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# SSAB - Climate Change 2018

### C0. Introduction

#### C<sub>0.1</sub>

#### (C0.1) Give a general description and introduction to your organization.

1.

SSAB is a highly-specialized global steel company driven by close customer relationships. SSAB develops highstrength steels and provides services for better performance and sustainability. The company is a leading producer on the global market for Advanced High-Strength Steels (AHSS) and Quenched & Tempered Steels (Q&T), strip, plate and tubular products, as well as construction solutions. SSAB's steels and services help to make end products lighter and increase their strength and lifespan. SSAB is structured across three steel divisions: SSAB Special Steels, SSAB Europe and SSAB Americas, and two subsidiaries: Tibnor and Ruukki Construction. SSAB Special Steels - Global steel and service partner in Quenched & Tempered Steels (Q&T) and Advanced High-Strength Steels (AHSS). SSAB Europe -Leading Nordic-based steel producer of high-quality strip, plate and tube products. SSAB Americas - Market-leading North American producer of quality steel plate and coil. Tibnor - Leading Nordic distributor of steel and non-ferrous metals. Ruukki Construction - European provider of energy-efficient building and construction solutions. SSAB has a cost-efficient and flexible production system. SSAB's production plants in Sweden, Finland and the US have an annual steel production capacity of 8.8 million tonnes. The company also has capacity to process and finish various steel products in China, Brazil and many other countries. In Sweden and Finland, production is integrated into a blast furnace process. In the US, electric arc furnaces are used for a scrap-based production process. In 2017, SSAB had annual net sales of SEK 66 billion and at the end of the year around 15,000 employees in over 50 countries. SSAB is listed on Nasdaq OMX Stockholm (Large cap list) and has a secondary listing on Nasdaq OMX Helsinki.

#### C<sub>0.2</sub>

### (C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	January 1 2018	No	<not applicable=""></not>
Row 2	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>
Row 3	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>
Row 4	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>	<not applicable=""></not>

#### C<sub>0.3</sub>

(C0.3) Select the countries/regions for which you will be supplying data.

Finland

Lithuania

Poland

Russian Federation

Sweden

# C<sub>0.4</sub>

(C0.4) Select the currency used for all financial information disclosed throughout your response.

SEK

### C<sub>0.5</sub>

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Operational control

# C-ST0.7

# (C-ST0.7) Which parts of the steel value chain does your organization operate in?

Coke oven operation
Blast furnace and basic oxygen furnace operations
Electric arc furnace operations
Hot-rolling
Cold rolling and finishing

Scrap steel recycling

# C1. Governance

# C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

# C1.1a

(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain	
board	In the case of SSAB the supervisory board collectively has the responsibility for sustainability related matters. It has been deemed to important to delegate to a single individual. Also, in line with EU and Swedish legislation, the sustainability report is signed by the board. The chief executives of SSAB are not members of the supervisory board, but form the group executive committee. Please refer the question. 1.2	

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding annual budgets Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Overseeing major capital expenditures, acquisitions and divestitures Monitoring and overseeing progress against goals and targets for addressing climate-related issues	SSAB's board reviews company's sustainability strategy annually. Board also reviews the implementation and the performance of objectives quarterly. All major plans and actions, like the implementation of HYBRIT project aiming to fossil carbon free steel making, are reviewed and approved by the board.

# C1.2

# (C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly
Other C-Suite Officer, please specify (• Chief Technology Officer (CTO))	Both assessing and managing climate-related risks and opportunities  • Reviewing and guiding major plans of action	Quarterly

# C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

At the moment SSAB's Executive Vice President and Head of Communication, HR & Sustainability is responsible for coordinating and driving sustainability work at the Group level. She is a member of the Group Executive Committee and reports directly to the President & CEO of SSAB. However, SSAB has decided to further strengthen the sustainability management by recruiting a dedicated Executive Vice President, Sustainability.

SSAB's Executive Vice President and Head of Technical Development has the responsibility for the environmental issues (including climate change).

Sustainability matters are frequently on SSAB's Group Executive Committee's agenda to ensure the close involvement of top management in important sustainability issues. Strategies and targets for environmental impact and climate

SSAB's Sustainability Management Team is a group level team led by VP Sustainability and Public Affairs (reporting to Executive Vice President and Head of Communication, HR & Sustainability) The team creates a network of expertise within critical sustainability areas, with the responsibility to coordinate and drive SSAB's sustainability initiatives. Each member of the Sustainability Management Team works closely with the relevant people across the organization to ensure the involvement of key experts and divisional representation in sustainability work. To support work related to environmental issues, SSAB has an Environmental Council. The Council is chaired by SSAB's Head of Environmental Affairs, who is also a member of the Sustainability Management Team. In issues related to responsible sourcing, the Vice President and Head of Ethics and Compliance works together with the procurement organization and the Chief Procurement Officer

### C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets? Yes

#### C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

### Who is entitled to benefit from these incentives?

Chief Sustainability Officer (CSO)

# Types of incentives

Monetary reward

### **Activity incentivized**

Emissions reduction target

### Comment

#### Who is entitled to benefit from these incentives?

Energy manager

# Types of incentives

Monetary reward

### **Activity incentivized**

Emissions reduction target

#### Comment

For environmental /energy/sustainable managers bonus targets include climate change issues, when appropriate, depending on the responsibilities and tasks of the manager. In 2015, SSAB launched the following environmental targets until 2019: 1) A lasting reduction of 200,000 tonnes in CO2 emissions 2) A lasting reduction of 300 GWh in purchased energy (electricity and fuels) 3) A lasting improvement of 30,000 tonnes in residual utilization The base year for monitoring the targets is 2014. However, since these targets were met already in 2017, new targets were set so that by the end of 2020 SSAB has achieved a lasting reduction of 300,000 tonnes in CO2 emissions, a lasting reduction of 400 GWh in purchased energy and a lasting improvement of 50,000 tonnes in residuals utilization.

### **Activity incentivized**

Other, please specify (Emissions reduction projects and targets)

#### Comment

For environmental /energy/sustainable managers bonus targets include climate change issues, when appropriate, depending on the responsibilities and tasks of the manager. In 2015, SSAB launched the following environmental targets until 2019: 1) A lasting reduction of 200,000 tonnes in CO2 emissions 2) A lasting reduction of 300 GWh in purchased energy (electricity and fuels) 3) A lasting improvement of 30,000 tonnes in residual utilization The base year for monitoring the targets is 2014. However, since these targets were met already in 2017, new targets were set so that by the end of 2020 SSAB has achieved a lasting reduction of 300,000 tonnes in CO2 emissions, a lasting reduction of 400 GWh in purchased energy and a lasting improvement of 50,000 tonnes in residuals utilization.

#### Who is entitled to benefit from these incentives?

Environment/Sustainability manager

# Types of incentives

Monetary reward

#### **Activity incentivized**

Emissions reduction target

#### Comment

For environmental /energy/sustainable managers bonus targets include climate change issues, when appropriate, depending on the responsibilities and tasks of the manager. In 2015, SSAB launched the following environmental targets until 2019: 1) A lasting reduction of 200,000 tonnes in CO2 emissions 2) A lasting reduction of 300 GWh in purchased energy (electricity and fuels) 3) A lasting improvement of 30,000 tonnes in residual utilization The base year for monitoring the targets is 2014. However, since these targets were met already in 2017, new targets were set so that by the end of 2020 SSAB has achieved a lasting reduction of 300,000 tonnes in CO2 emissions, a lasting reduction of 400 GWh in purchased energy and a lasting improvement of 50,000 tonnes in residuals utilization.

### Who is entitled to benefit from these incentives?

Public affairs manager

#### Types of incentives

Monetary reward

### **Activity incentivized**

Emissions reduction target

### Comment

### Who is entitled to benefit from these incentives?

All employees

#### Types of incentives

Other non-monetary reward

### **Activity incentivized**

Efficiency project

#### Comment

# C2. Risks and opportunities

	(years)	(years)	
Short- term	0	3	Short term is now, or within the next few years
Medium- term	3	6	Medium-term is not imminent, but not too far into the future
Long- term	6		Although further away than six years, risks in the next 25 years still need to be taken into consideration, in an industry with long investment cycles.

### C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

### C2.2a

# (C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

		How far into the future are risks considered?	Comment
Row 1	Annually	*	All areas where SSAB has manufacturing are considered in the risk assessment. The frequency of the assessment might vary between sites. Group-wide the process is carried through annually

# C2.2b

# (C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

At SSAB, risk management is integrated in the annual strategy process and includes the involvement of the Group Executive Committee, the Audit Committee and the Board of Directors. Risk management aims at supporting the achievement of SSAB's strategies and targets and at ensuring business continuity. Hence, good risk management includes providing important input to the company's strategy process. Risk mitigation activities are also an important part of a company's risk management process. By ranking the risks in order of risk value proper priorities can be given and proactive measures taken. Risk transparency is achieved by using a common format, which is necessary in order to present an overall understanding of the risks the company is exposed to. At the Group level a common risk classification criteria is used. Each division and Group function is responsible for assessing the most important risks in their areas. This means that most of the Group's operational risks are managed by each division, but coordinated at higher level where deemed necessary. The Group Legal function has a global risk management function, which assesses the insurable risks. Management of financial risks is mainly handled by the Group's treasury function. Sustainability risks are identified by the Sustainability Management Team and coordinated centrally as part of the sustainability strategy process. In addition, risk management related to energy and the environmental issues is mainly managed on a site level in day-to-day operations. All SSAB production sites are certified according to ISO 14001, in which risks are addressed. Being certified also means that all our sites have been audited by a third party. SSAB has had an internal audit unit which, among other things, identifies risk areas and, based on a risk analysis, conducts internal reviews, which are followed by recommendations for improvements within these areas. The internal audit unit reports directly to the Audit Committee.

operations risks, employee/people risks and financial risks. The risk level of a certain risk is calculated based on the estimated impact and likelihood (probability) level of risk occurrence based on a specific classification system. This is done for all major risks that have been reported by divisions and global functions in the strategy process. After the risk level estimation, risks are placed on a risk map, where the major risks are identified and prioritized, and if needed, action plans are developed. This is done at both divisional and Group levels. Risks concerning climate change are a prioritized area for SSAB and there are action plans at Group level, including group-wide targets for reducing CO2 emissions and purchased energy, as well as at local site level through continuous work concerning significant environmental aspects and ISO 14001 certification. SSAB is supporting the UN SDG to mitigate climate change and its impacts.

# C2.2c

#### (C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain	
Current regulation	Relevant, always included	Regulatory demands are the starting point when assessing climate-related risks.	
Emerging regulation	Relevant, always included	As far as emerging regulatory demands are known, the are taken into account when making the risk assessment.	
Technology	Relevant, always included	SSAB is on the forefront of developing break-through technologies for steelmaking. The progress of which is taken into account when assessing risks.	
Legal	Relevant, always included	Legal demands are taken into account in the same way as current and emerging regulations.	
Market	Relevant, always included	Market demands are increasingly focusing on climate-related risks, which is relevant in product development and other areas.	
Reputation	Relevant, always included	Reputational risk is related to the previous categories and is part of the overall assessment.	
Acute physical	Relevant, sometimes included	Severe weather conditions, for example, could be relevant for some SSAB sites, but not for all	
Chronic physical	Relevant, sometimes included	Shift in climate is evaluated as part of the overall risk assessment.	
Upstream	Relevant, sometimes included	Risks involving main suppliers are identified.	
Downstream	stream Relevant, sometimes Downstream (i.e. customer) risks are evaluated with a risk based approach, i.e. human rights are evaluated for identified regions/industries		

#### C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

At SSAB, risk management is integrated in the annual strategy process and includes the involvement of the Group Executive Committee, the Audit Committee and the Board of Directors. Risk management aims at supporting the achievement of SSAB's strategies and targets and at ensuring business continuity. Hence, good risk management includes providing important input to the company's strategy process. Risk mitigation activities are also an important part of a company's risk management process. By ranking the risks in order of risk value proper priorities can be given and proactive measures taken. Risk transparency is achieved by using a common format, which is necessary in order to present an overall understanding of the risks the company is exposed to. At the Group level a common risk classification criteria is used. Each division and Group function is responsible for assessing the most important risks in their areas. This means that most of the Group's operational risks are managed by each division, but coordinated at higher level where deemed necessary. The Group Legal function has a global risk management function, which assesses the insurable risks. Management of financial risks is mainly handled by the Group's treasury function.



which risks are addressed. Being certified also means that all our sites have been audited by a third party. SSAB has had an internal audit unit which, among other things, identifies risk areas and, based on a risk analysis, conducts internal reviews, which are followed by recommendations for improvements within these areas. The internal audit unit reports directly to the Audit Committee.

Examples of different risks that are considered are both external and internal. Examples of external risks include market risks, industry risks, regulatory and financial risks. Examples of internal risks are sales/customer risks, operations risks, employee/people risks and financial risks. The risk level of a certain risk is calculated based on the estimated impact and likelihood (probability) level of risk occurrence based on a specific classification system. This is done for all major risks that have been reported by divisions and global functions in the strategy process. After the risk level estimation, risks are placed on a risk map, where the major risks are identified and prioritized, and if needed, action plans are developed. This is done at both divisional and Group levels. Risks concerning climate change are a prioritized area for SSAB and there are action plans at Group level, including group-wide targets for reducing CO2 emissions and purchased energy, as well as at local site level through continuous work concerning significant environmental aspects and ISO 14001 certification. SSAB is supporting the UN SDG to mitigate climate change and its impacts.

#### C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

#### C2 3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

#### **Identifier**

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

### Risk type

Transition risk

### Primary climate-related risk driver

Policy and legal: Other

### Type of financial impact driver

Policy and legal: Write-offs, asset impairment, and early retirement of existing assets due to policy changes

### Company- specific description

Paris deal cannot be reached and operational costs increase in comparison to competitors outside European Union, because the EU is firmly committed to ambitious CO2 targets in any way.

### Time horizon

Long-term

### Likelihood

About as likely as not

#### Magnitude of impact



# **Explanation of financial impact**

### Management method

#### Cost of management

#### Comment

#### Identifier

Risk 2

### Where in the value chain does the risk driver occur?

Direct operations

# Risk type

Transition risk

### Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

### Type of financial impact driver

Policy and legal: Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

### Company- specific description

The EU decided in October 2014 to set more ambitious targets and reduce CO2 emissions by 40% in 2030. This means that fewer allowances and free allowances will be available for the steel industry

#### Time horizon

Medium-term

# Likelihood

More likely than not

# Magnitude of impact

Medium-high

# Potential financial impact

### **Explanation of financial impact**

### Management method

# Cost of management

### Comment

# Identifier

Risk 3

# Where in the value chain does the risk driver occur?

Direct operations

#### Risk type

Physical risk

#### Primary climate-related risk driver

Chronic: Rising mean temperatures

# Type of financial impact driver

Increased operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants)

# Company- specific description

Increased temperature of incoming cooling water leads to increased energy consumption due to higher cooling water flow needed to obtain the same cooling capacity (i.e., increased pumping capacity is required



### Likelihood

Very likely

# Magnitude of impact

Medium

# Potential financial impact

### **Explanation of financial impact**

Maintenance, process development and research. E.g. by developing cooling systems to mitigate the increased temperature as well as evaluation of alternative cooling systems

### Management method

Cost of management

Comment

#### **Identifier**

Risk 4

### Where in the value chain does the risk driver occur?

Direct operations

# Risk type

Physical risk

### Primary climate-related risk driver

Chronic: Rising sea levels

### Type of financial impact driver

Increased capital costs (e.g., damage to facilities)

#### Company- specific description

May cause instability in the foundations of buildings and facilities of the sites that are directly connected to the sea

### Time horizon

Long-term

#### Likelihood

More likely than not

# Magnitude of impact

High

### Potential financial impact

### **Explanation of financial impact**

Internal risk assessment to define

# Management method

Cost of management

Comment

### **Identifier**

Risk 5

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type

Physical risk

# Primary climate-related risk driver



Increased capital costs (e.g., damage to facilities)

### Company- specific description

Buildings and also stormwater systems etc. are dimensioned in relation to the current situation. Abnormally strong winds and very heavy rains may damage current building constructions and cause flooding

#### Time horizon

Long-term

#### Likelihood

More likely than not

# Magnitude of impact

Please select

# Potential financial impact

# **Explanation of financial impact**

Internal risk assessment to define

#### Management method

Cost of management

Comment

### **Identifier**

Risk 6

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type

Physical risk

### Primary climate-related risk driver

Acute: Increased severity of extreme weather events such as cyclones and floods

# Type of financial impact driver

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

### Company- specific description

Problems for the transportation of iron ore by rail and sea transport of coke and coal.

### Time horizon

Long-term

#### Likelihood

More likely than not

# Magnitude of impact

High

# Potential financial impact

### **Explanation of financial impact**

Internal risk assessment to define

### Management method

Cost of management

#### Comment



(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

# C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

#### **Identifier**

Opp1

### Where in the value chain does the opportunity occur?

Customer

### **Opportunity type**

Resource efficiency

### Primary climate-related opportunity driver

Use of more efficient production and distribution processes

#### Type of financial impact driver

Reduced operating costs (e.g., through efficiency gains and cost reductions)

#### Company- specific description

Increased demands from customers for fuel efficient solutions. This will be enabled by increased use of high strength steels, making machines lighter and more efficient. This in turn will lead to increased competitiveness and revenue volumes for SSAB

### Time horizon

Short-term

### Likelihood

Very likely

### Magnitude of impact

Medium-high

### Potential financial impact

# **Explanation of financial impact**

Increased volumes and revenues

# Strategy to realize opportunity

Not needed, existing products

# Cost to realize opportunity

0

### Comment

# Identifier

Opp2

# Where in the value chain does the opportunity occur?

Direct operations

### Opportunity type

Resource efficiency



#### Type of financial impact driver

Reduced operating costs (e.g., through efficiency gains and cost reductions)

### Company- specific description

The EU emission trading system will benefit companies with CO2-efficient blast furnaces, which will lead to increased competiveness for SSAB compared to competitors

### Time horizon

Medium-term

### Likelihood

Virtually certain

# Magnitude of impact

High

### Potential financial impact

**Explanation of financial impact** 

#### Strategy to realize opportunity

Not needed, EU emission trading system already exists

### Cost to realize opportunity

Λ

#### Comment

#### **Identifier**

Opp3

# Where in the value chain does the opportunity occur?

Customer

### **Opportunity type**

Resilience

#### Primary climate-related opportunity driver

Participation in renewable energy programs and adoption of energy-efficiency measures

### Type of financial impact driver

Increased revenue through new products and services related to ensuring resiliency

# Company- specific description

Increased demands from customers for fuel efficient solutions. This will be enabled by increased use of high strength steels, making machines lighter and more efficient. This in turn will lead to increased competitiveness and revenue volumes for SSAB

### Time horizon

Short-term

### Likelihood

Very likely

# Magnitude of impact

Medium-high

# Potential financial impact

**Explanation of financial impact** 

# Strategy to realize opportunity

Not needed, existing products

# Cost to realize opportunity



# (C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	An increased demand from customer for resource efficient solutions, leads to an increased interest in stronger, lighter and more efficient products, which means that the SSAB leadership in high-strength steels becomes even more of a competitive advantage. For SSAB and its customers
Supply chain and/or value chain	Impacted	Regulatory demands on operations and transportation are increasing for many SSAB suppliers. SSAB also continouously screens suppliers' sustainability performance, environemental as well as social and human rights performance.
Adaptation and mitigation activities	Impacted	For both products, services and supply chaain mitigation activities are needed.
Investment in R&D	Impacted	SSAB put a significant amount of R&D resources and investment into developing a fossil free steel making process
Operations	Impacted	Operations are continously adressing environmental and other demands. The investment in R&D will lead to investment needs for plants and sites.
Other, please specify	Please select	

# C2.6

# (C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	Relevance	Description
Revenues	Impacted for some suppliers, facilities, or product lines	An increased demand for resource efficient solutions among SSAB customers, leads to an increased demand and increased sales for high-strength steels, which enable stronger, lighter and more efficient end products.
Operating costs	Impacted for some suppliers, facilities, or product lines	Increased cost for emission rights, among others, impact SSAB operating costs
Capital expenditures / capital allocation	Not yet impacted	Investments will be needed to facilitate SSAB's plans for fossil free steelmaking
Acquisitions and divestments	Not impacted	
Access to capital	Not yet impacted	Although green bonds are in demand in the market, this has not yet significantly impacted or improved SSAB's access to capital
Assets	Not impacted	
Liabilities	Not impacted	
Other	Not impacted	

# C3. Business Strategy

# C3.1



(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy? Yes, qualitative

C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)

(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.

Yes

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

SSAB's strategy is based on comprehensive analysis of the global trends and drivers that affect our operating environment. Sustainability and climate change are topics considered in the strategy process as part of the analysis of risks and opportunities and have influenced SSAB's short and long-term strategy, SSAB's "Taking the Lead" strategy, first introduced in 2012, continues to drive the strategic decisions and actions of the company. SSAB's vision - a stronger, lighter and more sustainable world - paves the way forward. In 2015, we launched a new sustainability strategy that supports the overall SSAB strategy with three focus areas – sustainable offering, sustainable operations and responsible partner. SSAB's sustainable offering is what we offer our customers. The core of SSAB's business is to develop and produce Advanced High-Strength Steels (AHSS) and Quenched and Tempered Steels (Q&T) that are stronger than ordinary steels. This in turn helps our customers to produce lighter and stronger products, thus reducing their environmental footprint. This is SSAB's most important contribution to mitigating climate change. (Please refer to the SSAB EcoUpgraded initiative www.ssab.com/ecoupgraded) SSAB focuses on operational efficiency to ensure our operations are as sustainable as possible. SSAB works for continuous improvements to minimize emissions, aiming for material and energy efficiency. ii.Regulatory changes, especially regulations related to EU-ETS, have increased the need for more CO2 efficient production and influence investment decisions. Environmental aspects are always taken into consideration when planning production investments. Climate change creates opportunities for SSAB to develop profitable, green business and gain a better competitive position versus its competitors. The regulations that put pressure on our customers to improve their end products' material, energy and fuel efficiency, and/or to extend service life, are important drivers for SSAB's growth strategy in high-strength and wear steels. SSAB's steels offer the possibility to build lighter end-products with a longer lifecycle in a way that reduces component wear and lowers fuel consumption, increases lifting performance and enables higher payloads. SSAB's subsidiary Ruukki Construction operates both in the residential and non-residential construction segments. Energy efficiency is a growing trend in both segments. Greener, smarter solutions are increasing in popularity and environmental transparency is becoming a norm in the building industry.iii.Sustainability has been a part of SSAB's long-term strategy for several years. In May 2015, SSAB launched a new sustainability strategy with the three focus areas (see earlier). Renewed environmental targets relate to a reduction in CO2 emissions, energy usage and waste to be achieved by 2019. SSAB's objective is to become one of the world's most sustainable steel companies. Climate change is one of the main drivers for SSAB's strategy in high-strength steels and wear steels (like described above). As part of this, Research & Development (R&D) continues to be a high priority. This entails further development in three areas: Product development, boosting SSAB's own highstrength offering with new productsSSAB's R&D is focused primarily on high-strength steels and wear steels, with an emphasis on segments where requirements on the steel are critical. Increased environmental awareness has been a driving force, as evidenced by SSAB's high-strength steels that enable e.g. more energy-efficient transportation and lower CO2 emissions. Knowledge of production processes and efficient use of resources is also important in SSAB's R&D.Process development at the mills, enabling more efficient, cost-effective and sustainable productionSSAB's steelmaking process has been continuously improved to become extremely efficient. As a result, SSAB's blast furnaces

heating, gas, slag and dust, are recovered to minimize the consumption of purchased energy and generation of waste. Using recycled steel in steel production saves natural resources, which leads to lower CO2 emissions. In SSAB's scrap based production in the US, CO2 emissions are substantially lower than those generated in conjunction with iron orebased steel production. Application development to help customers to upgrade to high-strength steels As early as possible in the development of a new product – be it a tipper, a dumper or a crane – SSAB's engineers support the customer in developing solutions that best utilize the qualities of each steel grade. This is how SSAB enables customers to produce stronger, lighter and more durable end-products.v.SSAB's unique competitive edge in highstrength and wear steels lies in one of the widest product and service portfolios on the market, leading brands combined with deep knowledge of steel properties and close collaboration with customers in developing new steel applications. SSAB is well positioned to take advantage of opportunities in high-strength steels, which help to differentiate SSAB in the steel market. Customers are also increasingly looking at their steel suppliers' performance in environmental issues, and having extremely CO2 efficient production processes is a strong competitive advantage for SSAB. vi.In 2016 SSAB, LKAB and Vattenfall have announced a joint initiative to develop a steel production process that uses hydrogen instead of coal as a reducing agent and emits water instead of carbon dioxide. This will be ready for commercial operation some time after 2035:Although the current SSAB blast furnace based production system is one of the most CO2 efficient in the world, it is still a significant source of CO2 emissions. To address the root cause of these CO2 emissions, the three companies are driving a common initiative to replace carbon and coke with hydrogen in the iron making process. This would mean that the emissions would not be CO2 – but water.

#### C3.1d

# (C3.1d) Provide details of your organization's use of climate-related scenario analysis.

Climate- related scenarios	Details
specify (Fossil free Sweden	In line with the Swedish government initiative "Fossil free Sweden 2045", SSAB is committed to becoming 100% fossil free by 2045. This entails developing a fossil free steelmaking for iron ore based steelmaking; known as the HYBRIT project, but also addressing other fuel related emissions, either by switching to electricity or bio fuels. Where applicable, this also applies to transportation needs.

# C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

(C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization's low-carbon transition plan.

In line with the Swedish government initiative "Fossil free Sweden 2045", SSAB is committed to becoming 100% fossil free by 2045.

This entails developing a fossil free steelmaking for iron ore based steelmaking; known as the HYBRIT project, but also addressing other fuel related emissions, either by switching to electricity or bio fuels.

Where applicable, this also applies to transportation needs.

### C4. Targets and performance

(C4.1) Did you have an emissions target that was active in the reporting year? Absolute target

#### C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

# Target reference number

Abs 1

#### Scope

Scope 1

### % emissions in Scope

### % reduction from base year

#### Base year

2014

### Start year

2015

# Base year emissions covered by target (metric tons CO2e)

9577730

### Target year

2020

# Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

# % achieved (emissions)

# **Target status**

Please select

# Please explain

We have done a first review and our target seem to be in line with these SBTi requirements. However, there was no commitments to adopt a science-based target for the current target period 2015-2020. However, for the coming period it is considered. Targets is on track and will be reached as planned.

# C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

# C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

# C4.3a

(C4.3a) Identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	10	50300
To be implemented*	7	32100
Implementation commenced*		
Implemented*	9	217600
Not to be implemented		

### C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

#### **Activity type**

Energy efficiency: Processes

#### **Description of activity**

Other, please specify (Comment has been added.)

Changes in the control system for reheating furnace have been implemented to optimize NOx, this have also had a positive effect on fuel consumption.

# Estimated annual CO2e savings (metric tonnes CO2e)

200

# Scope

Scope 1

### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

# Payback period

Please select

# Estimated lifetime of the initiative

Please select

#### Comment

# **Activity type**

Energy efficiency: Processes

# **Description of activity**

Other, please specify (Comment has been added.)

Reduced LPG consumption due to new pilot burner for BOF flare.

### Estimated annual CO2e savings (metric tonnes CO2e)

400



### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

### Payback period

Please select

### Estimated lifetime of the initiative

Please select

Comment

### **Activity type**

Energy efficiency: Processes

# **Description of activity**

Other, please specify (Comment has been added.)

4 new "Dockspotters" for internal transport with better fuel efficiency.

### Estimated annual CO2e savings (metric tonnes CO2e)

200

#### Scope

Scope 1

### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

# Payback period

Please select

# Estimated lifetime of the initiative

Please select

Comment

# **Activity type**

Energy efficiency: Processes

# **Description of activity**

Other, please specify (Comment has been added.)

Replacement of limestone in BF-process is achived by using other slag-forming material, i.e. ladle-slag or BOF-slag.

# Estimated annual CO2e savings (metric tonnes CO2e)

1300

# Scope

Scope 1

# Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

Payback period

#### Please select

#### Comment

#### **Activity type**

Energy efficiency: Processes

#### Description of activity

Other, please specify (Comment has been added.)

Increased yield within the production of prime slabs. The improvement is based on overall better yield improvement of prime slab production, improved raw material utilization for prime productions.

### Estimated annual CO2e savings (metric tonnes CO2e)

110000

#### Scope

Scope 1

#### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

### Payback period

Please select

### Estimated lifetime of the initiative

Please select

#### Comment

# **Activity type**

Energy efficiency: Processes

# **Description of activity**

Other, please specify (Comment has been added.)

The transfer of metal-coated products production from Borlänge to Hämeenlinna and the consolidation of colorcoated products production from four lines to three increases the energy efficiency of the Nordic production system as a whole.

### Estimated annual CO2e savings (metric tonnes CO2e)

3200

#### Scope

Scope 1

#### Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

### Payback period

Please select

### Estimated lifetime of the initiative

Please select

### Comment



Other, please specify (Comment has been added.)

Adjust production planning for maximized energy efficiency for the reheating furnaces.

Estimated annual CO2e savings (metric tonnes CO2e)

900

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

### **Activity type**

Energy efficiency: Processes

### Description of activity

Other, please specify (Comment has been added.)

New rollers of type Non Woven Abrasives Roller Brush before strip dryer will eliminate heat and reduce airflow in dryer.

Estimated annual CO2e savings (metric tonnes CO2e)

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

Payback period

Please select

Estimated lifetime of the initiative

Please select

Comment

**Activity type** 

Energy efficiency: Processes

**Description of activity** 

Other, please specify (Comment has been added.)

New vessels with increased volume increasing the yield thanks to less splashing.

Estimated annual CO2e savings (metric tonnes CO2e)

11500

# Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency - as specified in CC0.4)

Investment required (unit currency - as specified in CC0.4)

### Payback period

Please select

### Estimated lifetime of the initiative

Please select

Comment

# C4.3c

# (C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	SSAB always prioritize compliance with regulatory requirements/standards.
Employee engagement	Our management philosophy to drive continues improvements "SSAB One" is built on all employees' engagement, this includes also emission reduction activities.
Internal price on carbon	SSAB uses internal prize of carbon for all investments that have impact on CO2 emissions.
Partnering with governments on technology development	In 2016 SSAB, LKAB and Vattenfall have announced a joint initiative to develop a steel production process that uses hydrogen instead of coal as a reducing agent and emits water instead of carbon dioxide. This will be ready for commercial operation some time after 2035: Although the current SSAB blast furnace based production system is one of the most CO2 efficient in the world, it is still a significant source of CO2 emissions. To address the root cause of these CO2 emissions, the three companies are driving a common initiative to replace carbon and coke with hydrogen in the iron making process. This would mean that the emissions would not be CO2 — but water.
Other	SSAB partners with universities, companies in the energy-intensive industry and trade associations in various collaboration and research project in order to drive technology, increase knowledge-sharing and thereby reducing our CO2 emissions further.

# C4.5

(C4.5) 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?

Yes

# C4.5a

(C4.5a) 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

Company-wide

# Description of product/Group of products

Our entire product portfolio offers positive environmental values relative to the steel market as a whole thanks to our effective iron and steel production. SSAB is one of the best in the world in iron-ore based steel making when it comes to CO2 efficiency – 7% better than the European average, based on benchmark done by Stahl-Zentrum regarding



2017 SSAB emitted 9.8 million tonnes of CO2 globally, 9.1 million tonnes of which was related to iron-ore based steel production in the Nordics and 0.7 million tonnes to scrap-based steel production in the US. In 2017, SSAB produced 8.0 million tonnes of crude steel globally, which means an average of 1.2 tonnes of CO2 emissions per produced tonne of steel. In iron-ore based steel production, SSAB produced 5.6 million tonnes of crude steel.

Are these low-carbon product(s) or do they enable avoided emissions? Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Other, please specify (Benchmark)

% revenue from low carbon product(s) in the reporting year

Comment

#### Level of aggregation

Group of products

#### Description of product/Group of products

As described, we have very efficient iron and steel production. However, the major potential will be seen when we look at the benefits of our special steels from a lifecycle perspective including the use-phase of the end-products, for example, the use of high-strength steels and wear plate in active constructions such as cars, trucks, trailers etc. In these applications, we often see an environmental benefit that exceeds the environmental impact from steel production. Case study - use of high-strength steels: This case illustrates a hypothetical scenario where one million tonnes of high-strength steels replace 1.3 million tonnes of standard steel used in vehicles. (Source: Jernkontoret, the environmental research program "the steel eco-cycle", calculated based on the average lifespan of the European vehicle fleet.) When upgrading to high-strength steel, the application retains its performance even though less steel is being used. This results in weight savings for the steel application, which in turn means that less steel needs to be produced, thus fewer resources are needed. In the use phase, high-strength steels used in vehicles can provide environmental benefits because they lower vehicle weight, cut fuel consumption and thus result in less CO2 emissions. Around 90% of the reduced environmental impact can be related to the use phase of lighter vehicles through reduced fuel consumption. From a lifecycle perspective, this case shows the large savings that can be achieved using high-strength steels. A). When 300,000 tonnes less steel need to be produced, indirect CO2 emissions from upstream suppliers will decrease by 200,000 tonnes because less energy and raw materials are needed. B). A reduction of 300,000 tonnes in steel produced results in 500,000 tonnes less direct CO2 emissions from SSAB's steel production. C). Upgrading vehicles to high-strength steels results in 7.3 million tonnes less CO2 emissions in the use phase. D). The total CO2 savings out of this hypothetical case are around 8 million tonnes.

Are these low-carbon product(s) or do they enable avoided emissions? Low-carbon product

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Other, please specify (LCA)

% revenue from low carbon product(s) in the reporting year

Comment

### C-ST4.9

(C-ST4.9) Disclose your organization's best available techniques as a percentage of total plant capacity.

% of total	Primary	Comment
plant	reason for not	
capacity	having	
	technique	

		teomique	
Coke oven: Coke dry quenching		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Coke oven: Coal moisture control process		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Coke oven: Programmed heating		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Sinter plant: Sinter cooler exhaust gas waste heat recovery	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>
Sinter plant: Sinter strand waste-gas recycling	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>
Sinter plant: Use of waste fuels in sinter mixture	<not Applicable&gt;</not 	<not Applicable&gt;</not 	<not applicable=""></not>
Blast furnace: Injection of pulverized coal, biomass or wastes		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Blast furnace: Top recovery turbine		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Blast furnace: Recuperator (air preheating) hot-blast stoves		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Blast furnace: Computer aided control system for hot-blast stoves		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

	preominque	
Blast furnace: Slag granulation for cement industry	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Basic oxygen furnace: BOF gas and sensible heat recovery	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Basic oxygen furnace: Vessel bottom stirring	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Basic oxygen furnace: Programmed and preheated ladles	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Electric arc furnace: Scrap preheating	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Electric arc furnace: Oxy- fuel burners	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Electric arc furnace: Oxygen blowing for liquid steel oxidation or post combustion	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Electric arc furnace: Integrated, real-time process control and monitoring systems	Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

		teomique	
Casting: Absence of soaking pits and primary rolling of ingots		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Casting: Near net shape casting, e.g. thin slab, thin strip, etc.		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Hot rolling mill: Hot charging		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Hot rolling mill: Recuperative/regenerative burners		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Hot rolling mill: Walking beam furnace		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Hot rolling mill: Variable speed drives on combustion air fans of reheat furnace		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Integrated steel mill: Combined heat and power/cogeneration plant	100	Other, please specify (Implemented)	
Integrated steel mill: Energy monitoring and management system		Please select	This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended
Other		Please select	

### C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

### Scope 1

# Base year start

January 1 2017

# Base year end

January 1 2018

# Base year emissions (metric tons CO2e)

9834158

Comment

# Scope 2 (location-based)

# Base year start

January 1 2017

# Base year end

January 1 2018

# Base year emissions (metric tons CO2e)

534814

Comment

# Scope 2 (market-based)

### Base year start

January 1 2017

# Base year end

January 1 2018

# Base year emissions (metric tons CO2e)

340814

Comment

# C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.

European Union Emission Trading System (EU ETS): The Monitoring and Reporting Regulation (MMR) - General guidance for installations

US EPA Mandatory Greenhouse Gas Reporting Rule

World Steel Association CO2 emissions data collection guidelines

### C6. Emissions data



# (C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

#### Row 1

Gross global Scope 1 emissions (metric tons CO2e)

10424208

### End-year of reporting period

<Not Applicable>

#### Comment

We report according to World Steel methodology. We want to highlight that for SSAB's plant in Luleå we also include the emissions from the powerplant jointly owned by SSAB and municipality of Luleå, by doing that SSAB reports all emissions coming from the steel making process in this survey

# C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

#### Row 1

### Scope 2, location-based

We are reporting a Scope 2, location-based figure

### Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

### C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

#### Row 1

Scope 2, location-based

534814

Scope 2, market-based (if applicable)

343426

# End-year of reporting period

<Not Applicable>

Comment

# C6.4

(C6.4) 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?

No

#### (C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.

### Purchased goods and services

#### **Evaluation status**

Relevant, calculated

#### **Metric tonnes CO2e**

1826501

#### **Emissions calculation methodology**

For raw material emission factors is taken from ?. Scope 3 emissions is then calculated by formula (Purschased units\*emission factor)= Scope 3 emission For purchased goods and services emission factors is taken from 2012 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting, Annex 13 - Indirect emissions from the supply chain, table 13 (2009). CO2e emissons is calculated by formula (Purschased value\*emission factor)= Scope 3 emission

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

87

#### **Explanation**

The calculation is made according to GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard by consultans companie Gaia Consultant OY. All assumptions and methodological differences are recorded.

### Capital goods

#### **Evaluation status**

Not relevant, explanation provided

#### Metric tonnes CO2e

0

#### **Emissions calculation methodology**

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

# **Explanation**

SSAB is a production company and we judge that the largest reduction of CO2 emissions is made when our high strength or high wear steel is used to make products like capital goods. Hence, we have not yet calculated the emissions from capital goods

# Fuel-and-energy-related activities (not included in Scope 1 or 2)

#### **Evaluation status**

Relevant, calculated

### **Metric tonnes CO2e**

184531

### **Emissions calculation methodology**

For fuel and energy related activities emission factors is taken from 2017 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. CO2e emissons is calculated by formula (relevant purschased units \* relevant emission factor)= Scope 3 CO2e emission

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

# Explanation

### Upstream transportation and distribution

#### **Evaluation status**

Relevant, calculated



#### **Emissions calculation methodology**

For upstream transportation and disribution emission factors is taken from 2017 Guidelines to Defra / DECC's GHG Conversion Factors for Company Reporting. CO2e emissons is calculated by formula (relevant purschased units \* relevant emission factor) = Scope 3 CO2e emission

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

#### **Explanation**

# Waste generated in operations

#### **Evaluation status**

Relevant, calculated

#### Metric tonnes CO2e

50649

### **Emissions calculation methodology**

Emison factors is taken from DEFRA 2017: Commercial and industrial waste - landfilled and from DEFRA 2017: Commercial and industrial waste - combustion Waste volume/weight is taken from inernal data collection CO2e emissons is calculated by formula (relevant purschased units \* relevant emission factor) = Scope 3 CO2e emission CO2e emission is calculated by formula (relevant purschased units \* relevant emission factor) = Scope 3 CO2e emission

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

#### **Explanation**

#### **Business travel**

# **Evaluation status**

Relevant, calculated

### Metric tonnes CO2e

6831

#### **Emissions calculation methodology**

All business traveling in SSAB is controlled by a travel agency. The travel agency make a yearly report on our scope 3 emissions based on travel distans with train and by air. Scope 3 CO2e emissions is calculated by travel agency.

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

# Explanation

# **Employee commuting**

#### **Evaluation status**

Relevant, calculated

#### Metric tonnes CO2e

35953

# **Emissions calculation methodology**

Scope 3 emissions from employee commuting is calculated by using number of employees times an average travel distans. Share, average distance and number of trips are defaults taken from WBCSD's guidance for chemical sector

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

0

### **Explanation**

#### Upstream leased assets

#### Metric tonnes CO2e

#### **Emissions calculation methodology**

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

#### Explanation

In SSAB's annual report 2017, assets are listed, but the impact on CO2 emissions of these assets are not evaluated

#### Downstream transportation and distribution

#### **Evaluation status**

Relevant, not yet calculated

#### Metric tonnes CO2e

### **Emissions calculation methodology**

### Percentage of emissions calculated using data obtained from suppliers or value chain partners

### **Explanation**

The transportation of products primarily takes place on railway and ship, but also by truck. Today, there is not sufficient data available for transported km's in the Nordic countries. Compared with the production of steel plates from SSAB, the amount of carbon dioxide emissions from processing them, by e.g. cutting, bending and welding, are estimated as very small.

#### Processing of sold products

#### **Evaluation status**

Not relevant, explanation provided

#### **Metric tonnes CO2e**

# **Emissions calculation methodology**

#### Percentage of emissions calculated using data obtained from suppliers or value chain partners

# **Explanation**

Compared with the production of steel plates from SSAB, the amount of carbon dioxide emissions from processing them, by e.g. cutting, bending and welding, are estimated as very small.

### Use of sold products

### **Evaluation status**

Relevant, not yet calculated

#### **Metric tonnes CO2e**

### **Emissions calculation methodology**

# Percentage of emissions calculated using data obtained from suppliers or value chain partners

#### **Explanation**

The emissions connected to product use has been calculated by an external consultancy firm, Gaia consulting. (See attached report in question 10.1.b page 20.) However, the result of calculation does not yet have

### End of life treatment of sold products

#### **Evaluation status**

Not relevant, explanation provided

### **Metric tonnes CO2e**

### **Emissions calculation methodology**

Steel is the most circulated material in the world, after lifetime ends all steel becomes raw material for production of steel

#### **Downstream leased assets**

#### **Evaluation status**

Not relevant, explanation provided

Metric tonnes CO2e

**Emissions calculation methodology** 

Percentage of emissions calculated using data obtained from suppliers or value chain partners

**Explanation** 

#### **Franchises**

#### **Evaluation status**

Not relevant, explanation provided

Metric tonnes CO2e

**Emissions calculation methodology** 

Percentage of emissions calculated using data obtained from suppliers or value chain partners

#### **Explanation**

SSAB does not have any franchise business

#### Investments

### **Evaluation status**

Not evaluated

Metric tonnes CO2e

**Emissions calculation methodology** 

Percentage of emissions calculated using data obtained from suppliers or value chain partners

# **Explanation**

There is no possibility today to calculate how SSABs investments in equipment etc. affects scope 3 emissions, however, those emissions is anyway minor compared to the one from our operations

### Other (upstream)

### **Evaluation status**

Please select

Metric tonnes CO2e

**Emissions calculation methodology** 

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation

Other (downstream)

**Evaluation status** 

Metric tonnes CO2e

**Emissions calculation methodology** 

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Explanation



(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?

# C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

# Intensity figure

0.00016213

### Metric numerator (Gross global combined Scope 1 and 2 emissions)

10709787

#### Metric denominator

unit total revenue

#### Metric denominator. Unit total

66059000000

### Scope 2 figure used

Market-based

### % change from previous year

20.5

#### Direction of change

Decreased

### Reason for change

Carbon reduction targets Energy efficency targets Higher revenue

# Intensity figure

1.34

# Metric numerator (Gross global combined Scope 1 and 2 emissions)

10709787

### **Metric denominator**

metric ton of steel

### Metric denominator. Unit total

7995499

# Scope 2 figure used

Market-based

# % change from previous year

1.03

### Direction of change

Decreased

### Reason for change

Carbon reduction targets Energy efficency targets



(C-ST6.14) State your organization's emissions and energy intensities by steel production process route.

#### Process route

Blast furnace-basic oxygen furnace

Emissions intensity figure, metric tons CO2e per metric ton of crude steel production

Energy intensity figure, GJ (LHV) per metric ton of crude steel production

### Methodology applied

Worldsteel Association

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

#### **Process route**

Scrap-electric arc furnace

Emissions intensity figure, metric tons CO2e per metric ton of crude steel production

Energy intensity figure, GJ (LHV) per metric ton of crude steel production

### Methodology applied

Worldsteel Association

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

### C7. Emissions breakdowns

### C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?
Yes

### C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).



# C7.2

# (C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Sweden	5259710
Finland	3880525
United States of America	690050
Lithuania	171
Poland	884
Russian Federation	2817

# C7.3

# (C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

By facility

By activity

# C7.3a

# (C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
SSAB Europe	7608539
SSAB Special Steel	1531026
SSAB Americas	690050
Ruukki Construction	4377
Tibnor	167

# C7.3b

# (C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
SSAB Luleå, Sweden	3468301	65.56	22.21
SSAB Oxelösund, Sweden	1531026	58.67	17.13
SSAB Borlänge, Sweden	249002	60.49	15.45
SSAB Finspång, Sweden	11212	58.71	15.77
SSAB Virsbo, Sweden	3	59.87	16.1

	33.3.		
SSAB Kankaanpää, Finland	4562	61.82	22.39
SSAB Lappohja, Finland	15	59.9	23.26
SSAB Oulainen, Finland	0	64.28	24.84
SSAB Pulkkila , Finland	0	64.28	25.88
SSAB Akaa, Finland	290	61.18	23.86
SSAB Alabama, US	302502	30.94	-88.01
SSAB Iowa, US	387548	41.48	-90.82
Tibnor Köping, Sweden	167	59.5	16.04
Ruukki Construction Järnforsen, Sweden	0	57.42	15.62
Ruukki Construction Peräseinäjoki, Finland	188	62.57	23.05
Ruukki Construction Ylivieska, Finland	178	64.07	24.57
Ruukki Construction Balabanovo&Obninsk, Russia	3213	55.18	36.67
Ruukki Construction Gargzdai, Lithuania	178	55.71	21.38
Ruukki Construction Gargzdai, Lithuania	171	55.71	21.38
Ruukki Construction Oborniki, Poland	884	52.64	16.83

# C7.3c

# (C7.3c) Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO2e)
Blast furnace based steel making including rolling and painting in Sweden and Finland	9140236
EAF (scrap) based steel making including rolling and painting the US	690050
Steel service centers and other operation	3872

# C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

# (C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Chemicals production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Electric utility generation activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Dil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Dil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Steel production activities	9834158	<not applicable=""></not>	
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Transport services activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 



# (C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location- based (metric tons CO2e)	Scope 2, market- based (metric tons 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)
Sweden		54468		818949
Finland		36616		571703
United States of America	527267	252342	527267	252342
Russian Federation	3154		8370	
Poland	4186			8645
Lithuania	207			551

# C7.6

C7.5

# (C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

By facility

By activity

# C7.6a

# (C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
SSAB Europe		62730
SSAB Special steel		26794
SSAB Americas	527267	252342
Ruukki Construction	7547	
Tibnor		533

# C7.6b

# (C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2 location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
SSAB Luleå, Sweden	0	0
SSAB Oxelösund, Sweden	0	26794
SSAB Borlänge, Sweden	0	25653
SSAB Finspång, Sweden		461
SSAB Virsbo, Sweden		689
SSAB Raahe, Finland		23647
SSAB Hämeenlinna, Finland		10093
SSAB Kankaanpää, Finland		528

SSAB Oulainen, Finland		305
SSAB Pulkkila, Finland		683
SSAB Akaa, Finland		106
SSAB Alabama, US	527267	
SSAB Iowa, US		252342
Ruukki Construction Järnforsen, Sweden		337
Ruukki Construction Peräseinäjoki, Finland		312
Ruukki Construction Ylivieska, Finland		377
Ruukki Construction Balabanovo&Obninsk, Russia	3154	
Ruukki Construction Gargzdai, Lithuania	207	
Ruukki Construction Oborniki, Poland	4186	
Tibnor Köping, Sweden		533

# C7.6c

# (C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Blast furnace based steel making including rolling and painting in Sweden and Finland		91083
EAF (scrap) based steel making including rolling and painting the US	527267	252342
Steel service centers and other operation	7547	0

# C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

# $(\hbox{C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7})\ Break\ down\ your\ organization's\ total\ gross$ global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Chemicals production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Steel production activities	534814	343426	
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Transport services activities	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 

(C7.9) How do your gross global emissions	(Scope 1 and 2 combined)	) for the reporting year	compare to those of the
previous reporting year?			

Decreased

# C7.9a

(C7.9a) 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.

		1		1
	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<not applicable=""></not>		
Other emissions reduction activities	154996	Decreased	1.55	
Divestment		<not applicable=""></not>		
Acquisitions		<not applicable=""></not>		
Mergers		<not applicable=""></not>		
Change in output		<not applicable=""></not>		
Change in methodology		<not applicable=""></not>		
Change in boundary		<not applicable=""></not>		
Change in physical operating conditions		<not applicable=""></not>		
Unidentified		<not applicable=""></not>		
Other		<not applicable=""></not>		

# C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

# C8. Energy

## C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy? More than 5% but less than or equal to 10%

# C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

Indicate whether your organization undertakes this energy-related activity

concemption of paronacca of acquired electricity	160
Consumption of purchased or acquired heat	Yes
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

# C8.2a

# (C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	4478577	4478577
Consumption of purchased or acquired electricity	<not applicable=""></not>	1846714	2855288	4702002
Consumption of purchased or acquired heat	<not applicable=""></not>	47233		47233
Consumption of purchased or acquired steam	<not applicable=""></not>	22216		22216
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not Applicable&gt;</not 
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	1150478	<not applicable=""></not>	1150478
Total energy consumption	<not applicable=""></not>	3066641	7333865	10400506

# C-ST8.2a

# (C-ST8.2a) Report your organization's energy consumption totals (excluding feedstocks) for steel production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	4478577
Consumption of purchased or acquired electricity	<not applicable=""></not>	4702002
Consumption of purchased or acquired heat	<not applicable=""></not>	47233
Consumption of purchased or acquired steam	<not applicable=""></not>	22216
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	1150478
Total energy consumption	<not applicable=""></not>	10400506

# C8.2b

# (C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

## Fuels (excluding feedstocks)

Coke Oven Gas

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

#### Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization 4818862

MWh fuel consumed for the self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

# Fuels (excluding feedstocks)

Fuel Oil Number 5

## Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

183753

MWh fuel consumed for the self-generation of electricity

111503

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

13159

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

## Fuels (excluding feedstocks)

Liquefied Natural Gas (LNG)

# Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization



0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

13859

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

## Fuels (excluding feedstocks)

Liquefied Petroleum Gas (LPG)

## Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1172235

MWh fuel consumed for the self-generation of electricity

n

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

2645412

MWh fuel consumed for the self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Fuel Oil Number 1

Total fuel MWh consumed by the organization

MWh fuel consumed for the self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam 23333

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

#### Fuels (excluding feedstocks)

Basic Oxygen Furnace Gas (LD Gas)

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

## Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization 565199

MWh fuel consumed for the self-generation of electricity

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration <Not Applicable>

## Fuels (excluding feedstocks)

Blast Furnace Gas

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

# Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization 6606701

MWh fuel consumed for the self-generation of electricity



# MWh fuel consumed for self-generation of cooling

<Not Applicable>

### MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

## C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

# Basic Oxygen Furnace Gas (LD Gas)

#### **Emission factor**

#### Unit

metric tons CO2 per GJ

#### **Emission factor source**

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

## Blast Furnace Gas

## **Emission factor**

#### Unit

metric tons CO2 per GJ

## **Emission factor source**

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

#### Coke Oven Gas

#### **Emission factor**

# Unit

metric tons CO2 per GJ

#### **Emission factor source**

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions

## **Fuel Oil Number 1**

#### **Emission factor**

0.0762

#### Unit

metric tons CO2 per GJ

#### **Emission factor source**

Fuel oil nr 1 is a standard product where emission factor is provided by supplier in a data sheet

#### Comment

## Fuel Oil Number 5

#### **Emission factor**

0.0762

#### Unit

metric tons CO2 per GJ

#### **Emission factor source**

The emission factor is provided by supplier in a data sheet

#### Comment

# **Liquefied Natural Gas (LNG)**

## **Emission factor**

0.05702

## Unit

metric tons CO2 per GJ

# **Emission factor source**

The emission factor is provided by supplier in a data sheet

## Comment

## **Liquefied Petroleum Gas (LPG)**

## **Emission factor**

0.0651

# Unit

metric tons CO2 per GJ

## **Emission factor source**

LPG is a standard product where emission factor is provided by supplier in a data sheet

## Comment

## **Natural Gas**

## **Emission factor**

0.002

# Unit

metric tons CO2 per m3

## **Emission factor source**

The emission factor is provided by natural gas grid system operator

#### Comment

# (C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

		Generation that is consumed by the organization (MWh)	3	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1400051	1358440	1400051	1358440
Heat	1544718	356565	1544718	356565
Steam	837788	804788	793914	793914
Cooling	0	0	0	0

## C-ST8.2e

# (C-ST8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for steel production activities.

	Total Gross generation (MWh) inside steel sector boundary	Generation that is consumed by the organization (MWh) inside steel sector boundary
Electricity	1400051	1358440
Heat	1544718	356565
Steam	837788	804788

## C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.

Basis for applying a low-carbon emission factor

Energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Wind

Hydropower

MWh consumed associated with low-carbon electricity, heat, steam or cooling

1846714

Emission factor (in units of metric tons CO2e per MWh)

0

Comment

# C-ST8.3

(C-ST8.3) Disclose details on your organization's consumption of feedstocks for steel production activities.

**Feedstocks** 

Coking coal

**Total consumption** 



#### Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

Heating value of feedstock, MWh per consumption unit

#### Heating value

LHV

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

#### **Feedstocks**

Blast furnace coal

**Total consumption** 

Total consumption unit

metric tons

Dry or wet basis?

Dry basis

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

Heating value of feedstock, MWh per consumption unit

#### Heating value

LHV

#### Comment

This question regards information that is of a sensitive nature. SSAB continuously works to improve its performance in this area. However, the details on the progress in this specific field would reveal details on SSAB strategy and performance improvement that could, potentially, influence the priorities and strategies of competing companies in a manner that is not desirable, nor compliant with SSAB information policy. It would also raise issues with information disclosure and stock market regulations. For this reason, SSAB has arrived at the conclusion that these questions cannot be answered. To reinstate and maintain the CDP policy to focus on companywide, aggregated, numbers, is highly desired and strongly recommended

## C9. Additional metrics

## C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

## Description

Energy use

## Metric value

304

## Metric denominator (intensity metric only)

## % change from previous year

87

## Direction of change

Increased

## Please explain

SSAB has a target to reduce its use of purchased energy by 400 GWh by 2020, compared to base year 2014. The 2017 value was 304 GWh, compared to 162 GWh in 2016.

## Description

Waste

## Metric value

39000

## **Metric numerator**

tonnes

Metric denominator (intensity metric only)

## % change from previous year

Q

## **Direction of change**

Increased

## Please explain

SSAB has a target to achieve a lasting improvement of 50,000 tonnes in residual utilization by 2020. The 2017 value was 39,000 tonnes, compared to 36,000 tonnes in 2016.

## C-ST9.3a

## (C-ST9.3a) Report your organization's steel-related consumption, production and capacity figures by steel plant.

	Metal scrap consumption (metric tons)	Blast furnace iron consumption (metric tons)		Crude steel production (metric tons)	Crude steel capacity (metric tons)
Basic oxygen furnace			0	5550000	6400000
Electric arc furnace				2400000	2600000
Other					
Total			0	7900000	9000000

## C-ST9.3b

## (C-ST9.3b) Report your organization's steel-related production outputs and capacities by product.

Product	Production (metric tons)	Capacity (metric tons)	Comment
Hot-rolled steel	7500000	8800000	



## (C-ST9.6) Disclose your organization's low carbon investments for steel production activities.

## Investment start date

April 1 2016

## Investment end date

February 28 2018

## Investment area

R&D

## Technology area

Alternative steelmaking processes

## **Investment maturity**

Applied research and development

## Investment figure

15000000

## Low-carbon investment percentage

81 - 100%

## Please explain

Pre study of Hybrit initiative

#### Investment start date

March 1 2018

#### Investment end date

December 31 2022

#### Investment area

Property, plant and equipment

## Technology area

Alternative steelmaking processes

## **Investment maturity**

Pilot demonstration

## Investment figure

180000000

## Low-carbon investment percentage

81 - 100%

## Please explain

Demonstration plant to develope a process for fossil free steelmaking

#### Investment start date

January 1 2014

# Investment end date

December 31 2016

## Investment area

Property, plant and equipment

## Technology area

New process plant with improved efficiency

## **Investment maturity**

1200000000

## Low-carbon investment percentage

41 - 60%

#### Please explain

Building of a new more efficient powerplant

#### Investment start date

January 1 2014

## Investment end date

December 14 2014

## Investment area

Property, plant and equipment

## Technology area

Other, please specify (Change to more efficent fuel)

## **Investment maturity**

Small scale commercial deployment

## Investment figure

## Low-carbon investment percentage

41 - 60%

## Please explain

Change of fuel from HFO to LNG to achieve a more environmental efficient heating

# Investment start date

January 1 2017

## Investment end date

June 1 2018

## Investment area

Property, plant and equipment

## Technology area

Other, please specify (Change to more efficent fuel)

## **Investment maturity**

Large scale commercial deployment

## Investment figure

200000000

## Low-carbon investment percentage

41 - 60%

#### Please explain

Change of fuel from HFO to LNG to achieve a more environmental efficient heating

## Investment start date

July 1 2013

#### Investment end date

December 31 2014

## Investment area

Property, plant and equipment



Large scale commercial deployment

## Investment figure

110000000

## Low-carbon investment percentage

21 - 40%

## Please explain

New equipment to increase the efficiency of hot stoves

# C10. Verification

## C10.1

## (C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	Third-party verification or assurance process in place

# C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 and/or Scope 2 emissions and attach the relevant statements.

# Scope

Scope 1

# Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

## Attach the statement

SSAB Europe Oy Raahe\_Verification Statement 2017 .pdf

# Page/ section reference

Page 3, in the middle

## Relevant standard

European Union Emissions Trading System (EU ETS)

## Proportion of reported emissions verified (%)

39

#### Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

#### Attach the statement

SSAB EMEA AB Luleå 2018-03-21\_FixedEmission\_3810\_1.pdf

#### Page/ section reference

Page 1, second section . Please note that the emission from Lulekraft (See below) needs to be added to get the total emissions for SSAB Luleas steel production

## Relevant standard

European Union Emissions Trading System (EU ETS)

# Proportion of reported emissions verified (%)

13

#### Scope

Scope 1

## Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

## Attach the statement

Lulekraft AB 2018-04-07 FxedEmissions .pdf

# Page/ section reference

Page 1, second section Please note that Lulekraft uses SSAB Luleås process gasses as fuel, but emissions from those gasses is verified in Lulekraft.

#### Relevant standard

European Union Emissions Trading System (EU ETS)

## Proportion of reported emissions verified (%)

22

## Scope

Scope 1

## Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

#### Attach the statement

SSAB EMEA AB Oxelösund 2018-03-21\_FixedEmission\_3575\_1.pdf

## Page/ section reference

Page 1, second section

## Relevant standard



#### Scope

Scope 1

## Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

#### Attach the statement

SSAB EMEA AB Boränge 2018-03-21\_FixedEmission\_3710\_1.pdf

## Page/ section reference

Page 1, second section

#### Relevant standard

European Union Emissions Trading System (EU ETS)

## Proportion of reported emissions verified (%)

#### Scope

Scope 1

## Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

# Attach the statement

SSAB EMEA AB Finspång 2018-03-21\_FixedEmission\_3712\_1.pdf

## Page/ section reference

Page 1, second section

## Relevant standard

European Union Emissions Trading System (EU ETS)

## Proportion of reported emissions verified (%)

## Scope

Scope 1

## Verification or assurance cycle in place

Annual process

## Status in the current reporting year

Complete

## Type of verification or assurance

Third party verification/assurance underway

## Attach the statement

SSAB Europe OY Hämellinna Verification Statement 2017 .pdf



#### Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

1

#### Scope

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

High assurance

Attach the statement

Page/ section reference

Relevant standard

Other, please specify

Proportion of reported emissions verified (%)

# C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

## Scope

Scope 3- all relevant categories

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Attach the statement

SSAB-Scope3-Calculation-Report-2017.pdf

Page/section reference

Page 5 and down

Relevant standard

Other, please specify (GHG Protocol Corporate Value Chain)

# C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

## C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

#### C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

**EU ETS** 

## C11.1b

(C11.1b) Complete the following table for each of the emissions trading systems in which you participate.

#### **EU ETS**

% of Scope 1 emissions covered by the ETS

93

## Period start date

January 1 2017

### Period end date

December 31 2017

## Allowances allocated

8562500

## Allowances purchased

0

## Verified emissions in metric tons CO2e

9134695

# Details of ownership

Facilities we own and operate

Comment

## C11.1d

## (C11.1d) What is your strategy for complying with the systems in which you participate or anticipate participating?

SSAB's strategy to minimize environmental impact and CO2 emissions is in line with the objectives of the ETS. To reduce CO2 emissions several short and midterm measures have been identified and initiated to reach our goal of reducing CO2 emissions by 200 000 tons by 2019; this includes more efficient operations and switching from fuels, such as oil and propane, to LNG, among others. At the same time it should be pointed out that the main part (over 90%) of the SSAB CO2 emissions are process related, i.e. an intrinsic part of the current technology of converting iron ore to iron. In this process SSAB is at the forefront of the current technology and very close to the theoretical limit of what is possible with today's technology. To further reduce process related CO2 emissions a major leap in technology is

used to reduce iron ore to iron, resulting in only water as by-product. This technology has currently only been proven in laboratory scale, and the milestone target is to have a demonstration plant commissioned by 2025. Read more at http://www.hybritdevelopment.com

## C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?

# C11.3

(C11.3) Does your organization use an internal price on carbon?

Yes

## C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

## Objective for implementing an internal carbon price

Change internal behavior

Drive energy efficiency

Drive low-carbon investment

Stress test investments

## **GHG Scope**

Scope 1

Scope 2

# **Application**

SSAB Group (all units

# Actual price(s) used (Currency /metric ton)

14.86

## Variance of price(s) used

Projected EUA prices

## Type of internal carbon price

Other, please specify (Investment payback calculations)

## **Impact & implication**

SSAB uses internal prices of carbon dioxide when making investment calculations and forecasts of our economic performance. The price depends on the actual European price of allowances (EUA) and an evaluation of the different sources of price forecasts. Price is important when deciding if and where we should invest

## C12. Engagement



## (C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers

Yes, our customers

## C12.1a

## (C12.1a) Provide details of your climate-related supplier engagement strategy.

#### Type of engagement

Innovation & collaboration (changing markets)

## **Details of engagement**

Other, please specify (a joint venture with main suppliers)

% of suppliers by number

2

% total procurement spend (direct and indirect)

% Scope 3 emissions as reported in C6.5

#### Rationale for the coverage of your engagement

HYBRIT is a joint venture company, owned by three companies SSAB, LKAB and Vattenfall, that aims to be the first in the world to develop an industrial process for fossil-free, ore-based steel production. The project was initiated in spring 2016 and the goal is to have an industrial process in place by 2035.

# Impact of engagement, including measures of success

HYBRIT has the potential to reduce Sweden's total carbon dioxide emissions by ten per cent, and Finland's by seven per cent. HYBRIT also has global potential to reduce carbon dioxide emissions. This historical technological shift has been described as crucial if Sweden is going to be able to achieve the goals set out in the Paris Agreement By starting to build the pilot plant, where we'll develop and scale up the technology for fossil-free steel production, we're taking an important step forward towards SSAB's goal of being fossil-free by 2045. We're proud of being part of an important and challenging technological shift that can result in our solving part of the climate issue,

## Comment

See further http://www.hybritdevelopment.com/ https://www.ssab.com/company/newsroom/media-archive/2018/06/20/06/30/ssab-takes-the-next-step-towards-being-fossilfree

## Type of engagement

Innovation & collaboration (changing markets)

#### **Details of engagement**

Other, please specify

## % of suppliers by number

10

## % total procurement spend (direct and indirect)

60

% Scope 3 emissions as reported in C6.5

#### Rationale for the coverage of your engagement

We collaborate with several suppliers with a broad approach to find more efficient solutions that increase the sustainability in the business. SuppliersResponsible sourcing SSAB has thousands of suppliers all over the world. The input materials used to make iron and steel account for SSAB's most significant purchases. Suppliers must comply both with SSAB's own policies and with international social and environmental guidelines. Efficient and responsible sourcing of goods and services SSAB has an extensive supply chain including around 20,000 suppliers, active in more than 60 countries. However, measured by supplier spend, more than half of our purchases come from

and the strategies for this depend on the products or services purchased. Since the supply chain is global, it is important to evaluate supplier risks and their ability to address social and environmental issues. At SSAB, sustainability is an integrated aspect of sourcing operations and supply chain management. Suppliers must abide by SSAB's Code of Conduct as part of the terms and conditions of their contracts. Stringent quality requirements and long-term business relations provide the sourcing organization with a good insight into conditions at suppliers. We assess suppliers on the basis of quality, delivery reliability, cost and sustainability. Read more at http://www.ssab.com/company/sustainability/responsible-partner/responsibility-in-the-supply-chain

Impact of engagement, including measures of success

Comment

## C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

#### Type of engagement

Collaboration & innovation

#### Details of engagement

Other - please provide information in column 5

Size of engagement

% Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

#### Impact of engagement, including measures of success

SSAB's sustainable offering is our external value proposition, what we offer our customers and other stakeholders. The core of SSAB's business is to develop and produce Advanced High-Strength Steels (AHSS) and Quenched and Tempered Steels (Q&T) that are stronger than ordinary steels, which in turn helps our customers to produce lighter and stronger products, thus reducing their environmental footprintSSABs specialist in Knowledge Service Center or Tech Service helps our costumer to take full advantage of our Advanced High-Strength Steels (AHSS) and Quenched and Tempered Steels (Q&T) that are stronger than ordinary steels and therefor gives lighter, more durable or more efficient products resulting in decreased CO2 emissions. Read more at http://www.ssab.com/support/design-anddevelopment-support. SSAB arrange every year the "Swedish Steel Prize" event: http://www.steelprize.com/. "The Swedish Steel Prize could be awarded to any product in which high-strength structural steel, wear plate or tool steel (the term high-strength steel is used in this text to denote also extra high-strength steel and ultra high strength steel) has contributed to an innovative design, which gives clear benefits. This may relate, for example, to new design features, lighter products, simplified production, longer life time, improved performance and beneficial environmental effects." The products and constructions saves carbon dioxide emissions compared to the alternatives. SSAB has launched a concept called EcoUpgraded which aims to identify applications that show promise for reducing CO2 emissions during use. Looking at each specific application, SSAB can compare the potential CO2 savings in its use phase to the CO2 emitted during production, thereby identifying products that would benefit the most from an upgrade to high-strength steel. Read more https://www.ssab.com/company/sustainability/sustainable-offering https://www.ssab.com/company/sustainability/sustainable-offering/ecoupgraded

## C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers Trade associations Funding research organizations



## (C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Cap and trade	Support with minor exceptions	SSAB participated directly in EU decision making process both at member state and EU level by discussing mostly with Swedish and Finnish government members and parliamentarians	As part of the steel industry SSAB realizes that climate change is a critical issue that urgently needs to be addressed, and fully supports the efforts to reduce the European CO2 emissions through the ETS system. To make this as efficient as possible, the current EU ETS should not have a cross-sectional correction factor for manufacturers and the benchmarks should be achievable by 10% of the best performers. Full off-setting of the indirect costs (CO2 cost pass-through in electricity prices) at the level of the most efficient installations should be applied consistently in all member states. Comprehensive international agreement on emission reductions is vital for a level playing field in the industry. While the steel industry supports the EU's measures to effectively combat climate change, the Commission proposal in 2015 to review the EU ETS may not deliver the needed level of protection for our sector against carbon and investment leakage
Climate finance	Support	SSAB participates directly and through trade associatons in EU decision making process both at member state and EU level	New financial instruments should be introduced to enable high-risk breakthrough climate innovations.
Other, please specify (US greenhouse gas emissions standards)	Undecided	Assess proposed actions that may have an adverse impact on US energy-intensive operations and provide recommendations for legislative amendments or regulatory changes for corrective and preventative action.	New regulations should include cost/benefit analyses and be technologically feasible in order to ensure reliability and affordability of electricity. New regulations should be supported by quality data, sound science and be subject to an open and transparent public review process

# C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership? Yes

## C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

## **Trade association**

Eurofer

Is your position on climate change consistent with theirs?

Consistent

# Please explain the trade association's position

Current EU ETS should not have cross-sectional correction factor for manufacturers and the benchmarks should be achievable by 10% of the best performers. Comprehensive international agreement on emission reductions is vital for industrial level-playing-field. While steel industry supports the EU's measures to effectively combat climate change, the Commission proposal 2015 on the review of the EU ETS may not deliver the needed level of protection for our sector against carbon and investment leakage



#### Trade association

Jernkontoret

## Is your position on climate change consistent with theirs?

Consistent

## Please explain the trade association's position

Current EU ETS should not have cross-sectional correction factor for manufacturers and the benchmarks should be achievable by 10% of the best performers. Comprehensive international agreement on emission reductions is vital for industrial level-playing-field. While steel industry supports the EU's measures to effectively combat climate change, the Commission proposal 2015 on the review of the EU ETS may not deliver the needed level of protection for our sector against carbon and investment leakage

#### How have you, or are you attempting to, influence the position?

SSAB is represented in various Committees and Working Groups of Jernkontoret. SSAB an active role in the decision making bodies of the federation

#### Trade association

Association of Finnish Metal Producers

## Is your position on climate change consistent with theirs?

Consistent

#### Please explain the trade association's position

Current EU ETS should not have cross-sectional correction factor for manufacturers and the benchmarks should be achievable by 10% of the best performers. Comprehensive international agreement on emission reductions is vital for industrial level-playing-field. While steel industry supports the EU's measures to effectively combat climate change, the Commission proposal 2015 on the review of the EU ETS may not deliver the needed level of protection for our sector against carbon and investment leakage

## How have you, or are you attempting to, influence the position?

SSAB is represented in Committees and Working Groups of the association of Finnish Metal Producers. SSAB an active role in the decision making bodies of the association

#### Trade association

worldsteel

# Is your position on climate change consistent with theirs?

Consistent

## Please explain the trade association's position

Climate change is the biggest issue for the steel industry in the 21st century. The worldsteel Climate Action Recognition Programme recognizes steel producers that have fulfilled their commitment to participate in the worldsteel CO2 emissions data collection programme

# How have you, or are you attempting to, influence the position?

SSAB is represented in the decision making bodies of the association

#### Trade association

National Association of Manufacturers

#### Is your position on climate change consistent with theirs?

Consistent

#### Please explain the trade association's position

NAM opposes any federal or state government actions regarding climate change that could adversely affect the international competitiveness of the U.S. marketplace economy. Any climate change policies should focus on costeffective reductions, be implemented in concert with all major emitting nations, and take into account all greenhouse sources and sinks



## C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

## C12.3f

(C12.3f) 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?

In line with the SSAB sustainability strategy that was launched in 2015, SSAB places an even stronger focus on managing and coordinating sustainability and corporate responsibility-related issues on Group level. In the current organization, the EVP for HR & Sustainability reports directly to the CEO.To ensure Group-wide collaboration, a Sustainability Management Team has been formed. The team is chaired by Vice President, Sustainability and Public Affairs. The members of the team create a network of expertise having the responsibility of coordinating SSAB's sustainability initiatives on Group level. Decisions related to the strategic direction of SSAB's sustainability work are made by the Group Executive Committee. Each member of the Sustainability Management Team is responsible for including relevant employees throughout the organization to ensure the involvement of key experts and divisional representation. In order to ensure that all direct and indirect activities that influence policy are consistent with overall climate change strategy both Managers for Environmental Affairs as well as Public Affairs are members of the Sustainability Team.

#### C12.4

(C12.4) 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**

In mainstream reports in accordance with TCFD recommendations

#### Status

Complete

Attach the document

#### **Content elements**

Governance

Strategy

**Emissions figures** 

**Emission targets** 



(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

SSAB-Annual-Report-2017-EN.pdf SSAB-Scope3-Calculation-Report-2017.pdf

# C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	President & CEO	Chief Executive Officer (CEO)



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