also set up an HSEQ Coordination Committee,
whose membership consists of representatives from Tekfen Group companies.
Periodically-convened meetings of this committee ensure that HSEQ information is
consistently shared and that HSEQ issues are effectively communicated among
Tekfen Group companies. Each company prepares monthly reports containing HSE
indicators as they are applicable to its own operations and it submits these reports to
the HSEQ Coordinationship, which consolidates and analyzes their contents and
reports its findings to the Tekfen Group Companies President.

Based on the findings of Tekfen Holding’s OHS project, HSEQ issues have been
included in the set of key performance indicators according to which employees’
performance is evaluated.
OHS training

The importance and priority that Tekfen Group companies give to OHS training is informed by the need to raise the level of employees’ OHS awareness and competencies in order to achieve OHS objectives and goals.

All Tekfen personnel employed at worksites that are under Tekfen Holding’s control are subject to the same OHS rules and regulations and their performance is measured in the same way. The same rules and regulations apply, without exception, to subcontractors’ employees as well. Every Tekfen employee’s OHS performance indicators are closely monitored. Subcontractor personnel receive the same OHS training that all Tekfen personnel do.

While training is provided on a regular basis to employees in all Tekfen Group companies, such training is administered more intensively in business lines (such as construction) whose risks are significantly higher. A total of 1,000,452 personhours of training was provided during 2018, a performance that corresponds to a 66% year-on increase. For every 100 hours worked, employees received on average 1.16 hours of HSE training and 0.76 hours of on-the-job training at the workplace.

<table>
<thead>
<tr>
<th>Training</th>
<th>2016</th>
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<td>Total training time (personhours)</td>
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<td>601.365</td>
<td>1.000.452</td>
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OHS performance

Thanks to effective OHS management, projects, and training, the success of Tekfen Group companies’ OHS performance compares favorably with internationally-accepted standards.
All Tekfen Group companies base measurements of their OHS performance on the internationally-recognized LTIR\textsuperscript{14} and TRIR metrics. In 2018, the average LTIR performance among Tekfen Group companies was 60% lower than it was in 2016 while their average TRIR performance was also down by a comparable 52% during the same period.

During 2018, a total of 86,521,058 personhours was worked at Tekfen Group companies that are active in sectors such as contracting, agri-industry, and real estate development which are deemed to be exposed to heightened OHS risks. Although significant improvements in Tekfen’s overall OHS indicators were registered last year, there were six work-related fatalities during the reporting period: five of these

\textsuperscript{14} This is the ratio of the number of accidents resulting injuries requiring more than first-aid intervention divided by one million hours worked.
occurred in the contracting division and one occurred in the agri-industry division. Tekfen Group companies engage in an ongoing effort to reduce their work-related accidents to zero. OHS systems and training are constantly being developed to improve OHS performance.

Because Tekfen Construction singlehandedly employs 85% of all Tekfen Group personnel, the performance indicators of its HSE management system are regularly compared with those published by the International Association of Oil & Gas Producers (IOGP) and the International Pipe Line & Offshore Contractors Association (IPLOCA). Information about Tekfen Construction’s OHS achievements performance is provided in Appendix 2.

Tekfen Construction is a founding member of the International Pipe Line & Offshore Contractors Association (IPLOCA) and it plays an active role as a member of that organization’s work safety committee. Tekfen Construction’s “Working on Steep Slopes” project submission took second place in the 2017 round of the IPLOCA Health & Safety Awards. In the 2018 rounds of the same awards series, Tekfen Construction took second place in the OHS category with its “Safety Off The Job” program. Recognizing that more people are injured in accidents away from the workplace than while at it, in 2017 Tekfen Construction published Safety Off The Job, a booklet whose aim is to contribute to the health and safety of its employees and their families. (This booklet may be downloaded from http://www.tekfeninsaat.com.tr/off-the-job-safety-book/)
Because its workplaces and industrial operations are considered to be in the “high-risk” category, Toros Tarım monitors and benchmarks its OHS performance in accordance with data published by the International Fertilizer Association (IFA). In order to support the realization of its “zero-accident” goal in the conduct of its operations, in 2018 Toros Tarım set up Toros Safety Academy, whose aims are to create an integrated safety management system, achieve sustainably better workplace safety results by engaging employees in the process, developing all employees’ basic OHS skills and competencies, and making workplace cooperation among all stakeholders an element of the company’s corporate culture.

In addition to dealing with employee and workplace safety issues, Toros Tarım continues to improve its Process Safety Management System model in order to develop and strengthen its approaches to the management of its plant safety and operational risks. Toros Tarım believes that successful process safety management will make it possible not only to avoid causing harm and loss to people and the environment but also to improve production quality and efficiency by reducing manufacturing-process inconsistencies and interruptions. Toros Tarım took its first steps in this direction by determining what the existing situation is and comparing its performance with the world’s best examples. Having done so, it has now drawn up an improvements roadmap and implementation plan that spell out the company’s immediate and middle-term actions.

**Social investments**

Tekfen Holding supports the business ethics, diligence, promise-keeping, honesty, and similar values that it embraces in the conduct of its operations with an approach that is focused on people and the environment. Having committed itself, in line with its sustainability attitudes, to making transparency the foundation of its relationships with all of its stakeholders, to providing its employees with the healthiest and safest conditions for the performance of their jobs, and for making its operations environmentally-compatible, as a good corporate citizen Tekfen also regards returning some of the value that it generates back to society through projects that are beneficial to education, community development, and social and cultural life to be an essential element of its approach to corporate governance.

Through the socially-beneficial projects that it supports and undertakes, Tekfen Holding contributes especially to the realization of two of the United Nations’ Sustainable Development Goals: “Quality Education” (#4) and “Decent Work and Economic Growth” (#5).
Tekfen Holding supports corporate social responsibility projects in a variety of ways. It may do so directly itself as well as through Tekfen Foundation. It may also back Tekfen Group companies’ decisions to allocate resources for investing in socially-beneficial projects which are in alignment with its own attitudes towards contributing to society and which are compatible with its own aims and strategies.

**Tekfen Foundation**

In order to further advance its contributions to social and cultural wellbeing and to help build a livable future that is in harmony with nature, Tekfen set up the Tekfen Foundation for Education, Health, Culture, Art, and Protection of Natural Resources (Tekfen Foundation) in 1999. Statutorily recognized as a “public service corporation” in 2004, the foundation’s efforts are mainly in the areas of education, culture & art, and sustainable development. Tekfen Holding donates 2.1% of its annual profits to Tekfen Foundation. The TL 16 million that was donated to Tekfen Foundation in 2018 provided the foundation with the resources it needed to finance its culture, education, sport, and community development investments.

**Education**

Tekfen Foundation provides unconditional educational grants to successful but financially needy lycée and university students studying in Turkey. To date, more than 2,500 such students have graduated with the financial support of Tekfen Foundation. For the 2017-2018 academic year, the foundation increased the number of scholarships that it provided by 10% from 500 to 550.

In order that its scholarship recipients may embark upon their careers with a better-informed awareness of what it is that they want to do, the foundation also makes arrangements for traineeship and mentoring support for them at Tekfen Group companies.

In order to support efforts to address the specialized education and training needs of autistic children, Tekfen Foundation collaborated with the Tohum Autism Foundation...
and had a derelict building in Adana-Ceyhan renovated and converted into a special education center in 2014. Opening its doors on 15 September 2014, the Tekfen Foundation Special Education Center currently has an enrollment of 27. The Tekfen Foundation continues to provide the center with maintenance & repair support.

**Culture & art**


Tekfen Foundation’s most important culture & art undertaking is the Tekfen Philharmonic Orchestra. Consisting of musicians who hail from 23 countries in the Black Sea, Caspian Sea, and Eastern Mediterranean regions, the Tekfen Philharmonic has been fulfilling its “peace ambassador” mission without interruption since 1992. The orchestra gave eleven concerts in 2018.

Another of the missions to which the Tekfen Foundation is committed is the protection of Turkey’s cultural values. For example for many years the foundation supported archaeological excavations at Ziyaret Tepe, an ancient settlement in southeastern Turkey whose findings have made a substantial contribution to the world’s knowledge of the Assyrian presence in Anatolia. Tekfen Foundation helped finance the 2017 publication of a Turkish-language translation of Ziyaret Tepe: Exploring the Anatolian frontier of the Assyrian Empire, a book which summarizes all of the information and findings turned up by the excavation work and which received the American Institute of Archaeology’s prestigious Felicia A. Holton Book Award in 2018.

**Community support and development**

In the aftermath of the mining disaster which occurred in 2014 in the town of Soma in western Turkey and which resulted in the deaths of 301 miners, Tekfen Foundation supported the opening of a microcredit branch under the auspices of the Turkey Grameen Microfinance Program. The mission of the Tekfen Foundation Microcredit Branch, which opened its doors the same year, is to help local women create alternative sources of income for themselves and their families. To date, 684 low-income women have benefited from the branch’s credit support in the financing of their businesses.
Following up its efforts at Soma, in 2017 Tekfen Foundation entered into an agreement with the Turkish Foundation for Waste Reduction, under which it also supports the lending efforts of the Mersin Microfinance Branch. As of end-2018, 515 women were benefitting from this branch’s business-finance support.

**Tekfen Holding**

*Culture & art*

Tekfen Holding is a member of the board of trustees of the İstanbul Foundation for Culture and Arts and has been supporting that foundation’s series of İstanbul festivals for many decades. In that capacity, for many years Tekfen Holding has likewise been supporting both the İstanbul Biennial as a special projects sponsor and the Istanbul Theatre Festival as a local performance group’s show sponsor. Tekfen Holding has been a sponsor of the İstanbul State Opera & Ballet company for the last two years.

On the occasion of Japan Week in İstanbul last year, Tekfen Holding provided venue support at Tekfen Tower for the 14th Japanese Film Festival, which the Japanese consulate in İstanbul organized in March 2018.

*Education*

The İstanbul Technical University (İTÜ) Rover Team, which Tekfen Holding supported in 2017 in the company’s ongoing efforts to encourage young people to involve themselves in innovation and technology, qualified to compete in the University Rover Challenge held at the Mars Desert Research Station in Utah owned and operated by the Mars Society in the United States. The team’s entry was an unmanned space research vehicle that was developed at İTÜ and this was the first time that a Turkish team was admitted to the competition. Tekfen Holding supported the İTÜ Rover Team again in 2018.

ARC 6014, the Robert College Robotics Team that Tekfen Holding supports, qualified to represent Turkey in the FIRST Robotics Competition’s Houston championships having taken first place at the FRC’s İstanbul meet in 2018. The Robert College Robotics Team’s “Mr Pink” robot picked up three separate awards for its superior performance at the Turkish round of the US-based foundation’s competition, which took place on 10-12 March.
**Socially beneficial projects**
Tekfen Holding has been supporting AKUT, a search and rescue association and one of Turkey’s leading non-governmental organizations, as an “AKUT Friend” since 2012.

**SPOT**

Having become a sponsor of the Darüşşafaka Sports Club’s Basketball A Team, in 2018 Tekfen Foundation forged another link in the chain of its support for education by signing a donation agreement with Darüşşafaka, Turkey’s oldest non-governmental educational support institution established in 1863. Under this agreement, Tekfen Foundation is pursuing its mission of supporting equality in educational opportunity by covering all of the educational expenses of twenty-four students enrolled in Darüşşafaka’s middle school division for a period of four years each. The Tekfen Holding-Darüşşafaka collaboration is seen as an important spiritual union of two Turkish institutions whose corporate values are superior, whose human and moral principles are strong, and which are committed to world-class standards of quality in their respective fields.

**Toros Tarım**

**Education**
Having spearheaded the establishment of two primary schools and two lycees bearing its own name in the cities of Adana-Ceyhan and Samsun where its fertilizer plants are located, Toros Tarım continues to support all four institutions in a variety of ways. The Toros Tarım Anadolu Lycee located in Ceyhan opened in 1997 and the Toros Tarım Primary School opened the next year in 1998. Toros Tarım also supports the Toros Tarım Necati Akçağlılar Primary School, which is located in Ceyhan’s Sarımazi township and which began instruction in 2012, with maintenance & repair services and general supplies as may be needed. The fourth educational institution is the Toros Tarım Necati Akçağlılar Anadolu Lycee, which was built by Toros Tarım in Samsun’s Tekkeköy township and which began instruction in 2013. The combined enrollment of all four schools is 1,900.

**Supporting agriculture**
As the biggest privately-owned concern in its industry, Toros Tarım not only feels a responsibility to provide farmers with high-quality inputs but also undertakes social responsibility projects focused on the development of Turkish agriculture in general and improving the living standards of those whose livelihood is farming in particular.
Since the day it was founded, Toros Tarım has been striving to make farmers aware that improving their farming practices will increase their productivity and thus their own prosperity. In order to achieve this, the company gives priority to educational and informational activities. Toros Tarım shares its knowledge and experience with its audiences through publications, documentaries, and TV programs. It also supports Turkish agriculture by means of collaborations with sectoral authorities and with universities.

In 2018 Toros Tarım launched a Mobile Training Bus (Toros Academy) & Mobile Technical Team project which makes the rounds of Turkey’s predominantly agricultural regions and which has begun spreading the “4R” (the four “rights” of good fertilizer practices: the right source, the right rate, the right time, and the right place) message among farmers. The mobile technical teams, whose members are agricultural engineers, met with more than three thousand leading farmers and producers in 2018 while more than a thousand farmers were reached by the Toros Academy mobile training bus in Turkey’s Central Anatolian, Southeast Anatolian, Aegean, and Black Sea regions. The total distance traveled during this project was 260 thousand kilometers or about six and a half times around the world.
Toros Farmer, a smart farming & fertilizing app that was introduced with Toros Tarım’s support in 2016, is an agricultural decision-making support app that helps farmers make correct and timely decisions production and operations by entering weather and soil and crop type parameters. Downloadable free of charge and installable on Android-based mobile phones and tablets, Toros Farmer is designed to help farmers increase their agricultural output by giving them practical access to the benefits of precision agriculture technologies.

SPOT

A free agricultural decision-making app that supports innovative productivity-enhancing practices, Toros Tarım’s Toros Farmer was included in the Turkish chapter of the Business Council for Sustainable Development’s 2018 guide’s list of the best sustainable agriculture principles and practices.

The fair and equitable participation and treatment of both men and women in the workforce is one of the most essential prerequisites of social progress. As is generally the case in countries around the world, agriculture is the only human endeavor in Turkey in which men and women are employed in roughly equal numbers. Toros Tarım strongly believes that women should also have a presence and voice in the socioeconomic arena and, for that reason, it supports the empowerment of women and engages in a variety of projects whose aim is to support gender equality in society and to help make women more prosperous.

For this reason the Seasonal Agricultural Workers’ Health Development Program of which Toros Tarım was a prime supporter is a project that has special importance. Conducted by Harran University in collaboration with the United Nations Population Fund (UNFPA) and with the cooperation of the Ministry of Health, this program made significant progress in the direction of improving the social rights and living conditions of seasonal agricultural workers, especially with respect to dealing with the healthcare problems faced by women and children. In order to make the program’s message accessible to broader audiences, in 2015 Toros Tarım supported the production of a documentary ”Everlasting Migration: Agricultural Workers”) that was broadcast by İZ TV and other TV channels in Turkey. Although the original UNFPA program’s run ended in 2015, it has continued to serve as both a pilot project and a model for other agencies and organizations.15

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Another example of Toros Tarım’s efforts to improve the lives of women in agriculture is to be seen in Turkey’s Black Sea region, where tea bushes are grown on steep hillsides and the majority of those who tend and harvest them are women. Recognizing the hardships involved in carrying standard 50-kg sacks of fertilizer over this rough terrain, Toros Tarım reduced the sack weight to 25 kgs. The company also supports a variety of other professional and occupational projects aimed at increasing women’s employment opportunities.

**Tekfen Contracting Group**

*Socially beneficial projects*
Tekfen Construction engages in a variety of efforts to help improve social wellbeing and the quality of life of people living in areas where its project sites are located. For example the company supported local governments in making improvements in water supply and sewage systems in localities through which the TANAP project passed. It also helped set up libraries and computer rooms for local communities to use and it organized various activities for children. Two examples of such efforts are a summer school at Sarıcaali village in Edirne that teaches chess, photography, documentary-making, and paper marbling to kids and, at Hanak in Ardahan at the far eastern end of the country, a ski run that is also designed for youngsters.

In rural areas through which the route of the TANAP project passes, intermodal containers equipped with showers were provided for seasonal workers and their families, efforts were made to make sure that children were not endangered by work taking place on construction sites, and nurseries and play areas for preschool children and annexes for the instruction of school-age children were provided. It was on account of these and similar projects that Tekfen Construction received the prestigious International Pipeline and Offshore Contractors Association’s Social Responsibility award.

*Education*
Tekfen Manufacturing, another member of the Tekfen contracting division, helped youngsters attending the Kocaeli Atatürk Professional and Technical Anadolu Lycée develop their technological skills by sponsoring their participation in an international robotics competition organized by the Ministry of Education and Scientific and Technological Research Council of Turkey.
Culture & art
In 2009 Tekfen Construction donated a prefabricated building for use in the archaeological excavations taking place at the Küllüoba mound near the Yenikent village in Eskişehir’s Seyitgazi county. The structure is still being used as a laboratory and for guest accommodations. In both 2017 and 2018 the company provided the 35-person excavation team with daily meal support during the two-month digging season.

Other support
Under a project in which a number of private-sector concerns, universities, and non-governmental organizations took part in order to deal with the risks posed by the increasingly greater presence of industrial operations in the Ceyhan region, both Tekfen Construction and Tekfen Engineering provided knowhow and material support for the technical design work on the Ceyhan Fire & Natural Disaster Center’s simulation units. This center, which is operated by AKUT, Turkey’s NGO search and rescue association, also serves as a venue for the conduct of mass-audience training and educational activities and of specialized certification programs.
## Performance Indicators

### Environmental performance indicators

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<th>Greenhouse gas emissions (tCO2e)</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td><strong>Scope 1 emissions</strong></td>
<td>1,052,537</td>
<td>796,410</td>
<td>899,828</td>
</tr>
<tr>
<td><strong>Scope 2 Emissions</strong></td>
<td>45,050</td>
<td>39,888</td>
<td>38,821</td>
</tr>
<tr>
<td><strong>Total Scope 1 + 2 emissions</strong></td>
<td>1,097,586</td>
<td>836,298</td>
<td>938,649</td>
</tr>
<tr>
<td><strong>Scope 3 emissions</strong></td>
<td>141,562</td>
<td>148,685</td>
<td>183,930</td>
</tr>
</tbody>
</table>

**Emission intensity**

<table>
<thead>
<tr>
<th>Emission intensity per employee (tCO2e / employee)</th>
<th>76,78</th>
<th>45,71</th>
<th>48,94</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission intensity by revenue (tCO2e / million USD)</td>
<td>815,30</td>
<td>421,30</td>
<td>406,50</td>
</tr>
</tbody>
</table>

### Energy consumption (MWh)

<table>
<thead>
<tr>
<th>Total energy consumption</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fuel</strong></td>
<td>342,081</td>
<td>288,935</td>
<td>213,987</td>
</tr>
<tr>
<td><strong>Total electricity</strong></td>
<td>189,629</td>
<td>207,185</td>
<td>219,578</td>
</tr>
<tr>
<td><strong>Total purchased electricity</strong></td>
<td>91,660</td>
<td>77,909</td>
<td>77,321</td>
</tr>
<tr>
<td><strong>Renewable energy consumption</strong></td>
<td>97,969</td>
<td>129,276</td>
<td>142,257</td>
</tr>
<tr>
<td><strong>Total energy consumption</strong></td>
<td>531,710</td>
<td>496,120</td>
<td>433,565</td>
</tr>
<tr>
<td><strong>Renewable energy generated (MWh)</strong></td>
<td>147,249</td>
<td>183,050</td>
<td>221,293</td>
</tr>
<tr>
<td><strong>Renewable generation (Electricity from waste heat)</strong></td>
<td>97,969</td>
<td>129,276</td>
<td>142,257</td>
</tr>
<tr>
<td><strong>Renewable energy supplied to grid</strong></td>
<td>49,280</td>
<td>53,775</td>
<td>79,036</td>
</tr>
<tr>
<td><strong>Net energy consumption (MWh)</strong></td>
<td>482,430</td>
<td>442,345</td>
<td>354,529</td>
</tr>
</tbody>
</table>

---

16 This also includes Tekfen Tarım’s 2018 environmental performance indicators. Tekfen Tarım accounts for 0.55% of the group’s greenhouse gas emissions and 10% of its total water consumption.

17 “Net energy consumption” is defined as “Total energy consumption” less “Electricity supplied to grid”.

---
## Water performance indicators (megaliters)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total water withdrawal</td>
<td>136.879</td>
<td>114.605</td>
<td>126.290</td>
</tr>
<tr>
<td>Total water consumed</td>
<td>4.354</td>
<td>4.324</td>
<td>6.608</td>
</tr>
<tr>
<td>Total water discharged</td>
<td>132.525</td>
<td>110.281</td>
<td>119.682</td>
</tr>
<tr>
<td>Water recycled/re-used</td>
<td>1.114</td>
<td>1.327</td>
<td>1.853</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total water withdrawal (megaliters)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>From fresh surface water sources</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>From fresh surface water sources</td>
<td>348</td>
<td>667</td>
<td>2.123</td>
</tr>
<tr>
<td>From brackish surface water/sea water</td>
<td>128.873</td>
<td>106.111</td>
<td>115.386</td>
</tr>
<tr>
<td>From ground water sources</td>
<td>4.258</td>
<td>4.223</td>
<td>4.582</td>
</tr>
<tr>
<td>From produced water</td>
<td>3.194</td>
<td>3.372</td>
<td>3.891</td>
</tr>
<tr>
<td>From third-party sources (mains, reservoirs etc)</td>
<td>206</td>
<td>233</td>
<td>309</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total water discharged (megaliters)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Into sources of fresh surface water</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Into sources of fresh surface water</td>
<td>283</td>
<td>749</td>
<td>260</td>
</tr>
<tr>
<td>Into sources of brackish surface water/sea water</td>
<td>132.194</td>
<td>109.365</td>
<td>119.063</td>
</tr>
<tr>
<td>Into sources of ground water</td>
<td>4</td>
<td>4</td>
<td>163</td>
</tr>
<tr>
<td>Into third-party destinations (sewage lines, other wastewater treatment etc)</td>
<td>44</td>
<td>165</td>
<td>196</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total waste (tons)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total hazardous waste</td>
<td>1.677</td>
<td>1.021</td>
<td>1.561</td>
</tr>
<tr>
<td>Total non-hazardous waste</td>
<td>9.595</td>
<td>6.402</td>
<td>12.379</td>
</tr>
<tr>
<td>Total non-hazardous waste recycled</td>
<td>3.483</td>
<td>3.105</td>
<td>5.498</td>
</tr>
</tbody>
</table>
### Social performance indicators

<table>
<thead>
<tr>
<th>Employees by employment duration</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>0-5 years</td>
<td>284</td>
<td>4.912</td>
<td>449</td>
</tr>
<tr>
<td>5-10 years</td>
<td>64</td>
<td>727</td>
<td>59</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>94</td>
<td>1.071</td>
<td>93</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employees by gender and age</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Over 50</td>
<td>61</td>
<td>1.088</td>
<td>73</td>
</tr>
<tr>
<td>30-50</td>
<td>266</td>
<td>4.241</td>
<td>361</td>
</tr>
<tr>
<td>Below 30</td>
<td>111</td>
<td>1.385</td>
<td>168</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employees by gender and category</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>White-collar</td>
<td>409</td>
<td>2.325</td>
<td>586</td>
</tr>
<tr>
<td>Blue-collar</td>
<td>30</td>
<td>4.410</td>
<td>22</td>
</tr>
<tr>
<td>Employees covered by collective bargaining agreements</td>
<td>21</td>
<td>2.282</td>
<td>37</td>
</tr>
</tbody>
</table>

| Total number of employees         | 442  | 6.732 | 607  | 8.037  | 660  | 8.826 |

<table>
<thead>
<tr>
<th>Personnel employed in senior management positions by gender and age</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Over 50</td>
<td>13</td>
<td>92</td>
<td>13</td>
</tr>
<tr>
<td>30-50</td>
<td>25</td>
<td>158</td>
<td>37</td>
</tr>
<tr>
<td>Below 30</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Year</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>2016</td>
<td>8</td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>17</td>
<td>3</td>
<td>20</td>
<td>4</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>16</td>
<td>3</td>
<td>17</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>21</td>
<td>130</td>
<td>27</td>
<td>176</td>
<td>21</td>
<td>198</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>9</td>
<td>416</td>
<td>10</td>
<td>868</td>
<td>13</td>
<td>808</td>
</tr>
<tr>
<td>2017</td>
<td>52</td>
<td>2.114</td>
<td>52</td>
<td>1.147</td>
<td>101</td>
<td>3.213</td>
</tr>
<tr>
<td>2018</td>
<td>23</td>
<td>814</td>
<td>66</td>
<td>3.000</td>
<td>63</td>
<td>1.352</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>80</td>
<td>3.331</td>
<td>124</td>
<td>5.007</td>
<td>168</td>
<td>5.355</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>103</td>
<td>437</td>
<td>158</td>
<td>620</td>
<td>172</td>
<td>626</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Occupational health & safety indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total personhours worked (including subcontractor personnel)</td>
<td>61,438,807</td>
<td>72,356,242</td>
<td>86,521,058</td>
</tr>
<tr>
<td>Fatal accidents (F)</td>
<td>3</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Lost Work Day Case (LWDC)</td>
<td>55</td>
<td>35</td>
<td>26</td>
</tr>
<tr>
<td>Restricted Work Case (RWC)</td>
<td>7</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Medical Treatment Case (MTC)</td>
<td>35</td>
<td>23</td>
<td>21</td>
</tr>
<tr>
<td>Occupational illness (OCC)</td>
<td>0</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Lost-time injuries (LTI = F+LWDC)</td>
<td>58</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>Total recordable injuries (TRI = F+LWDC+RWC+MTC)</td>
<td>100</td>
<td>61</td>
<td>67</td>
</tr>
<tr>
<td>LTI Rate (LTIR: LWDC * 1,000,000 / Total personhours worked)</td>
<td>0,944</td>
<td>0,484</td>
<td>0,370</td>
</tr>
<tr>
<td>TRI Rate (TRIR: TRI * 1,000,000 / Total personhours worked)</td>
<td>1,628</td>
<td>0,843</td>
<td>0,774</td>
</tr>
<tr>
<td>HSE training rate (Personhours of HSE training provided * 100 / Total personhours worked)</td>
<td>0,89%</td>
<td>0,83%</td>
<td>1,16%</td>
</tr>
<tr>
<td>Total training (personhours)</td>
<td>545,019</td>
<td>601,365</td>
<td>1,000,452</td>
</tr>
</tbody>
</table>

These indicators refer to operations deemed to be exposed to high OHS risks being conducted at worksites and workplaces in Turkey and abroad by Tekfen Construction, Toros Tarım, Tekfen Manufacturing, and Tekfen Real Estate as well as by their subcontractors. Subcontractor personnel receive the same HSE training that Tekfen personnel do.
### Economic indicators ¹⁹

<table>
<thead>
<tr>
<th>Economic data (TL 1,000)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>4,737,397</td>
<td>7,487,133</td>
<td>12,147,171</td>
</tr>
<tr>
<td>Operating expenses ²⁰</td>
<td>4,380,455</td>
<td>6,830,583</td>
<td>10,867,564</td>
</tr>
<tr>
<td>Community Investments ²¹</td>
<td>7,344</td>
<td>3,792</td>
<td>2,019</td>
</tr>
<tr>
<td>Retained economic value</td>
<td>349,598</td>
<td>652,758</td>
<td>1,277,588</td>
</tr>
<tr>
<td>Investment outlays ²²</td>
<td>169,653</td>
<td>232,731</td>
<td>261,961</td>
</tr>
</tbody>
</table>

---

¹⁹ Includes Tekfen Holding and all Tekfen Group companies.

²⁰ Includes all expenditures booked as employee compensation, payments to shareholders, payments to governments etc.

²¹ Charitable donations, social investment projects, sponsorships etc.

²² See §4c of the auditors’ report.
### APPENDIX 1

**Stakeholder communication methods**

<table>
<thead>
<tr>
<th>Stakeholder group</th>
<th>Communication methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>Satisfaction surveys, in-house magazine, intranet portal, events, OHS committee meetings, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Public agencies and organizations</td>
<td>Meetings and conferences, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Business and solution partners</td>
<td>Individual meetings, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Suppliers</td>
<td>Individual meetings, audits and training, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Associations, universities, media, NGOs</td>
<td>Collaborations, participation in meetings and working groups, seminars and conferences, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Shareholders, investors, analysts</td>
<td>General meetings, material event disclosures, press releases, individual meetings and correspondence, conferences, periodic reporting, annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
<tr>
<td>Customers</td>
<td>Annual reports, website, stakeholder analyses, T-Bulletin</td>
</tr>
</tbody>
</table>
APPENDIX 2

Awards & recognitions

2018

- **Tekfen Holding**: “Women Empowered Boards Award”, Annual Conference of Women on Boards in Turkey
- **Tekfen Construction**: Runner-up IPLOCA H&S award for “Off-The-Job Safety Campaign”
- **Tekfen Construction**: “Green Award”, Al-Khor Motorway Project (Qatar)
- **Tekfen Construction**: “20 million personhours worked without a lost time injury”, TANAP Compressor Stations Project
- **Tekfen Construction**: “27 million personhours worked without a lost time injury”, North Motorway Side Roads and Additional Junctions Project (Qatar)
- **Tekfen Construction**: “10 million personhours worked without a lost time injury”, Al-Khor Expressway Project (Qatar)
- **Tekfen Construction**: “2 million personhours worked without a lost time injury”, Eastern Road Project (Qatar)
- **Tekfen Construction**: “1 million personhours worked without a lost time injury”, Turkstream Kıyıköy Terminal (Qatar)
- **Tekfen Construction**: “1 million personhours worked without a lost time injury”, GATE projects (Kazakhstan)
- **Toros Tarım**: IFA “Protect & Sustain” certificate
- **Toros Tarım**: “Global 100” award, Platin
- **Tekfen Holding**: “Holding Companies That Have Increased Employment The Fastest” (second place) and “Holding Companies That Have Increased Their Turnover The Fastest” (third place), Capital
- **Tekfen Construction**: “Global 100” award, Platin
- **Toros Tarım**: “2017 Fertilizer-Exporter Of The Year” award, İstanbul Chemicals & Chemical Products Exporters Association
2017

- **Tekfen Construction**: IPLOCA CSR award for “Contributions to seasonal workers’ families and children”
- **Tekfen Construction**: “27 million personhours worked without a lost time injury”, Şahdeniz Offshore Platform Construction Project (Azerbaijan)
- **Tekfen Construction**: “23.5 million personhours worked without a lost time injury”, North Motorway Side Roads and Additional Junctions Project (Qatar)
- **Tekfen Construction**: “16.8 million personhours worked without a lost time injury”, Sangaçal Land Terminal & Installation Project (Azerbaijan)
- **Tekfen Construction**: “5.8 million personhours worked without a lost time injury”, Star Aegean Refinery Project (Turkey)
- **Tekfen Construction**: “5.7 million personhours worked without a lost time injury”, Ceyhan Steel Fabrication Project (Turkey)
- **Tekfen Construction**: “5.6 million personhours worked without a lost time injury”, TANAP Lot 3 Pipeline Project (Turkey)
- **Tekfen Construction**: “4.3 million personhours worked without a lost time injury”, BTC Pipeline & Installation Repair Services (Turkey)
- **Tekfen Construction**: “1 million personhours worked without a lost time injury”, Jeddah-Yanbu Pipelines Project (Saudi Arabia)
- **Tekfen Construction**: “1 million personhours worked without a lost time injury”, Ministry of Taxes Headquarters Construction Project (Azerbaijan)
- **Toros Tarım Mersin Plant**: “Energy-Efficient Industrial Facility” award, Ministry of Energy and Natural Resources (Turkey)
- **Toros Tarım**: Growtech Eurasia Agricultural Innovation “Agricultural IT Consultancy” award for “Toros Farmer” intelligent farming and fertilizing app
GRI content index

*During the report design process, a table with GRI indicators and the principles of the United Nations Global Compact will be added.*
IMPORTANT NOTE

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