

Welcome to your CDP Climate Change Questionnaire 2019

C0. Introduction

C0.1

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

Constellium is a global sector leader that develops innovative, value added aluminium products for a broad scope of markets and applications, including aerospace, automotive and packaging.

Constellium generated €5.7 billion of revenue in 2018. Constellium is a public company listed on the NYSE and Euronext since May 2013, committed to the highest ethical standards and best practices. Constellium had about 12,000 full-time equivalent employees (permanent and fixed-term) in 2018.

The company's production facilities are located mainly in France, Germany, Switzerland, the Czech Republic, Slovakia and the United States.

Constellium has three primary markets: aerospace, automotive and packaging that the company serves through its business units: Aerospace & Transportation, Packaging & Automotive Rolled Products and Automotive Structures & Industry.

In terms of GHG emissions, our scope 1 & 2 emissions are essentially related to our activities of casting, rolling, extrusion and recycling of aluminium alloys. Upstream of our activities, the scope 3 is mainly associated with primary aluminium sourcing. The use of aluminium products, especially in transportation applications allows to reduce energy consumption thanks to mass saving (e.g. about 30% or more compared to steel in automotive applications). Moreover, recycling of aluminium products at the end of products' life allows for a significant volume of avoided emissions. Using recycled aluminium substitutes the use of primary aluminium with a much lower environmental impact (typically recycling metal emits 90-95% less GHG emission per ton produced than producing primary metal).

C0.2

(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
Row 1	January 1, 2018	December 31, 2018	No

C0.3

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

China
Czechia
France
Germany
Mexico
Slovakia
Switzerland
United States of America

C0.4

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

EUR

C0.5

(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.

Financial control

C-MM0.7

(C-MM0.7) Which part of the metals and mining value chain does your organization operate in?

Row 1

Mining

Processing metals

Aluminum

C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Light Duty Vehicles (LDV)

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) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	At board-level does exist an Environment, Health and Safety (EHS) committee. Climate-related issues are included in the scope of the EHS committee of the board.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

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	<ul style="list-style-type: none"> Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Setting performance objectives 	The sustainability council meets 3 to 4 times a year and follow our climate change related targets such as energy efficiency. It reports to the manufacturing council and to the executive committee of the company. Once a year, a meeting with the board is organized to review the objectives and achievements and validate major action plans.

C1.2

(C1.2) Provide the highest management-level 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
Sustainability committee	Managing climate-related risks and opportunities	Annually

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 (do not include the names of individuals).

Constellium sustainability council, that meets 3 to 4 times a year, is in charge of handling sustainability-related topics and this naturally includes climate change. See Constellium Sustainability report for more about the scope of Sustainability at Constellium (https://www.constellium.com/sites/default/files/constellium_business_and_sustainability_report_2018_1.pdf). The sustainability council reports to the manufacturing council and the executive committee.

The sustainability council's responsibility notably includes GHG emissions inventory and monitoring topics such as energy efficiency, for which our company has set an improvement target. A current additional task of the council is to oversee the definition of a GHG emissions reduction target for the Executive Committee to validate.

Once a year, the topic is brought to the Board EHS committee which overlooks the proposals and achievements.

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 (do not include the names of individuals).

Who is entitled to benefit from these incentives?

Energy manager

Types of incentives

Monetary reward

Activity incentivized

Efficiency target

Comment

Energy managers receive annual individual targets that relates to energy savings needed to achieve their site's energy efficiency improvement target. individual targets are being recorded in Constellium management system dedicated to human resources management. Performance and targets are formally reviewed at least every half-year through the dedicated IT platform.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Monetary reward

Activity incentivized

Energy reduction target

Comment

Incentives associated with energy savings program do exist in several sites, but are not yet in place in all of our sites. In the concerned sites, energy savings are triggering monetary rewards for all employees, thus maintaining both awareness and commitment among employees on energy savings.

This approach demonstrated its efficiency over the years and work has engaged to extend this practice to other sites.

Energy performance KPI are defined and displayed on dashboards at shopfloor level to have employee being aware of individual industrial tools such as ovens, furnaces, rolling or extrusion lines to support employees' commitment to meet yearly performance target defined for these tools.

Who is entitled to benefit from these incentives?

All employees

Types of incentives

Recognition (non-monetary)

Activity incentivized

Emissions reduction project

Comment

Our internal recognition program "Thank you awards" includes a EHS & Sustainability category where energy saving programs have already been rewarded in recent years. This program aims at recognizing employees' engagement and project successes. Yearly award ceremonies are being organized for all of Constellium business units and results are communicated through internal communication channels including but not limited to Constellium Intranet.

Who is entitled to benefit from these incentives?

Procurement manager

Types of incentives

Monetary reward

Activity incentivized

Environmental criteria included in purchases

Comment

Sustainability performance of suppliers: the purchasing team has an objective of assessing their suppliers on their sustainability performance including environmental performance and climate change.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	0	2	
Medium-term	2	5	
Long-term	5	30	

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.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Annually	>6 years	A corporate annual critical risks review includes flood in the short list of main identified risks. In addition, regular risk reviews are also organized in every site with a frequency that depends on the site's importance, from 6 months to 2 years. This review includes natural risks.

C2.2b

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

Most obvious reason for relevance is that exposure of upstream activities is often higher than Constellium's own exposure. This is notably the case of energy and primary aluminium producers that can be vulnerable to restrictions of water usage (due to heat wave, drought, reduced water availability). Such risks are being addressed in our supply chain approach by diversifying our supply sources.

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 risk is being monitored at Constellium, with support of internal legal team and external consulting support. Climate change-related regulations and regulatory evolution are relevant to our activity, in particular due to several sites being included in the EU ETS program. We also watch regulation in other areas than European Union.
Emerging regulation	Relevant, always included	Regulatory watch also includes emerging regulations that are being assessed on a regular basis. Beyond EU ETS, we also watch emerging regulation in other areas than European Union. Regulatory watch does not limit to emissions trade schemes, energy or carbon taxes, but also includes areas indirectly impact Constellium’s activities such as vehicles emissions regulations.
Technology	Relevant, always included	In most of the markets Constellium does address, climate-related risks are increasingly relevant and can be a major driver of future markets. The impact on climate change has and will increasingly become one of the key criteria for choices on technology, product or material . For our customers, climate change impact drives material substitution, and thus our activity as a lightweight material provider. For our own operations, GHG emissions are considered for making technological choices, and they influence industrial decisions for new equipment, repairs or equipment revamping. Constellium investment process does include an energy efficiency check to drive technology choices towards energy efficient ones, thus contributing to reduce GHG emissions.

Legal	Relevant, always included	Compliance to regulations and legal systems such as EU ETS and local carbon taxes, legal authorization to operate that could be challenged (e.g. ability to reject treated waste water above a given temperature during heat wave).
Market	Relevant, always included	Relevant on several markets (packaging, automotive & other transportations, most notably). This includes risks of having the market switch towards other materials, tax or deposit-based systems for packaging that could introduce market distortion. For aluminium, in particular, the large difference between energy needs and associated GHG emissions between primary aluminium production and aluminium recycling process can also strongly affect market demands related to aluminium recycling. Constellium is strongly engaged in aluminium recycling activity, even though we also acknowledge the fact that the market will continue to structurally need a significant share of primary material in the future. The reason for this comes from the combination of consistent market growth and long life span of the products containing aluminium (about 20 years on average). The pool of recycled material coming from products end-of-life is thus limited to volumes sent to the market about 20 years ago, and only covering a limited share of current needs (e.g. lower than 40%). This introduces constraints in some markets, due to limited resources in recycled material vs. market requests.
Reputation	Relevant, always included	Constellium's reputation is a valuable asset. However, Constellium is aware of the aluminium reputation exposure related in particular to the high energy and associated GHG emissions related to the production of primary aluminium, even though it can pay off due to its intrinsic properties allowing to save emissions during its use and much lower impacts associated with its recycling. As a part of the aluminium value chain, Constellium reputation is linked to the image of aluminium, hence engaged in several actions to mitigate and reduce risk reputation: engagement in recycling, responsible purchasing policy requesting due diligence process, but also engaging very early in the Aluminium Stewardship Initiative (ASI) that established a standard for responsible aluminium and was developed in relation with NGOs and in conformance with ISEAL principles. Constellium also publicly committed to certify at least one site by the end of 2020.
Acute physical	Relevant, always included	Acute climatic events, such as heat waves, floods or tornadoes and their respective relevance are included in our risk analysis process. Specific risks are considered, depending on sites' geography and available resources related to climate evolution models in the considered area. This is also addressed in relationship with external stakeholders, including local authorities and insurance experts. As previously stated, Constellium is part of the aluminium value chain,

		hence acknowledges that acute physical risk is not only related to its own activity but can also affect it by disrupting its supply chain. Such risks are being addressed in our supply chain approach by diversifying our supply sources.
Chronic physical	Relevant, always included	<p>Quite similarly to acute physical risk, chronic physical climatic changes and their respective relevance are included in our risk analysis process, as they can drive higher frequencies of acute physical events. Specific risks are then considered, depending on sites' geography and available resources related to climate evolution models in the considered area. This is also addressed in relationship with external stakeholders, including local authorities and insurance experts.</p> <p>As previously stated, Constellium is part of the aluminium value chain, hence acknowledge that chronic physical risk also, is not only related to its own activity but can also affect it by disrupting its supply chain. Such risks are being addressed in our supply chain approach by diversifying our supply sources.</p>
Upstream	Relevant, always included	The most obvious reason for this risk to be relevant is that exposure of upstream activities is often higher than Constellium's own exposure. This is notably the case of energy and primary aluminium producers that can be vulnerable to restrictions of water usage (due to heat wave, drought, reduced water availability). Such risks are being addressed in our supply chain approach by diversifying our supply sources.
Downstream	Relevant, sometimes included	Depending of the addressed markets, climate-related risks do not have the same relevance. One relevant risk is for instance market substitution in the packaging or automotive market. Similarly, a market ban for one or another material related to climate issues (recycling for instance) could have a positive or negative effect on our business.

C2.2d

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

Following our risk assessment process, action and mitigation plans are being built, to minimize potential impact on our activities. This includes working on enhanced embankment to prevent floods, backup equipment or production sites. Major risks are being handled in a Business Continuity Plan approach. Among those major risks, flooding is currently the only climate-related one. Other climate related risks are being considered but with less importance.

Opportunities are mostly associated with increased demand for Constellium's products. Opportunities are managed through business planning and strategic analysis related to existing or potential markets. Regular R&D portfolio reviews are also contributing to this as innovation is

a key driver to get access to new markets or market shares. For instance, the development of new products in the automotive market, such as Constellium HSA6® or Formalex® enable mass saving in automotive design at reasonable cost, hence helping car manufacturers reduce the emissions of new cars thanks to their lighter aluminium components.

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: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

The aluminium industry as a whole will likely be impacted by the EU Emissions Trading Scheme (ETS) and has already been identified by the European Commission. In 2017, 5 Constellium sites were concerned by EU ETS Phase III (2013-2020) and will also be impacted by phase IV that induced lower emissions allowances while our industrial performance improvement is hindered by the evolution of our product mix.

High carbon / energy taxes can also impact our operation cost in areas not covered by EU ETS.

A critical aspect is the impact of increasing our recycling activity. While environmentally sound, as it saves the needs for more GHG-intensive primary aluminium production, increasing recycling activity will mechanically increase our energy needs, hence increasing both scope 1 & 2 emissions which are expected to increase (higher CO2

price / lower allowances). This will directly increase our operational costs in particular in the EU ETS, while reduction of scope 3 due to recycling doesn't bring any compensation in current ETS.

Another relevant aspect is the fact that EU ETS may negatively impact the European primary aluminium production, compared to non-European producers that may not be submitted to similar additional costs. As the European Aluminium primary industry is today one of the most performant in terms of GHG emission intensity, this may lead to higher scope 3 for intermediate and downstream actors such as Constellium and its customers, as the primary sourcing mix may evolve towards more GHG-intensive primary aluminium sourcing, which would be counterproductive. There is already a clear trend of shrinking European based primary aluminium production and increase of importations.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Management method

Our Greenhouse gas monitoring plan, running and feedback from third-party verification bodies contribute to identify new opportunities for reducing GHG emissions.

Additionally, ISO 50001 certification process was launched for all concerned facilities so that all major European sites are now ISO 50001 certified.

Energy efficiency plan and associated target of 10% improvement defined for the 2015-2020 period is also expected to mitigate costs. This will also help reducing our carbon footprint even though we acknowledge the fact that changes in our product or process mix can also affect our performance in this area. For instance, increasing our recycling capacity will increase our own scope 1 & 2 emissions, while contributing to avoid higher emissions by reducing the need for primary aluminium, as recycling aluminium needs 10-20 times less energy that its primary production.

EU ETS: declaration, verification and management processes were defined and put in place for all concerned sites.

Cost of management

Comment

Cost of third-party verification, and management of energy. Investment in more energy-efficient tools and management of our energy efficiency program.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Supply chain

Risk type

Transition risk

Primary climate-related risk driver

Policy and legal: Increased pricing of GHG emissions

Type of financial impact

Increased operating costs (e.g., higher compliance costs, increased insurance premiums)

Company- specific description

ETS, higher energy taxes imposed by EU or local regulation to finance deployment of renewable energies can influence the costs of our suppliers. This includes suppliers related to primary aluminium production.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

No available figure as the magnitude of this effect remains highly uncertain and its effective impact will also depend on our ability to transmit cost evolution to customers.

Management method

Commercial negotiations and engagement in professional organizations like European Aluminium, International Aluminium Institute and Aluminum Association, among others. Deployment of our energy efficiency program. Checking for energy performance during the evaluation phase of future investment.

Cost of management

Comment

Cost of implementation includes memberships and staff engagement charges in professional organizations (wherever applicable). Energy managing staff in our sites.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Customer

Risk type

Transition risk

Primary climate-related risk driver

Technology: Substitution of existing products and services with lower emissions options

Type of financial impact

Reduced demand for products and services

Company- specific description

Failing to work on aluminium recycling could put this material in an unfavorable position compared to competing materials. It is therefore essential to ensure that aluminium recycling continues and improves.

A more specific topic is the occurrence of deposit taxes on metal packaging that could, under certain conditions, lead to market distortions

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Material substitution in favor of competing materials would lead to reduced sales for the whole aluminium industry, including for our activity, but the magnitude of its impact remains quite uncertain.

Occurrence of new deposit taxes on metal packaging is quite likely, whereas the conditions under which it does drive significant market distortions are less likely as lessons have been learnt from past experiences. Expected effect is impossible to predict, so that defining a financial impact is not considered realistic.

Management method

Our main response is to work hard on increasing recycling rates of packaging products. Engaging in trade associations (European Aluminium, mainly), but also with other stakeholders like Metal Packaging Europe (MPE). R&D programs also contribute to manage such risk by preparing for future market needs. We also participate with the governments engaged in deposit projects in the elaboration of the system, with all stakeholders and we make sure our position is understood.

Cost of management

Comment

Management cost includes part-time work of several Constellium representatives acting at different levels to engage with different stakeholders. Part-time job of some people at European Aluminium, as well as significant expenses in R&D are also contributing.

Identifier

Risk 4

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

Increased insurance claims liability arising from climate-related impacts

Company- specific description

Constellium has operations spanning various countries across 3 continents. The potential physical impacts of climate change on our global operations are highly uncertain and is particular to each location's geographic circumstances. Extreme weather conditions, flood, changes in temperature and the availability of water are all difficult to predict and are dependent on the exact location of each facility, but including those in our risk assessment plans allow for better preparation and mitigation plans to be designed.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Local disruption of production due to various reasons like temporary restriction of water use authorizations, floods... This could potentially impact our revenue. It could also happen for electricity, but for shorter duration, hence lower impact.

Financial impact can also vary very highly, depending on the magnitude of the event, the exposed assets and the insurance coverage, notably.

Management method

Existing emergency and mitigation plans in plants. Cross qualification of alternative plants for production of threatened products. Higher embankment in areas where flood risk has been identified.

Cost of management

Comment

Management cost includes cost of managing any contingencies, and related investments.

C2.4

(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

Markets

Primary climate-related opportunity driver

Access to new markets

Type of financial impact

Increased revenues through access to new and emerging markets (e.g., partnerships with governments, development banks)

Company-specific description

Increasing awareness on climate-related issues drove the growth of lighter vehicles, especially in the automotive market. This trend which has started several years ago opened huge opportunities for aluminium applications in the automotive markets, based on the combination of strength, durability and lightness.

Time horizon

Current

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

500,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Increase of sales in automotive extruded and rolled product observed between 2015 and 2018 for Constellium activity.

Strategy to realize opportunity

R&D work to develop high performance alloys, to address market needs, in particular in the automotive area, where specific combinations of strength, formability and surface properties are being requested. Investment in production capacities to be able to provide market demand.

Cost to realize opportunity

180,000,000

Comment

This number corresponds to the investment in a new processing line in our plant of Neuf-Brisach, as previously published through a dedicated press release.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact

Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon

Company-specific description

Increased availability of lower-emissions energy sources provide available solutions to further reduce our future GHG emissions, hence lowering our exposure to carbon cost

changes. Constellium is considering the opportunities offered by green sourcing, in particular for energy.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

At this stage, many uncertainties on both energy and carbon future cost do not allow to estimate the expected impact.

Strategy to realize opportunity

The energy purchasing team is working with plant and energy management teams to define what the most relevant path to engage in such actions, considering each sites' situation to identify where it makes most sense to engage.

Engagement can take various paths, from power purchasing agreement to installation of solar panels, with direct investment or contracting / leasing approach.

Cost to realize opportunity

Comment

Cost will highly depend on the selected solutions, hence no estimate can be shared.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Type of financial impact

Increased production capacity, resulting in increased revenues

Company-specific description

Resource efficiency is a key contributor to GHG emission reductions. This is particularly true for aluminium, as the energy and associated GHG emissions associated with its recycling are around 20 times lower than those needed for the production of primary aluminium.

The current trend towards increased recycling is supported by Constellium, that set a specific sustainability target for the European aluminium beverage can recycling rate. Such trends favor the availability of recycled aluminium, that Constellium can use for its metal sourcing, at a cost that can be lower than primary metal. One condition yet, is that sorting process is efficient enough to provide aluminium scrap of good-enough quality for Constellium to use it.

Time horizon

Medium-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Aluminium and aluminium scrap prices are not fixed and don't have a fixed gap or relative position. At some time in the past, price evolution curves even crossed, making any financial estimate of financial impact evolution very uncertain.

Strategy to realize opportunity

Constellium approach is relying on several types of actions:

- R&D on recycling to optimize the recycling process and the way new sources of metal can be used

- Increasing our recycling capacity or use of recycled metal in our sites.
- Partnerships with industry association, such as European Aluminum, Alupro, France Aluminium Recyclage... to commonly work on improving recycling, in particular through awareness and collection programs such as "Every Can Counts",
- Communication on recycling, see for instance our recent video, promoting aluminium recycling and proposed in both English, German and French :
<https://www.youtube.com/watch?v=LxLF9RSVLgM>
-

Cost to realize opportunity

Comment

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Type of financial impact

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

Company-specific description

New technologies allow for more efficient production tools. More energy-efficient tools allow for lower energy costs in the short to medium term. Investing in more efficient tools and upgrading older ones is embedded in Constellium way of doing business.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

We do not consolidate the sum of individual projects generating energy saving and we know from experience that the overall effect relies on many individual actions, making it difficult to estimate the global effect. Pointing out one single action may not be relevant either.

Strategy to realize opportunity

New technologies allow for more efficient production tools. Constellium investment process includes criteria on energy efficiency and comparison to the best available technologies to ensure that we seize opportunities to reduce our energy use and associated costs, by selective and energy-efficient solution whenever it is possible. We also support this through a network of energy managers, sharing best practices and making sure energy remains addressed.

Cost to realize opportunity

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Supply Chain

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of recycling

Type of financial impact

Other, please specify

Access to greater amount of high quality Used Beverage Cans to produce our own metal.

Company-specific description

Development of return deposit schemes in some new markets, like France, may also have a positive impact by favoring products that can be easily, efficiently and economically recycled. This could create opportunities for increased amounts and quality of used beverage cans that we could use as raw material in our recycling facilities.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Past experience shows that the effect of deposit system can work in both directions, making it difficult to predict.

Strategy to realize opportunity

Engagement with stakeholders, including government representative to help getting an effective deposit system, associated with efficient collecting and sorting process.

Cost to realize opportunity

Comment

At this stage, no significant cost, but depending on future evolution of the market, this might lead to future investment in increased recycling capacities.

C2.5

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

	Impact	Description
Products and services	Impacted	Opportunity to increase of aluminium share in automotive applications, for which Constellium is supplying products (automotive body sheet, extruded profiles and structural

		components such as Crash Management Systems). It results notably from more severe regulations on car fuel consumption / GHG emissions. This has already impacted us, with growing sales in the automotive market for aluminium sheet, extruded profiles or structure elements such as Crash Management Systems. This trends is observed in all markets where Constellium is active (Europe, North America and Asia).
Supply chain and/or value chain	Not yet impacted	The reputation of aluminium as an energy-intensive material is a risk for our activity. Acute climatic events could also reduce the ability to some of our suppliers (primary aluminium metal, electricity) to operate. Engaging, along with several of our primary metal suppliers in the Aluminium Stewardship Initiative is expected to provide both lower risk level and new market opportunities in the coming years.
Adaptation and mitigation activities	Impacted for some suppliers, facilities, or product lines	Acute weather events such as flood have been identified as a major risk for several of our sites, located in the vicinity of rivers. Risks assessments are regularly updated and mitigation plans for flood prevention and management are being engaged.
Investment in R&D	Impacted	The trend toward new markets, in particular in the automotive market has lead to significant efforts in R&D to support the development of products that fit the needs of the automotive market. This is closely related to the activity in our French R&D center of Voreppe, but also to the US R&D platform of Plymouth and the R&D partnership with Brunel University (UK).
Operations	Impacted for some suppliers, facilities, or product lines	We observed past examples of restrictions on the use of cooling water needed to engage mitigation plans with low overall impact on a few sites that are more exposed, in particular due to the need for cooling water used during aluminium slabs or billets casting operation.
Other, please specify		

C2.6

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

	Relevance	Description
Revenues	Impacted	The opportunity to get increased revenues related to the fast development of aluminium wrought products in automotive applications have been included in our business planning.
Operating costs	Impacted	Increase of carbon price in Europe and decrease of carbon allowances for sites in the EU ETS impacted our operational costs, while the need for higher production volumes in the

		automotive market did not allow to sufficient emissions reductions during that time, resulting in higher costs.
Capital expenditures / capital allocation	Impacted	Constellium used business planning and engaged major investment in production facilities to address the fast development of aluminium wrought products in automotive applications. Additionally, to address the issue of our energy use and associated energy and carbon costs, we introduced selection criteria on energy efficiency in our investment process.
Acquisitions and divestments	Not yet impacted	No significant potential impact identified up to now, as Constellium is mostly relying on internal growth, but we acknowledge that energy efficiency and associated GHG emissions can be expected to become part of future decision criteria for acquisitions and divestment, as the energy and GHG performance is expected to impact future costs, hence financial performance.
Access to capital	Not yet impacted	No major risk identified in this field, in particular past assessments of our non-financial performance by Oekom and EcoVadis did not highlight specific risks that need immediate addressing. We yet continue to work on "non-financial" sustainability engagement to further improve this performance to ensure that our current situation is not negatively impacted in the future. This is being part of our engagement in sustainability.
Assets	Impacted for some suppliers, facilities, or product lines	Following regular risk assessment updates, some of Constellium facilities needed to implement additional protection / mitigation actions to mitigate newly identified risks or revised risk assessments. As of today, this mostly relates to flooding risk.
Liabilities	We have not identified any risks or opportunities	Current regulatory and legal watch did not identify specific liabilities related to climate change. Future update may alter this vision, but nothing relevant identified so far.
Other		

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

Yes, qualitative and quantitative

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.

Climate change is mainly integrated in our strategy via the greenhouse gas (GHG) emissions that we aim at minimizing through several complementary approaches.

- 1) In 2017/2018 we renewed our materiality assessment and climate change mitigation comes clearly as a key priority for all our stakeholders. Our customers are the most active in understanding our footprint and the levers to diminish it.
- 2) Climate change has triggered legislative changes which impact directly our business strategy. Regulation on CO₂ for car emissions has pushed for lighter vehicles, and the substitution from steel to aluminium parts. As an aluminium semi fabricator, we have developed a range of solutions and invested heavily in production lines to serve automotive OEMs.
- 3) Climate change is also fueling the growth of electric vehicles, for which we have developed battery enclosures solutions, thanks to R&D and the expansion of our industrial footprint in extrusion and assembly. Estimates of future market penetration for this technology have been built jointly within the European Aluminium association, including projections to 2030 and 2040. We have also made similar studies in the US with the Aluminum Association.
- 4) There are many legislative steps taken in Europe particularly to develop the circular economy. We are not only reacting to potential legislation changes but are actively participating in making sure the recycling rate of beverage cans and aluminium packaging continues to grow. We are taking part of working groups on the deposit schemes that many countries are considering which if well crafted could boost the recycling rate and the quality of used beverage cans, a great raw material for our recycling furnaces. Recycling aluminium saves 95% of the energy and the CO₂ emissions needed to produce primary metal.
- 5) We have fully integrated in our strategy the improvement of energy efficiency throughout our operations and have made significant progress. From 2020 onward, we are considering complimentary actions such as the energy mix or specific projects involving solar panels.

6) Our GHG emissions are under strict control considering the fact that we are participating in the ETS system in Europe. We also modeled our emissions up to 2030, based on future production assumptions. This was used as a baseline scenario to define our GHG-emission reduction approach.

7) Our strategy includes scope 3, as we have been early participants in the Aluminium Stewardship Initiative (ASI) and intend to source ASI certified metal. ASI certification includes a specific criteria for GHG emissions with a cap at 8 tons of CO2/ton of aluminium produced which is significantly below the 17 tons of CO2/ton world average.

C3.1d

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

Climate-related scenarios	Details
RCP 2.6 Other, please specify Science-Based Target Sectoral Decarbonization Approach (SDA) for Aluminium sector	We investigated how our company future performance could fit with the SBT Sectoral Decarbonization Approach (SDA) for the aluminium sector in the 2015-2030 period. The scope of our scenario analysis included all current activities of Constellium and their potential for future extension until 2030. We used an internal model to estimate the expected GHG emissions from each of our sites, based on 2015 reference year performance and future combination of production volume and production mix by 2030. The results provided us with the baseline to estimate the necessary emission reduction efforts to fit with scenarios defined using the SBT SDA model, either for the Aluminium sector or for the "other industry" sector. The 2030 time-horizon was chosen because it offer both time to act and get results from long-term planning and investment and was also considered as a key milestone by numerous stakeholders. 2015 was chosen as the reference year, as it immediately followed the acquisition of Wise Metal plant of Muscle Shoals (AL) that was the last major change in our activity portfolio.

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.

Our low-carbon transition plan mostly relies on energy efficiency, shift from some energy sources and green energy sourcing. Energy efficiency results from both investment (new and more efficient tools, tools revamping with best-available technologies) and continuous

improvement (energy management, optimal tool management, awareness and dedication of operators and management).

One key issue we regularly face when designing such plans is its recognition and payback. This notably comes from the fact that avoided emissions are not accounted for in existing recognized schemes. To Constellium, this is an issue because it does not fit with our preferred approach that is based on a full life cycle vision of our activity.

For instance, deciding to engage in more recycling activity, which is environmentally sound, comes at the necessary cost of increased scope 1 and scope 2 GHG emissions for Constellium, while emissions reductions in scope 3 may not be valued.

Similarly, producing more automotive body sheet products helps our customers reduce the GHG emissions during the use of their vehicles which are lighter due to the use of aluminium. Yet, this comes at the cost of higher scope 1 & 2 emissions, as those products needs more energy to produce.

In the end, even though a life cycle assessment easily demonstrates that using aluminium saves GHG over the full life cycle of the car, it results for Constellium in increased scope 1, 2 and even 3 GHG emissions.

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Scope

Scope 1+2 (location-based)

% emissions in Scope

100

Targeted % reduction from base year

10

Metric

Metric tons CO2e per metric ton of aluminum*

Base year

2015

Start year

2015

Normalized base year emissions covered by target (metric tons CO2e)

1,186,000

Target year

2020

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% of target achieved

50

Target status

Underway

Please explain

We formally did set an energy efficiency target for Constellium (10% improvement between 2015 and 2020). This target can be translated into GHG emissions reductions, as our scope 1 + 2 are related to our energy use.

Yet, it does not directly translate in a 10% scope 1+ 2 GHG emission reduction target, due to the evolution of Constellium production mix during the 2015-2020 period. This is mostly related to the growth of our automotive body sheet production (more energy needed than for other products like beverage can body sheet, for instance), but not limited to that.

We estimate that this effect adds about 4% more energy use, compared to a scenario without any production mix change. Consequently, this could be translated in an about 6% energy or scope 1+2 reduction target.

% change anticipated in absolute Scope 1+2 emissions

-6

% change anticipated in absolute Scope 3 emissions

0

C4.2

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

Target

Energy productivity

KPI – Metric numerator

Energy efficiency corresponds to energy intensity (e.g. in GJ / tons) but corrected from a product & process mix effect. It is based on the comparison with the intensity value of reference year, so that there is no unit. (1.00 for base year).

KPI – Metric denominator (intensity targets only)

Energy efficiency corresponds to energy intensity (e.g. in GJ / tons) but corrected from a product & process mix effect. It is based on the comparison with the intensity value of reference year, so that there is no unit. (1.00 for base year).

Base year

2015

Start year

2015

Target year

2020

KPI in baseline year

1

KPI in target year

0.9

% achieved in reporting year

47

Target Status

Underway

Please explain

We aim at improving our energy efficiency by 10%. Starting from a 1.00 baseline, this means that our KPI should reach 0.90 within 5 years to achieve the target. We manage our energy efficiency targets on a 5 year basis. The first target was already a 10% improvement by 2015 from a 2010 baseline. We achieved 9%. We renewed our target with the same ambition for the 2015-2020 time span.

We acknowledge being late on our the path to the 10% improvement, partly due to our having underestimated both time and efforts to implement some key actions, notably our newly acquired (2015) plant of Muscle Shoals in our energy reduction momentum. More details are provided on p. 48 of our 2018 business and sustainability performance report (available at <https://www.constellium.com/sustainability/downloads/brochures-and-reports>).

2018 year has shown significant progress over previous years, even though not yet sufficient to meet the expected path to our target.

Part of emissions target

Our energy efficiency target addresses 100% of our scope 1 & 2 emissions. On the other hand, improving by 10% may not yield to the same reduction in our emissions, as it is corrected for effects of product mix (that may evolve toward more energy-intensive

products, that generally provided better use performance (e.g. mass and fuel saving in transportations) that more than compensate for the extra energy cost in our facilities, from a full life cycle perspective (e.g. including scope 3).

Similarly, we correct also for changes in process, for instance increasing recycling activity induces overall reduction of scope 1+2+3 but increase scope 1+2 emissions.

Is this target part of an overarching initiative?

No, it's not part of an overarching initiative

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.

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	52	118,000
To be implemented*	7	13,300
Implementation commenced*	3	8,500
Implemented*	2	5,000
Not to be implemented	5	28,000

C4.3b

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

Initiative type

Energy efficiency: Processes

Description of initiative

Heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

3,000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

Comment

Modernization of a casting furnace in Issoire plant, involved implementation of regenerative burners and electromagnetic stirring device for enhanced energy efficiency.

Initiative type

Energy efficiency: Processes

Description of initiative

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

2,000

Scope

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

Comment

Implementation of more efficient pit furnaces in a US plant, involving up-to-date technology for better energy performance.

C4.3c

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

Method	Comment
Financial optimization calculations	Financial output remains a key driver for defining investment. Emission reduction often comes along with other benefits that may be better drivers for financial optimization. Energy performance criterion is also included in the decision process related to investment.

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

Group of products

Description of product/Group of products

Automotive body sheet and extruded profiles, Automotive structural parts such as Crash Management Systems, new generation of high performance aluminium alloys in other transportation areas, such as aerospace.

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

Life Cycle Assessment (LCA) calculations

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

23

Comment

Only accounting for automotive rolled and extruded products yields to 23% of 2018 sales turnover.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

749,000

Comment

Scope 2 (location-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

219,600

Comment

Scope 2 (market-based)

Base year start

January 1, 2015

Base year end

December 31, 2015

Base year emissions (metric tons CO₂e)

211,112

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

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Climate Leaders: Direct Emissions from Stationary Combustion

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

756,400

Start date

January 1, 2018

End date

December 31, 2018

Comment

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

Depending on locations, we were able to access, or not, specific electricity emissions factors from our suppliers. We will then disclose data split into both categories, depending on whether or not we were able to access electricity supplier emission factors.

C6.3

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

Reporting year

Scope 2, location-based

224,100

Scope 2, market-based (if applicable)

210,300

Start date

January 1, 2018

End date

December 31, 2018

Comment

Depending on locations, we were able to access, or not, specific electricity emissions factors from our suppliers, hence the combination of location-based and market-based data. No double counting there. Scope 2, market-based is limited to the scope 2 from sites for which we were able to collect electricity supplier emission factors, while Scope2, location-based is accounting for all other sites. Constellium total scope 2 is therefore the sum of both contributions.

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

(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

8,300,000

Emissions calculation methodology

Data based on calculation from our global LCA model. See our 2017 Business and Sustainability report 2017 on p. 40-41 for more details
(https://www.constellium.com/sites/default/files/constellium_business_and_sustainability_report_2017-200718.pdf).

Calculations mostly based on the European Aluminium LCIA data, amended by the effect of local electricity mix for each primary metal sourcing site.

We started getting more precise value directly from our suppliers and started accounting for these values in our calculations.

Note: given the level of uncertainties, calculated value was rounded to the closest 100,000 tonnes.

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

75

Explanation

Calculations mostly based on the European Aluminium LCIA data, amended by the effect of local electricity mix for each primary metal sourcing site.

We started getting more precise value directly from our suppliers and started accounting for these values in our calculations.

Capital goods

Evaluation status

Not relevant, explanation provided

Explanation

Given the importance of scope 3 emissions associated with the elaboration of primary aluminium, some other contributions were not necessarily considered for the time being, as their expected contribution is expected to be comparatively very small. Our policy is to progressively proceed to evaluation of these other components and take them into account if they are to be found significant. Capital goods, is not considered a major item at the moment and are not expected to represent a significant share of the scope 3.

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

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

133,500

Emissions calculation methodology

Electricity: use of loss factors for

http://data.worldbank.org/indicator/EG.ELC.LOSS.ZS?order=wbapi_data_value_2009+wbapi_data_value+wbapi_data_value-last&sort=desc

Fossil fuels: use of French ADEME "Base Carbone" database for emissions factors for upstream emissions.

Result was rounded to the closest 100 tonnes, to account for uncertainties.

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

50

Explanation

All energy consumption data provided by suppliers, while loss factors and fossil fuels scope 3 per energy units were obtained from generic databases, as described above.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO2e

83,000

Emissions calculation methodology

Calculations made on several sites and product lines indicated about 1% of purchased metal scope 3 as a rather relevant order of magnitude. Calculations scope corresponds to the transportation of metal ingots, slabs or billets from the supplier down to our plants. Impact was calculated based on the transported mass, distance and nature of transportation (truck, train, sea, river).

Note: given the level of uncertainties, calculated value was rounded to the closest 1,000 tonnes.

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

0

Explanation

Internal estimate as explained above in the "emissions calculation methodology".

Waste generated in operations

Evaluation status

Relevant, calculated

Metric tonnes CO2e

14,000

Emissions calculation methodology

Calculations were based on volumes of generated waste. Associated emissions were based on waste categories and waste processing routes (landfilling and incineration). Emission factors were found in GaBi Professional Database and the French "Base

Carbone" database.

Note: not all of our waste categories could find a clearly defined associated emission factor, so that proxies had to be used. Consequently, given the level of uncertainties on the choice of emissions factors, total value was rounded to the closest 1,000 tonnes.

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

0

Explanation

Internal estimate as explained above in the "emissions calculation methodology".

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

4,000

Emissions calculation methodology

Calculations for air travel was provided by travel agency, based on DEFRA data and GHG protocol scope 3 guidance. Costs from travel agency for rail, were transformed into emissions based on the GHG protocol guidance. Impact from car rental was based on estimate of total mileage and an emission factor from the carbon footprint calculator (<http://calculator.carbonfootprint.com/calculator.aspx?lang=en-GB>). To account for missing data for some sites, an extra 20% was accounted for.

Note: given the level of uncertainties, calculated value was rounded to the closest 1,000 tonnes.

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

100

Explanation

See explanation above in the "Emissions calculation methodology" comment.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

11,000

Emissions calculation methodology

This is only an estimate. Calculations were based on the following hypotheses: 30 km a day; 230 working days per year; 140 g CO2 per km; 11,848 FTE employees. The result

is about 11,000 t CO₂eq per year, so roughly a little below 1 t CO₂eq per employee per year. These hypotheses are very conservative and tend to overestimate the true contribution of employee commuting to our scope 3 emissions.

Note: given the level of uncertainties, calculated value was rounded to the closest 1,000 tonnes.

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

0

Explanation

See explanation above in the "Emissions calculation methodology" comment.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

Constellium owns its plants and equipment. Leased assets represent only a very minor part of our assets and an even smaller contribution to energy use (printers, forklifts, mostly). The contribution of the most important ones in terms of expected GHG emission impacts (forklifts, printers...) are already included in scope 1&2 emissions as we do include all fuel and electricity emissions in our scope 1 &2 calculations, so that they are not ignored in our GHG emission summary.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

83,000

Emissions calculation methodology

Calculations made on several sites and product lines indicated about 1% of purchased metal scope 3 as a rather relevant order of magnitude. Calculations scope corresponds to the transportation of our products from our production sites to our customers' facilities. Impact was calculated based on the transported mass, distance and nature of transportation (truck, train, sea, river).

Note: given the level of uncertainties, calculated value was rounded to the closest 1,000 tonnes.

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

40

Explanation

We have not completed the calculation for all products and customers, hence we rely on an estimate, based on results from several sites product lines accounting for about 40% of our sales.

Processing of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1,600,000

Emissions calculation methodology

LCA calculation based on available LCIA data for can manufacturing allowed an estimate for ca. 30% of our sales. Estimate of further processing for aluminium sheet into aluminium foil was also assessed, based on LCIA data from the European Aluminium Association environmental profile report 2013. Calculation were not performed for other products, due to missing data.

Note: given the level of uncertainties, calculated value was rounded to the closest 100,000 tonnes.

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

40

Explanation

LCA calculation based on available LCIA data for can manufacturing allowed an estimate for ca. 30% of our sales. Estimate of further processing for aluminium sheet into aluminium foil was also assessed, based on LCIA data from the European Aluminium Association environmental profile report 2013. Calculation were not performed for other products, due to missing data.

Use of sold products

Evaluation status

Relevant, not yet calculated

Explanation

Constellium production consist of aluminium semi-products (extruded products, cast products, coils, sheets & plates) for various applications. The range of these applications is very large (metal packaging, automotive parts, aerospace & transport industry, building, engineering parts...). Therefore, evaluation of the impact of sold products use was only be performed in a reduced number of cases (mainly transport and packaging). For such products, the use of aluminium was generally found to be positive as it brings better performance (mass saving for transportation applications, hence less fuel/energy consumption, for instance, excellent recyclability along with food preservation preventing food waste at a minimal environmental cost). Yet, as such avoided emissions are not recognized by CDP methodology, we

understand we should only account for product use phase. This is an issue, as increased sales in the automotive market, in particular, would then significantly raise Constellium scope 3, while at the same time the use of our product allow for reduced emissions compared to their heavier steel counterpart, for instance.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Metric tonnes CO2e

560,000

Emissions calculation methodology

Based on LCIA data for aluminium recycling from European Aluminium association and estimated final products volumes.

Note: given the level of uncertainties, calculated value was rounded to the closest 10,000 tonnes.

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

0

Explanation

See explanation above in the "Emissions calculation methodology" comment.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Explanation

We do not lease asset. This not part of our business.

Franchises

Evaluation status

Not relevant, explanation provided

Explanation

We don't own or control any franchise. This not part of business.

Investments

Evaluation status

Not relevant, explanation provided

Explanation

Constellium is an industrial company and is not engaged in financial investment activity.

Other (upstream)

Evaluation status

Explanation

Other (downstream)

Evaluation status

Explanation

C6.7

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

No

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

0.000209

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

1,190,800

Metric denominator

unit total revenue

Metric denominator: Unit total

5,700,000

Scope 2 figure used

Market-based

% change from previous year

9.8

Direction of change

Decreased

Reason for change

Improved energy efficiency, that significantly progressed in 2018, improving by over 3% and contribution from lower emission factors from purchased electricity in several sites.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

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).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	756,380	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	17	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	2	IPCC Fifth Assessment Report (AR5 – 100 year)
PFCs	0	IPCC Fifth Assessment Report (AR5 – 20 year)
NF3	0	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
France	185,900
Germany	75,900
Other, please specify Rest of Europe	48,000
North America	446,600
Asia, Australasia	13

C7.3

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

By business division

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Aerospace & Transportation	196,200
Automotive Structures & Industry	46,500
Packaging & Automotive Rolled Products	437,600
Rest of company (R&D, corporate...)	2,300

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	Comment
Metals and mining production activities	751,800	Main activity of the group, also including the most energy-intensive operations (recycling, casting, rolling & extrusion of aluminium)
Transport OEM activities	4,600	Manufacturing aluminium car components do not request as much energy as most other operations, like recycling, casting, rolling or extrusion on a energy per ton basis.

C7.5

(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)
France	24,300	0	615,077	0
Germany	62,400	0	154,962	0

Other, please specify Rest of Europe	48,000	0	86,722	109,793
North America	146,800	148,000	660,412	0
Asia, Australasia	5,000	0	4,242	0

C7.6

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

By business division

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)
Aerospace & Transportation	134,200	0
Automotive Structures & Industry	62,700	17,100
Packaging & Automotive Rolled Products	26,700	191,600
Rest of company (R&D, corporate...)	500	1,600

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

(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
Metals and mining production activities	210,200	206,600	Main activity of the group, also including the most energy-intensive operations (recycling, casting, rolling & extrusion of aluminium)
Transport OEM activities	13,900	3,700	Manufacturing aluminium car components do not request as much energy as most other operations, like recycling, casting,

			rolling or extrusion on a energy per ton basis.
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C-T07.8

(C-T07.8) Provide primary intensity metrics that are appropriate to your indirect emissions in Scope 3 Category 11: Use of sold products from transport.

Activity

Light Duty Vehicles (LDV)

Emissions intensity figure

Metric numerator (Scope 3 emissions: use of sold products) in Metric tons CO₂e

Metric denominator

Metric denominator: Unit total

% change from previous year

Vehicle unit sales in reporting year

Vehicle lifetime in years

Annual distance in km or miles (unit specified by column 4)

Load factor

Please explain the changes, and relevant standards/methodologies used

C7.9

(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.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	1,800	Decreased	0.15	Accounting for green electricity sourcing in Switzerland.
Other emissions reduction activities	60,000	Decreased	5	Energy efficiency improvement by over 3% in 2018.
Divestment	0	No change	0	No divestment in the considered time period.
Acquisitions	0	No change	0	No acquisition in the considered time period.
Mergers	0	No change	0	No merger in the considered time period.
Change in output	40,000	Increased	3.5	Increased production volumes and change in product mix (toward more energy intensive products such as automotive body sheet, requested by the market to help reduce automotive weight and associated use phase emissions.
Change in methodology	0	No change	0	No change in methodology.
Change in boundary	0	No change	0	No change in boundary
Change in physical operating conditions	0	No change	0	No change in physical operation conditions.
Unidentified	0	No change	0	
Other	0	No change	0	

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 0% but less than or equal to 5%

C8.2

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

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
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)	HHV (higher heating value)	0	3,940,854	3,940,854

Consumption of purchased or acquired electricity		109,793	1,520,660	1,630,453
Consumption of self-generated non-fuel renewable energy		0		0
Total energy consumption		109,793	5,461,514	5,571,307

C-MM8.2a

(C-MM8.2a) Report your organization’s energy consumption totals (excluding feedstocks) for metals and mining production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstocks)	HHV (higher heating value)	3,915,844
Consumption of purchased or acquired electricity		1,596,187
Consumption of self-generated non-fuel renewable energy		0
Total energy consumption		5,512,031

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 heat	No
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

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

Fuels (excluding feedstocks)

Anthracite Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

113,438

MWh fuel consumed for self-generation of electricity

113,438

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

113,438

Comment

Same power plant generates both steam and electricity.

C8.2d

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

Anthracite Coal

Emission factor

0.093

Unit

metric tons CO2e per GJ

Emission factor source

Data from the site's energy manager and successfully used for its verified emissions process.

Comment

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	12,018	12,018	0	0
Heat	0	0	0	0
Steam	77,051	43,805	0	0
Cooling	0	0	0	0

C-MM8.2e

(C-MM8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed for metals and mining production activities.

	Total gross generation (MWh) inside metals and mining sector boundary	Generation that is consumed (MWh) inside metals and mining sector boundary
Electricity	12,018	12,018
Heat	0	0
Steam	77,051	43,805
Cooling	0	0

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

Solar PV
Wind
Hydropower

Region of consumption of low-carbon electricity, heat, steam or cooling

Europe

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

51,225

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

0

Comment

C-TO8.4

(C-TO8.4) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

C9. Additional metrics

C9.1

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

C-TO9.3/C-TS9.3

(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

C-MM9.3b

(C-MM9.3b) Provide details on the commodities relevant to the metals production activities of your organization.

Output product

Aluminum

Capacity (metric tons)

1,534,000

Production (metric tons)

1,534,000

Annual production in copper-equivalent units (thousand tons)

1,534,000

Scope 1 emissions (metric tons CO2e)

751,800

Scope 2 emissions (metric tons CO2e)

411,300

Scope 2 emissions approach

Market-based

Pricing methodology for-copper equivalent figure

Constellium does not own, control or operate any mining activity. Constellium activity is to transform metallic aluminium ingots or aluminium scrap into rolled or extruded products such as coils, sheets, extruded part.

Referring to mining -related units such as copper-equivalent unit seems therefore quite irrelevant.

Using a copper-equivalent calculator using an estimate price of about 0.5 \$/lb and 100% recovery lead to a 100% equivalence for copper-equivalent unit.

Comment

Constellium does not own, control or operate any mining activity. Referring to mining - related units such as copper-equivalent unit seems therefore quite irrelevant.

C-MM9.6

(C-MM9.6) Disclose your organization’s low-carbon investments for metals and mining production activities.

Investment start date

June 1, 2014

Investment end date

October 31, 2019

Investment area

Property, plant and equipment

Technology area

Metal recycling

Investment maturity

Large scale commercial deployment

Investment figure

37,500,000

Low-carbon investment percentage

81 - 100%

Please explain

Since 2014, Constellium has announced a series of investment in its Czech plant of Decin, the last announcement was done in May 2018. These investments include expansion of existing capacities as well as a new casthouse and extrusion press. They also aim at increasing the plant’s recycling capacity.

As the auto industry increasingly turns to lightweight, high-strength aluminium, Constellium’s expansion in Decin will support rising demand for hard and soft alloy profiles and bars from automotive customers across Europe. This new activity is expected to increase Decin’s total extrusion capacity to 96,000 metric tons per year. For more detail, see Constellium website and associated press releases.

Increased production capacity will allow for more automotive to be equipped with lighter aluminium parts, hence reducing their GHG emissions. Increasing the recycling capacity will allow to produce more products out of aluminium scrap, while aluminium recycling only request about 5% of the GHG emissions associated with primary aluminium production.

C-TO9.6/C-TS9.6

(C-TO9.6/C-TS9.6) What is your investment in research and development (R&D), equipment, products and services and which part of it would you consider a direct investment in the low-carbon transition?

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	No third-party verification or assurance

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

Reasonable assurance

Attach the statement

 Constellium 2018 emissions verification certificates Constellium.pdf

Page/ section reference

PDF file contains reports for our sites of Neuf-Brisach, Issoire, Singen and Decin.

Relevant standard

European Union Emissions Trading System (EU ETS)

Proportion of reported emissions verified (%)

30

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?

No, but we are actively considering verifying within the next two years

C11. Carbon pricing

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
- France carbon tax
- Switzerland carbon tax
- Switzerland 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

30.2

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated

180,621

Allowances purchased

92,337

Verified emissions in metric tons CO₂e

228,769

Details of ownership

Facilities we own and operate

Comment

Switzerland ETS

% of Scope 1 emissions covered by the ETS

2.8

Period start date

January 1, 2018

Period end date

December 31, 2018

Allowances allocated

31,253

Allowances purchased

0

Verified emissions in metric tons CO₂e

0

Details of ownership

Facilities we own and operate

Comment

Verification is made at the request of Swiss authorities that do not request is every year. The request for verification was not done for 2018 data.

C11.1c

(C11.1c) Complete the following table for each of the tax systems in which you participate.

France carbon tax

Period start date

January 1, 2018

Period end date

December 31, 2018

% of emissions covered by tax

22

Total cost of tax paid

Comment

Switzerland carbon tax

Period start date

January 1, 2018

Period end date

December 31, 2018

% of emissions covered by tax

3

Total cost of tax paid

0

Comment

Taxes were refunded as our Swiss operations are also part of Swiss ETS.

C11.1d

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

Our strategy is to be compliant with EU ETS by minimizing our need for CO2 allowances. In order to achieve this, we rely on process efficiency improvement with or without investment. Complementary GHG emissions reductions are expected to come from further improved energy management policy to reduce also consumption in other fields than production workshops.

However, changes in production mix and volumes to provide mass saving solutions for transportation are requesting more energy than in past years, therefore limiting the effect of our energy efficiency program in terms of absolute emissions reductions. Increasing recycling capacity, as we have been doing in our Czech plant of Decin also contribute to raise our emissions by displacing the burden of metal recycling and remelting from our suppliers to our own scope 1 & 2.

We also have a strategy to cover forecast needs by buying additional CO2 allowances.

C11.2

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

Yes

C11.2a

(C11.2a) Provide details of the project-based carbon credits originated or purchased by your organization in the reporting period.

Credit origination or credit purchase

Credit purchase

Project type

Project identification

Verified to which standard

Number of credits (metric tonnes CO₂e)

Number of credits (metric tonnes CO₂e): Risk adjusted volume

Credits cancelled

Purpose, e.g. compliance

Compliance

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

Navigate GHG regulations

Drive energy efficiency

Drive low-carbon investment

GHG Scope

Scope 1

Scope 2

Application

We use internal carbon price to allow to support the definition and engagement in the future GHG-emissions reduction target we are considering,. We are also investigating the influence of CO2 price on current and future investment.

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

25

Variance of price(s) used

Currently, 25- 50 is considered as the most reasonable range for the 2020-2030 period in Europe, as provided to us by external experts.

Type of internal carbon price

Shadow price
Implicit price

Impact & implication

At its current price, the impact remain moderate, but we expect it to become a more and more important driver in future decisions, in particular related to future investment.

C12. Engagement

C12.1

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

- Yes, our suppliers
- Yes, our customers
- Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

5

% total procurement spend (direct and indirect)

70

% Scope 3 emissions as reported in C6.5

80

Rationale for the coverage of your engagement

We concentrated our requests on primary metal and energy suppliers, which are by far the most important contributors, both in value and in scope 3.

Impact of engagement, including measures of success

Request are sent to all our suppliers in the energy and primary metal categories and already cover a significant share of our supply.

Comment

One issue is related to the fact that a significant share of the aluminium market is being handled by traders. Adding intermediate steps between primary production and our makes it more difficult to get the data. We are working on it and are considering some approaches to reduce its impact on our data-collection process.

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

% of customers by number

50

% Scope 3 emissions as reported in C6.5

20

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

The disclosed % of customers is just a very raw assumption, as we have numerous customers, which are either small or simply traders, hence not closer to final application. We engage 100% or close to that number of our suppliers on key markets, like packaging or automotive, in particular, which account for a very large part of our activity (over 60% of our revenue).

The disclosed scope 3 value does not reflect the actual importance of engaging with our customers, but the fact that the contribution of customers to scope 3 remains challenging to estimate and has not yet been completed.

This topic is actually very important in our relation with customers, as it addresses both the use and the end of life of our product. Ensuring that collaboration on products design and recycling is essential. It allows to further improve the benefits brought by using aluminium (lightweight design, easy recycling, already excellent collection and recycling rates in most markets...).

Engaging with customers on recycling is something Constellium does on a daily basis. This is the reason why Constellium is being actively communicating on this topic. See our website: <https://www.constellium.com/sustainability/aluminium-recycling>
This is also often done through collaborations, for instance with the Metal Packaging Europe and AluPro associations to promote recycling in Europe ("Every Can Counts" program) or with academics, our customer Renault, metal recyclers and other partners to investigate how to measure and further improve vehicle end-of-life recycling (through a dedicated French program) . We also conducted a similar approach to collaborate on successive aircraft end-of-life recycling programs.

Impact of engagement, including measures of success

We measure the success of this through the number of exchanges we have with customers on recycling, environmental footprint, but also on product design and by the number of collaborative programs we are able to launch with them and quite often with other partners. This notably the case of "Every Can Counts " program, the French collaboration with IRT M2P program on Life Cycle Assessment & Recycling, programs related to the environmental assessment and end-of-life recycling of aircraft...
We also successfully invited customers to join the Aluminium Stewardship Initiative which addresses environmental aspect, with dedicated sections on product design, recycling and GHG-emission.

C12.1c

(C12.1c) Give details of your climate-related engagement strategy with other partners in the value chain.

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?

Trade associations

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

European Aluminium association
France Aluminum Recyclage

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Both associations are advocating for further improved recycling of aluminium. The European aluminium issued a Vision 2050 document setting out different scenarios on how the aluminium sector can contribute to the European Low Carbon roadmap. More detail are available at : <https://www.european-aluminium.eu/resource-hub/vision-2050/>

European Aluminium vision highlight the following aspects in their document:

- The global demand for primary aluminium is expected to increase by 50% by 2050, reaching 107.8 million tonnes. Chinese demand will peak at almost 50 million tonnes per year around 2035. European demand for primary aluminium will be about 9 million tonnes per year up to 2050;
- The main growth drivers will be increasing demand in strategic applications where aluminium's unique properties make it the material of choice, including mobility, building and construction and packaging;
- The European demand in 2050 will be met by almost equal shares of primary and recycled aluminium production. Production of primary aluminium (EU28 + EFTA) is expected to meet 25% of the demand by 2050, providing adequate supportive policies for the industry and integrated value chains that are in place;
- Total CO2 emissions from primary production (direct and indirect) would fall by around 60% and 70% by 2050 compared with 2014 figures;
- Increasing the production of recycled aluminium, rather than importing more primary aluminium from third countries, would reduce CO2 emissions between 2020 and 2050 by 880 and 1500 million tonnes of CO2e;
- Enhancing access to aluminium scrap both in quantity and quality is necessary to achieve this potential. Our report points out at specific measures to achieve this scenario.

How have you influenced, or are you attempting to influence their position?

Constellium staff is present at the EA board, but also within different sections of the association with, in particular a Vice-Chair position at the Sustainability Committee. Constellium is also a regular and active contributor to several taskforces of the association, working on Vehicle End-of-Life, Environmental Reporting, Roadmap design, Recycling...

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?

We engage as members, being present for instance at the Executive Committees of the European Aluminium association, but also but actively taking part to its Sustainability Committee and several other working groups.

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 voluntary sustainability report

Status

Complete

Attach the document

 constellium_business_and_sustainability_report_2018_1.pdf

Page/Section reference

See relevant section on p.51
Energy consumption : see p.48 and 62

Content elements

Governance
Strategy
Emissions figures
Other metrics

Comment

As explained previously, our action on GHG emissions reductions currently focuses on energy efficiency, with an ongoing target (2015-2020) requesting a 10% improvement.

C14. Signoff

C-FI

(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.

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	Vice President Group Sustainability	Chief Sustainability Officer (CSO)