Module: Introduction

Page: Introduction

CC0.1

Introduction
Please give a general description and introduction to your organization.

ASELSAN was founded in 1975 with the aim of creating a self-sufficient industry primarily for defense requirements of Turkish Armed Forces. ASELSAN, with tremendous success in the past decades in expanding systematically into the local and global markets, today, with over $1B in revenue and almost 5000 employees has become a high technology, multi-product defense electronics company by introducing state-of-the-art equipment and systems solutions for both military and professional applications. Through dedication of utmost importance to R&D activities clearly seen by allocation of remarkable portion of its annual revenue and through its technological know-how, ASELSAN has achieved the capability to undertake large-scale system integration projects and succeed, in many cases, in developing most sophisticated products.
Since 2006, ASELSAN sustained its position in the world as being in the list of Top 100 Defense Companies. Our aim is to become one of the top 50 defense companies in the world through the development of original and national opportunities and talents of the highest level.
ASELSAN operates under five business sectors:

- Communications and Information Technologies Business Sector (HBT): Tactical Radios, Tactical Area Communication Systems, Avionic, Satellite and Naval Communication Systems, Public Safety Communication Systems
- Radar, Electronic Warfare Business Sector (REHIS): Radar Systems, Electronic Warfare Self Protection Systems, Electronic Warfare Intelligence and Attack Programs
- Defense Systems Technologies Business Sector (SST): Weapon Systems, Command Control (C4ISR) Systems, Naval Combat Systems, Air and Missile Defense
- Microelectronics, Guidance & Electro-Optics Business Sector (MGEO): Electro-Optic Systems, Guidance & Unmanned Systems, Avionic Systems, Microelectronics
- Transportation, Security, Energy & Automation Systems Business Sector (UGES): Transportation Systems, Security Systems, Traffic and Automation Systems, Energy Systems, Homeland Security Systems

CC0.2

Reporting Year
Please state the start and end date of the year for which you are reporting data.
The current reporting year is the latest/most recent 12-month period for which data is reported. Enter the dates of this year first.
We request data for more than one reporting period for some emission accounting questions. Please provide data for the three years prior to the current reporting year if you have not provided this information before, or if this is the first time you have answered a CDP information request. (This does not apply if you have been offered and selected the option of answering the shorter questionnaire). If you are going to provide additional years of data, please give the dates of those reporting periods here. Work backwards from the most recent reporting year.
Please enter dates in following format: day(DD)/month(MM)/year(YYYY) (i.e. 31/01/2001).

Enter Periods that will be disclosed
Fri 01 Jan 2016 - Sat 31 Dec 2016

CC0.3

Country list configuration

Please select the countries for which you will be supplying data. If you are responding to the Electric Utilities module, this selection will be carried forward to assist you in completing your response.

Select country
Turkey

CC0.4

Currency selection

Please select the currency in which you would like to submit your response. All financial information contained in the response should be in this currency.

TRY

CC0.6

Modules
As part of the request for information on behalf of investors, companies in the electric utility sector, companies in the automobile and auto component manufacturing sector, companies in the oil and gas sector, companies in the information and communications technology sector (ICT) and companies in the food, beverage and tobacco sector (FBT) should complete supplementary questions in addition to the core questionnaire.
If you are in these sector groupings, the corresponding sector modules will not appear among the options of question CC0.6 but will automatically appear in the ORS navigation bar when you save this page. If you want to query your classification, please email respond@cdp.net.
If you have not been presented with a sector module that you consider would be appropriate for your company to answer, please select the module below in CC0.6.

Further Information

Module: Management

Page: CC1. Governance

CC1.1

Where is the highest level of direct responsibility for climate change within your organization?

Board or individual/sub-set of the Board or other committee appointed by the Board

CC1.1a

Please identify the position of the individual or name of the committee with this responsibility

The highest level of direct responsibility for climate change within ASELSAN lies with the Shared Services
Vice President Mr. Hezarfen Oruç. Mr. Oruç also leads the Sustainability Committee which was founded in 2012. The Sustainability Committee is comprised of high level managers, engineers and specialists who are able to assess all the risks and opportunities with respect to climate change. The list of members of the Sustainability Committee is given below:

Hezarfen ORUÇ – Vice President /Corporate Services
Şevket CUMAOĞLU – Facilities and Support Services Management Director
Aykan ÜRETEN – Finance Director
Murat DOĞAN – Strategy Management Director
Hülya YILDIRIM – Integrated Management Systems Manager
Pınar ÇELEBİ – Investors Relations Manager
Alev İLHAN – Enterprise Risk Management and Internal Control Manager
Murat ASLAN – Supply Chain Management Manager
Başak YÜCEKAYALI - Investor Relations Specialist
Ecem GÖZDE KARABULUT - Integrated Management Systems Assistant Specialist

The Sustainability Committee develops and implements economic, environmental and social sustainability strategies and monitors the overall sustainability performance of the company. In order to monitor the environmental performance, environmental performance indicators have been identified. Some of these performance indicators are related to climate change performance.

CC1.2

Do you provide incentives for the management of climate change issues, including the attainment of targets?

Yes

CC1.2a

Please provide further details on the incentives provided for the management of climate change issues

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
All employees	Monetary reward	Energy reduction project Efficiency	In ASELSAN, we have a suggestion system called “Idea Management System” in our intranet since 2013. This system is accessible for all our employees. An employee who has an innovative idea on climate change, energy efficiency or improvement on any other topic can send his/her idea note to the Strategy Department through this suggestion system. The Strategy Department then evaluates the idea and if they decide it is

Who is entitled to benefit from these incentives?	The type of incentives	Incentivized performance indicator	Comment
		project	feasible, the Strategy Department shares the idea note with the related department. The employee is entitled to a monetary reward if their idea is assessed to be applicable and profitable to the company. The reward is higher (3 Cumhuriyet gold coins) if the idea of the employee results in energy savings thus leading to emission reductions.

Further Information

Page: CC2. Strategy

CC2.1

Please select the option that best describes your risk management procedures with regard to climate change risks and opportunities

A specific climate change risk management process

CC2.1a

Please provide further details on your risk management procedures with regard to climate change risks and opportunities

Frequency of monitoring	To whom are results reported?	Geographical areas considered	How far into the future are risks considered?	Comment
Annually	Board or individual/sub-set of the Board or committee appointed by the Board	Turkey	> 6 years	Climate change related risks are identified and tracked by the Sustainability Committee. The risks are first analyzed at the facility and activity level as; project risks, operational risks, management and adaptation risks or opportunity management risks, and are assessed according to the methodology given in CC2.1c. The identified risks are then classified to be; very low, low, medium, high and critical. ASELSAN's overall risk management objective is to reduce controllable risk impacts and minimize the impact of the ones that cannot be controlled.

CC2.1b

Please describe how your risk and opportunity identification processes are applied at both company and asset level

At both company and asset levels, climate change related risks and opportunities include, changes in fuel and energy prices, climate change related laws and regulations, global competitiveness, changing customer needs, potential threats of national security and employee related issues.
The climate change related risks and opportunities at the company level are assessed by the Sustainability Committee. The Strategy Department in coordination with the Sustainability Committee is responsible of setting targets to reduce the impact of identified risks and making performance reviews to assess whether the climate change related targets are met and also decides on how and when the identified opportunities can be seized. The Committee decides which risks and opportunities shall be reported to the Board of Directors according to the scoring methodology defined in CC2.1c.
The major climate change related risks and opportunities at the asset level are the events that may have a major effect on the GHG emissions of ASELSAN. These events usually are related to energy and fossil fuel consumption.
Where renovations in product design that lead to less energy consumption may be assessed as an opportunity, increased consumption of fossil fuels during production is assessed as a major climate change related risk.

CC2.1c

How do you prioritize the risks and opportunities identified?

First, the probability of occurrence of the identified risk is scored as given below:
1. Very low: 0%-10% occurrence
2. Low: 11% - 30% occurrence

3. Medium: 31% - 70% occurrence
4. High: 71% - 90% occurrence
5. Very high: 91% - 100% occurrence
Then, the impact of the identified risk event is determined:
1. Not important: Financial and reputational impact is negligible
2. Low: Reasonable financial and reputational impact
3. Medium: Likely to have moderate financial and reputational impact
4. Important: Material financial and reputational impact
5. Critical: Crucial financial and reputational threat for ASELSAN
The risk rating matrix is compiled according to the combined score (risk level) as shown below. According to this final score the risks and opportunities are prioritized:
0-2 Very low: No immediate action
3-4 Low: No immediate action but the risk event needs to be monitored annually
5-12 Medium: Actions need to be planned
13-16 High : Poses a threat and shall be dealt with. The risk event and the measures to be applied are reported to the Board of Directors
17-25: Critical: Immediate actions need to be planned. The risk event and the measures to be applied are reported to the Board of Directors
Sustainability Committee and the Early Detection and Management of Risk Committee reviews and finalizes all climate change related risk analysis, and presents the critical risks that are assessed to be High to the Board of Directors. They also present a report to Board of Directors about the financial and operational measures that need to be taken by ASELSAN to prevent the occurrence of the identified risks. The Board of Directors decides which measures shall be applied and the evaluations are then reported to the Early Detection and Management of Risk Committee to be monitored and brought into action.

CC2.1d

Please explain why you do not have a process in place for assessing and managing risks and opportunities from climate change, and whether you plan to introduce such a process in future

Main reason for not having a process	Do you plan to introduce a process?	Comment

CC2.2

Is climate change integrated into your business strategy?

Yes

CC2.2a

Please describe the process of how climate change is integrated into your business strategy and any outcomes of this process

ASELSAN has first reviewed its strategy and operations with respect to climate change after receiving the first invitation from CDP Turkey in 2012. Although energy efficiency was already a focal point for the operations, the effects of these energy efficiency studies on climate change was never assessed. Starting from 2012, ASELSAN Strategy Team has focused on evaluating ASELSAN's operation with regards to climate change. One of the first steps taken towards this direction was the calculation of our GHG Inventory. During the initial CDP period, a brief calculation was made for the years 2009-2010-2011 for the purpose of reporting to CDP. Since 2012, we have started evaluating the risks and opportunities related to climate change with a specific risk assessment process.
As the strategy of ASELSAN is determined over a period of 5 years, climate change related issues could not be included in the strategy up until 2014. However in 2014, the Strategy Management Directorate has implemented the climate change related issues into the strategy of the term 2015-2019. As part of this strategy ASELSAN has initially planned to reduce the absolute GHG emissions until the end of this term. However, within this period, an additional production facility has become operational and the emissions reduction target was revised accordingly to reflect this change. The most important aspect of climate change that influences our strategy is the opportunity to develop a green business. Although we are not yet influenced by the regulatory changes in Turkey, it is also another aspect of climate change, as we would like to be prepared to the changes in regulation.
The most important component of our short term business strategy related to climate change is the decision of calculating as well as exploring the opportunities set a target to reduce our GHG emissions intensity and reporting to CDP. In 2015, our Gölbaşı Facility has started its operations and our GHG system boundary has been revised accordingly. In order to reduce our GHG emissions intensity, we are exploring ways to implement the use of renewable energy sources in our production facilities. We believe the brand value and market value of ASELSAN will be positively affected with the implementation of these decisions. We have also started the process to obtain ISO 50001 Energy Management Systems Certification for all our production facilities until 2019.
As part of the most important component of our long term (6 years) strategy regarding climate change we have set a long term emissions intensity reduction target (4.7% of reduction in emissions intensity for our Scope 1 and 2 emissions from our base year GHG emissions by the year 2022 and we have decided to invest in energy efficient technologies both in our facilities and in our products. Another important component is that our Renewable Energy Systems Program Management Department, which is responsible of R&D of renewable energy technologies, has started its studies on deploying renewable energy usage throughout our company and products. ASELSAN aims to be one of the main producers of renewable energy technologies in Turkey. Our Electric Vehicle Systems Program Management Department started an R&D project with TEMSA in March 2015 with the aim of producing the first domestic electric buses. As transportation related GHG emissions account for nearly 14% of Turkey's total emissions, we aim to supply necessary electric vehicle systems designed for public transportation to decision makers of major municipalities of Turkey, and take part in Turkey's National Contribution (INDC) plan to reduce its emissions by 21% from 2030 BAU level by supporting the shift towards low carbon public transportation. This project is still ongoing while ASELSAN has expanded the scope of its renewable sources related R&D projects by focusing on developing hybrid system where both solar and wind power sources can be used interchangeably. While conducting such R&D activities, ASELSAN aims to develop this hybrid system to be portable and can be used both on-grid and off-grid. This new system will reduce the use of diesel back-up generators and result in energy consumption reduction and therefore GHG emissions. Therefore, this project is the most important business decision made during the reporting period that has been influenced by climate change.
In 2016, ASELSAN managed to maintain its position on the Borsa Istanbul (BIST) Sustainability Index, where companies are being evaluated on their sustainability performance against some ground rules. ASELSAN was one of the 15 companies to be included in the BIST Sustainability Index at its inception back in 2014 and has been listed on it for four years in a row. The Index's criteria on climate change strategy and management is totally aligned with CDP, which gave us an advantage against other listed companies. Our share is now favored by environmentally friendly institutions as well, which provides us an additional advantage among our competitors.
ASELSAN has been in BIST-50 Index of Borsa Istanbul as well as Corporate Governance Index since 2012 and Sustainability Index since its inception and was also included in BIST-30 Index in April 2017. These indices are prestigious indices of BIST as big, corporate industrial firms, holdings and banks dominate them.

Corporate governance rating is a prerequisite for presence in Corporate Governance Index of BIST and with the latest revisions in Corporate Governance Principles; sustainability has become a new dimension for corporate governance rating of companies. Thus, climate change aspect is now embedded in our corporate governance rating.
ASELSAN management values ASELSAN share's presence in BIST-30, BIST-50 and Sustainability Indices. In addition to this, there are long term institutional investors in ASELSAN's investor base. These facts encourage us to persistently increase the value we attach to climate change and energy efficiency.
As ASELSAN, we closely follow the recent updates on climate change mitigation efforts made both nationally and globally. We support the Paris Agreement and its aim to limit global warming below 2°C and potentially keep it below 1.5°C. As we are advancing in monitoring our GHG emissions and assessing our emissions trend in a more advanced way, we are planning on taking the low-carbon development scenario into account while planning our future strategies.

CC2.2b

Please explain why climate change is not integrated into your business strategy

CC2.2c

Does your company use an internal price on carbon?

No, and we currently don't anticipate doing so in the next 2 years

CC2.2d

Please provide details and examples of how your company uses an internal price on carbon

CC2.3

Do you engage in activities that could either directly or indirectly influence public policy on climate change through any of the following? (tick all that apply)

Direct engagement with policy makers
Trade associations

CC2.3a

On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate Position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	We follow the implementation of the regulation on monitoring and reporting of GHG emissions that was published on 2012 and revised on 2014 very closely. Although ASELSAN is not yet included in the scope of this regulation, we still participate in meetings and our Sustainability Committee is ready to send our comments about the Communiqués that are related to this regulation.	For the moment we support the legislation and the communiqués related to this legislation with no exceptions.
Energy efficiency	Support	We have sent our comments to the energy efficiency law no 5627 by the Ministry of Energy and Natural Resources during its preparation stage. We fully support this law.	We fully support the energy efficiency law and the related by-laws.

CC2.3b

Are you on the Board of any trade associations or provide funding beyond membership?

No

CC2.3c

Please enter the details of those trade associations that are likely to take a position on climate change legislation

Trade association	Is your position on climate change consistent with theirs?	Please explain the trade association's position	How have you, or are you attempting to, influence the position?

CC2.3d

Do you publicly disclose a list of all the research organizations that you fund?

CC2.3e

Please provide details of the other engagement activities that you undertake

CC2.3f

What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

According to our new corporate communication strategy, all communication activities have to be approved either by our CEO or the Chairman of the Board. Being the highest level of executives in ASELSAN, our CEO and our Chairman are both fully aware of our general corporate strategies and our overall climate change strategy. Moreover, our Sustainability Committee together with our Strategic Planning and Corporate Performance Directorate are responsible of setting and tracking actions to ensure our direct and indirect activities are consistent with our overall climate change strategy.

CC2.3g

Please explain why you do not engage with policy makers

Further Information

Page: CC3. Targets and Initiatives

CC3.1

Did you have an emissions reduction or renewable energy consumption or production target that was active (ongoing or reached completion) in the reporting year?

Intensity target

CC3.1a

Please provide details of your absolute target

ID	Scope	% of emissions in scope	% reduction from base year	Base year	Base year emissions covered by target (metric tonnes CO2e)	Target year	Is this a science-based target?	Comment

CC3.1b

Please provide details of your intensity target

ID	Scope	% of emissions in scope	% reduction from base year	Metric	Base year	Normalized base year emissions covered by target	Target year	Is this a science-based target?	Comment
Int1	Scope 1+2 (location-based)	100%	4.7%	Metric tonnes CO2e per unit revenue	2016	50649.90	2022	No, and we do not anticipate setting one in the next 2 years	Our emissions reduction target was set as an absolute target in previous years. However, taken our projected business growth strategy, it has been revised as an intensity target starting from this reporting period to be able to track and better manage our emissions performance.

CC3.1c

Please also indicate what change in absolute emissions this intensity target reflects

ID	Direction of change anticipated in absolute Scope 1+2 emissions at target completion?	% change anticipated in absolute Scope 1+2 emissions	Direction of change anticipated in absolute Scope 3 emissions at target completion?	% change anticipated in absolute Scope 3 emissions	Comment
Int1	Increase		Increase	0	Our revenue and GHG emissions reduction target is monitored and revised regularly. However, we can only share our projected revenue growth in 1 year forecast periods. We consider our revenue projections over 5 years as commercially sensitive data. Therefore, this information cannot be disclosed.

CC3.1d

Please provide details of your renewable energy consumption and/or production target

ID	Energy types covered by target	Base year	Base year energy for energy type covered (MWh)	% renewable energy in base year	Target year	% renewable energy in target year	Comment

CC3.1e

For all of your targets, please provide details on the progress made in the reporting year

ID	% complete (time)	% complete (emissions or renewable energy)	Comment
Int1	16.6%	0%	As we have revised our emissions reduction target in this reporting year, we cannot yet measure any progress. However, despite the addition of a new production facility, Gölbaşı Facility in our scope, we have achieved an approximately 10% reduction in our emissions intensity.

CC3.1f

Please explain (i) why you do not have a target; and (ii) forecast how your emissions will change over the next five years

CC3.2

Do you classify any of your existing goods and/or services as low carbon products or do they enable a third party to avoid GHG emissions?

No

CC3.2a

Please provide details of your products and/or services that you classify as low carbon products or that enable a third party to avoid GHG emissions

Level of aggregation	Description of product/Group of products	Are you reporting low carbon product/s or avoided emissions?	Taxonomy, project or methodology used to classify product/s as low carbon or to calculate avoided emissions	% revenue from low carbon product/s in the reporting year	% R&D in low carbon product/s in the reporting year	Comment

CC3.3

Did you have emissions reduction initiatives that were active within the reporting year (this can include those in the planning and/or implementation phases)

Yes

CC3.3a

Please identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings

Stage of development	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	3	922.62
To be implemented*	1	118.41
Implementation commenced*	0	0
Implemented*	3	508.77
Not to be implemented	0	0

CC3.3b

For those initiatives implemented in the reporting year, please provide details in the table below

Activity type	Description of activity	Estimated annual CO2e savings (metric tonnes CO2e)	Scope	Voluntary/ Mandatory	Annual monetary savings (unit currency - as specified in CC0.4)	Investment required (unit currency - as specified in CC0.4)	Payback period	Estimated lifetime of the initiative	Comment
Energy efficiency: Building services	Chiller system with lower capacity has been installed as an addition to the existing high capacity chiller system at Gölbaşı Facility in order to enable electricity consumption reduction.	384.42	Scope 2 (location-based)	Voluntary	185250	250000	1-3 years	11-15 years	By installing a lower capacity chiller extension to the existing high capacity chiller system, we have reduced the cooling load of the system during winter when the cooling demand is lower.
Energy efficiency: Building services	In our Macunköy Facility we have revised the cooling system in one of our UPS rooms to be able to meet the cooling demand by supplying the cooling with ambient air during winter.	7.38	Scope 2 (location-based)	Voluntary	3557	9850	1-3 years	Ongoing	By implementing this revising to our existing cooling system for the mentioned room, we have achieved a 5 kWh electricity consumption reduction per hour.
Behavioral change	We have started using an Electronic Document Management System (eBYS) and converted both internal and external document confirmation process from hard copy to soft copy.	116.97	Scope 3	Voluntary	0	0		Ongoing	Through this initiative we have established a more efficient system while reducing our operational expense and Scope 3 emissions.

CC3.3c

What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Financial optimization calculations	In ASELSAN our energy use is one of our main resources. Therefore, we constantly try to develop projects that increase energy efficiency. When we have a project idea, the related directorate makes a detailed feasibility analysis that shows how much investment is required for a certain project and how much savings (both in terms of energy and financial savings) can be achieved with that particular project. If the payback period of the project is below 5 years and if the project lifetime is over 10 years, a report is prepared and the project is submitted for budget approval. Then this project is included in the budget plans for the upcoming year.

CC3.3d

If you do not have any emissions reduction initiatives, please explain why not

Further Information

Page: CC4. Communication

CC4.1

Have you published information about your organization’s response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

Publication	Status	Page/Section reference	Attach the document	Comment
In voluntary communications	Complete	38-39	https://www.cdp.net/sites/2017/65/31565/Climate Change 2017/Shared Documents/Attachments/CC4.1/Aselsan-Occupational Health and Safety Magazine Article-June 2016.tif	In Occupational Health and Safety Magazine June 2016 Issue we have shared our corporate carbon management practices.

Further Information

Module: Risks and Opportunities

Page: CC5. Climate Change Risks

CC5.1

Have you identified any inherent climate change risks that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Risks driven by changes in regulation
Risks driven by changes in physical climate parameters
Risks driven by changes in other climate-related developments

CC5.1a

Please describe your inherent risks that are driven by changes in regulation

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Fuel/energy taxes and regulations	Turkey has signed the Paris Agreement in 2016 which bares high future possibilities of additional regulations coming into force in the future. Although Turkey does not have a cap on its GHG emissions, in the Nationally Determined Contribution (INDC), Turkey has stated a 21% reduction in GHG emissions from the Business As Usual (BAU) scenario in 2030. This contribution commitment may result in changes in the energy and fuel taxing regime. A new taxation system for non-renewable power plants will result in a rise in energy prices which can eventually increase our operational costs.	Increased operational cost	>6 years	Direct	Likely	Low	10% rise in energy prices will result in 0.7% raise in our operational expenses. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)	In order to manage this risk we prioritize minimizing our fuel and energy consumption by implementing Certified ISO 50001 Energy Management System. The implementation process has started during the reporting period and we aim to assess or energy savings potential and possible optimization points in our process. By doing so, we believe we will reduce this risk's magnitude of impact on our operations. Therefore, this risk will be likely to have less impact on our OPEX even after the foreseen timeframe of 6 years.	Cost of managing this risk is approximately 90000 TRY and consists of the certification costs for establishing ISO 50001 Energy Management System.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	The Turkish government may also lay taxes on fossil fuels, which will also put a pressure on our operational expenses as we use fossil fuels such as natural gas, diesel oil, etc.								
Product labeling regulations and standards	In ASELSAN one of our primary goals is to increase our activities as a sub-contractor for major defense industry companies in Europe and the US by providing our services in such a way that enables us to contribute to the development of global defense industry. However, as the environmental regulation especially in Europe is far more advanced than	Increased operational cost	>6 years	Direct	More likely than not	Low	It is expected that these types of requirements will not exceed 0.5% of our OPEX. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)	We closely follow the environmental regulations in our target markets, and whenever we see that there is a need for such action, we will perform the related environmental analysis before it becomes a regulatory obligation. ASELSAN is very meticulous in such actions and in the past many standards and reporting schemes such as ISO 27001, CDP, CMMI (Capability Maturity Model Integration)	We do not have a cost associated with managing this risk however, it will consist of acquiring consultancy and verification services regarding Environmental Product Declaration.

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	Turkey, soon we may face product labelling requirements. We may need to assess the carbon footprint of all the products that we wish to produce as sub-contractors of European and American companies. This may force us to perform a more detailed and enhanced analysis on our systems, including assessing the environmental impacts of our products throughout the whole life cycle (i.e. a detailed LCA). We may also need to comply with Eco-labelling standards such as EPD in order to be able to export our products and systems to the US and Europe, which							have been applied even before it was asked for by our clients.	

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	may force us to make changes in product design to be able to compete with our sector peers.								
Emission reporting obligations	In 2014, Turkey has enact the GHG Monitoring, Reporting and Verification (MRV) Regulation which is an adoption of the EU Emissions trading System (EU ETS) Regulation. Currently, this emissions reporting obligation covers only the most energy intensive sectors. However, in parallel with Turkey's Nationally Intended Contribution of reducing its GHG emissions from the baseline scenario under the Paris Agreement, the scope of existing MRV Regulation is	Increased operational cost	>6 years	Direct	More likely than not	Low	As we are already monitoring and reporting our GHG emissions under ISO 14064-1 standard framework, this risk does not bare an additional operational cost for us. However, if such an obligation occurs and may lead to an allocation of emissions cap, then we have a risk of facing increased capital costs in order to install a high efficiency process equipment to be able to perform within our allocated emissions cap.	We are monitoring and reporting our GHG emissions according to ISO 14064-1. Since 2015, we acquire independent audit for our GHG Inventory. Therefore, we have our systems in place to be easily in compliance with possible future reporting obligations. As a result of these activities, it is estimated that we considerably reduce the magnitude impact of this risk even beyond the stated timeframe.	Such costs associated with acquiring both consultancy and verification services constitutes below 0.01% of our total OPEX. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	likely to be extended and ASELSAN may potentially be under emissions reporting obligation.								

CC5.1b

Please describe your inherent risks that are driven by changes in physical climate parameters

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in temperature extremes	Changes in temperature extremes will result in an increase in our cooling demand in the summer period and heating demand in the winter period. This change may cause an	Increased operational cost	1 to 3 years	Direct	Likely	Low	As the energy expenses constitute approximately 8% of our OPEX, this risk may increase our energy expenses. A 50% rise will result in energy expenses to constitute over 12% of our OPEX.(Please see Annex: ASELSAN	In order to manage this risk, we prioritize managing our assets in a way to prevent excessive energy consumption by enhancing building and infrastructure insulation to be able to optimize our energy consumption and reduce both cooling and heating	The costs associated with managing this risk consists of the investments made to improve existing building infrastructure and insulation where possible. No investments were made regarding managing this

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	increase in our OPEX.						Annual Report- Financial Information Section pg-5 for OPEX details)	demand to an optimum level With these precautionary projects, we try to be better prepared to forecasted temperature extremes. Accordingly, these improvement measures will enable us to reduce the likelihood of this risk from likely to about as likely as not.	risk during the reporting period.

CC5.1c

Please describe your inherent risks that are driven by changes in other climate-related developments

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	Consumers (the companies that we are sub-contracting for) in Europe and USA are inclined to purchase more	Reduced demand for goods/services	>6 years	Direct	About as likely as not	Low-medium	It is expected that this type of requirements will not exceed 0.5% of our OPEX. (Please see Annex:	We are closely following up the environmental regulations in our target markets, and whenever we see that there is a need	Currently the cost of managing this risk covers the consultancy and assurance services we acquire in order

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	climate friendly products. As we intend to increase our activities as a sub-contractor of major defense industry companies in Europe and the US, we may need to make a detailed assessment on the effects of our products on climate change in order to be able to compete with our sector peers.						ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)	for such action, we will perform the related environmental analysis before it becomes a regulatory obligation. In order to take a step towards the right direction, we have started the process of establishing an integrated energy management system (ISO 50001) in all our production facilities. ASELSAN is very meticulous in such actions and in the past many standards or reporting schemes like ISO 27001, CDP, CMMI (Capability Maturity Model Integration) have been applied even before it was asked for by our clients.	to obtain the ISO 50001 certification.
Reputation	For our key stakeholders, ASELSAN's	Reduced demand for goods/services	3 to 6 years	Direct	About as likely as not	Low-medium	Reduced demand for our goods and	In order to prevent the negative impacts of this risk,	Such costs associated with acquiring both

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	reputation can be negatively affected by our GHG emissions performance.						services can have a negative impact on our growth strategy. We may potentially not fulfill our projected sales volume resulting in a reduction in our revenue.	we participate in CDP Investors reporting and publish Sustainability Reports annually since 2011. Through these measures we aim to share our GHG emissions performance transparently and communicate the emissions reduction initiatives we undertake or plan to implement. Decision on obtaining ISO 50001 certificate is one of the measures taken in order to improve our GHG emissions performance. As a result, we aim to manage the magnitude of impact of this risk from low-medium to low while not forecasting any negative impact before 10 years, extending the	consultancy and verification services as part of our CDP response constitutes below 0.01% of our total OPEX. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)

Risk driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
								potential timeframe considerably.	

CC5.1d

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1e

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC5.1f

Please explain why you do not consider your company to be exposed to inherent risks driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Attachments

https://www.cdp.net/sites/2017/65/31565/Climate Change 2017/Shared Documents/Attachments/ClimateChange2017/CC5.ClimateChangeRisks/ASELSANAnnualReport2016.pdf

Page: CC6. Climate Change Opportunities

CC6.1

Have you identified any inherent climate change opportunities that have the potential to generate a substantive change in your business operations, revenue or expenditure? Tick all that apply

Opportunities driven by changes in regulation
Opportunities driven by changes in physical climate parameters
Opportunities driven by changes in other climate-related developments

CC6.1a

Please describe your inherent opportunities that are driven by changes in regulation

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Emission reporting obligations	Turkey has an MRV system in place for tracking GHG emissions from energy intensive sectors. Taking early action will	Increased stock price (market valuation)	1 to 3 years	Direct	More likely than not	Low-medium	We believe our efforts on climate change mitigation will help us to positively differ from the companies that	Since the previous reporting period we have included all our facilities in our GHG emissions inventory. Also	The cost of management for this opportunity constitutes of the costs of consultancy services for ISO 14064-1

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	help ASELSAN to be ready for future legislative issues that the company may face. In 2014, BIST has established the Sustainability Index for companies listed in BIST-30 index.. We were one of the 15 companies listed the index at its first launch. Since 2015, BIST-50 companies have been subjected to the assessment for Sustainability Index and ASELSAN have managed to maintain its position in the index three years in a row. Our efforts on mitigating climate change played a crucial role in being listed in this						don't carry out such studies and are listed in BIST-50 Index. Our efforts in improving our sustainability performance will positively affect the valuation and investor sentiment of ASELSAN as a good number of our shareholders are long term institutional investors. Any dimension adding value to sustainability is of importance to ASELSAN. Hence, we consider the importance we attach to GHG related actions is a crucial dimension. We cannot estimate any quantitative financial implications related to this	in 2015 we have obtained the ISO 14064-1 Certificate for our Scope 1 and Scope 2 emissions. This was the first time our GHG emissions were subjected to a third party verification and we have extended the verification boundary to include our Scope 3 emissions in this reporting period. Moreover, as part of ASELSAN's 2014-2019 strategy, we have started the process to establish an ISO 50001 certified Energy Management System. All these implemented measures will potentially	Reporting, training of the ISO 14064-1 Project team and ISO certification by a third party. Such costs associated with acquiring both consultancy and verification services as part of our CDP response constitutes below 0.01% of our total OPEX. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	index. Our on-going actions on climate change mitigation will result in getting higher scores in the Sustainability Index of BIST. This will increase the interest on the investor's side and will have a positive impact on both our existing and prospective shareholders.						opportunity, however we consider our Company will have better exposure for possible long term investors.	enable us to benefit from this opportunity on a medium scale within our defined timeframe.	
Other regulatory drivers	Turkey's 10th Development Plan includes a Program for Enhancing Energy Efficiency. ASELSAN has a chance to benefit from governmental incentives in the scope of this program.	Reduced operational costs	1 to 3 years	Direct	Very likely	Low	As we may be able to receive funding and get incentives from the government for our energy efficiency R&D projects, we will be able to do more research and develop more energy efficient technologies accordingly.	We are closely following the incentive programs regarding energy efficiency.	We don't have any costs regarding the management of this opportunity except the daily costs of our employees, because all we need to do to manage this opportunity is to closely monitor the incentive programs and apply to the ones that are

Opportunity driver	Description	Potential impact	Timeframe	Direct/Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
									related to our scope of interest.

CC6.1b

Please describe your inherent opportunities that are driven by changes in physical climate parameters

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Change in precipitation extremes and droughts	Climate scientists project that climate change will result in water scarcity and droughts. It is expected that throughout the world there will be drop in agricultural yields and water scarcity will increase. This may force people to immigrate to more fertile grounds. Therefore the governments of some countries may feel the need to improve border security as well as	Increased demand for existing products/services	>6 years	Indirect (Client)	Likely	Low-medium	We are projecting a 5% rise in security systems sales as a result of this opportunity.	No management is necessary for the identified opportunity as it doesn't require a major investment or R&D activities.	No major cost as the identified opportunity can be handled using existing resources.

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	public security and surveillance systems. The countries may need to enhance the security of water resources, and surveillance of the area using satellites. These events may result in a global request for existing services of many industries including the defense industry.								

CC6.1c

Please describe your inherent opportunities that are driven by changes in other climate-related developments

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
Changing consumer behavior	As climate change is one of the biggest challenges the humanity has faced, consumers are becoming	New products/business services	1 to 3 years	Direct	Very likely	Medium	Financial implications of these projects are evaluated to be 0.01% of our revenue in the near	R&D activities for new climate friendly product lines are currently being analysed and planned for implementation	The R&D activities we hold as part of this opportunity has third parties

Opportunity driver	Description	Potential impact	Timeframe	Direct/ Indirect	Likelihood	Magnitude of impact	Estimated financial implications	Management method	Cost of management
	more and more environmentally aware. We are working on projects to enhance the efficiency of the vehicles used in personal and public transportation. (i.e. electric vehicles, less energy consuming subway trains, etc.) Producing new and more climate friendly products may be a good opportunity for us to gain new clients.						future. However, the actions to be taken in order to manage this opportunity will consequently cause an increase in our OPEX in the first place. (Please see Annex: ASELSAN Annual Report-Financial Information Section pg-5 for OPEX details)	such as electric vehicles to be used for public transport as well as portable hybrid electricity generation system using renewable energy sources. We are already on the process of extending our product line to include renewable energy sources' implementation. Therefore, the timeframe of this opportunity is well performed as we can already project an increase in our revenue.	involved. Therefore, due to confidentiality reasons we cannot share the budget related to these projects. However, they are analysed and assessed in detail internally.

CC6.1d

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in regulation that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1e

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in physical climate parameters that have the potential to generate a substantive change in your business operations, revenue or expenditure

CC6.1f

Please explain why you do not consider your company to be exposed to inherent opportunities driven by changes in other climate-related developments that have the potential to generate a substantive change in your business operations, revenue or expenditure

Further Information

Module: GHG Emissions Accounting, Energy and Fuel Use, and Trading

Page: CC7. Emissions Methodology

CC7.1

Please provide your base year and base year emissions (Scopes 1 and 2)

Scope	Base year	Base year emissions (metric tonnes CO2e)
Scope 1	Fri 01 Jan 2016 - Sat 31 Dec 2016	11999.36
Scope 2 (location-based)	Fri 01 Jan 2016 - Sat 31 Dec 2016	38650.54
Scope 2 (market-based)	Fri 01 Jan 2016 - Sat 31 Dec 2016	0

CC7.2

Please give the name of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

Please select the published methodologies that you use
IPCC Guidelines for National Greenhouse Gas Inventories, 2006
ISO 14064-1
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

CC7.2a

If you have selected "Other" in CC7.2 please provide details of the standard, protocol or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions

CC7.3

Please give the source for the global warming potentials you have used

Gas	Reference
CO2	IPCC Fifth Assessment Report (AR5 - 100 year)
CH4	IPCC Fifth Assessment Report (AR5 - 100 year)
N2O	IPCC Fifth Assessment Report (AR5 - 100 year)
HFCs	IPCC Fifth Assessment Report (AR5 - 100 year)

CC7.4

Please give the emissions factors you have applied and their origin; alternatively, please attach an Excel spreadsheet with this data at the bottom of this page

Fuel/Material/Energy	Emission Factor	Unit	Reference
Electricity	0.512	metric tonnes CO2e per MWh	TEİAŞ Turkish Electricity Generation Statistics (2013-2014-2015 average)
Natural gas	0.00193	metric tonnes CO2e per m3	IPCC Chapter 2 Stationary Combustion (Table 2.3)
Other: Compress Natural Gas (CNG)	0.00193	metric tonnes CO2e per m3	IPCC Chapter 2 Stationary Combustion (Table 2.3)
Diesel/Gas oil	0.00263	metric tonnes CO2e per liter	IPCC Chapter 2 Stationary Combustion (Table 2.3)
Diesel/Gas oil	0.00266	metric tonnes CO2e per liter	IPCC Chapter 3 Mobile Combustion (Table 3.2.1 &3.2.2)
Diesel/Gas oil	0.00289	metric tonnes CO2e per liter	IPCC Chapter 3 Mobile Combustion-Off R (Table 3.3.1)
Liquefied petroleum gas (LPG)	0.00288	metric tonnes CO2e per metric tonne	IPCC Chapter 2 Stationary Combustion (Table 2.3)
Motor gasoline	0.00227	metric tonnes CO2e per liter	IPCC Chapter 3 Mobile Combustion (Table 3.2.1 &3.2.2)

Further Information

Page: CC8. Emissions Data - (1 Jan 2016 - 31 Dec 2016)

CC8.1

Please select the boundary you are using for your Scope 1 and 2 greenhouse gas inventory

Operational control

CC8.2

Please provide your gross global Scope 1 emissions figures in metric tonnes CO2e

11999.36

CC8.3

Please describe your approach to reporting Scope 2 emissions

Scope 2, location-based	Scope 2, market-based	Comment
We are reporting a Scope 2, location-based figure	We have no operations where we are able to access electricity supplier emissions factors or residual emissions factors and are unable to report a Scope 2, market-based figure	In ASELSAN we only consume electricity from the grid.

CC8.3a

Please provide your gross global Scope 2 emissions figures in metric tonnes CO2e

Scope 2, location-based	Scope 2, market-based (if applicable)	Comment
38650.54	0	In ASELSAN we only consume electricity from the grid.

CC8.4

Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

CC8.4a

Please provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure

Source	Relevance of Scope 1 emissions from this source	Relevance of location-based Scope 2 emissions from this source	Relevance of market-based Scope 2 emissions from this source (if applicable)	Explain why the source is excluded
Temporary Project Offices	Emissions are not relevant	Emissions are not relevant	No emissions from this source	We have a small number of temporary offices in various locations in Turkey. However, these offices only operate during particular project period and may not operate throughout the reporting period which makes it hard to monitor or control. Since these offices constitute a negligible operational volume, they are classified as de-minimis GHG emission sources and are excluded from the boundary.

CC8.5

Please estimate the level of uncertainty of the total gross global Scope 1 and 2 emissions figures that you have supplied and specify the sources of uncertainty in your data gathering, handling and calculations

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 1	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints Data Management	The uncertainties of Scope 1 emissions have been calculated using the GHG Protocol's Uncertainty Tool. Uncertainties related to activity data and emission factors have been included in the uncertainty calculations. The overall uncertainty of the Scope 1 and 2 emissions is calculated as 4%.
Scope 2 (location-based)	More than 2% but less than or equal to 5%	Metering/ Measurement Constraints Data Management	The uncertainties of Scope 2 emissions have been calculated using the GHG Protocol's Uncertainty Tool. Uncertainties related to activity data have been included in the uncertainty calculations. Scope 2 emissions uncertainty is calculated as 5%. The overall uncertainty of the Scope 1 and 2 emissions is calculated as 4%.

Scope	Uncertainty range	Main sources of uncertainty	Please expand on the uncertainty in your data
Scope 2 (market-based)	Less than or equal to 2%	No Sources of Uncertainty	We do not have market-based Scope 2 emissions.

CC8.6

Please indicate the verification/assurance status that applies to your reported Scope 1 emissions

Third party verification or assurance process in place

CC8.6a

Please provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/section reference	Relevant standard	Proportion of reported Scope 1 emissions verified (%)
Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/65/31565/Climate Change 2017/Shared Documents/Attachments/CC8.6a/Aselsan_2016_Verification Statement_Scope 1-2.pdf	page 1	ISO14064-3	100

CC8.6b

Please provide further details of the regulatory regime to which you are complying that specifies the use of Continuous Emission Monitoring Systems (CEMS)

Regulation	% of emissions covered by the system	Compliance period	Evidence of submission

CC8.7

Please indicate the verification/assurance status that applies to at least one of your reported Scope 2 emissions figures

Third party verification or assurance process in place

CC8.7a

Please provide further details of the verification/assurance undertaken for your location-based and/or market-based Scope 2 emissions, and attach the relevant statements

Location-based or market-based figure?	Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 2 emissions verified (%)
Location-based	Annual process	Complete	Reasonable assurance	https://www.cdp.net/sites/2017/65/31565/Climate Change 2017/Shared Documents/Attachments/CC8.7a/Aselsan_2016_Verification Statement_Scope 1-2.pdf	page 1	ISO14064-3	100

CC8.8

Please identify if any data points have been verified as part of the third party verification work undertaken, other than the verification of emissions figures reported in CC8.6, CC8.7 and CC14.2

Additional data points verified	Comment
No additional data verified	

CC8.9

Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

No

CC8.9a

Please provide the emissions from biologically sequestered carbon relevant to your organization in metric tonnes CO2

Further Information

Page: CC9. Scope 1 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC9.1

Do you have Scope 1 emissions sources in more than one country?

No

CC9.1a

Please break down your total gross global Scope 1 emissions by country/region

Country/Region	Scope 1 metric tonnes CO2e

CC9.2

Please indicate which other Scope 1 emissions breakdowns you are able to provide (tick all that apply)

By facility

CC9.2a

Please break down your total gross global Scope 1 emissions by business division

Business division	Scope 1 emissions (metric tonnes CO2e)

CC9.2b

Please break down your total gross global Scope 1 emissions by facility

Facility	Scope 1 emissions (metric tonnes CO2e)	Latitude	Longitude
Macunköy	4017.33	39.96763	32.76631
Akyurt	3228.58	40.08628	33.02409
Gölbaşı	4685.90	39.71837	32.816122
Teknokent	11.41	39.89353	32.77346
Şişli	28.16	41.05613	28.98536
Teknopark	27.97	40.85130	29.28764

CC9.2c

Please break down your total gross global Scope 1 emissions by GHG type

GHG type	Scope 1 emissions (metric tonnes CO2e)

CC9.2d

Please break down your total gross global Scope 1 emissions by activity

Activity	Scope 1 emissions (metric tonnes CO2e)

Further Information

Page: CC10. Scope 2 Emissions Breakdown - (1 Jan 2016 - 31 Dec 2016)

CC10.1

Do you have Scope 2 emissions sources in more than one country?

No

CC10.1a

Please break down your total gross global Scope 2 emissions and energy consumption by country/region

Country/Region	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)

CC10.2

Please indicate which other Scope 2 emissions breakdowns you are able to provide (tick all that apply)

By facility

CC10.2a

Please break down your total gross global Scope 2 emissions by business division

Business division	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)

CC10.2b

Please break down your total gross global Scope 2 emissions by facility

Facility	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)
Macunköy	15310.66	0
Akyurt	11467.53	0
Gölbaşı	11361.61	0
Teknokent	446.83	0
Şişli	0.67	0
Teknopark	63.25	0

CC10.2c

Please break down your total gross global Scope 2 emissions by activity

Activity	Scope 2, location-based (metric tonnes CO2e)	Scope 2, market-based (metric tonnes CO2e)

Further Information

Page: CC11. Energy

CC11.1

What percentage of your total operational spend in the reporting year was on energy?

More than 5% but less than or equal to 10%

CC11.2

Please state how much heat, steam, and cooling in MWh your organization has purchased and consumed during the reporting year

Energy type	MWh
Heat	533
Steam	0
Cooling	0

CC11.3

Please state how much fuel in MWh your organization has consumed (for energy purposes) during the reporting year

48863.80

CC11.3a

Please complete the table by breaking down the total "Fuel" figure entered above by fuel type

Fuels	MWh
Diesel/Gas oil	5398.20
Natural gas	43155.45
Liquefied petroleum gas (LPG)	6.84
Other: Gasoline	302.93
Other: Compressed Natural Gas (CNG)	0.37

CC11.4

Please provide details of the electricity, heat, steam or cooling amounts that were accounted at a low carbon emission factor in the market-based Scope 2 figure reported in CC8.3a

Basis for applying a low carbon emission factor	MWh consumed associated with low carbon electricity, heat, steam or cooling	Emissions factor (in units of metric tonnes CO2e per MWh)	Comment
No purchases or generation of low carbon electricity, heat, steam or cooling accounted with a low carbon emissions factor	0		

CC11.5

Please report how much electricity you produce in MWh, and how much electricity you consume in MWh

Total electricity consumed (MWh)	Consumed electricity that is purchased (MWh)	Total electricity produced (MWh)	Total renewable electricity produced (MWh)	Consumed renewable electricity that is produced by company (MWh)	Comment
75195.83	75195.83	0	0	0	We neither produce nor consume electricity from renewable sources.

Further Information

Page: CC12. Emissions Performance

CC12.1

How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to the previous year?

Increased

CC12.1a

Please identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year

Reason	Emissions value (percentage)	Direction of change	Please explain and include calculation
Emissions reduction activities	0.77	Decrease	As a result of the 2 emissions reduction initiatives implemented during the reporting period, we have achieved the stated emissions reduction in our Scope 1 and 2 emissions. We have managed to reduce our electricity consumption by 764400 kWh through making use of ambient air cooling in one of our UPS rooms as well as installing a lower capacity chiller system, which can be used during winter months to meet relatively low cooling demand, as an extension to the existing high capacity chiller system in order to achieve energy savings. As a result we have achieved 764400 * 0.512 (Electricity EF) = 508.77 t CO2e emissions reduction.
Divestment	0		
Acquisitions	0		
Mergers	0		
Change in output	9	Increase	Due to an increase in both our production and correspondingly revenue, our gross emissions have increased by 9%, from 46361 t CO2e in 2015 to 50650 t CO2e in 2016) in comparison with the previous reporting period.
Change in methodology	0		
Change in boundary	0		
Change in physical operating conditions	0		
Unidentified	0		
Other	0		

CC12.1b

Is your emissions performance calculations in CC12.1 and CC12.1a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

CC12.2

Please describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tonnes CO2e per unit currency total revenue

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator: Unit total revenue	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
0.01	metric tonnes CO2e	3717622450	Location-based	15.8	Decrease	The reason for this increase is a result of the emissions reduction activities we have undertaken during the reporting period together with a 30% increase in our revenue. Our real intensity figure was 0.014.

CC12.3

Please provide any additional intensity (normalized) metrics that are appropriate to your business operations

Intensity figure =	Metric numerator (Gross global combined Scope 1 and 2 emissions)	Metric denominator	Metric denominator: Unit total	Scope 2 figure used	% change from previous year	Direction of change from previous year	Reason for change
	metric tonnes CO2e						

Further Information

Page: CC13. Emissions Trading

CC13.1

Do you participate in any emissions trading schemes?

No, and we do not currently anticipate doing so in the next 2 years

CC13.1a

Please complete the following table for each of the emission trading schemes in which you participate

Scheme name	Period for which data is supplied	Allowances allocated	Allowances purchased	Verified emissions in metric tonnes CO2e	Details of ownership

CC13.1b

What is your strategy for complying with the schemes in which you participate or anticipate participating?

CC13.2

Has your organization originated any project-based carbon credits or purchased any within the reporting period?

No

CC13.2a

Please provide details on the project-based carbon credits originated or purchased by your organization in the reporting period

Credit origination or credit purchase	Project type	Project identification	Verified to which standard	Number of credits (metric tonnes CO2e)	Number of credits (metric tonnes CO2e): Risk adjusted volume	Credits canceled	Purpose, e.g. compliance

Further Information

Page: CC14. Scope 3 Emissions

CC14.1

Please account for your organization's Scope 3 emissions, disclosing and explaining any exclusions

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Purchased goods and services	Relevant, calculated	741.33	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100.00%	Under this category we have accounted for our scope 3 emissions associated with our paper consumption.
Capital goods	Not relevant, explanation provided				There hasn't been a major capital purchase in the reporting year. Therefore, this emission source will be included in the following year's inventory if a major purchasing occurs.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Fuel-and-energy-related activities (not included in Scope 1 or 2)	Relevant, not yet calculated				We are planning on including reporting our fuel and energy related scope 3 emissions in the upcoming years.
Upstream transportation and distribution	Relevant, not yet calculated				We focus on improving our data collection system and after establishing one with lowest possible uncertainty, we are planning to report our emissions under this category.
Waste generated in operations	Relevant, not yet calculated				
Business travel	Relevant, calculated	3713.59	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard	100.00%	We disclose our Scope 3 emissions arising from business flights conducted during the reporting period.
Employee commuting	Relevant, calculated	669.16	The Greenhouse Gas Protocol - Corporate Value Chain (Scope 3) Accounting and Reporting Standard		We disclose the emissions arising from employee commuting activities under this category. The scope of activity data covers only the distance travelled by employee shuttle services.
Upstream leased assets	Not relevant, explanation provided				We do not have any upstream assets.
Downstream transportation and distribution	Relevant, not yet calculated				We focus on improving our data collection system and after establishing one with lowest possible uncertainty, we are planning to report our emissions under this category.
Processing of sold products	Not relevant, explanation provided				All of our sold products are final products, so processing of our sold products are not relevant.

Sources of Scope 3 emissions	Evaluation status	metric tonnes CO2e	Emissions calculation methodology	Percentage of emissions calculated using data obtained from suppliers or value chain partners	Explanation
Use of sold products	Not relevant, explanation provided				Due to the lack of data on usage phase of sold products, this emission source was excluded from the boundary.
End of life treatment of sold products	Not relevant, explanation provided				Due to the lack of data on end of life treatment of sold products, this emission source was excluded from the boundary.
Downstream leased assets	Not relevant, explanation provided				There aren't any leased downstream assets in ASELSAN. Therefore, this emission source has been excluded from the boundary.
Franchises	Not relevant, explanation provided				ASELSAN has no franchises. Therefore, this emission source is not relevant.
Investments	Not relevant, explanation provided				No investment related emissions occurred within the reporting period.
Other (upstream)	Relevant, not yet calculated				We have assessed the data quality of our food and beverage consumption and make efforts establish a data collection system. We will consider including related emissions in our inventory boundary accordingly.
Other (downstream)	Relevant, not yet calculated				We have assessed the data quality of our mail delivery services and make efforts establish a data collection system. We will consider including related emissions in our inventory boundary accordingly.

CC14.2

Please indicate the verification/assurance status that applies to your reported Scope 3 emissions

Third party verification or assurance process in place

CC14.2a

Please provide further details of the verification/assurance undertaken, and attach the relevant statements

Verification or assurance cycle in place	Status in the current reporting year	Type of verification or assurance	Attach the statement	Page/Section reference	Relevant standard	Proportion of reported Scope 3 emissions verified (%)
Annual process	Complete	Limited assurance	https://www.cdp.net/sites/2017/65/31565/Climate Change 2017/Shared Documents/Attachments/CC14.2a/Aselsan_2016_Verification Statement_Scope 3.pdf	Page 1	ISO14064-3	100

CC14.3

Are you able to compare your Scope 3 emissions for the reporting year with those for the previous year for any sources?

Yes

CC14.3a

Please identify the reasons for any change in your Scope 3 emissions and for each of them specify how your emissions compare to the previous year

Sources of Scope 3 emissions	Reason for change	Emissions value (percentage)	Direction of change	Comment
Purchased goods & services	Change in boundary	999	Increase	During 2016, we were able to collect our total paper consumption (both general office consumption and print centre consumption. Therefore, the activity data boundary has been significantly extended.
Business travel	Change in output	12	Increase	This increase is a reflection of business travels conducted during the reporting period.
Employee commuting	Change in methodology	9	Decrease	The reason for this change can be linked to using optimized routes in commuting. However, this decrease can also be related to a potential change in data collection methodology. We have externally verified our Scope 3 emissions in this reporting period. Therefore, starting from the next reporting period, we will be able to compare our emissions in a more consistent way.

CC14.4

Do you engage with any of the elements of your value chain on GHG emissions and climate change strategies? (Tick all that apply)

Yes, our suppliers

CC14.4a

Please give details of methods of engagement, your strategy for prioritizing engagements and measures of success

CC14.4b

To give a sense of scale of this engagement, please give the number of suppliers with whom you are engaging and the proportion of your total spend that they represent

Type of engagement	Number of suppliers	% of total spend (direct and indirect)	Impact of engagement
Active engagement	14	4.6%	Our first achievement was awareness raising on GHG emissions tracking of our suppliers. Moreover, while revising our next term strategy, the topics of GHG emissions measurement and climate change strategies will be considered to be added into environmental management questionnaire and subcontractors will be given a score according to their replies. For our 2015 inventory, as a pre-assessment, we have requested data from our main subcontractors and 14 of them submitted their electricity and fossil fuel consumption data that corresponds to their production for ASELSAN. As a result we have seen that our suppliers' energy consumption is a Scope 3 GHG emissions source that needs to be investigated further. Therefore, not only do we plan to communicate with an increasing number of suppliers to collect data for the next reporting period, but also we aim to identify a key supplier group and seize opportunities to provide training for them to better manage their energy performance and consequently reduce their GHG emissions.

CC14.4c

Please explain why you do not engage with any elements of your value chain on GHG emissions and climate change strategies, and any plans you have to develop an engagement strategy in the future

Further Information

Module: Sign Off

Page: CC15. Sign Off

CC15.1

Please provide the following information for the person that has signed off (approved) your CDP climate change response

Name	Job title	Corresponding job category
Hezarfen ORUÇ	Vice President	Board/Executive board

Further Information

CDP