Sustainability Report 2021

Sustainable by Design – Made for Life

External Assurance

We declare this report to be in accordance with Global Reporting Initiative (GRI 2016 - updated 2018), Core reporting option.
Material aspects and indicators are shown on p.13. Detailed Disclosures on Management Approach (DMA) can be found in the online supplement 'C'. The scope of the information and data in this report covers global operations from January to December 2021.

Aperam's production capacity is focused on:
> 6 production sites in Brazil (Timóteo), Belgium (Châtelet, Genk), and France (Gueugnon, Imphy, Isbergues/Recyco)
> 14 Steel Service Centers (SSC), part of our Services & Solutions segment
> 12 transformation facilities: 5 in the Services & Solutions segment; Pont de Roide and BioEnergia, which produces wood and charcoal (biomass) from cultivated eucalyptus forests, in the Stainless & Electrical Steel segment; and Rescal, Amilly, Imhua and ICS joint-venture in Alloys & Specialties
> 15 sales offices
> Registered office: 24-26 Boulevard d'Avranches, L-1160 Luxembourg.

The report does not cover any other joint venture operations or activities of or with partner organisations.
- Safety data covers Services & Solutions and Alloys & Specialties, as well as on-site contractors. Human resources data exclude contractors.
- Subject to the exclusions indicated below, environmental data covers all the main industrial sites, SSCs and corporate offices.

Environmental information is compiled locally and aggregated centrally. The CO_2 emissions data relates to Scopes 1 and 2.
The following exclusions apply to the environmental data:
(1) Raw material data excludes packaging and miscellaneous parts;
(2) Scope 3 indirect emissions (partial estimates).

This report represents our Communication on Progress relating to United Nations Global Compact (UNGC) membership (see Supplement 'A').

Note: All the pictures shown in this report have been taken following all the sanitary protocoles in force.

Caveat: On Dec. 27, 2021, Aperam completed the acquisition of ELG, a global leader in stainless steel and superalloys recycling, with the aim to further strengthen Aperam's competitiveness and Sustainability leadership position in the industry.
ELG is fully consolidated into the Aperam Group from that date but the figures included herein for this year's report still reflect the Aperam Group *excluding* ELG.

Independent Assurance Statement

The 'Made for Life' report is a component (the 'summary') of our complete sustainability reporting (the 'Report') for the year ending 31 December 2021.

The Report is composed of five items: the 'Made for Life Report' and four Supplements – A, B, C and D. Our 2021 Report can be found on our website (www.aperam.com/sustainability), together with the four supplements. The summary report provides part of the information required to satisfy GRI 'In Accordance Core' criteria. Therefore, the summary should be read with its accompanying Supplements to constitute the complete Report.

PricewaterhouseCoopers, Société Coopérative (PwC) has been engaged to carry out a limited assurance engagement under International Standard on Assurance Engagements ("ISAE") 3000 to issue an assurance report in respect of certain information disclosed in the "Made for life" 2021 (the "Sustainability Report") as set out in the table of the Appendix 1 (the "Selected Information Table") of the opinion (p. 77) in accordance with certain Assessment Criteria. These Assessment Criteria have been derived from certain sections of the Global Reporting Initiative (« GRI ») framework and by applying additional methodology defined by company policies that management considers as relevant for the purpose of the Company's business and for the ultimate users of the "Made for life" 2021 (refer to Supplements Online for more details).
Selected performance data, part of PwC review, are marked in the Report with a * (asterisk sign) in the report.

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Business Model: Sustainability is fully embedded within our Business operations.
Sustainability strategy: How Aperam's roadmap and reporting comply with GRI principles.

Social: Our People

With safety as our top priority, Aperam aims to be a sustainable and profitable company with our efficient and passionate workforce as our main asset.

> See how our approach ensures the safety, development and well-being of our people, even in COVID times.

Environment: Our Planet

As part of an energy-intensive industry consuming metallic ores and other raw materials, Aperam takes environmental stewardship seriously.

> Read about the many ways we are becoming a more sustainable company by reducing our industrial footprint and working to raise awareness about important environmental issues.

Governance: Our Stakeholders

From the support of our subcontractors on-site to the strong partnerships built with our suppliers and customers and up to local infrastructures - our success is dependent on the communities we operate in. Our Corporate Governance is based on the highest standards and complies with the most rigorous business ethics. As a member of the ResponsibleSteel™ initiative, we are committed to taking stakeholder engagement and responsibility to a new level.

> See how we continually strive to develop in a way that benefits the public at large.

About this Report

GRI Index and Disclosures on Management Approach

Methodology Supplements: United Nations' Global Compact reference; Materiality Process at Aperam; GRI Index/Disclosures on Management Approach.

Country Supplements: For stakeholders and available in the local languages of our three main countries of operation (Belgium, Brazil, France) - to be released later.

Cover: Yayoi Kusama, Narcissus Garden Inhotim, Minas Gerais / Brazil © Shutterstock.

Opening Words from our CEO

Aperam's first decade has been quite challenging, but it has proven that we are a resilient, sustainable company capable of navigating even in the most turbulent situations. After two difficult years linked to the pandemic, this report is being finalised while war is happening in Eastern Europe, meaning at our doorstep. Not only is this war devastating lives, dreams and economies, it is also collapsing the world order as we know it, including global efforts to make it more sustainable.

Against this terrible backdrop, I would like to reassert that our Group is a community of some 11,000[1] highly engaged employees and, as such, we will continue to put the human factor at the center of our business. Even in the face of social distancing, teleworking, economic unemployment, the stress of the pandemic and now hikes in Nickel prices, our teams have remained committed and fully focused on providing our customers with superior products while never wavering on our corporate responsibility. And, regardless of whatever new challenges lie ahead, we will continue to do so.

That's because our commitment to sustainability drives our operations and is embedded in our social, environmental, and societal responsibilities. It also determines our direction and our priorities, and here I would like to highlight a few important achievements from 2021.

▶ Aperam puts people and their health and safety first

The safety of our people always takes precedence over everything else, including efficiency and costs. This is why we were able to quickly adapt our processes, from the shopfloor to our headquarters, to the very different COVID-related situations and restrictions happening across all our locations. Our response to the pandemic earned us recognition from our professional association and helped us structure a strong and comprehensive health program for the future in 2022.

However, while we managed to prevent the spread of the disease amongst our people and kept our operations running without disruptions, we recorded a clearly unsatisfactory 2.2 lost-time injury frequency, up from 1.5 in 2020. While we have a long way to go towards reaching our zero-accident objective, our ambitions remain high as we aim to constantly outperform our sectorial average.

In 2021, we renewed our Employee Climate Survey to tailor our Social program to the needs of our employees while continuing to make progress on existing projects. With a global 77% response rate, this survey showed that our employees believe in Aperam's products (91%), would recommend us as a good employer (83%), and feel encouraged to innovate (80%). This last point is key to our ability to further develop the methods needed to improve our products and processes and align them with our purpose of responsibly producing the sustainable material for a sustainable tomorrow.

This study is important as it guides many of our programs. For instance, in 2021, we extended our Gender Equality program to start covering all dimensions of inclusion and diversity, learning from our Brazilian colleagues who organized their first 'Black Consciousness' and 'Gay Pride' months in the course of the year.

[1] Including ELG workforce.

In this report, you will also see that we defined three new numeric targets to reflect our social ambitions. In terms of employee engagement, we aim to confirm their satisfaction with a higher participation rate and, by 2029, we are committed to improving our gender balance, increasing our proportion of female exempts by one-third. We also aim to make Aperam a truly insightful and connected organisation by boosting our Digital Learning opportunities.

Aperam also aims for environmental stewardship

In 2021, Aperam managed to maintain its best-in-class CO_2 footprint (scope 1+2) among its peers. This is the result of our FSC® certified[2] Brazilian forestry used for charcoal production, combined with the scrap used by our European operations and various renewable energy initiatives. We earned a Management level label from the Carbon Disclosure Project (CDP) and refined our greenhouse gas reduction roadmap to align it with the Science Based Targets initiative (SBTi). In addition and for the first time, we calculated the CO_2 sequestration of our forestry, which was externally verified based on ISO 14064. We also launched our first systematic biodiversity assessment to evaluate the impact of our ongoing operations and to identify where we can go further.

In 2021, Aperam has continued its efforts to improve its environmental footprint, with the company consuming less water, more renewable energy and using more strategic recycling processes, as evidenced by the pioneering acid regenerator units in Genk. We will continue in this direction to live up to the trust of our people, who confirmed that they see us as an environmentally responsible company.

Aperam commits to be a reference in corporate citizenship and stakeholders' engagement

This means that we are building strong partnerships with our business counterparts and are particularly attentive to the relationships we have with the communities in which we operate. In Europe, we resumed our actions to promote both our industry and the regions we have operations in as desirable places to thrive as individuals and professionals. In Brazil, we organised a specific donation to extend the availability of medical care in the Jequitinhonha Valley while also continuing our Foundation's social impact investing. These efforts benefit local communities by building capacity, increasing access to healthcare and providing environmental education and cultural events.

In the past year, we also continued to enhance our Ethics & Compliance approach by strengthening our processes on such topics as Human Rights, Anti-Fraud and Responsible Purchasing - always taking into account the framework proposed by ResponsibleSteel™.

Along these same lines, together with the other members from the business and civil society, we also invested a lot of time in defining a suitable framework to provide trust across the steel value chain, from mining companies to business-to-consumer manufacturers. Our efforts were successful as, following a thorough on-site inspection of our processes completed by exchanges with some 40 local stakeholders, our Stainless Europe's four main operations gained the stainless steel sector's first site-level certification.

Such efforts will continue in 2022 as we prepare for the certification of our Brazilian operations.

Looking ahead, with our recently completed acquisition of ELG - a global leader in stainless steel and super alloys recycling - we will increase our focus on circularity, inventivity and sustainability. With the inclusion of ELG, Aperam will have about 30% of its workforce creating value from working in the renewable and recycling upstream market.

The recent reconfiguration of the geopolitical and economic context is further promoting the need of our local and circular resources - and confirming that respecting all stakeholders is the key to living a desirable future.

Sincerely yours,
Tim di Maulo
Chief Executive Officer

[2] Renewed in 2021

About Aperam

Company Profile

Aperam is a public limited company listed on the Luxembourg stock exchange and on Euronext Amsterdam, Brussels and Paris.

> 6 main plants

- **> 4 melting shops:** Timóteo (Brazil), Châtelet and Genk (Belgium), Imphy (France)
- **> 5 main cold rolling sites:** Timóteo (Brazil), Genk (Belgium), Gueugnon, Isbergues and Imphy (France)

> 1 FSC®-certified BioEnergia eucalyptus plantation and charcoal production facility (Brazil)

EUR millions unless otherwise stated [1]	2021	2020	2019	2018
Crude Steel *('000 metric tons)*	*2,169*	*1,959*	*1,985*	*2,287*
Shipments *(million metric tons)*	*1.819*	*1.677*	*1.79*	*1.97*
Revenues	**5,144**	3,656	4,287	4,704
Operating costs [2]	3,393	2,799	3,378	3,635
Employee wages & benefits	534	481	517	527
Payments to providers of capital [3]	249	146	240	205
Payments to government	136	80	37	75
Community investments	0.6	0.4	0.3	0.3
EBITDA	**1,186**	343	357	504
Economic value retained	831	150	210	332
Direct economic value generated	5,144	3,656	4,287	4,704
Economic value distributed	4,313	3,506	4,077	4,372

1 Differences between "Global Aperam" and the sum of the different regions and segments (next page) are due to all operations other than those in clear, together with inter segment elimination and/or non-operational items that are not segmented. For Full-Time Equivalent Employees, it is related to Headquarters.
2 Operating costs include R&D costs of EUR 13 million for Aperam Group for 2021.
3 Payments to capital providers = Net Cash Interest and dividends paid to capital providers and shares repurchased through share buyback programmes during the year, in line with an amount of interest paid (net) of EUR 4 million, EUR 7 million, EUR 5 million, EUR 5 million, dividends paid of EUR 140 million, EUR 139 million, EUR 142 million, EUR 130 million,and shares repurchased for EUR 105 million, nil, EUR 93 million, EUR 70 million, and nil stated in the cash flow statements of the 2021, 2020, 2019, 2018, Annual Reports respectively.

About Aperam

Our Offering

Alloys & Specialties

- Portfolio includes the finest grades made from a combination of alloying elements, including not only Ni and Cr, but also Mo and Co for stainless and electrical steel and alloys.
- Products include cold-rolled strips, plates, semis, bars, wire rods and fine wire, all of which are available in a variety of grades. We also offer a variety of semi-transformed components.
- Customers typically contact us for our in-depth technical expertise and industry-leading innovation.

Stainless & Electrical Steel

- Among the world's largest producers of flat stainless steel.
- Delivering from Europe and South America.
- Products include cold- and hot-rolled coils, sheets and strips, all of which are available in a range of finishes.
- One of only a handful of companies producing 2 metre wide coil.
- Continuously expanding an already wide-ranging portfolio with innovative new products, grade and finishes.

Aperam Performance by Division GRI-201-1

Aspect	Indicator [1]	Unit	Stainless & Electrical Steel — Europe: Genk, Châtelet, Gueugnon, Isbergues & Recyco, Precision	Stainless & Electrical Steel — South America: Timóteo, BioEnergia	Services & Solutions — Worldwide: 14 service centres 5 transformation units 15 sales offices	Alloys & Specialties — Worldwide: Imphy, Amilly, Rescal Imhua (PRC), Indore -ICS (IN)
People	Own Staff (End of Period)	FTE	2,770	3,193	1,628	1,197
Shipments	Steel Shipments	kt	1,170	626	726	30
Economic Contribution	Revenues	m€	3,247	1,205	2,198	516
	Wages & Benefits		297	67	83	73
	Payments to Capital Providers [2]		155	386	14	25
	Community Investments		0.07	0.42	0.03	0.05
	Payments to Government		45	27	32	5
	EBITDA		459	437	208	58
	Economic Value Distributed		2,873	1,172	2,032	484

Services & Solutions

Aperam sells and distributes products through its Services & Solutions division:

- Just in time
- Distribution of Aperam and third party material
- Transformation services, according to specific customer requirements

1 Differences between "Global Aperam" (previous page) and the sum of the different regions and segments (this page) are due to all operations other than those in clear, together with inter segment elimination and/or non-operational items that are not segmented. For Full-Time Equivalent Employees, it is related to Headquarters.

2 Payments to capital providers = Net Cash Interest and dividends paid to capital providers and shares repurchased through share buyback programmes. See previous page for detailed comments.

About Aperam

Our Main Sites

Châtelet (Belgium)
Melt shop and hot-rolling mill

Genk (Belgium)
Melt shop,cold rolling and finishing

Timóteo (Brazil)
Melt shop, hot rolling, cold rolling and finishing

Isbergues (France)
Cold-rolling mill and finishing

Gueugnon (France)
Cold-rolling mill and finishing facilities

Imphy (France)
Melt shop, hot rolling, cold rolling and finishing

Our Values

Leadership
By being a bold, creative and courageous market player, we will lead the way in promoting sustainable solutions.

Agility
While changing market conditions require us to move quickly and adapt, we must remain flexible enough to meet our customer's specific requirements.

Ingenuity
Our people are skilled, imaginative and innovative and have a passion for sharing their skills. This ingenuity leads to new ideas and new solutions.

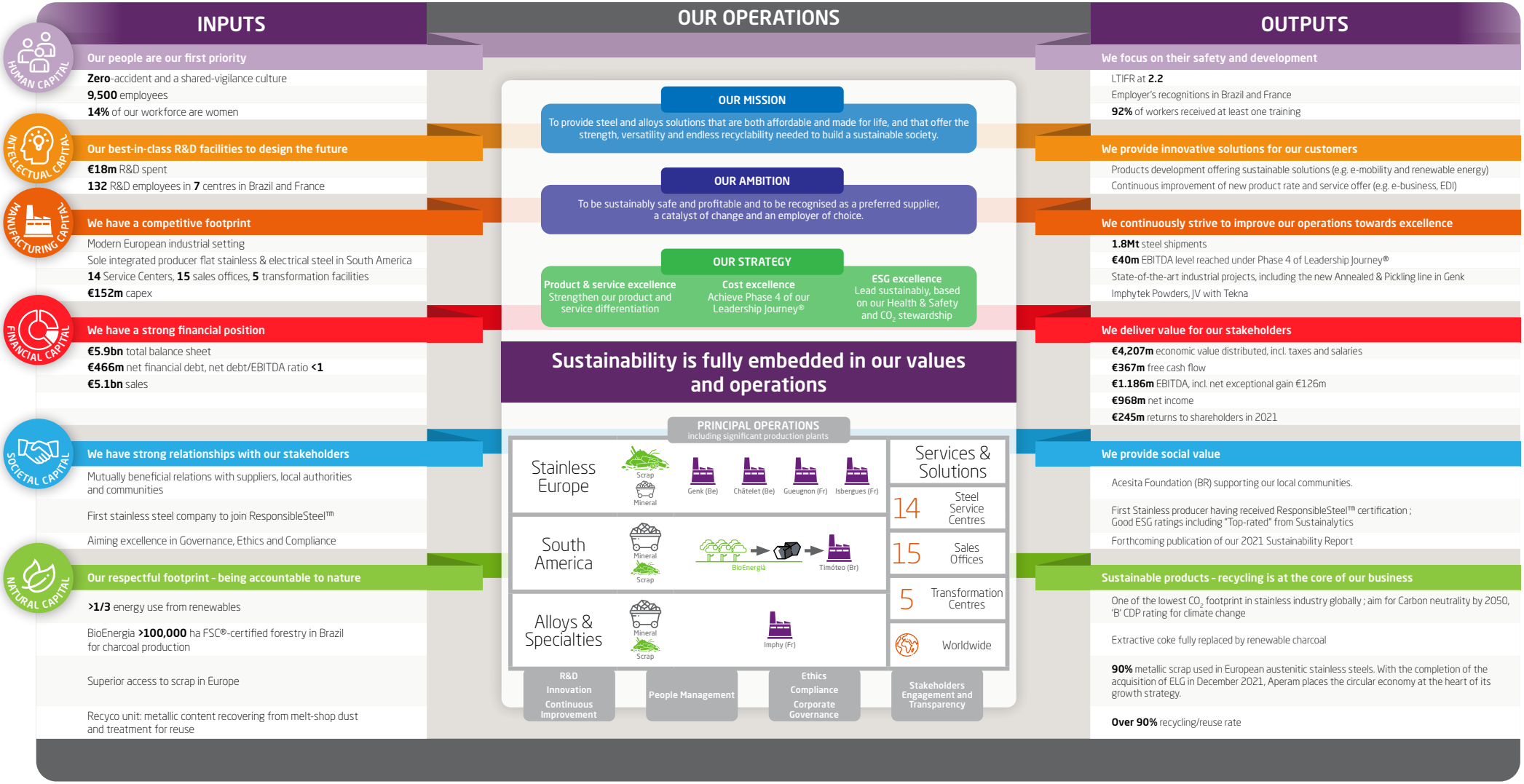
Site Certification

GRI 403-1		ISO				IATF	Others
Division	**Plant/Site**	**45001**	**14001**	**9001**	**50001**	**16949**	
Stainless & Electrical Steel: Europe	Châtelet	x	x	x		/	ResponsibleSteel TM
	Genk	x	x			x	ResponsibleSteel TM
	Gueugnon	x	x		x	x	ResponsibleSteel TM
	Pont de Roide	x	x		x	x	
	Isbergues	x	x		x	x	ResponsibleSteel TM
	Recyco	x	x				ResponsibleSteel TM
South America	Timoteo	x	x	x		x	
	BioEnergia	x	x				FSC® CoC & M
Alloys & Specialties	Imphy	x	x	x		x	
	Amilly	x	x	x		x	
	Rescal	x	x	x			
	Imhua (PRC)	x		x		x	
	Indore (IN)	x	x	x			
Services & Solutions	20 units	14/20	11/20	20/20	4/20	5/20	SA8000 - PL

Other specific certificates and approvals can be found at https://www.aperam.com/documentation .

About Aperam

Our Business Model



Sustainability Strategy

Photograph by Aperam Employee for 2021 Biodiversity Picture contest: Regina Möckel, Aperam - sales - automotive

In 2021, Aperam celebrated its 10th anniversary. A lot has been achieved in this first decade marked by the continuous quest for efficiency and responsibility. The year also ended with the start-up of a new era, with the acquisition of the ELG, a global leader in stainless steel and superalloys recycling.
Indeed, our sustainability vision has always been rooted in our values and practices and strengthened by a constant vigilance about the impacts we have. This is why we continued with our three-pillar sustainability roadmap, also materialising our credo with the first certification of our stainless European operations according to the ResponsibleSteel™ framework.

As a result, we were able to maintain our position as one of the leading players in our sector.

> People and their health & safety always come first.
Beyond the constant attention we give to Health & Safety, we also commit to shaping a work environment that encourages our employees to thrive and develop the innovative ideas that will propel our company to the forefront of our sector. We do this by engaging with our employees and working together to find the right personalised training, operating mode and development opportunities. This is not only to keep them motivated and performing, but also to nurture a sense of being a part of the Aperam family.

> As to the environment, we know that our sector's responsibility is greater than most. Therefore Aperam intends on paving the way towards the most sustainable practices that transform steelmaking with solid roadmaps to further reduce our CO_2 and air emissions, as well as our energy and water consumption by 2030, and achieve carbon neutrality by 2050. With these initiatives, and notably our SBTi commitment, amongst others, we aim to minimise our environmental impacts today while also adapting to the many challenges posed by climate change.

> Whether in our relations with our stakeholders or our corporate decision-making process, **our governance is guided by our high ethical standards**. All our stakeholders have legitimate needs. As we aim to address these needs by being a fair, transparent and trustful partner to our customers, lenders and suppliers, we also pledge to act responsibly with authorities and local communities, proactively address concerns, and contribute to the general good.

Sustainability Governance in 2021

➤ **Members of the Board of Directors**: in charge of the overall management of the Company, they decide on the direction taken based on proposals from the Leadership Team (LT, Aperam's Management Committee), a group of eight senior executives headed by our CEO, Mr. Timoteo Di Maulo. The Board of Directors has two committees, the Audit and Risk Management Committee and the Remuneration, Nomination and Corporate Governance Committee.
At the Board level, sustainability topics are systematically covered on a quarterly basis in the meeting of the Board of Directors. Any risks in the area of sustainability are part of the global risk management process coordinated by the Global Assurance function reporting to the Audit & Risk management committee.

➤ **CEO**: responsible for Aperam's sustainability performance and compliance.

➤ **LT reviews**: quarterly meetings on the environment are held to ensure that the entire organisation is regularly involved throughout the year, and this is completed with ESG meetings involving at least the CEO and the CTO, and other Functions, for instance the CMO, depending on the topics covered. Such meetings happen regularly, almost every fortnightly in Q4, and have been made monthly for 2021.

➤ **Chief Technical Officer**, Head of Sustainability, Health & Safety, Environment, Industrial Risk & Innovation and Purchasing: responsible for steering the Sustainability Strategy, based on discussions with the rest of the LT and other stakeholders.

Collaborating at sector-level through ResponsibleSteel™

In 2019, Aperam was the very first stainless steel company to join the newly established ResponsibleSteel™ association. This initiative represents a milestone for sustainability in our industry, defining the best practices into a framework to be used for external audits with the aim to give (end) customers confidence in a steel company's commitment to responsibility. We are confident that the ResponsibleSteel™ standards will soon be similarly recognized as it deserves to be and, in anticipation of this, we use its framework to better structure our approach to Sustainability.

In 2019, Aperam actively participated in the creation of the first site-specific standard, in cooperation with the association's other members, including steel-makers, NGOs specialised in environmental or social topics, suppliers from the extractive industry, and customers. In 2020, Aperam continued to participate in the building of the product-level standard while also preparing to start the certification process for its first sites in Europe. In 2021, we had four sites in Belgium and France certified as per this framework and we continued to discuss a product-level standard with more detailed requirements regarding responsible sourcing and GHG emissions.

Embedding a sustainability state-of-mind into all processes

Incorporating our sustainability roadmap into everyday decisions and ensuring perfect alignment across the organisation requires more than just awareness-raising actions. It also takes prioritisation and incentivization.

Since 2018, company-wide objectives have been cascaded into the individual objectives of all exempts across the organisation, starting our CEO, whose first objective chapter is entitled "Health, Safety and Sustainability" and encompasses such topics as "Health" and "Sustainable Industry with a long term objective of zero impact on the environment". Other CEO objectives cover the topics of "Compliance and Company reputation" and includes business ethics, and "Diversity", which starts with a clear focus on gender.
Since 2019, these objectives have been incorporated into MyHR and, in 2020, for the 2021 exercise, we decided to categorise all our internal objectives according to our GRI analysis and subsequent 'material aspects' (see below p. 13).

In 2021, a new step was taken with the preparation of a revolving credit facility including two ESG-driven indicators. This Sustainability-Linked loan, finalised in February 2022, aims at leveraging Aperam's sustainability profile, as a borrower, by aligning the loan terms to our sustainability performance against predetermined indicators picked up to reflect our commitment and key focus, namely our H&S performance (using the TRIR indicator, see also page 15) and CO_2 improvements, both of which receiving external assurance.
This means that reaching our objectives will trigger a reduction in our financing costs (1.5bp by indicator), but failing to do so will generate an increase in the same proportion. Any such "bonus" fostered by this framework will be entirely allocated to the financing of more projects in the area, meaning in relation with our people, Well-being and Human Rights, on the one hand, and on Climate Change mitigation, recycling and Environmental care, on the other hand.
This is a new token of our commitment to Sustainability.

Strategic directions

> In 2021, Aperam managed to reflect its strategic orientation towards a responsible usage of resources and full circularity by the announcement and conclusion of the acquisition of ELG. ELG is a global leader in collecting, trading, processing and recycling of stainless steel scrap and high performance alloys, delivering ~1.2 m tonnes of materials annually, employing ~1,200 FTEs in 51 locations in 20 countries.
Investing in sustainable recycling will further improve Aperam's leading environmental footprint and support the company's CO_2 reduction targets. The acquisition enables Aperam to improve its input mix and to expand into the supply of recycled raw materials.
The upstream value chain extension through the combination with ELG is a transformational addition to Aperam's business model. This will also be expressed in Aperam's operating segments. As from the 2022 financial statements onward, ELG will be reported, together with Recyco and ASB Recycling, as part of a new operating segment named "Recycling". This expresses the importance that the circular economy has to Aperam.

> In addition, after preliminary preparation works conducted in 2020, we launched in 2021 the certification of our first units under the ResponsileSteel^{tm} framework. As a result, and after two auditing steps including an extensive one-site audit and over 40 exchanges with local stakeholders, in September 2021, we had five units, including four of our main European plants, granted the site-level certification, thereby standing as the pioneers of our Stainless sector. We warmly thank all our teams for their impressive efforts and dedication!
This first step was evidencing our strategy to position ourselves as the leaders in the responsible production of stainless and alloy solutions. Indeed, considering the exacting standards set up by this framework, we firmly believe that it is the perfect structure to ensure continuous improvement in terms of sustainable practices and to provide to our customers the externally verified assurance that we walk our talk.
Going further, we expect to continue rolling out this certification across all our sites, starting with the Timoteo plant, for which we expect a certification in 2022.

Working and Reporting on the Right Topics

Since 2013, we have used GRI standard principles (Global Reporting Initiative's sustainability reporting guidelines) to define our most material sustainability issues and their impact, based on both our business and our stakeholders' views, and have structured our reporting accordingly.
The matrix ranking all topics from minor to most critical is updated annually:
> 2013 and 2014: materiality matrix based on our six major sites.
> 2015: update based on a survey of Aperam's employees.
> 2016: update on a broader scope to cover 11 major sites and 85% of our staff.
> 2017: systematic assessment of all the topics in the existing matrices with local authorities at each of our main sites. This resulted in the addition of a few new topics: "Urban Integration", "Industrial Risk" and "Noise".
> 2018: update on an identical scope and method and integration of key takeaways from our all-Employee Global Climate Survey.
> 2019: update based on the discussions held in the ResponsibleSteel™ forum, leading to the integration of information on decommissioning and biodiversity, even though these topics are not particularly relevant to our sites.
> 2020: update on an identical scope and method and integration of the analysis of our CTO and Head of Sustainability.

> **2021:** update of the matrix was made based on the same 11 major sites, and methodology, complemented by the feedback of our CTO in charge of Sustainability. It was also cross-checked in view of our latest Employee Global Survey, conducted in October 2021 and recording a 77% response rate on our workforce. Further to this analysis, no major change in our materiality exercise is to be reported.

For full details on our final 2021 consolidated matrix and its variations, please see our online methodology appendices.

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17	Employer Branding	Suppl. C p. 5	10 / 8 Promote inclusive sustainable growth	#4. Labour Rights
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n/a	Urban Integration & circulation			*Not covered*
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46-48	Biodiversity	Suppl. C p. 4	15 5 Biodiversity	#11. Biodiversity
(2)	Positioning in the Value Chain			*Not covered*
55	Local Development	Suppl. C p. 1-2,7	9.1 / 12.7 / 8.3	# 7. Local Communities
45	Transport impact		12.6 / 9.1 Sustainable Transport	*Not covered*
46	Dismantling			#12. Decommissioning

Social | Environment | Gouvernance (1): Disclosures of Management Approach in Supplement C. (2) See Annual Report.

Our People

Our top priority is always the health and safety of our people. As a core value, health and safety guides all our actions. It also has the power to stop any operation or decision. So while we continue to work on programmes to improve the safety, health and well-being of our employees, we also dedicate a lot of energy towards employee development.

The COVID-19 pandemic, social distancing and subsequent economic hick-ups of 2020-21 reinforced the need for a close management and comprehensive People Transformation strategy. The main challenge was to keep our workforce safe throughout the different COVID waves and to continue our production - all while not compromising our longer-term Human Resources strategic plan, which aims to retain and develop our unique blend of competencies.

Health & Safety (H&S)

Occupational Safety

Organisation

The year 2021 was marked by a continuation of the pandemic crisis, which gave rise to a stronger focus on the importance of both the physical and mental health of our employees. This has led to the decision to strengthen the Health & Safety organisation with a dedicated function on Health & Well-being, this in close collaboration with HR. To underline the importance Aperam gives to this domain, a new dedicated Health Roadmap has been launched, all because we are convinced that motivated and healthy employees make the difference.

However, given our industrial environment, Safety is and has been a key vector through which we approach H&S. In this context, a dedicated H&S Technical Expertise function has been created, working transversal on creating technical H&S standards and guidance on topics like Machinery Safety, Isolation, but also Ergonomics, etc.
2021 was also the year in which our new Just Culture concept has been launched and with which we take a big step in the cultural change within the company.
To reinforce our Health and Safety culture and performance, we recognize the necessity to develop an atmosphere of trust, in which people are encouraged and rewarded for their positive contribution but treated fairly in case of human failure by remaining strict and clear about unacceptable behaviour.
For this purpose the Aperam Just Culture policy and standard has been created in consultation with the social partners. This standard, based on an analysis of human factors, is a guideline to provide sites with a common definition, an understanding of human behaviour and a common methodology for their decision-making process.

Voice

"The COVID pandemic has clearly demonstrated the importance of Health within our Health and Safety approach. Although we saw a deterioration in our 2021 performance, I'm convinced that with our bold and ambitious H&S Roadmap 2022-2026 we will be able to become a sustainable safe company"

Hans Vanhorebeek
Head of Aperam Health & Safety

Voices

"We often refer to concepts like Innovation and Transformation when we reflect on the future of our company. Although we can elaborate on the big trends we see in the world around us, ultimately it comes down to "how do we unlock the tremendous potential of the human brain" or, to put this differently, how do we unlock the full potential of our brain-workers, as clearly every job in a modern company has evolved into becoming this.

So far, the most effective strategy to unlock this full potential, that I have encountered throughout my career, is to inspire people to do more, to create passion around what we do, and to ensure employees feel they are working in a safe environment in which they feel recognized for their achievements.

It is this strong conviction that I would like to see reflected in the attitude of every person who is taking a people leadership role in Aperam, and in the broader cultural change that we are aspiring to accomplish with the assistance of the Human Resources team."

Bert Lyssens
Chief Human Resources Officer,
Head of IT and Communication

At a glance (GRI 403-1,5,9, GRI 404-1,3)

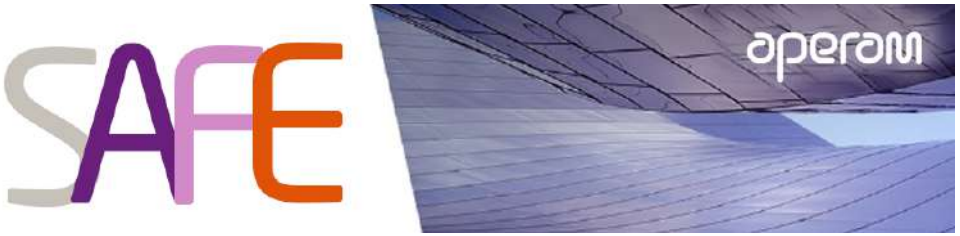
Indicator	Unit	2021	2020	2019	2018
Employees	FTE (end of period)	**9,522**	9,381	9,612	9,777
Joiners		623	393	514	665
Leavers		431	583	664	483
Turnover Rate	%	4.6	6.1	6.9	5
Women	% staff	**13.5**	12.6	12.3	11.8
	% exempts	22.4	21.4	20.4	20.0
Fatalities - All	#	0	0	0	1
Fatalities - Employees		0	0	0	1
Fatalities - Contractors		0	0	0	0
LTIFR - All	/1,000,000 hours	**2.22***	1.52*	1.70*	1.43*
LTIFR - Employees *(1)*		3.0*	1.58	1.6	1.4
LTIFR - Contractors		1.6*	1.39	1.9	1.6
Severity Rate - All	/1,000 hours	0.12*	0.14*	0.09*	0.08
Training Hours - Total	hours/TE	**30.8**	19.6	35.5	34
Total People Trained	FTE	8,699	7,898	8,950	9,391
Absenteeism	%	**3.3**	2.9	3.1	2.3
Employee satisfaction[(2)]	%	**83**	n/a	n/a	86

** Data with an asterisk received external assurance.*

3 GOOD HEALTH AND WELL-BEING

5 GENDER EQUALITY

(1) Including interim workers.
(2) Employees that would recommend Aperam as a good employer.



Safety Performance (GRI 403-2/3/9, 404-1)

By Geography	Unit	Belgium	Brazil	France	Worldwide
Plants, Division	sites	Chatelêt, Genk , ASB recycling from Stainless Europe	Timóteo, BioEnergia from Stainless & Electrical Steel South America	Imphy, Amilly, Rescal from Alloys; Gueugnon, Isbergues, Pont-de-Roide from Stainless Europe	Imhua (PRC), ICS (IN) from Alloys & Specialties Usti (CZ), Rodange (LU) from S&S Tubes
Service Centres		Genk (BeNeLux).	Campinas, Ribeirão Pires, Viracopos, Caxias do Sul	Isbergues	Germany, Italy, Poland, Iberica, USA, Argentina, Turkey, Uruguay
Main Offices		(Genk)	Belo Horizonte and São Paulo	Saint-Denis	**Luxembourg HQ and Sales Offices(1)**
Employees	**FTE (End of Period)**	1,957	3,706	2,388	1,471
Incl: Blue Collars		*1,276*	2,848	1,386	873
LTFR - All	per 1 million hours worked	7.08	0.15	3.65	2.10
LTFR - Own (2)		7.84	0.27	3.42	1.85
LTFR - Contractors		5.53	0.00	4.72	6.86
Severity rate - All	per 1 thousand hours worked	0.38	0.03	0.14	0.11
Severity rate - Employees		0.40	0.00	0.17	0.11
Severity rate - Contractors		0.35	0.07	0.02	0.00
Absenteeism	%	5.70	1.87	4.80	2.90
Training	hours	35,101	163,635	69,365	24,908

(1) Canada, China, Czech Republic, Dubai, India, Japan, Korea, Mexico, Nordic, Russia, Switzerland, Thailand and the United Kingdom. (2) Including Interim workers

Understanding 2021 Performance

> Our overall Health and Safety results for 2021 showed a deterioration compared to 2020 with a frequency rate going from 1.5 to 2.2, in particular with a weak performance in the first 2 quarters of the year. The main reasons identified for this degradation are 'COVID fatigue' and psychological factors as well as an adaptation in the way safety rituals have been followed due to the pandemic crisis.
However, the results are very heterogeneous between divisions. The sites in the South America region achieved remarkably good results as well as the complete Alloys Division, which demonstrated best performance ever, while some sites of our Stainless Europe Division showed significant deterioration.
The severity rate has improved however (mainly with our contractors) with a lesser number of days lost.
In order to increase visibility and transparency on our H&S performance and to strengthen our H&S Culture, a monthly article is created in the Company's internal newsletter, distributed to all Aperam employees.

From 2022 onwards, Aperam will introduce a new indicator,TRIR (Total Recordable Injury rate), which takes into account the number of total recordable incidents and compares it to the number of total hours worked by all employees in a single year. In this case, a recordable incident is any work-related injury and illness that results in either death, loss of consciousness, days away from work, restricted work activity, transfer to another job, or medical treatment beyond first aid.

> On the COVID front, Aperam maintained its installed centralised crisis management approach in the fight against the spread of the virus.
With all the measures implemented and their reinforcement at each site, Aperam has been able to limit the spread of the virus and ensures a very low level of contamination within the sites.
In addition to these measures, many initiatives were taken such as:

- rolling out a preventing testing strategy on the sites using saliva self tests;
- providing all employees a set of saliva tests for private use;
- shipping self tests for our employees, their families and the local communities in India (Alloys division's Indore plant), together with portable oxygen generators for the local hospitals, and offering the possibility to our employees and families to come and live in the plant premises.

As a result, and thanks to the contribution of all our employees, we managed to keep our assets running with only temporary halts to implement strict health and safety protocols, and avoided contamination with the virus on our premises.

Aperam strongly encouraged its employees and contractors to get vaccinated. We reached in several plants a vaccination percentage far above 90%. When allowed by country governments, Aperam used its own medical facilities to vaccinate its employees, for instance in Brazil and in the plant of Genk (Belgium).

Aperam's Health and Safety Roadmap 2022 - 2026

"Our commitment to the Health and Safety of all employees and stakeholders is a clear component of our brand promise "made for life". Our target is to become one of the best-in-class steel manufacturers in Health and Safety and ultimately a sustainable safe company."

Timoteo di Maulo
CEO of Aperam

2021 Employee Survey

90% get adequate training

89% are comfortable raising concerns

91% felt the right COVID measures were taken

Home-made gym video and poster built and dispatched in 2021 in 10 languages (here, in the Polish version).

Cultural Maturity Assessment

Through the **Cultural Health and Safety Maturity Assessment,** conducted between September 2019 and July 2020, we obtained a good overview of the situation at each of the 26 entities assessed over the world. Thanks to the feedback of over 1,300 individuals, we gained new insight into the level of cultural maturity as to health and safety at the Group level.
As a result, a new Leadership training, "SAFE - Me with my Team", has been created and its roll-out started. End 2021 already 553 people out of the 952 received their training (GRI403-5.)

2021 Recognitions

ISSF Award: Aperam is committed with top priority to the health and safety of our people – a commitment on full display during the pandemic. In fact, our quick reaction and ability to adapt to pandemic's many challenges with efficiency and professionalism received the International Stainless Steel Forum's Silver Award.

Award for Aperam S&S Poland: Aperam Stainless Services & Solutions Poland took first place in a regional work safety contest, being named one of the safest companies employing between 50 and 249 workers. The annual competition, which is organised by the National Labour Inspectorate for Poland's Silesia region, recognizes employers who exemplify the very best in workplace safety.

Award for Aperam S&S Germany: Sersheim, together with the Haan site, have received recognition from the employer's liability insurance association. Every year, the BGHW awards the Golden Hand to companies that do not leave the health and safety of their employees to pure chance. The rule here is: the more creative and motivating, the better! With the COVID-19 art contest sponsored by Aperam, in which employees but also family members could participate, we were able to represent our company very well and received recognition for this.

Safety 5-years action plan (2022-2026)

This clear commitment from our CEO and the members of our Leadership Team inspired the Global Health and Safety Team to create a bold and ambitious Health and Safety Roadmap for the next 5 years. It will focus on People and their Personal Contribution, on Health as well as on Safety, on Standards and rules as well as on Learning and Culture. All this is aiming to make Aperam the best in class, resulting in a TRIR of lost time injury (LTI), Restricted Work (RW) and Medical Aid (MA) lower than 3 by 2026 and so avoiding harm to our employees and stakeholders.

Target NEW

aim for best-in-class

2026 TRIR <3

To reach this target, common detailed 2022 action plans have been developed both on Health and on Safety on all of our sites, focussing on the main topics and drivers to take a first strong step towards our 2026 goal. These actions will be cascaded down over the whole hierarchical line to ensure we are moving in the same agreed direction and allowing people to demonstrate their personal contribution.

In line with the action plan we kicked off in mid-2019 on Health & Safety program, the key elements of our 2022 Safety Action plan are:

- Ensure realisation of the Site specific action plan on Isolation;
- Strengthening our **Safety Culture** via implementation of our **Just Culture approach**, including the use of Human Error analysis in incident investigation;
- Ensure the realisation of the Site specific action plan on **Risk Reduction;**
- Become a true **Learning Organisation** via full deployment of Safe 'Me with my Team' for hierarchical line and to kick off Safe 'All Together' for our blue collar population;
- Full implementation of actions coming from our '**No Repeat' process**, avoiding similar incidents to reoccur.

A new Health program

As Aperam cares about the well-being of its employees, the decision has been made to develop a new dedicated 5-year Health Roadmap, covering multiple initiatives ranging from physical health to mental health, via the promotion of a healthy lifestyle, and to ensure that a strong health organisation is in place.This all because we are convinced that motivated and healthy employees make the difference. It is also for this reason that, within the European HR team, we have decided to create a new role to lead the roll-out of a broader program on Mental Health, Diversity and Employee Engagement. Our Brazilian organisation already has these responsibilities covered within their local HR organisation.

The 2022 Health Action consists out of the following key elements:

In addition, a multi year investment plan will be put together to gradually improve the working conditions of our employees and contractors. Together with our group of Company Doctors a clear set of Health indicators is under development, starting to be used in the course of 2022. More to come in the 2022 Made for Life edition.

Voice

"In Aperam, health must be as important as safety. All the more so as we have been living for 2 years with the COVID-pandemic, also causing psychological problems with our employees, with a visible effect in our frequency rates!

Since 2021, a Global Health Program has been launched and, in my new role on Mental Health and Diversity for Europe, I am proud to support its implementation together with the H&S and HR teams. I also lead the deployment of two new programs on Mental Health and the promotion of a healthy life, that will include for instance awareness on cognitive biases, actions on working conditions such as ergonomic studies, adaptation of Protective Equipment to both genders' morphologies…

Each of us, individually and collectively, is committed !"

Alexandra Arblay
Manager Health, Diversity and Engagement (Aperam Europe)

Above: Aperam Poland receiving the local yearly award.
Right: Aperam Germany teams with the Golden Hand award.

A highly competent and engaged workforce

Diversity of talent

Our Workforce at a Glance

At the end of December 2021, Aperam's workforce was made up of 9,612 persons (headcount) corresponding to 9,522 full-time equivalent employees (FTE), of which 11% are exempt and 67% blue collar employees (stable percentage compared to 2021). Our workforce was predominantly made of permanent and full-time employees - 98% each (GRI 102-8).

Our staff is mostly composed of employees based in Brazil (39%), France (25%) and Belgium (21%), these three countries representing 85% of our workforce.

See p. 16 for more information by country, and the Tables (1) and (2) on this page.

Aperam Workforce (1) (GRI 102-8)

Aperam consolidated total of Full-Time Equivalent employees, at 31/12/2021

2021	Gender	Permanent	Fixed-Term	TOTAL	Full-Time	Part-Time
Blue Collars	Female	464	11	475	468	7
	Male	5,751	158	5,909	5,856	53
White Collars	Female	550	16	566	494	73
	Male	1,530	15	1,545	1,514	30
Exempts	Female	223	4	227	205	22
	Male	794	6	800	787	13
	All	9,312	210	9,522	9,324	198
2020	Gender	**Permanent**	**Fixed-Term**	**TOTAL**	**Full-Time**	**Part-Time**
Blue Collars	Female	407	10	417	410	7
	Male	5,738	99	5,837	5,785	52
White Collars	Female	541	10	551	474	77
	Male	1,572	7	1,579	1,548	30
Exempts	Female	210	3	213	190	22
	Male	779	5	784	770	14
TOTAL	**All**	9,247	134	9,381	9,178	203

Understanding Our 2021 Figures

> During 2021, we saw a small increase of 1.5% in FTEs, with an average over the year of 9,437 FTE, to which we add up to 405 interim FTEs.

During the year, 623 FTEs joined Aperam (vs. 393 last year), of which 13% were women, while in parallel 431 FTE left (583 in 2020), only 7% of them being women. This leads us to an employee turnover rate at 4.6% well below the 6.1% in average for the 2016-2020 period.

> In 2021, as these past few years, the average age of Aperam employees (women like men) was 42 and average seniority within Aperam was 14 years (considering years served prior to the creation of Aperam in 2011, e.g. within ArcelorMittal, Arcelor or Usinor companies). The age distribution is not too different too, with 27% of our staff over 50 and less than 5% below 25, nearly the same as in 2019.

Aperam Workforce (2) (GRI 401-1)

Indicator	Unit	2021	Average Age	Average Seniority	<25 yo	>50yo	% Women
Total Employees	FTE	9,522	42	14	453	2,623	13.5
Blue Collars		6,383	41	13	412	1,350	7.4
Standard White Collars		2,112	46	17	29	816	27.5
Exempt White Collars		1,026	47	14	12	457	22.4
Joiners		623	33	1	145	32	22.0
Leavers		431	43	16	15	127	13.0
Turnover Rate	%	4.6					0.4
Average Workforce	FTE	9,437					

Employer's Integration

To ensure that our new hirings are not only "on-boarded" in optimal circumstances, but also go through a longer term induction and integration process, we build on what we have already put in place and launch new initiatives:

- During last year's report we mentioned the launch of an On-Boarding e-learning module covering H&S, Environment, Ethics & Compliance, IT, Performance and Competency Management and Leadership.
- A new approach involving the appointment of on-boarding coaches has been started for managers joining Aperam. Usually the on-boarding coach

is a senior manager who can help the new joiner navigate in the organisation and identify his or her key stakeholders.

- With the support of an external consultant, an elaborate assessment was done with approx 15 managers who joined Aperam recently. The results of this survey were reviewed and discussed during a one-day seminar by the Aperam Leadership Team. A debriefing session with the participants will be organized in 2022. We hope the initiative will also lead to the creation of a Community of Aperam new joiners.

Promoting the Industry amongst students

As every year in Belgium, Agoria (an organisation specialising in the technology industry, representing 1,700 member companies) organises its Agoria Company Tour with the aim to introduce students from the technology sector to companies' activities, their career and internship opportunities.

In 2021, Aperam Châtelet participated for the first time, online (COVID-wise), and very quickly generated interest! Nearly 150 baccalaureate students met, 5 sessions were held and 4 schools participated, with 6 young Aperam representatives from such technical departments as reliability, Electronics, Electromechanics, Automation, Maintenance and Process.

These exchanges were a real added value for the students who were able to be confronted with the realities of the field.
"These sessions are an opportunity for us, the young actors of Aperam, to share our daily life and our passion for the job and to explain our working environment. We start(ed) by presenting our educational background and professional experience in order to position ourselves in relation to our audience.
This way, we arouse the curiosity of students who might recognise themselves in their background or their motivations." comments Benoît, Maintenance Manager and Technical Manager for gas networks, enchanted by this premiere!

Flavia, Quality Manager S&S Campinas

Flávia is a Materials Engineer who joined Aperam in 2018 as an application specialist in the MTP kg per capita Project. Before joining Aperam, she worked in another steel mill. However, she always saw Aperam as being an international leader in specialty steels and alloys, and so jumped at the opportunity to come to the company and develop new applications for stainless steel while also promoting an increase in national consumption.

One of the highlights of her job is the chance to work directly with customers and the fact that no two days are the same. She also enjoys the challenge of addressing technical issues and helping with new product development. *"My team works in a very dynamic environment, one that is challenging and full of surprises every day*," she says. *"In this context, we work continuously as a group to optimise our processes and increase customer satisfaction."*
Flavia also talks passionately about the many exciting projects that are currently in progress *"For the long term, we are working on very important projects to build a more sustainable company, such as increasing yield, reducing deviations and costs, and solidifying our Quality Culture program,"* she adds.

As Flavia continues to advance in her career and develop as a leader, she says she appreciates knowing that Aperam will support her professional development. *"In my journey at Aperam, the company has supported me in several important phases,"* she says. *"For example, they have been very supportive of me getting my master's degree, both through the support of the technical team and by providing resources for my studies."*

Looking ahead, Flávia plans to finish her master's degree, add another language to her list, complete a postgraduate course in management, be a mother and, professionally, establish herself as a technical reference for quality.

Tips to newcomers:
"Qualify yourself, keep studying, improve yourself as a professional, with energy and proactivity. Self-knowledge also helps you to play a leading role in your own career to achieve your goals."

Embracing Diversity - with a Woman's Touch

Since 2018, we have a program inspired by the United Nations' Women Empowerment Principles to increase female representation at all levels of the Aperam community and to ensure our work environment allows them to thrive and demonstrate the very best of their talents. The action plan also integrated the take-aways from our 2018 "all-employee climate survey", and is summarised by a specific Gender Equality & Diversity Charter with 5 main dimensions.
See the 2021 progress by chapter in the right-hand table and read on to learn about the local initiatives.

> Looking at our Employee Survey is an important way to measure the progress of our program Diversity and Inclusion. We recorded 77% response rate and an overall satisfaction rate of 75% in the 2021 survey (Women and men together).
In the previous one, in 2018, women employees' opinions were less favourable regarding communication and career development. In 2021, the overall results no longer show significant differences between men and women. But significant gender-based differences remain in some countries or plants, and high variations sometimes need to be analysed more deeply at each site, sometimes more favourable on the men's side or on the women's side.

Women in 2021 (GRI-405-1)

7.4% of blue collars
+26% vs. 2018!
13% of employees
22% exempts
11% of LT members
28% of Board members

Target NEW

+33% increase
in order to reach
30% of Women exempts by 2029

S&S Benelux HR Women employees experimenting shop floor work to better promote it towards women applicants.

Leadership & Commitment: The Management reviews the indicators and ensures that Gender Diversity is embedded in all core People Processes (e.g. performance and talent reviews). Improving Diversity & Inclusion is a key management target and it was reflected as such in our performance goals and in 2021, specific views were integrated into the HR management system, so that the monitoring can be real time, split by functions and geographies, and accessible to all management layers. This will be further strengthened in 2022 and beyond.
From the 2021 Survey, 80% of our staff agree that our Management supports diversity & inclusion in the workplace, recognizing and respecting the value of human differences.

Health, Safety and Ergonomics: Aperam is committed to ensuring safe working conditions for all employees. Considering the fact that our plants were erected at a time where there were practically no women around, a specific gender-focus is required when dealing with working conditions in relation to restrooms, changing rooms, ergonomics and working clothes.
In 2021, all S&S units already had sufficient sanitary facilities in place for women. Other organisations continued to improve: e.g. Timoteo in Brazil and Isbergues in France.

Equal Remuneration: We owe our people a fair remuneration so, based on our solid methodology, the salary gaps by gender of exempt employees is carefully analysed.
The gender pay gap remained stable at 8.5pts in 2021, mainly due to recently promoted women becoming junior in their new roles. Still, women still received 111% of the market reference for their job (i.e. were paid 10 pts above the country average), versus 119% for men. We continue to watch closely all indicators to avoid any unfairness.
In 2021, the overall French (perimeter) index visually deteriorated to 78/100 (vs 89 in 2020). Some sites strongly improved, while other units that have seen their ratings distorted as more women were being recruited in jobs previously 100% male. This is due in particular to workshops hiring women over 40 yo with no prior industrial experience, which weighs on our rating but that we are still happy to support with retraining. In 2022, we hope to re-discuss performance indicators to address such anomalies - GRI 405-21.

Equal Career Opportunities: On top of keeping our Global Aperam Talent Management Program (50% women) and monitoring our succession plans for leading positions, we also conduct a detailed analysis of the distribution of promotions and performance ratings: in 2021, 22.5% of women exceeded expectations (vs. 19% for men) and 7% of them were promoted, compared to less than 5% for men.

Fight Against Stereotypes: A sustained focus on training and communication is required to get rid of any gender bias or stereotypes so we continued with our monthly communications in our Aperam Newsletter.
In 2021, we continued with our Monthly communications in the Corporate newsletter and with training against gender bias, including any bias that might arise in the recruitment process. In particular, all white collar employees have been assigned a specific training module from MyHR in December 2021.

Malory, LC2I Exit Crane Operator

Malory's career in industry began by pure chance in 2003. After graduating with a Bachelor's degree in Philosophy and Humanities, she found herself facing a limited job market, so decided to take a job as a janitor at an industrial office. Open-minded and motivated, she regularly offered to take on new tasks within the company. At one point, her colleagues even taught her how to weld.

Recognizing her curiosity, motivation, and technical skills, Malory's employer asked her to set up a shop. They also provided her training in welding and, upon completion, a job as a pipefitter.

Although she enjoyed the pipefitting work, it required significant travel and time away from her family. So, in 2011, Malory obtained a CACES and crane permit that let her apply for a job that provided better work-life balance.

That job was at ArcelorMittal Dunkerque, where she worked as a Crane operator before taking similar jobs at Dellinger and Aluminum Dunkerque. Then, in January 2020, Malory joined the Aperam Isbergues team as LC2I Exit Bridge Operator.

When asked about the importance of work-life balance, she says: *"I've always been working in shifts and it's a real plus for my family life. It requires good organisation, but it allows me to have free time for my personal life. With my husband, who is also working in shifts, we found an organisation that suits us very well, I often say we are a "post-it" couple."*

Tips to newcomers:

"The industry is not only for men, there are many very interesting jobs that can also attract women. I'm used to working in rather masculine environments, it's never been a problem for me. When I'm doing my job, I don't ask myself whether I'm working with a man or a woman. My sense of humour and my ability to relate allow me to de-escalate situations of tension, get things straightened out, and avoid quarrels."

Amongst the initiatives taken in 2021, we're just going to highlight the actions to attract more women blue collars and women in technical white collar jobs.

■■■ For the first objective, S&S Benelux Operational manager raised a brilliant idea on the International Women's Day (March, 8th): propose to white collar women to experience working on the shopfloor (see pictures on previous page). The aim? Help us succeed in our challenge to bring more women on the shopfloor by gathering relevant information from different angles about possible difficulties and opportunities.

That's why, Katleen, HR representative and 14 years "in the office", volunteered. *"To get an overall picture, I also worked in shifts, 3 days in morning shifts on the cut-to-length production line. This experience gave me useful insights about the job as there are the daily routines, required knowledge, team work, safety, etc. Now I know the real content of the function that I can share with applicants. I will also reassure female candidates that the job is suitable for women, that they will be accepted by the team and treated in the same way as their male co-workers. Technical knowledge is an asset (like measurements and basic maintenance), but motivation and willingness to learn are equally important! It's an interesting work field, also suitable for women! Aperam offers development possibilities, without regard for gender."*

■■■ As an illustration of our action plan for the second objective, on March 30, 2021 and for the second time, Aperam participated at the "TopWomen Tech", a virtual conference to promote technical jobs for women.

Accompanied by Bert Lyssens, our CHRO, Head of IT and Communications, 3 women spoke about their experience at Aperam and their expectations for new talents: Saghi Saedlou, Head of R&D Stainless Steel Europe, Sylvie Antoine, Head of IT Business Applications and Anna Roca Sanchez, Process & Quality Engineer in our Genk steel plant.

It was a real success as we promoted Aperam and the diversity of our job offers and eventually hired 4 women. As a result, we had 4 new women joiners in Europe, 2 Metallurgical engineers for our sites of Genk and Imphy, and 2 IT profiles for our Luxembourg Headquarters.

Diversity in a Broader Sense

Because diversity isn't only about gender!

■■■ In 2021, learning from the excellent pilot set in Brazil (see quote, figures and insert), Aperam decided to kick-off the enlargement of its Diversity program on the International Day for Human Rights, with a specific celebration of Inclusiveness and Diversity.

A newsletter in 10 languages was dispatched to all Aperam employees, together with a video from CEO Tim di Maulo encouraging everyone to feel welcome and empowered to bring one full self, pride and abilities to take part in Aperam success. In that address, the words "religion" and "homosexuality" were used for the first time to make clear that no kind of discrimination will be tolerated within Aperam and recall the multiple ways to report unacceptable behaviours.

Amongst the noteworthy news were the creation of a specific role of Manager Health, Diversity and Engagement for Europe mirroring a similar role in Brazil and a mandatory training assigned to all white collar workers to promote respect and inclusiveness. The latter contained an e-Learning course and a home-made awareness-raising quiz, knowing that a specific version will be developed in 2022 to adapt to the specific learning conditions of our blue-collar employees.
The new program also includes a multi-year calendar to raise awareness on all aspects of discrimination, with disability planned for 2022, the roll-out of a methodology to assess discrimination risks, the coordination of a global network of correspondents to share best practices and homogenize incident management and the promotion of different perspectives about leadership, resilience and success. We also aim to develop and report additional KPIs, as shown in the next table.

Voices

"Since the "Inclusion with Diversity" Program's roadmap started, most of us have gone through a learning journey and we even perceived an evolution in the approach of the themes, treated in an open and transparent way.
Launched in 2021, with the theme 'I respect and value differences' - the Aperam South America and BioEnergia's "Integrated Diversity with Inclusion" roadmap brought challenges and robust action plans. We took great steps to raise awareness around Gender, People with Disabilities, Racism, LGBT Communities and Ageism. Besides strengthening a culture of inclusion, we also want to make plurality concrete in our teams, at all hierarchical levels. In this way, we are creating a psychologically safe work environment that reflects the diversity that exists in our country. We also want that the discussions raised here inspire transformations in our society"

Raquel Faria

Executive Manager Communications, Inclusion & Diversity

All data in FTE - GRI 405-1	2021			2020		
	Belgium	Brazil	France	Belgium	Brazil	France
Total Employees	**1,957**	**3,706**	**2,388**	1,913	3,579	2,426
% Women	5%	10%	15%	5%	8%	15%
% Employees with a disability (1)	0%	5%	4%	0%	4%	5%
% Employees LGBT+ (2)	n/a	3%	n/a	n/a	n/a	n/a
% Persons of colours (2)	n/a	63%	n/a	n/a	n/a	n/a

(1) According to local definitions/regulations.(2) According to a 2021 survey from Aperam South America and BioEnergia where employees were invited to define themselves (or not), as part of the Brazilian Inclusion & Diversity program. 1988 responses were recorded, equivalent to a 60% response rate. Persons of color, as per the American labelling, being those defining themselves as "non-white".

Geudsmar, Financial Analyst in Belo Horizonte, Brazil

Geudsmar started at Aperam in 2001 as a trainee working in the electrical steel plant's metallurgy area. In 2003, at the age of 21, he was hired at the Timóteo plant, where he worked in several areas, including supplies and production at steel mill area. After finishing his degree in Production Engineering in 2008, he moved to transport logistics. This was followed by an MBA in Supply Chain Logistics, which he completed while working at the plant in supply management and imports, among other roles. *"It was a very dynamic area that demanded a lot of creativity to solve day-to-day challenges."*

In 2015, Geudsmar decided to apply for an internal position in the financial department at Belo Horizonte. "*It was a great challenge for me, as I had no experience in the financial area. The routine, the processes and all those procedures, nothing was like my previous experience in logistics! But I was fascinated by the new challenge, the opportunity to change cities, and the promotion."*

In 2020, Geudsmar volunteered for Aperam South America's "Inclusion with More Diversity" initiative. A member of the initiative's 'Gender' group, Geudsmar seized the opportunity to broadly address the issue of gender and encouraged discussion on the topic of "sexuality" as well. Initially covering 'gender and sexuality', the group led a communications campaign in June, which is LGBT pride month. This was a first in the unit's history. Actions included a webinar with a famous Brazilian LGBT speaker, a brochure about LGBT inclusiveness within the Aperam family, and information about how to report discrimination. The actions received very positive feedback, and a group was created to continue to address issues relating to diversity, inclusion and the LGBT community.

In the future, Geudsmar hopes to work more closely on inclusion and diversity in the workspace.

Tips to newcomers:
"The person you are at work should reflect who you really are in your personal life. It is fundamental to become a more qualified and creative professional, promoting self-development and seeking opportunities to deliver all your energy and capacity to the business. The result? Everyone wins, both the employee and the company."

Career & Development

Digital transformation in progress

Our HR Digital Transformation is helping us reduce administrative tasks and free-up more time for value-added tasks. The cornerstone of this strategy is the roll-out of the MyHR global HR IT platform. The platform currently includes all Aperam employees, with key functionalities (i.e., performance, competency, learning management) now being expanded to the non-exempt level. Next to our 1051 exempts, approx 1000 non-exempts are managing their performance reviews in MyHR.
In 2022 we will further roll out additional functionality in MyHR with a focus on internal job mobility and external recruitment.

People Transformation

The transformation of our business needs go hand-in-hand with the transformation of our people. That is why, in 2018, we launched Aperam's People Transformation Program. The program consists of five axes:

> **Competency Management:** Includes eight fundamental leadership competencies and a variety of business and technical skills that are vital to the future development of Aperam. Employees typically evaluate themselves and are evaluated by their manager. All exempts participate in this process.
In addition to this, we also encourage (through the MyHR platform) the use of 180 degree feedback. The number of exempt employees requesting 180 degree feed-back as part of their performance evaluation has decreased from 427 to 360 but at the same time we introduced a new process whereby employees can request 180 degree feed-back on their competencies. 206 exempts have used this option for the first time.
> **Learning:** Learning starts with qualitative feedback from peers, managers and key stakeholders within the company. Learning is structured around traditional learning, digital learning and internal coaching. The internal Aperam Mentorship Program has meanwhile launched its 3th wave The number of training hours has rebounced from a difficult year 2020 (+59%) and is again approaching the normal run rate. 2020 and 2021 were of course affected by the Covid social distancing measures that made the traditional classroom training more difficult to organise. Encouraging is the fact that Digital Learnings continue to double almost every year since 2019 which is a reflection of our strategy to facilitate self-paced digital learning.

> **Performance Management**: Our people learn and develop through the open and honest feedback they receive, not only from hierarchical managers, but also from everybody they work with: peers, internal customers, team members, etc. Performance Management has been redesigned to focus on aligning individual and organisational goals and using (180 degree) participant feedback.

> **Job Mobility:** Changing jobs is always a learning experience. It's also a way to increase the interconnection of our organisation and its ability to adapt. Our *Career Portal*, on which all open vacancies are published, is a key tool to open up development opportunities.

> **Leadership:** The key to every transformation is our Leadership Style. Do we inspire the need to transform or do we prefer the comfort of the status quo? Our vision for developing the leadership we need to transform Aperam is summarised by eight key leadership competencies, on which all our exempts are evaluated.

Management by objectives

We believe in management by objectives and want to ensure that all employees receive clear goals. This is handled through our global IT platform (MyHR) and/or via local processes and tools.

Performance Management via MyHR started with all Aperam exempts in 2018, before being extended to all white collars in Brazil in 2019 and in S&S ROW in 2020. In 2021 the number of non-exempts having their Performance Evaluations handled via MyHR has remained stable but we expect to further increase in 2022 mainly in France and Belgium

Performance Management in Aperam GRI 404-3

Indicator	unit	2021	2020	2019	2018	2017
Blue Collars	%	66	69	83	60	68
Standard White Collars		79	67	80	67	84
Exempts White Collars		99	99	97	98	99
Total Aperam		73	72	84	68	75
Exempts Reviews in MyHR	#	1,051	1,005	1,002	927	n/a
incl. 180° Feedback		566	*427*	*498*	*432*	n/a
Non-Exempts Reviews in MyHR		977	950	572	0	n/a
Total Reviews in MyHR		2,028	1,955	1,574	927	n/a
Average Performance Goals		5.9	5.8	5.6	7.3	n/a
Average Development Goals		3.1	2.9	2.7	2.8	n/a

Mentoring & Talent Management

Mentoring by experienced leaders remains one of our core tools to develop leadership talent. In 2021 we started the preparation of our 3th wave of mentoring (each wave consists of approx 25 pairs of mentors and mentees). Our mentorship program is structured around Aperam's 8 leadership competencies. Communities of mentors and mentees have been created to exchange experience and best practices. The program is well appreciated as shows our regular survey (in 2021, 95% of the mentees estimated their mentoring mission had met their expectations, and even exceeded them for 45%). Our Leadership Team also actively participates in the program with some 20 mentees being mentored by them directly.

Training

Target NEW

30 % Digital Learning rate by 2029

To develop Aperam as a truly learning-oriented organisation, we are using our own Learning Management System, which has been fully embedded within our People Management System since February 2019. This platform can be used to design and manage content, record progress, communicate about opportunities for online training, and support online knowledge sharing.

2021 Performance and Outlook

COVID-19 meant there were less opportunities for face-to-face, physical training in 2020 and 2021. However we already see in the 2021 number that the total Learning Hours is returning to normal. On top of that, we see a significant increase in Digital Learning which has been doubling almost every year since 2019 and proves that it is worthwhile to promote this new way of Learning, both through offering generic externally purchased and home-made content. Our strategy consists of further exposing more non-exempts to Digital Learning as evidenced by the roll-out of our MyHR LMS to blue collars in our Genk and Chatelet plants.

We have also defined a 2029 target of 30% Digital Learning share, to compare with the current rate of 18% as of 2021 end.

H&S training remains a high priority, representing 43% of the total number of hours (GRI 403-5). Training on technical skills continues to increase in importance as we are investing in renewing our production tools and methods. Ethics & Compliance training has decreased as a proportion of all learning to 1.4% as we had less company wide programs launched in 2021.

Charles: Head of Metals Risk Management

Initially, Charles joined Aperam in 2002 as an international intern at our S&S centre in Duisburg, Germany. The young French Engineer spent two years there in IT and another two in customer service and production planning. In 2006, he returned to France and began working at the Isbergues service center, first as Continuous Improvement and Logistics Manager and, later, as the Chief Financial Officer of Isbergues Stainless Service France – a position that also saw him overseeing IT and Quality Management for the same unit. At the end of 2015, Charles moved to St Denis (Paris area), where he is still responsible for the Metals Risk Management Platform, responding to Aperam's central Treasury Department and managing such topics as Nickel exposure and Nickel hedging.

According to Charles, one of the major challenges of his career has been the construction of a global Aperam platform for measuring and managing all risks related to the price volatility of metals. *"This required having a good understanding of all involved entities,"* he says. Along these same lines, Charles often finds himself serving as an interface between different departments or entities. While helping people from different departments understand each other's needs can be a real challenge, it is also very rewarding: *"A common approach to all this is to be the interface between different worlds such as IT and business, between production and management, in customer service between production and sales, and now between the different entities and finance,"* says Charles. *"What I do is help two different worlds talk and understand one another, essentially taking different pieces of the puzzle in order to complete the whole picture."*

Outside of work, Charles enjoys spending time with his wife and four daughters. *"For me, finding a work-life balance is very important,"* he says. He goes on to note that Aperam has helped him strike the right balance between home, family, and work by, for example, being able to work from home one day a week even before the pandemic.

Tips to newcomers:

"It is important to visit the various Aperam sites and, if possible, to work at sites in other countries. This is a good way to learn about our products and to understand the processes. But above all, it is important to get to know people, because people are the most essential part of Aperam. You should keep exploring and learning all the time. There's always something to learn, to discover, to do differently, and to improve!"

2021 Training Follow-up GRI 404-1, 403-5.

Learning in Aperam		2021	2020	2019	2018
Total Training Cost	€	3,975	3,190	4,627	4,152
o/w Total Belgium		1,038	1,232	2,801	2,440
o/w Total Brazil		603	364	506	527
o/w Total France		2,155	1,493	1,135	937
Total RoW		179	100	185	247
Total Training Time (hours)	*hours*	293,010	*184,201*	*341,741*	*324,051*
o/w Total Belgium		35,101	*25,024*	*75,149*	*58,050*
o/w Total Brazil		163,635	*107,425*	*143,664*	*126,650*
o/w Total France		69,365	*38,055*	*79,257*	*99,978*
Total RoW		24,908	*13,697*	*43,671*	*39,373*
o/w Digital Learning		54,334	*29,873*	*14,767*	*11,204*
o/w MyHR Digital Learning Courses		7,101	*6,478*	*4,954*	*n/a*
Digital Courses Completed in MyHR	Nbr	19,476	16,450	18,175	n/a
Health & Safety (403-5)	% of total learning hours	43.20	45.0	54.0	n/a
Technical Skills		45.5	39.0	32.0	n/a
Soft Skills		6.5	8.5	8.0	n/a
Languages		3.3	3.8	5.0	n/a
Ethics & Compliance		1.4	3.7	1.0	n/a
Total Employees Trained	#	8,699	7,898	8,950	9,391
Users of MyHR Digital Learning		9,850	3,449	2,518	n/a
Exempt Employees		1082	1077	1036	n/a
Non-exempt Employees		8,768	2,372	1482	n/a

We expect this to increase again in 2022 due to new courses for our recently acquired ELG employees and a new platform for Cybersecurity that tests the sensitivity of employees to be tricked by (virtual) phishing attempts and directly links appropriate training to the behaviour of the employee. We also continued to rely on some off-the-shelf course catalogues, which account for 528 unique courses accessed by 1,200 unique learners.

Deployment for Blue-Collar Employees

Following the successful rollout of our LMS Digital Learning platform to Blue Collars in Genk, we decided to extend the roll-out to our Châtelet plant where we have now included all categories of employees, including blue collars, in MyHR LMS as of the end of last year. The next milestone will be the start of the roll-out to our non-exempts in France as of 2022.
The Learning Material launched for blue collars continues to be H&S focused.

Quality of life at work

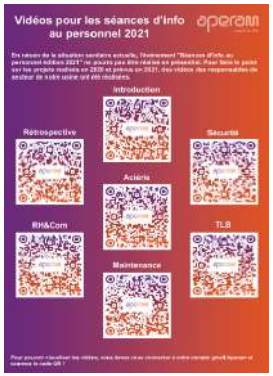
Employee Engagement & Communications

Direct and regular engagement with our teams has always been an important part of Aperam's Leadership style. It is also something that we check regularly within our routines and surveys, both within MyHR, and via our Global All-Employees Climate Survey (see next page) - and of course with the continuous engagement run at unit level.
Regarding Employee Surveys, the previous one had occurred in 2018-19 and has been extensively used since then to adjust actions plans at local and central levels. The new release, originally planned for 2020, has been postponed to 2021 and happened in October, with many key learnings for the organisation.
Regarding local engagement modes, they can take very various shapes, from quarterly info sessions gathering all employees in our main offices or smaller S&S units, down to large meetings repeated several times to allow the shift workers to participate in turns in some of our main units. Of course, in COVID times, it can prove more complicated but our units are imaginative.

In France, a new agreement negotiated at the end of 2021 and applicable as of January 1, 2022 was signed with all the social partners. This agreement includes new measures and actions with a special focus on the prevention of psycho-social risks, teleworking, the prevention of professional risk factors, and the prevention of all forms of harassment.
The additional resources and tools associated with this new agreement include specific budgets to improve working conditions, both in terms of ergonomics and social facilities and a system of end-of-career adjustments to take into account any exposure to hardship factors. Finally, the deployment of two surveys on psychosocial risks is also planned during the 4 -year period of the agreement, in addition to the company-wide employee survey.

■■■ See the initiatives taken by our sites.
> A good example is to be found in Châtelet. As every year, the Châtelet site was eager to organise information sessions in order to review the past year and upcoming projects for 2021.

In the COVID context, it was impossible to organise info sessions physically.
As an alternative, a video project was proposed to the members of the management. First, a retrospective in images of the year 2020 was produced by Châtelet's Communication department. Then, following an introduction by the site manager, each director prepared a video presenting the highlights and shortcomings of the past year and upcoming projects.



During the information session for exempts, each manager was invited to watch at least the introduction video and the one related to his/her sector together with his/her team. In total, 7 videos were made and a compilation of all the videos was also created.
In order to ensure that everyone gets access to all 7 videos, they were displayed in turn on the TV screens available on the site and on a dedicated Intranet page. Also, posters were created with QR code links to the videos to make them easily available to employees working in the shop floor.

> A completely different project is to be seen in Isbergues, which is reinventing its future with the aim to align its industrial purpose and the desires of its employees to improve the Quality of Life at Work and be more proactive in terms of ecological transformation. The first phase of the project launched in 2021 consisted of collective intelligence work, accompanied by a consulting firm (spin-off of a pioneering company in "ecolonomy"), in order to bring out the future vision of the Isbergues platform through the eyes of the employees of the site.

"Of course, I support the ecological approach in general, but I'm not what one might call a fervent 'green'. Since May 2021, I have been involved in a project to improve the quality of life at work (QVT) on the site and it allows me to interact with other colleagues beyond the research centre. I meet a lot of people, whether they are ambassadors or participate in one-off activities for the ecological transformation of the site.

What is very motivating in this approach is that we know that the management supports us, as much on the 'ecolonomy' project (see page 48) as on the QVT."

Samuel Tachel
Technical Manager, Isbergues R&D

All-Employee "Climate Survey"

At a global level, all genders together (see p. 21), our strongest points as per the survey remain Safety and especially the measures taken during the Pandemic, Customer focus, and finally Sustainable engagement. 83% of our team members would recommend us as a good employer! As always, the main take-aways of our Employee Survey, including our key areas of improvements and actions plans, will be shared at each site during debrief sessions to get oral feedback and confirm the local priorities.

With scores over 90%, our strong point remains the attention we give to Health & Safety also related to COVID measures. 4 out of the 10 top rated questions relate to H&S. Although this clearly indicates we attach a lot of importance to the subject, we are not yet where we want to be in terms of H&S results, and we continue to drive a broader cultural change around H&S as our most important value. Other high scores relate to our strong belief in our own products & services and our customer focus (see also the chapter p. 66); and the fact we have a good understanding of our job responsibilities. Development points are :

Management Proximity.

The COVID crisis probably led to social distancing and in some cases to less management proximity.

All managers will be asked to increase their proximity and organise moments for regular exchanges with teams.

Management of stress remains a concern.

This topic will be addressed as part of our broader action plan to deal with Health-related topics. As a first pilot, a new platform (myCoach) will be rolled-out in Belgium, France and Luxembourg to assist all employees to deal with Health and stress related concerns (see p. 17-18).

Career perspective and development.

During the last months, we have seen a significant increase of the vacancies that are published on the global Career Portal (mostly for exempts) and on the different local job boards (mostly for non-exempts) and for which there are not enough internal candidates. We will continue to promote internal vacancies and ensure internal mobility is well supported by our Human Resources processes.

Financial and non-financial recognition.

Through several mechanisms, Aperam compares its Compensation & Benefits policies with what is practised in the local markets, seeking to understand gaps and acting to minimise the risk of losing talent (See also p. 21). Our philosophy is based on using local and global variable plans where possible (bonus for exempts, profit sharing,..) to financially recognize the performance of the company and we aim to develop it further. In parallel, we need to promote the celebration of individual and collective successes, and to encourage managers to do it more.

For the next Employee surveys, we aim for a participation rate of 80% (77% in 2021) while keeping a rate related to sustainable engagement higher than 80% (84% in 2021).

Target NEW

80 %
Participation
&
Sustainable engagement
rates

New work patterns

In March 2021, further an extensive survey coming back on the home office adaptation in times of lock-down and testing different options with the employees, an innovative organisation was formalised for our main office site of Saint-Denis, integrating rotations between home office and physical attendance as the future permanent routine. While reducing the surface rent, this new way of working allows more agility, and gives more flexibility to employees to organise their lifetime. The new organisation is based on a minimum of two days of home office and pays special attention to the enhancement of teamwork, with the possibility to book a space next to a specific colleague, and the structuring of fruitful exchanges for the periods of collective attendance. Specific accompanying measures have also been defined to ensure the prevention of isolation, develop exchange times between colleagues and management, and provide material support for an optimal home office experience.
Due to the 2021 COVID developments that led to necessary adaptation, we should really see the full effect implementation in 2022.

2021 recognitions

Employee care is a long-term priority for Aperam!

> In Europe, for the sixth year in a row, Aperam was ranked amongst the best employers (10th) within Heavy Industry and Materials by French Capital Magazine.

> In Brazil, Aperam BioEnergia repeated the feat of 2020 and was the winner of the “Incredible Places to Work” award among the Agribusiness companies. In the Steel & Mining sector, Aperam South America was rated second. In the previous edition, the company ranked 3rd as part of the Miscellaneous Industries category.
In 2019 already, Aperam South America and Aperam BioEnergia appeared on the list of the 150 best companies to work for in Brazil, by Guia Você S/A.

All these results consolidate the Aperam Group's position at the top of the ranking of companies that provide the best working environment for their employees.
The “Incredible Places to Work” award considers the results of the annual FIA Employee Experience (FEEx) survey, which establishes indices for organisational climate, people management, leadership, and CEO popularity and management.

ResponsibleSteel™ impact

“I am proud that our HR policies and best practices contributed to the ResponsibleSteel™ certification.

HR helps to support and embed sustainability in the organisation. Thanks to the ResponsibleSteel™ certification process we benefited from making even more reflections on solving a company’s biggest challenges with responsibly managed people-centric solutions”

Willem Marneffe
Head of Human Resources Genk and HR Business Partner Stainless Europe

Aperam Genk’s team with the ResponsibleSteel™ certificate

Our Planet

Our plants use immense energy and hazardous substances to transform raw materials into the precise blend of Alloys required by our clients. In turn, these Alloys are used to make affordable, long-lasting and sustainable products, including energy-efficient buildings and low emission vehicles.

Although Aperam is an industry leader in sustainability, our new 2030 milestones for energy, CO_2, air and water, show our commitment to minimizing the impact of our plants on the environment - and on our neighbours. We are proud of our state-of-the-art CO_2 footprint and of our action plan to reduce it further and become carbon neutral by 2050.

Our Vision and Organisation

> 2021 allowed us to take our CO_2 reduction program up to speed. We increased our teams at the main sites with Energy & CO_2 managers who are coordinating all the projects for a dedicated site. As it is crucial to follow our CO_2 performance on a regular basis, we successfully implemented a monthly dashboard to follow up 95% of our CO_2 emissions (scope 1+2). This is key to understanding our progress and adjusting our plans accordingly.

While the final objective is clear (carbon neutrality in 2050, as we publicly committed in 2019), our 2030 objective is in intensity and our results can vary depending on the product mix produced. Going for more thinner products, our 2021 performance in intensity has been negatively impacted. To control this, we are now going to track our CO_2 performance per production line in order to provide precise information down to the shop floor.

> During 2021, we continued to review our main indicators on a regular basis allowing us to take actions if one is off track. All this while continuing to work towards our other 2030 and long-term objectives and promoting the virtues of the circular economy.

Incentivization for Further Progress

For a few years now, the CO_2 performance has also been incorporated into the individual objectives of the management, ensuring a focus at the highest level of the organisation.

Also, Aperam has also been one of the first stainless companies to use an internal price for CO_2e, which integrates into any analysed investment the impact of our carbon footprint as a bonus or a penalty, with the latest value being €100 per ton of CO_2e. This is a powerful incentivization for low-carbon projects, but we also systematically assess other environmental and social aspects.

Voices

"Our efforts in focusing on compliance are now paying off with the decrease of the environmental incident's events with external impact, the severity is also decreasing significantly.

While working on CO_2 emission reduction, we combine these efforts with improving the circular economy of our business. Scrap recycling and waste valorization are key actions we are looking to improve year by year".

Laurent Piranda
Global Head of Environment & Industrial Risk

80% of employees consider **Aperam environmentally responsible**

74% employees feel **Aperam's commitment to CO_2 reduction**

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

6 CLEAN WATER AND SANITATION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

11 SUSTAINABLE CITIES AND COMMUNITIES

Voices

"I'm glad to see that already 74% of our teams feel that Aperam is seriously committed to reaching our CO_2 reduction targets. All the more so that, in 2021, we mostly worked within small expert groups and can do much better with internal communications to harness the entire organisation's energy! However, with our first achievement in evaluating in full the sequestration abilities of our advanced forestry management and other successes in the environmental field, I am confident that we can onboard the entire workforce in our environmental leadership journey - and go even faster!"

Geert Verbeeck
CTO, Head of Sustainability, Health & Safety, Environment, Industrial Risk & Innovation and Purchasing

Our Environmental Performance

GRI 305-4, 305-7 GRI 302-1, 302-3 303-2, 303-3.

Indicator	Unit	2030 targets	2021	2020	2019	2015
Energy: Elec + Nat. Gas + LPG	GJ/tcs(1)	6.9 (-11% vs 2015)	7.8*	7.7	8.0	7.8
Energy: All	GJ/tcs(1)	n/a(2)	13.2*	13.3	13.1	12.0
CO_2 sequestration NEW (3)	$ktCO_2e$	n/a	(467)*	n/a	n/a	n/a
GHG emissions (net) NEW (3)(4) (B")	tCO_2e/tcs(1)	0.30 NEW	0.33*	n/a	n/a	0.54
Dust emissions (exhaustive)	t	n/a	327*	298	292	521
	g/tcs(1)	76 (-70% vs 2015)	155*	152	154	252
Recycled Input in Production	%	n/a	28.2	25.4	24	30
Wastes (landfilled)	kt	Zero Waste for - Landfill (5)	110.7	87.6	86	103
Hazardous Wastes			32.3	25.04	41	36
Non-Hazardous Wastes			78.3	62.55	45	67
Reuse Rate	%		92.9	94.0	94.3	93.5
Water Consumption	million m^3	n/a	21.7*	22.8	23.2*	22.1*
	m^3/tcs(1)	6.1 (-40% vs. 2015)	10.0*	11.8	11.8	10.2
Water Recycling	%	n/a	95.8	95.3	95.6	95.4
Water Discharge	million m^3	n/a	17	16	16	15
Suspended Solids in Water	t	n/a	307	146	377	204
Metal Discharge in Water	t	n/a	7	9	9	6

(1)Ton of crude steel. (2)2030 objective scope limited to electricity, LPG and natural gas only. (3) GHG emissions net of CO_2 removals (sequestration) operated by our Brazilian forestry. (4) For more details, including our gross GHG intensity GRI 305-4, please see p. Table p. 33. (5) = 100% Reused/Recycled.

*Data highlighted with a star have received external assurance.

Industrial Footprint

Energy and CO_2

A Key Responsibility

The steel sector is one of the world's biggest greenhouse gases emitters, firstly due to its industrial equipment designed to reach temperatures of over 1600 °C to melt iron ore or scrap, and also simply due to the chemical necessity to add carbon to iron in order to produce steel.

Despite operating in this heavy industry, Aperam has a best-in-class carbon footprint as a result of three key factors. First, our European electric arc furnaces predominantly use scrap metal instead of mined raw materials (see p. 43). Second, on top of operating energy efficiently, we also use a low-carbon energy mix (see p. 35). Last but not least, and this is really rare in our sector, Aperam can also be considered an agricultural company, operating over 100,000 ha of FSC®-certified forest in Brazil.

We use our cultivated forests to produce our own charcoal, which we then use as input in our steel-making process as a natural and renewable substitute for fossil fuels (coal based coke). Contrarily to many of our competitors, this allows us to entirely eradicate the use of extractive coke and makes our steel fully sustainable.

Forests and Carbon Off-set

Our forest is continuously cultivated and maintained according to the best practices, from the careful genetic selection of the sapling to the planting, the maintenance, down to the harvesting. We manage this forestry as a precious asset, including the parcels of natural forests ensuring the protection of biodiversity, and we regularly win awards for the excellence of our practices.

- The cultivated forest is managed in a way that we are increasing the density of the wood per hectare. This is done thanks to the species we are planting that are more efficient (lesser water and fertiliser needs, enhanced resilience to pests) and more dense than the previous ones thanks to our research and development laboratory. Our saplings are recognized for their quality in Brazil.
- The native forest is also managed in order to respect the natural species and the biodiversity, including the polenisators, replanting where needed.
- As fire is a risk, we are also actively tracking and fighting any possible fire on both types of parcels (using viewpoints, drones, etc).

After the harvest, BioEnergia is then sending the trees to kilns where they are turned to charcoal (biomass), or "bio-coal" locally. This forest is factually carbon positive, meaning it acts as a carbon sink. Indeed, our parcels stock CO_2 in the cultivated areas, in the trees and with the soil where leaves degrade into humus, as well as in the native forest areas, conserved on account to local regulations and to the benefits of local biodiversity.

In the past, we were not assessing this impact, relying on the simple methodology to consider the full life cycle effect of the charcoal as nil, as the CO_2 stocked in the trunk was supposed to be released later at our steel plant. But in 2020-21, we decided to follow the best practices emerging in Brazil and conduct a specific and thorough CO_2e impact analysis, with the help of experts. They confirmed our assumption and the powerful CO_2e capture operated by the forestry.

We detailed internal standards allowing full transparency of the calculation and allowing efficient verification of the assumptions and parameters (diameter of trees, density of wood, etc.) and double checked the evaluation, thanks to an external audit, which was done locally by the SGS firm, based on ISO 14064 standard.

Consequently, we are happy to be able to confirm that our forest management is bringing positive carbon offsets (including fires) of 467*kt in 2021.

Aperam BioEnergia 's over 100,000 ha of FSC®-certified forest in Brazil (Minas Gerais).

Refining an Already Best-in-Class CO_2 Performance

Since 2017, our CO_2 footprint has been constantly below 0.5 tons of CO_2 per ton of (own) crude steel produced, from 0.55 in 2015. This is a best-in-class performance, compared to ISSF's average of 0.93 tCO_2e/tcs in 2019 (source: May 2021 General Meeting) but it needs constant efforts (see the impact of mix, next page insert). During 2021, heavy works were launched for the next phase of our decarbonization.
> On top of the Energy pillar of our program (see p. 35), we are also investigating other strategies and additional knowledge to refine our calculations further. As part of this, we have assessed both the emissions and the sequestration operated by our exceptional forestry management (see above), as well as from our Conservation program (Oïkos). While it impacts our Scope 1 emissions "(a)" - mostly from CH_4 emissions during the carbonization process -, this new methodology highlights massive carbon captures in "(c)", now consolidated in "(B) Scope 1+2 net" in absolute value to bring a complete view of our footprint.
As a result, we report the following detailed figures, in absolute terms as well as in intensity, including two 2021 versions calculated for the sake of comparability.

GHG emissions (GRI 305-1 to 4)

Absolute values and intensities, by scope	GRI	Unit	Target	2021 (New)	2021 (Old)	2020 (Old)
(a) Scope 1 - Non-Biogenic (absolute value)	305-1	$ktCO_2e$	n/a	939*	766	666
Scope 1 - Biogenic (absolute value)	305-1	$ktCO_2e$	n/a	1,050*	n/a	n/a
Scope 2 (absolute value) location based	305-2	$ktCO_2e$	n/a	297*	297*	257
(b) Scope 2 (absolute value) market based	305-2	$ktCO_2e$	n/a	267*	267*	267
(A) Scope 1+2 gross (absolute value: a+b)	n/a	$ktCO_2e$	n/a	1,206	1,033	923
(c) Sequestration (absolute value - incl. fires**)**	n/a	$ktCO_2e$	n/a	(467)*	n/a	n/a
(B) Scope 1+2 net (absolute: a+b+c)	n/a	$ktCO_2e$	n/a	739	n/a	n/a
(A') Scope 1+2 gross intensity (own tcs): (A)/tcs	305-4	tCO_2e/tcs	**0.37**	**0.56***	**0.46**	**0.47***
(A") Scope 1+2 gross intensity (*all* tons): (A)/tcs	305-4	tCO_2e/tcs	**n/a**	**0.54***	**0.46**	**0.47**
(B') Scope 1+2 net intensity (own tcs): (B)/tcs	n/a	tCO_2e/tcs	**n/a**	0.34*	n/a	n/a
(B") Scope 1+2 net intensity (*all* tons): (B)/tcs	**n/a4**	**tCO_2e/tcs**	**0.30**	**0.33***	**n/a**	**n/a**

Note: "(New)" incorporates in particular the detailed assessment of our life-cycle analysis of forestry/charcoal whereas previously (as part of the "Old" method), BioEnergia net impact was considered as neutral (as per ISO 14404-1 standard) - see also Supplement D. *Data having received external assurance.

Further, the variation in the volumes (mostly slabs) purchased from the market to transform them further and increase our sales has a significant impact on our metrics. So, we decided to avoid distorting our ratios by adjusting the emissions "as if" we had melted ourselves these tons (adding fictive emissions) in the numerator and not only considering our "own" tons of crude steel ("own tcs") but "*all* tons" in the denominator. We believe this methodology gives a fairer view in so far as our performance is more comparable year on year and also in view of competitors'. Again, we present both fractions (B' and B"), for the sake of full transparency, but **the one reflecting our performance will be the B"** ("net CO_2e intensity - all tons"). For more on methodologies, please check the Appendix D.

> Using comparable ("old") methodologies (line A"), **we report 2021 emissions 2% lower than their 2020 level**, mostly due to the impact of the dam (2.7%, on scope 2 - see p. 35) compensating increases linked to Alloys & Specialty production mix (+1%), more downstream activities, especially in Services & Solutions (+0.3%) and miscellaneous effects (FeAlloys emission factors).
Overall, in 2021, our forest management is bringing a partial offset of our local emissions. At Group level, the impact is also significant and helps mitigate our other impacts, which we will continue to minimise going further. **As a result, using our new indicator B" corresponding to the overall CO_2e footprint of Aperam, we can report a 0.33 tCO_2e/tcs.**
As very impactful projects have not started, Aperam is on track to achieve in a sustainable manner its new CO_2e 2030 objective, recalculated at 0.30 tCO_2e/tcs with all our new methodological updates (check the Appendix D).

European Carbon Markets

In 2021, only our European operations (which represent 50% of our Scope 1 emissions) were subject to CO_2 emission regulations (in the form of allowances or quotas), and there is no sign that a comparable system will be established in Brazil in the near future.
Based on current assumptions and ETS rules, we do not anticipate an overall shortage of free allowances before the late-2020s.

CO_2

0.33 tCO_2e/tcs

Leading CO_2e footprint in Stainless

Our 2030/2050 Targets and Roadmap

After the validation in 2020 of Aperam's CO_2 roadmap and financing envelope, we continued our efforts during 2021 to get on speed our projects on :

- Energy Efficiency, incl. Heat recuperation.
- Carbon-free fuel/energy, incl. NG substitution, Solar and Wind.
- CH_4 emission reduction (burners)

We are so far on track to achieve our 2030 and 2050 objectives.

Scope 3 and total Carbon footprint

Reporting on Scope 1+2 is very important, because our primary responsibility lies in the optimization of the impact of our own process but considering the full picture is also key for the decarbonisation of the economy. This means considering in full the CO_2 footprint, from the upstream of our process, with all our production input, mostly raw materials from extractive or recycled origins, down to the downstream footprint (transport, etc.).
For stainless products, the typical weight of the CO_2 emissions related to upstream processes (called "scope 3a"), particularly those linked to the extraction and refining of primary raw materials, is paramount. That is why the most pertinent comparison shall use a footprint calculated based on scope 1+2+3a. It's important to have this in mind, because our energy-intensive Recyco unit acts as a recycled material supplier but as it is an *internal* supplier, which means that its CO_2 emissions are consolidated within our (Scope 1+2) footprint - not in our Scope 3.

> Our (scope 1+2) footprint is already best-in-class but considering our high usage of stainless steel scrap in Europe and the fact that we use no coking coal in our blast furnace in Brazil, our raw material footprint is much lower than the sector's average: according to our EPD, ie using normative emission factors, our scope 3a emissions (upstream, from cradle to site entrance) could range from 1,29 tCO_2e/ton of 304 products to 1,68 tCO_2e/ton of K41 KARA products made in Europe and this is a preliminary estimate. We evaluate[3] that the total CO_2e emissions per ton for stainless steel made of extractive raw materials is up to five times higher than ours. Aperam sourcing teams are currently in the process of collecting specific and documented data in relation to the raw materials incorporated into our process, in cooperation with our main suppliers.

> **A first plan is already established to reduce Aperam's scope 3a by a double digit percentage by 2030**. This is seen as a starting point and more will be developed during the year 2022 to achieve our 2050 target. Our average nickel input footprint is clearly below that of users of Nickel Pig Iron (almost 60 tCO_2e/t of Laterite - matte via NPI -, according to the IEA, May 2021), but we are continuing our efforts with our suppliers to decrease this impact further.
We intend to publish a consolidated and verified view of our scope 3a impact in the next Sustainability report and continue to spread internally a mindset that is conscious of these impacts, both when selecting our suppliers and when defining enhanced industrial processes (see Châtelet example next).

[3] *Aperam estimates & calculation, ISSF data, CRU.*

Decarbonizing our processes by adjusting the input in Châtelet

Argon Oxygen Decarburization (AOD) is an important process in the making of stainless steel. After the metal is melted, it is transferred to an AOD vessel for refining. One of the key steps to refining is reduction, the process used to recover oxidized elements from the slag. This is accomplished using a mix of lime, fluorspar (CaF2) and other components.
While this mix excels at keeping the slag fluid and the volume small, its dependence on fluorspar can be problematic because inhaling or being exposed to CaF2 can cause various health and safety issues.
To address this issue, the R&D team at Aperam's Châtelet mill decided to drastically modify the mix used during the AOD reduction phase. What they found was that this new recipe strongly fluidizes the slag, allowing for the partial, if not total, elimination of fluorspar from the mix.
According to our subcontractor, this new process has already led to an improvement in safety. For example, they have reported that the new slag composition has resulted in less clogging in their screens, which means less cleaning by operators and therefore less exposure to fluorspar. As such, this process has a direct and positive impact on their overall health and safety. This new process also reduces the need for raw materials during the AOD process. For instance, we succeeded in reducing the total amount of slag in a significant manner, for some products, which leads to an overall reduction of energy use.
Last but not least, the reduction in raw materials from suppliers, allows us to reduce our CO_2 scope 3 emissions. This, along with the fact that we decided to choose the raw materials which have the lowest CO_2 footprint, is in line with the mill's ResponsibleSteel™ certification and ambitious CO_2 roadmap.
In conclusion, the new mixed reduction process has proven to not only produce a quality metal, but to do so while improving costs, reducing slag and increasing safety – all due to a drastic reduction in the amount of fluorine being used.

European Unions' Taxonomy of Climate Change mitigation activities

Most of Aperam's operations fall under the Taxonomy sector: 3.9 - Manufacture of iron and steel, an activity considered as "enabling" i.e supporting the transition of other sectors towards low-carbon operations.
As of December 31, 2021, Aperam's activities considered eligible under the EU Taxonomy represent 90% of turnover, 85% of OpEx, and 94% of CapEX of the Aperam group, while the rest of the business is still under review. Whereas we are confident that our eligible entities should be able to comply in full to the main criteria (CO_2 intensity in Brazil ; scrap ratio in Europe), further clarifications and additions are expected to address some uncertainties before we can conclude on the share of activity considered as aligned.

Energy Mix and 2021 Performance

Thanks to the ongoing efforts, Aperam reports 3.66 MWh/tcs (including purchased tons, see Supplements for details on our methodology) and is on track to achieve its 2030 target of an 11% reduction in energy use.

- In 2021, Aperam reports a 1.0% deterioration in energy efficiency over 2020 (natural gas, LPG, and electricity only).
- Compared to 2015, Aperam has reduced its energy consumption by 6.6%.

This represents a significant improvement in efficiency (GRI 302-3, 302-4).

In addition, our energy mix remains a subject of pride, with 48% coming from renewable energies (see aside, +8 pts last year - taking into account the share of our electricity generated from renewable sources). But even with this success, we refuse to stand still and thus remain committed to pursuing other renewable energy sources, as we highlight in the next page insert.

■■■ In 2021 at Timóteo plant, an effort was made to take into account the CO_2 effect of the electricity coming from the dams.
Part of Aperam Timóteo electricity supply is produced by an Hydroelectric Power Plant (HPP), called Sá Carvalho, directly connected in the site's internal electrical grid. This green energy is now factored into Aperam's scope 2 but Aperam South America's 2021 CO_2 performance was negatively impacted by the hydro stress in 2021.

View of the Sá Carvalho dam, in Brazil, providing Aperam Timoteo with green energy.

The main detrimental influence, also related to electricity, was a great increase of the average CO_2 emission factor from the Brazilian Electricity National Grid. It has occurred due to the activation of many Thermal Power Plants (TPP), in response to the hydric crisis and to the increasing energy demand in the country. These TPP mainly use Natural Gas.

7 AFFORDABLE AND CLEAN ENERGY

Energy

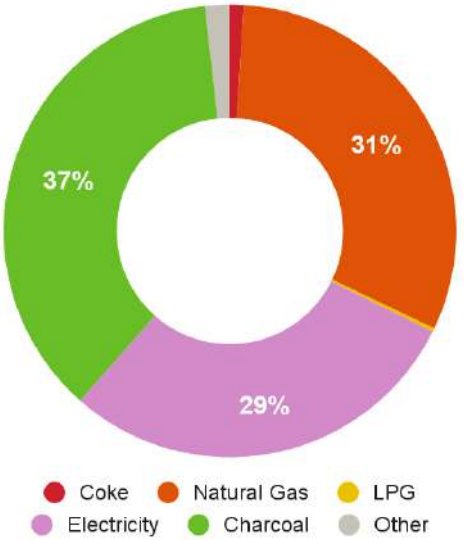
48% Renewable energy

2021 performance

+8pt vs. 2021

Aperam 2021 Energy Split (%)

GRI 302-3



Mix Effect

Our energy intensity depends on the metallurgical blend we produce, as not all metals melt at the same temperature. Furthermore, when we "sophisticate" our products during downstreams operations, such as when we give them a bright surface finish or transform them into tubes, wires or tiny precision strips, we use more energy than what is used to produce semi-products. However, the volume of initial crude steel remains unchanged, which impacts ratios and apparent performance displayed in terms of energy intensity...

This means that comparisons are only valid between similar products!

Aperam Genk solar panels

End of 2020, Aperam Genk signed an agreement with Perpetum Energy to make the best possible use of the roofs, available land and parking spaces for a solar panel park.
After an intensive study, suitable locations for the solar panels were identified, based on stability and sunlight. On the roofs where the panels would be installed, a new covering was placed first so that the panels do not have to be dismantled during their entire lifespan (25 years). Beside the roofs, panels were also installed on carports at the parking of both the cold rolling mill and the steel plant but also on the available land. The study resulted in one of the largest photovoltaic projects in Belgium, with more than 50,000 panels on a total surface of 11 Ha.

The complete project results in an installed capacity of 23 Mega Watt peak and an annual production of green electricity of 20,300 MWh. Almost 100% of the energy produced will be consumed locally, on our site, which means that injection into the public high-voltage grid will be exceptional. This allows us to reduce our emissions by 7,300 tons of CO_2. The production of green electricity corresponds to the electricity consumption of 5,900 households. To accelerate the greening of our fleet, additional charging stations are also provided under the carports at the car parks. The project will contribute to greener energy supply from 2022 onwards.

NOx/SOx emissions (Europe only) GRI-305-7

Emissions	Unit	2021	2020	2019
NOx	t	830	544	763
SOx	t	59	45	37

Air Emissions

Local air quality is an important issue for our operations. Our Environmental Policy commits us to a long-term approach to environmental performance and, according to our Stakeholder engagement, dust (particulate matter) stands amongst our most important material issues. In addition to dust, we also produce other air emissions, in particular NOx and SOx, reported for Europe only (see left-hand table).

Because this issue is so important to the local communities around us, Aperam has committed to going beyond what is required by current regulations. Diffused dust is measured periodically to evaluate the leakages and identify areas for improvement. Furthermore, dust falls are also a relevant additional indicator, as it directly reflects the nuisances caused to local populations. But this last metric is impacted by external factors such as wind or alternative sources of pollution (agriculture, traffic, etc.), rendering the interpretation subject to debate. As such, we only report ducted dust emissions.
With the aim to change mindsets, improve the reliability of our measurements and ensure that progress is continuous, we have set up an action plan with global Aperam targets, we started to conduct more frequent measurements and develop more precise methodologies for the assessment of our impacts (See Supplement D). As our previous goal has been achieved (-40% in 2021 in intensity, from 2015 benchmark), in 2020 we announced a new target of a -70% decrease of our ducted dust emission intensity by 2030 (compared to 2015). This objective is to be reached while also reducing diffused (non-ducted) dust.

Ducting and Controlling Dust Emissions

Our dust emission improvement plans focus on either containing, ducting, or collecting the dust (in Europe, the collected dust is sent back to Recyco for recycling).

> All our main sites have clear roadmaps for the next five years. These roadmaps take into account the need for major revamps, investments and increased costs (maintenance, filter bags, etc.). They require significant preparation, scheduling and logistics (e.g., coordinating implementation during scheduled maintenance stoppages). This is the reason why we might have years where our progress will stagnate but other years with major step changes in the reduction of the dust emissions.

> During 2021, we increased the frequency of the reviews conducted with our main sites in order to anticipate any deviation and act accordingly. Our goal is to review our results on a monthly basis and keep a strong focus on the units' performance.
Overall, despite our efforts and a small reduction in Timoteo, the Group dust emission in intensity[4] increased by less than 2% in 2021 versus 2020, mainly due to our European meltshops. However, the +10g/tcs dust increase in Imphy over 2020, for example, is mainly due to the product mix effect and the local management is confident that this is in no way jeopardising our 2030 reduction goal and roadmap!

Voices

" We are in the process of finalising an important project which will bring an important decrease of our dust emissions in absolute values as well as in intensity.
We expect to see the final result within the year 2024."

Pascal France
HSE manager of Imphy plant

> Our "exhaustive" indicator, which provides a good assessment of our impact over the full year based on all the measurements done (not only those reported to the authorities as per our permits ie. two per year and chimney in Brazil), shows a total Group emissions of 155 g/tcs, compared to 152 g/tcs last year[5] GRI-305-7.

> This result is not reflecting the action plans enforced. For all the three European meltshops, we have strong improvement programs in place including revised maintenance plans (see insert on Chatelet) and the set up of more ducting and treatment capacity (like in Imphy, with the 4th hole ducting project).
The Timóteo plant being the main contributor to the ducted dust emissions, we launched an engineering study to clarify what are the best investments needed to bring our emissions at target in 2030. We expect to take the first actions during 2022 and see the first results in 2023. In the meanwhile, the team is keen to ensure a perfect management of our dedusting assets.

[4] Note that there is a change in the intensity ratios calculation as described in Appendix D.

[5] The total emissions based on "regulatory measures" are 121 g/tcs, compared to 140 g/tcs last year - See Supplement D for more details on our methodologies.

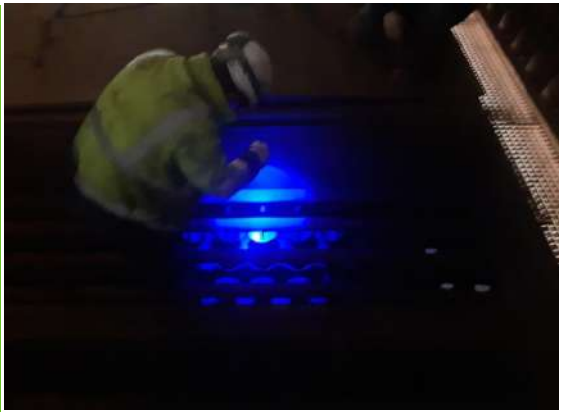
■■■ In Châtelet, new maintenance protocols were initiated.
The two main dedusting installations in the meltshop are those of the Electric Arc Furnace and the Ar-O_2 Converter. These are equipped respectively with 14 and 12 chambers each containing 300 filter bags which represent filtration surfaces of 12 to 15 thousands square metres. The flow rates of these dust collectors being very high (750.10^3 to $1{,}000.10^3$ m³/h), it is key to have rigorous monitoring of the filters.
Previously, monitoring practice consisted of monitoring opacimeters and launching an identification of the defective chamber, its isolation and the partial or total replacement of the filter bags contained inside.
Since the middle of last year, the maintenance team of the meltshop (mainly thanks to Ramon, in charge of dedusting installations' maintenance) have set up a dynamic control with the help of an external knowhow. When a slightest drift appears on the weekly average value, a filter control campaign is launched.
In addition, a fluorescent powder is dispersed in each room. This powder sticks preferentially to places where the filter bag is damaged (holes, worn, torn, etc.). A control with an UV lamp on the upper part of the chamber makes it possible to identify which filter bag needs to be replaced. This is identified by a marking. The next day the filter bags are replaced one by one.
With such a new method, preventive maintenance costs less than systematic replacements. We can now build a map of the holding of the filter bags by chamber in order to determine a maximum lifespan on one hand, and to study abnormal wear depending on production-related parameters, on the other hand.

Thanks to this, the results of the last campaigns of measurements are very good. We are systematically less than 1 mg/ Nm³. This is a great improvement in view of our environmental commitments.

Air emissions

155 g/t 2021 dust emissions

Multi-year roadmap to reach -76 g/t by 2030

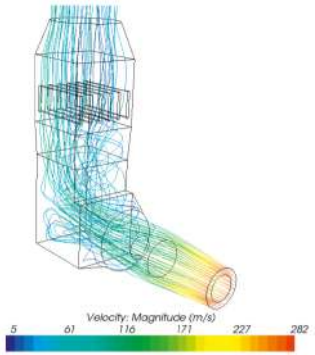


ABove: Checking sleeves with a UV lamp (Châtelet.).

Noise and Vibrations

Our plants, while being compliant in terms of noise emissions, are continually working to improve any “sound nuisances” perceived around the properties. They are running regular campaigns or are placing sonometers by the neighbouring houses to identify where the Aperam’s activities have an impact on the global noise environment. Any change is an opportunity to improve our impact on people and on the environment. See the state-of-the art noise abatement system implemented at our Châtelet meltshop plant.

■■■ At the Châtelet plant, the past two years have seen a slow but progressive deterioration of the silencers installed on the dedusting installation stacks (EAF and AOD - see pictures). A silencer in this type of installation is made up of 10 baffles 3.6 m long by 1.6 m high and filled with rock wool. The purpose of this installation is to make the turbulent regime of the large air flow at the outlet of the bag filter (on average 1,000,000 m³/h) into a laminar regime in order to reduce the muzzle effect at the end of the chimney.



Above and Right: Design and placement of the silencer

The new EAF silencer has been optimised both in design and in the quality of the material used. The perforated panels were assembled from smaller independent blocks and joined together once in place. The quality of the absorbent wool has been increased in order to drastically reduce the noise coming out of the chimney.
To verify the performance of this installation, we asked an expert firm to carry out a measurement campaign with a source calibrated at 100 dB. Placed under the silencer, we measured the residual noise level at the chimney outlet. We have an attenuation of 15 dBA, which is really impressive! For information, a reduction of 10 dBA is equivalent to a reduction in noise by half.

To replicate this efficient anti-noise action plan, the AOD silencer was replaced preventively just after the EAF silencer.

Eucalyptus and Water

Like all vegetation, eucalyptus requires water and nutrients to grow and survive. However, the forests at our unit in Brazil (BioEnergia) are grown using carefully selected saplings (see the nursery below) which require less water and nutrients and are thus particularly well suited to the unique environmental conditions of Vale do Jequitinhonha, our only unit in a regular hydric stress.

For more information, visit: aperam.com/sustainability/environment/bioenergia/

View of the BioEnergia nursery, in the Minas Gerais region of South Brazil.

Water

At Aperam, our commitment to clean water is an everyday topic and a responsibility to our local stakeholders, which is reflected in the way we routinely monitor our water intake and the quality of our disposal in line with our permits. We aim to reduce our water intake by reducing our consumption and increasing the amount of recycled water we use, which is currently over 95%.

We launched at the end of 2021 a first audit and internal benchmarking of our water practices, with expected results to come in 2022. We also finalised our Water Intake procedure, which was issued internally to align our processes and promote the best possible practices for a sustainable use of freshwater, including leakage identification and management guidance as well as other optimization measures.

Water Consumption Trends

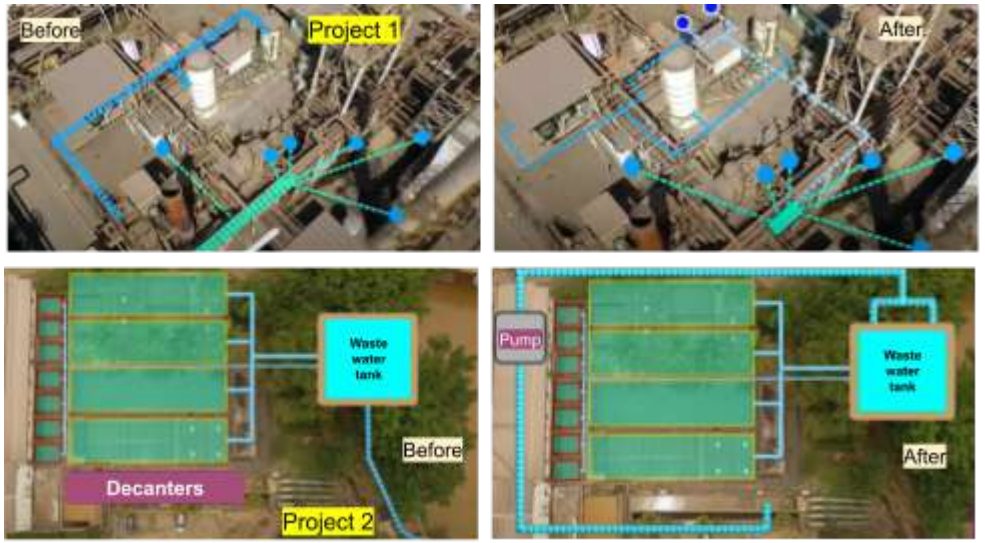
After a continuous reduction between 2012 and 2015 and a period of stabilisation, our water consumption decreased in 2021 compared to 2020 and 2015 - GRI 303-5.

- Total consumption was down by 6% over 2020 (-1.8% compared to 2015)
- Consumption in intensity (including purchased tons) was down by 16% in 2021 compared to 2020, (see Supplement D for methodology details)
- 95.8% of our consumption came from closed circuits (i.e., recycled water), meaning that less than 5% of our water is extracted from the environment
- Of the 5% of water that we do extract, 81% comes from rivers and 9% from collected rain (GRI 303-3 - see full detail in graph next page).

The vast majority of Aperam's water intakes comes from our Timoteo plant, which accounted for 72% of the Group's total 2021 consumption (in absolute value) and saw a 17% decrease in intensity compared to 2020. In Europe, we also see a decrease in intensity for all main sites with a particular focus in Gueugnon.

■■■ One of the crucial ways to reduce consumption is to close the circuits and re-use as much as possible the water already withdrawn.
In Timóteo, at the melt shop area, a project was launched to reuse the wastewater that was previously discharged. This is in line with the target to reduce by 50% the total consumption of the water intake from 2015 over 2030. This will need many projects and investments, however, two 'quick-win' projects were launched thanks to the contribution of our operators building the ideas and technical solutions, aiming at 10% water intakes.

In the boiler process (project 1), we used to have a 15m^3/h loss so, by redesigning the water flows and collecting the waste water that was almost suitable to be reused 'as is', we saved this amount. An additional project (2) of water recirculation within the water treatment station improved again our reduction of freshwater intakes by some 66m^3/h, eliminating the losses in the filtration and decantation process. See the "before/after" pictures and graphs below.



The Arroux river with Gueugnon's unit shiny tower to the left

■■■ We reported previously the problem that our Gueugnon plant faces more and more frequently with regards to the level of the Arroux river (see below and under section "Industrial Risk" our climate change actions). During the dry season, the water can be scarce and the flow so low that we have to adjust accordingly not only our intakes but also our disposals, to avoid more disturbance to the natural environment with discharges at temperatures and pH that are in line with our permits but that can still suddenly disrupt its overall balance.
As part of the multi-year plan designed by the plant in coordination with Regional authorities to become "Arroux independent" by 2025, numerous actions were implemented: enhanced network monitoring with connected flow metres, repairs of leakages, the reuse of water of some ancillary systems, but also heavier works

such as the revamping of the cold rolling mill's Cooling water and the continuation of the annealing pickling line's pump replacement with a no-water cooling system. By the end of 2021, our actions had already cut the monthly consumption of the cooling water tower TS06/PS01/RD10 by 2 to 3 compared to the 2 previous years.

ResponsibleSteel™ impact

"The ResponsibleSteel™ certification came as a continuation of the ISO 14001, obtained since June 2001, and it highlighted some add-ins to complement our usual practices or subjects.
But the way we monitor anomalies, our approach to develop a cultural maturity in the areas of safety and the environment, to reduce our accidents and limit our environmental impact, as well as Gueugnon's structuring projects (the water and decarbonization plans) are fully in line with the ResponsibleSteel™ framework."

Philippe Larue
Gueugnon Health, Safety, Security & Environment Coordinator

Other projects are still on our 2022 to-do list, like the set-up of a water reuse system on RD79 Pickling station and the optimization of the cooling towers' consumption. The revamping of the degreasing station of our RD79 bright annealing line should also cut our intakes by 12 m^3/h (representing over 6% of the unit's yearly consumption), starting september 2022!
Furthermore, on a longer-term approach, an external study was finalised and provided an exhaustive mapping of the site's water consumption as well as a thorough assessment of our impact on the natural environment. It also brought forward specific leads to reduce our impacts further.

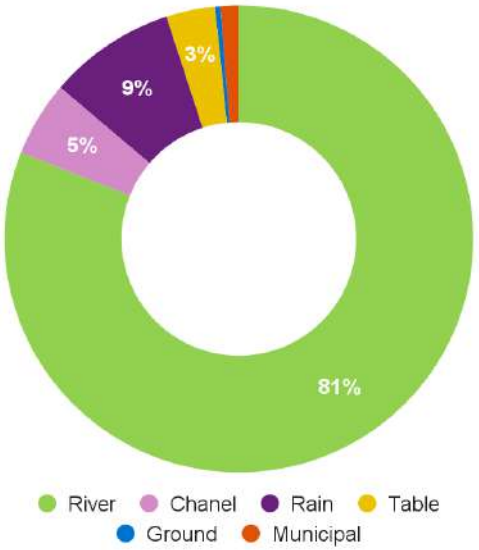
Starting 2022, a new organisation with 4 different sub-groups will tackle in parallel short-term actions such as rainwater recycling, water quality improvement and a study on cooling waters, while considering disruptive solutions on a more medium term horizon, in partnership with the Group CTO and R&D experts.

Water Disposal Quality

We treat our effluents and monitor our discharge into rivers in line with our permits in terms of volumes, pH, temperature, particles of suspended solids, and metals in water and swiftly react in liaison with Authorities in case of anomaly.

Water intake by source (m^3 and %) GRI 303-3

21.7 mio m3 intake in 2021



2021 figures show:

- Total water discharge: 16,815 m3 (+2.4% from 2020)
- Metal discharged: 3 kg/tcs (-22% from 2020)
- Suspended solids: 142 g/tcs (-3% from 2020)

GRI 303-4.

Water

-44% Consumption intensity target 2030
vs. 2015

95.8% Recycling rate

■■■ The best example of our actions impacting water disposal quality is to be found at our Genk plant, thanks to our Acid regeneration project, which has many major impacts on waste reduction and recycling too! See how it works.
As part of the annealing and pickling phase, chemical pickling is used to generate a chromium-rich surface on the stainless steel - that same layer that is giving the stainless steel its corrosion-resistant properties. During that part of the process,

metals are pickled by the acid, freeing up components, and the resulting liquid waste was treated in a physico-chemical neutralisation process giving two waste streams: water contaminated with chemical anions (sulphates, nitrates, …) being discharged to a river nearby after treatment in line with our permit, and a volume of aggregated solids called “filter cake” containing the neutralised metal sludge, which has to be landfilled.

The innovative and patented acid regeneration process tackles this waste at Genk. In January 2020 started the commissioning of the first industrial scale Acid Regeneration (AR) plant on Annealing and Pickling Line-2 (see picture below), with two main objectives:

- regeneration of the pickling waste to fresh pickling acid, also positively impacting the pollution of the discharged water, especially with regard to “nitrogen” pollution.
- reduction of the amount of neutralised “filter cake” generated by the pickling line by creation of a metal dust (later to be sent to Recyco for treatment and recovery).

After one year, the results are astonishing:

- more than 90% reduction of “nitrogen” in the wastewater generated on the A&P line. Moreover, the volume of wastewater generated was reduced by over 50%.
- more than 80% reduction of the filter cake waste landfilled.
- recovery of 70% of the acids used.

Genk Acid Generator installation.

Although the results are very good, there are still some elements to be improved, for instance to simplify the treatment at Recyco and improve the acid recovery rate. The project team has studied those shortcomings in 2021 and a clear plan of attack was drafted to solve those in 2022 and enhance the overall performance of the AR-1 installation. In parallel, Aperam decided to construct a second one to regenerate the complete chemical waste on A&P line 4 and part of those of line 3, which is using different acids.

As we speak, different teams in Genk are working very hard to achieve the same success with AR-2 as with AR-1 and to complete its commissioning in March 2023.

Congratulations to the teams for all their efforts, which could provide a sustainable solution for 40% of Genk’s total A&P lines wastes with these two units - and maybe for others…

Stainless Steel Roof Reflects the Surrounding Environment and the Home’s Sustainable Vision.

A lakefront house is a dynamic, welcoming, and friendly sight along the forested shores of Lake Memphremagog, Quebec. The residential home was designed in 2020 by NatureHumaine, a Montreal-based architecture and design firm that drew its inspiration from nearby churches, including a Benedictine abbey.

The home also pulls from its natural surroundings. For example, the envelope of the multi-tiered upper floor is made of pre-aged wood siding and topped by a stainless steel roof clad with Uginox Patina K41.

Over time, the stainless steel roof, which is punctuated by big bright skylights, will gain a nice matte appearance that will tie the home and landscape together. But the decision to use stainless steel goes beyond just aesthetics. As a durable material, stainless steel can withstand the elements and, unlike other roofing materials, is guaranteed a long lifespan. And, being 100% recyclable, using stainless steel ensures that the house contributes to protecting the beautiful environment it calls home.

©Adrien Williams

Waste & Recycling

We greatly value our recycling performance. An example of our commitment towards recycling is our Recyco unit, that recovers the metallic content from the melting shop dust. We also produce metals that are endlessly reusable and we use a large amount of recycled materials in our production process. Our acquisition of ELG, a global leader in stainless steel and superalloys recycling, is accelerating our roadmap to increase that furter (see page 12) as we aim to become a zero-waste (for landfill) company GRI 306-1.

Recycling of Metallurgy By-products

In 2021, our production of waste increased by 7% versus 2020 due to the important increase of our activity, with 7.1% of our by-products being sent to the landfill, the remainder being reused, recycled or stored for future recycling (see graph, right). Our waste recovery ratio stands at 93% i.e +0.3 pts compared to the 2015-2018 average GRI 301-2.

Stainless Steel Scrap

2021 Residues

7.1% landfilled

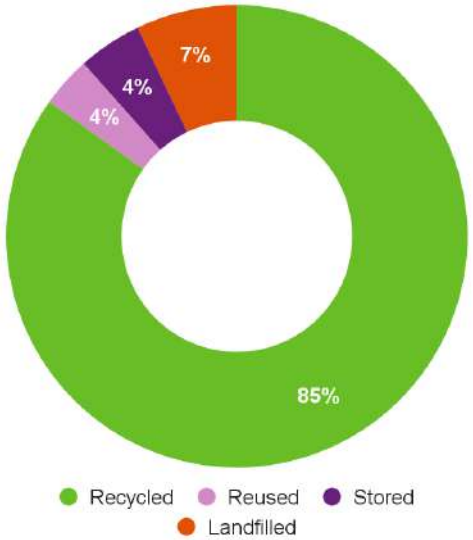
Hazardous < 8%

of which

73% re-used or recycled

2021 Residues Split (%)

GRI 306-3, GRI 306-4, GRI 306-5.



Less than 8% of our wastes are classified as hazardous. While more than 90% of total wastes are already recycled or re-used, some of our by-products, such as acids or specific treatment mud, are waiting for viable technical solutions. Engineers, R&D and a few external partners are studying the technical solutions to neutralise such wastes and we are progressing, as evidenced by the success reached in Genk with respect to acid (see previous page).GRI 306-2.

■■■ In the last report, we mentioned the study launched in Isbergues (part of a European LIFE Project - led by the University of Lorraine) based on plants having the capacity to extract metallic elements of some of our wastes, avoiding landfill materials that could actually be “upcycled”. Indeed, in Aperam, sludge contains metallic elements, like Chromium, Nickel and often Molybdenum, but, as these sludges are considered eco-toxic (following the H14 criteria in France), they are categorised as hazardous and so 100% landfilled up to now.
Since fall 2019, two different plants were tested in the open air on two types of soil, arranged within double-walled watertight skips for the sample cultivations to happen on Isbergues premises. Fully in line with our local circular approach, the soil was composed of Aperam’s sludge in various proportions augmented with some Recyco slags used as a draining and stabilising sub-layer.
Over two years in the project, we can confirm that the metal concentration in the substrate, more especially the Nickel element, is reduced. But more significantly, the plants have suppressed the toxicity of the waste that can therefore be reclassified as non-eco-toxic, and non-hazardous.
Other interesting conclusions relative to the most efficient plants, the impact of the pH, and the composition of the soil have been drawn, leading to possible enhancement of the process. Investigations are still in progress to better understand the mechanisms behind such evolution of the eco-toxicity and envisage the next steps.

Metallurgy as a Recycling Channel

In 2021, 28% of all our material (GRI 301-2, including wooden pallets, refractories, consumables, etc., total input of 5.9 million tons) came from recycled sources. We usually focus on metal scrap, but many other items also come from recycled sources: electrodes, wooden pallets, acids,etc.

> In terms of scrap, we collect our own internal process scraps at each of our units and, after careful sorting, send it back to our melt shops, usually via railways. We also purchase important quantities of scrap from external providers, all of which must meet specific qualitative specifications (eg. in terms of nickel or chromium content - but also in terms of radioactivity!). The granularity of this scrap is also

important as the density of the volume allows us to optimise the loading rate of our own tools within our process.
Contrary to what can be imagined, stainless scraps are predominantly composed of end-of-life scrap, although the traceability is complicated due to the blending that takes place at the largest providers to meet the demands by grade and the collection/deliveries that are organised in batches. This End-of-Life predominance also explains why the countries with more recently developed economies do not have a significant and well structured scrap market as it exists in Europe and in North America, for instance.
On average in 2021, Aperam's products, including those made in Brazil where the scrap market is still almost nonexistent, contain 66*% of metallic scrap. This consolidated figure integrates the excellent performance of the stainless steel melt at our Stainless Europe sites, with some of our Austenitics from Genk recording rates over 90%.

> Since its opening in 2009, our Recyco subsidiary is fully dedicated to the valorisation of most of the wastes generated by our melt shop (dust, several dozens of kilotons per year), hot strip mill (scales) and cold mills (pickling sludges, shot blasting dusts) and we like to promote it as a perfect example of the circular economy (see last year's Report).
> In 2021, Aperam purchased the Zutendaal scrapyard, which is located just 1 km away from our Genk steel plant, allowing for just-in-time deliveries taking into account our production mix. The yard has a surface of 25.000m² and is equipped with the necessary tools to grant an optimal quality of the incoming materials.
From a logistical point of view, the yard can offer a multimodal transport solution. All forms of alloyed scrap can be delivered by truck from regional scrap processors or Original Equipment Manufacturers. On top of this, ASB Recycling (new name of the scrapyard) also has the possibility to discharge/load barges at/from its own quay along the Albert Canal, which is all the more so interesting as the steel plant of Châtelet can either unload directly these barges on the scrapyard or put the material directly in the baskets that go to the EAF. The yard also has a railway-connection to ensure deliveries by wagons.
Overall, this yard offers the possibility to better valorize different flows of raw materials from a cost perspective. Both our steel plants and ASB Recycling will closely work together to achieve the most optimal raw material mix.
Acquiring this yard will strengthen Aperam's position from an environmental point of view and will help us to achieve our targets related to CO_2e reduction and sustainability efforts.


Packets of Chromium Steel in the ASB recycling yard.

Placing the circular economy at the core of Aperam's strategy

On May, 6th Aperam announced a strategic transaction to further strengthen its cost and ESG leadership position with the acquisition of ELG.
ELG is a global leader in collecting, trading, processing and recycling of stainless steel scrap and high performance alloys, delivering 1.3 m tonnes of materials annually, employing ~1,300 FTEs in 52 locations in 18 countries. ELG generated an adjusted EBITDA of EUR 55 million in 2021. The acquisition was subject to customary regulatory approvals and the transaction was completed in the last days of December 2021.

But all of our units are busy improving their own recycling ratio.
■■■ In 2021, Aperam S&S Italy Podenzano Service Centre started to promote the recycling of wooden pallets that are used for our stainless steel packaging.
Indeed, our strong and excellent relationship with customers has allowed us to build a long-term partnership and, in particular, to optimise consumables, by reusing them several times.
The first step was to analyse the number of batches of pallets sent to each customer over the past two years. We then focused on the largest customers and asked if they were willing to be trained on how to manage pallets used for stainless steel packaging, identifying which ones are reusable.
This action has three great advantages: the reduction of packaging purchase costs for us, the increase in customer satisfaction because they do not have internal disposal costs and storage space for the used pallets and the satisfaction of blue collar workers because it means having one supplier less (and less maintenance).


Pallet recycling at Aperam S&S Italy

Other Initiatives

Industrial Risk

Risk assessment

> The work started 2 years ago on our industrial risks continued in 2021 with some important steps launched in order to consolidate our approach and improve our maturity. Key achievements include :

- Divided by 2 the numbers of top risks identified and by 3 the highest on the European perimeter, thanks to effective mitigation plans implemented
- Started a safety management process approach for our Timoteo unit
- Updated our risk assessment via internal/external benchmarking and REX
- Assessment of the effectiveness of the controls implemented at our Châtelet plant as pilot before to expand to all main sites
- Continued the TCFD climate risk assessment methodology deployment preventing the potential negative consequences of the climate change.

In 2022, we will build a multi-year roadmap based on 4 pillars :

- Treat and mitigate known industrial risks
- Continue the identification of potential risks by implementing a regular loop for update and adaptation
- Improve the prevention of the repetition
- Strengthen our governance.

Emergency preparedness

In the meantime, identifying and assessing our risks to be prepared in case of an emergency situation is the cornerstone of industrial risk management.
On all our sites, the local teams are regularly trained and refreshed in order to have a good reaction and to swiftly apply the emergency procedures.

■■■ As an illustration, in 2021, the Gueugnon site redefined the internal emergency plan (named POI in the French regulation) and began the retraining of all the people involved in this process.
The local teams also exchanged with the public fire department (See pictures) about the exercise conducted with them in order to improve their awareness of the site and to enhance the coordination between the internal and external emergency departments.

This strategy paid off on July 10th when a fire broke out in a maintenance building. Local and external worked swiftly together, with as results, no human and environmental consequences and very low impact on our activities.

Emergency preparedness in Gueugnon.

Remediation and decommissioning

In line with Aperam's commitment to ensuring we have zero long-term impact on our planet, we have to deal with the former Firminy/Unieux plant (France), where metallurgical activity was carried out between 1910 and 2013. During 2021, we finalised the framework to conduct the full remediation of the site and its preparedness to receive new activities. This was achieved through a trusted relationship with the different authorities involved. The final work started early 2022.

Voice

"In line with the actions undertaken in the last two years with the local teams, we now go on with a consolidation of our approaches. Our aim is clear : we want industrial risk management to contribute to a sustainable business.

Securize our people, our neighbours, but also our environment and our production tools for now and for the future is our motto."

Florent Lavarenne
Global Industrial Risk Coordinator

Transportation Impact

Freight Transportation

> In Europe, in 2021, we were able to compute for the second time our complete transport footprint. We saw again an apparent increase in the road transport modal part, resulting from the continued rise of direct deliveries to smaller end-customers than in the past. The Rail transports, which historically corresponded to the internal transports of semiproducts between our mills, are now including more and more shipments of finished products to our Service Centres as well as to major industrial customers that accept to be delivered with this mode. From our Isbergues mill, we have more than doubled our shipments of finished products by rail and aim to double it again in 2022 with a strategic plan with our rail transport partner Lineas.

> In Brazil, in 2021, steel transport was mostly carried out by road. We did not export slabs and we shipped little cargo in the rail modal.

■■■ Aperam BioEnergia is dedicated to producing charcoal from our very own renewable eucalyptus forests, to replace coke in our Blast Furnaces. Traditionally, the transportation of wood from the different parcels of forests to BioEnergia's carbonization units has been outsourced. We identified gaps for improvements in this set-up - including costs, performance, and also employee safety - all of which jeopardise our ability to produce charcoal in a fully responsible and sustainable manner. As a result, the team decided to look for alternatives.

After carefully comparing different options, the project team decided to insource its wood transportation. To start, they purchased and standardised a fleet of 28 trucks, each of which offers high performance standards and reduced emission levels. The team brought onboard 62 truck drivers and 10 mechanics, including several that previously worked with the contracted outsourcing companies. Other workers came from local communities, and several female drivers were also hired.

Each truck was further enhanced with sensors, satellite tracking and other technologies that allowed its activity to be centrally monitored in real time and the drivers to be guided and supported, both of which greatly improved efficiency, safety and security. The project also implemented planned maintenance cycles to increase equipment reliability, reduce production losses, and improve cost competitiveness.

By bringing its wood transportation in-house, BioEnergia is now able to transport over 2,200 m^3 of wood every year – all at a considerable cost savings - and with happy drivers and lower environmental impacts.

Transportation Impact (estimates[1], excluding maritime)

Indicator	Unit	2021 Brazil	2021 Europe	2020 Brazil	2020 Europe
Rail traffic	% shipments (except Maritime)	**11.6**	**44.4**	16.2	45.2
Road traffic		**88.4**	**45.3**	83.8	51.4
River/Other traffic		**0.0**	**6.6**	0.0	0.4
Short sea		**0.0**	**3.6**	0.0	3.0
Trucks loading	%	**92.1**	**81.7**	92,8	82.3

(1) Estimation based on major plants, all European Service Centres and most of the Alloys division's transports.

A glance at the video presenting the disruptive project involving technological add-ins and a strong monitoring to improve performance on the transportation of wood at our BioEnergia unit.

Cleaner Mobilities

In 2019, we reported on how our Genk facility installed the first charging stations in the parking area for electric vehicles. This was developed further in 2020 and 2021, and now the idea for 2022 is to make sure that the solar plant that is also covering the parking area allows charging the employees' vehicles.

In parallel, in 2021, our Isbergues site installed 4 electrical terminals for employees to recharge their vehicle starting March. Beyond passenger vehicles, the site aims to replace its fleet of forklifts with lower emission models (i.e. gas or electric, depending on payloads).

Biodiversity

Our BioEnergia subsidiary is the only Aperam unit with a strong historical Fauna Monitoring Programme in place to scrupulously monitor local diversity in the Jequitinhonha Valley of Minas Gerais (Brazil) and the sole entity operating in protected areas or areas of high biodiversity value GRI 304-1. The unit also is an award-winning innovator, when it comes to developing forest management practices protecting biodiversity - see 'BioEnergia received Brazil Ministry's Semad Recommend Seal' insert.

However, in response to growing concerns of our stakeholders, as well as in view of the strong consensus appearing on the intertwined issues of Climate Change and Biodiversity, we decided to set up solid and systematic biodiversity plans at our main plants.

We built a company-wide procedure that defines the basis for a minimum, systematic biodiversity monitoring, even in areas where the issue is not considered as manifest. Based on the Global Reporting Initiative and ResponsibleSteel™ frameworks (see Koen's testimony to the right), this approach entails a preliminary identification of local or invasive species, their natural habitats, and of the possible disturbances that changes in our operations (artificialisation, lightning at night, etc.) could cause. The goal is to combine this baseline with a proactive plan to be set up in cooperation with local experts such as regional or municipal authorities or NGOs.

At the end of 2021, the plant scorecards for biodiversity are in place and we are starting to build KPIs in order to ensure a continuous improvement.

■■■ A good example of the new practices is to be found in Isbergues, where part of the site is being redesigned to harbour in harmony the industrial activities of Aperam and other resident companies as well as the employees and their desire to transition to a climate-conscious and environmentally-friendly cohabitation with the surrounding nature. One of the ways to do so was to arrange a hiking path where the employees could take a walk or picnic, during their breaks, learn about the local species and noticeable trees thanks to information boards scattered on the trail - and pay a visit to the new bee hives.

This is just a flavour of the full plan integrating biodiversity being built in Isbergues under the name 'Ecolonomy' - see next p. 48.

ResponsibleSteel™ impact

" The Genk plant already had a dedicated ISO14001 and ISO45001 management system, embedded in our day to day operations. But aspects like biodiversity really got our attention.

We got to work out projects to promote biodiversity on site, stimulated by a large group of motivated colleagues to bring up the ideas."

Koen Gielen
Head HSSE & Central Lab

BioEnergia received Brazil Ministry's Semad Recommend Seal

On November 24, as part of the schedule of the XXIV Brazilian Symposium on Water Resources, in Belo Horizonte (MG), was held the ceremony for the Semad Recommend Seal 2021, which recognizes projects intended to promote the preservation and maintenance of an ecologically balanced environment in Minas Gerais.

In 2020, the Company was awarded the project "Give recycling loops", which since 2017 has promoted the recycling of materials to create returnable bags and pet bottles for the production of brooms, involving groups of women from rural communities in Itamarandiba and Capelinha, in the Jequitinhonha Valley. This time, in 2021, the honour was granted to the programs "Integrated Pest Management (MIP)", which consists of the development of ecological solutions for the biological control of forest pests, and the "Project Notice of the Aperam Acesita Foundation", which encourages and enables projects and initiatives of non-profit organisations.

Through this MIP program, BioEnergia controls pests in renewable eucalyptus forests cultivated in the Jequitinhonha Valley, using a technology for the production of natural enemies, pioneer in Brazil. Pest management is carried out in a preventive way and with an innovative methodology, which provides teams in the field daily to survey existing pests and identify critical areas, release natural enemies with drones, traps distributed at strategic points, among other tools.

For Daniel Coelho, executive manager of the Forestry Techniques area, certification by the Semad Recommend seal is an important recognition of the Company's sustainable performance, which is at the forefront of the forestry sector. *"We are very proud to be awarded for the second consecutive year by the Semad Recommend Seal for our environmental performance. With this, we know that we are on the right path in relation to our purpose, which is to make the production of Aço Verde Aperam viable based on responsible practices that protect the environment and local biodiversity, in addition to always seeking the support of the communities".*

Our Oikós Environmental Education Centre in Brazil

Located in Timóteo, the Oikós Environmental Education Center is a 989 hectare piece of Atlantic forest, which houses numerous springs and species of fauna and flora. It hosts several activities, including visits for scholars. Training courses are also offered to the community, with a focus on the recovery of springs and degraded areas, through a partnership between the Foundation and the National Rural Learning Service - Senar. With a list of courses aimed at professional training and social promotion, this initiative also offers classes for Multipurpose Forest Workers on topics such as the recovery of degraded and altered areas.

More than 60,000 visitors from different age groups have passed through Oikós to raise awareness of this rare biodiversity riches - and it also acts as a carbon sink, as evidenced by our calculations!

Raising Awareness for a true transformation

Again in 2021, we could not organise interactive and in-person company-wide World Environment Day celebrations. We only initiated a photo contest on the topic of “Aperam & Biodiversity” to go with the new procedure requesting a formal analysis of biodiversity issues at our main sites. This was combined with a small home-made quiz to recall our objectives while raising awareness at our plants’ TV screen and more importantly a video recalling in 10 subtitled versions the principles of Aperam’s Environmental policy.

Photograph by Aperam Employee for 2021 Biodiversity Picture contest: Harmonie Beaunée, Executive Assistant

In that recording, 22 speakers from all over Aperam, working in HSE roles as well as in Operations, R&D and Purchasing functions, from Brazil to Poland, were detailing in their own language Aperam’s approach to environmental protection and pollution prevention, as a matter of importance for all employees!

But that’s only the Corporate side of the subject, because some of our teams are busy with larger-scale plants. See the examples of S&S Poland and Isbergues (see inserts ‘S&S Poland’s Eco Sustainability Project’ on the left and ‘Isbergues’ Ecolonomy project - what’s that?’, on the next page).

S&S Poland’s Eco Sustainability Project

‘There’s only one Planet Earth, and everybody must do everything they can to protect it for future generations.’ That’s what the team at Aperam S&S Poland explains, when asked about their “7-Step Action Plan for Eco Sustainability”.

The project was launched to promote best practices in ecology at the Siemianowice service centre (75 employees). “Every employee, regardless of location or position, has an obligation to take action for the environment,” says Agata!
The 7 steps include:
1. Manage Auxiliary Materials: recover and reuse interleaving paper; collect and reuse pallets and carton tubes from customers; replace polypropylene dividers with cardboard dividers.
2. Reduce Power Consumption: install motion-activated and energy efficient LED lighting in offices and other facilities.
3. Manage Waste and Raw Materials: implement strict rules for waste and scrap segregation and check compliance with regular audits; focus on recovery of raw materials.
4. Take Care of Nature: install beehives on the plant’s premises.
5. Reduce Amount of Printing: use mobile shop floor audit forms, etc.
6. Increase Employee Awareness: collect aluminium cans and plastic bottle lids for recycling; provide training on beekeeping during H&S Day.
7. Eco-conscious Management Practices: ISO 14001 certified since 2008, the team is committed to continuous improvement.

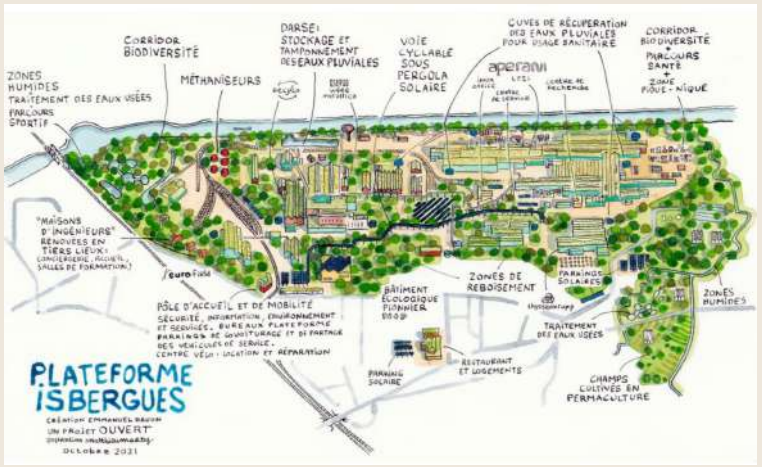
Not only has this action plan successfully raised awareness about how even the simplest changes can make a big difference, it also helped the plant cut costs. For example, by replacing polypropylene dividers with cardboard alternatives, the plant has saved tens of kilo-euros in just one year.

With that project, S&S Poland won the internal Services & Solutions Championship and qualified for the group-level competition. Their hard work paid off and enabled them to reach the final of the Challenge as the only team in the S&S segment.
Employees are now working to help other plants follow their lead and take concrete steps to become more eco sustainable at their own locations.

Isbergues' Ecolonomy project - what's that?

In 2021, the Isbergues site embarked on an innovative "*ecolonomy*" project (ecology + economy = ecolonomy), that will allow it to reduce its environmental impact while ensuring the sustainability of its activities. This large-scale project has received wide-spread support from the site's employees, local and group management, and local stakeholders such as the Hauts-de-France prefecture. Although the project was conceived by Aperam, it welcomes ideas and involvement from all companies located at the Isbergues site. In fact, several have already decided to join. The project also seeks to involve other local partnerships, for instance local schools and nursery gardens, the addition of which would help widen the project's scope, making it another way to bring stakeholders' engagement, partnering and local development.

A site visit to the first "*ecolonomy* company" was a real source of inspiration for this project. This was followed by a collective intelligence workshop to raise awareness about the challenges of climate change (a Fresque du Climat workshop).
Based on input received during this workshop, a new vision for the Isbergues site was designed. This ambitious Isbergues 2025 vision, which is illustrated in the below watercolour, reimagines a site that meets the objectives of the ecological transition by preserving biodiversity, increasing the use of sustainable mobilities and renewable energy, and preventing pollution. At the same time, this vision also aims to provide an ideal workplace for both existing and future employees.



The project has been broken down into an action plan that can be implemented via phases over the course of the coming years. The rollout includes a mix of participative workshops that leverage employees' enthusiasm combined with thoroughly planned technical projects.

Finally, 3 half-days of collaborative work allowed the team to materialise their ideas into medium and long-term action plans. The latter will be split around six main themes, three of which will be fully supported by employee "project ambassadors", namely collective commitment, biodiversity and mobility.
In 2022, the project will enter its structuring phase, the first step to building the sustainable industrial site of tomorrow, all in line with our ResponsibleSteel[tm] commitment - more news to come!

ResponsibleSteel™ impact

" ResponsibleSteel™ certification gives our staff and stakeholders confidence in our ability to produce stainless steel in a sustainable way while respecting very demanding ESG criteria.

This certification conducts us to strengthen our relationship with external stakeholders (DREAL, District Authorities, mayors, local residents, etc) and internal workforce to give more visibility on our sustainable action plans.
It's also the expression of our commitment to respect the planet."

Gérard Grimbert
Isbergues Plant Manager

Interacting with our Stakeholders

We aim to achieve best practices in governance and apply the strongest business ethics. These are the keys to building trust with our customers, our employees and the communities we work in, to protecting our market position and licence to operate, and ensuring our ability to thrive.
Our strong customer focus, with innovation and R&D being key pillars, is a testament to the fact that we are good at listening and able to find the right solutions - a pattern we repeat in our social dialogues and stakeholder engagement.

Sustainably Profitable

> In 2021 the global health crisis resulting from the COVID-19 pandemic continued to have a profound impact on our daily lives. Thanks to very strict sanitary protocols, we were able to protect our employees from the pandemic and continued to serve our customers without any interruptions to our operations.
> In early 2021, we celebrated Aperam's tenth anniversary. Our Chairman of the Board of Directors commented: *"It has been a very successful first decade. Aperam has established itself as a leader in the stainless steel industry and has gained the strong support of its stakeholders through consistently delivering or outperforming its targets and managing its operations in a responsible way with a focus on safety and sustainability.*"
> After the 2020 worldwide crisis resulting from the pandemic, 2021 saw a rebound in global demand. Our profitability significantly improved, reflecting the buoyant market environment and also our successful efforts to make Aperam a much stronger company through our self help measures and Leadership Journey®.
In the end, Aperam's adjusted EBITDA reached a record of €1,060 million (2020: €293 million), and our free cash flow generation amounted to a historical high of €367 million (2020: €195 million). We also continued to invest to further strengthen our footprint with Capex reaching €152 million.

Long-term Strategy

Efficiency as an Employer's Responsibility and local energizer

> With our European downstream operations taylored to market conditions, we are now better able to capture opportunities for a sustainable future. This past adaptation involved reducing our tools from 29 to 17, but also, when necessary, responsible headcount reductions (see previous reports).
According to analysts, Aperam achieved an impressive turnaround and is now ready to seize the opportunities arising from the long-term growth perspectives of our markets. This responsible strategy and its efficient delivery explain the regular awards we receive from financial and ESG analysts (see next page). In 2021, with the acquisition of ELG (see p. 12), we open a new chapter of Aperam's history.

> Overall, in 2021, we channeled €535 million in salaries and €136 million in taxes to local economies, compared to a respective €482 and €80 million last year (GRI 201-1). Where our main sites are, in Belgium, Brazil (also taking into account, starting 2021, the Jequitinhonha Valley where operates BioEnergia) and France, we also play a key role leveraging the development and strengthening the local economy : the local spend (GRI 204-1) represented 45% of the total spend (vs. 50-51% in 2019-20, excluding raw materials). However, Energy being negotiated and sourced centrally, its price increase had a major impact on our costs in 2021, thereby also reducing the local share. Excluding this exceptional Energy effect, the shares of the local spend remain 51% compared to the three previous years for the other spend categories. This confirms that our local impact is significant and reinforces our commitment to sustainable purchasing.

At a glance GRI 102, 204-1, GRI 413-1

Indicator	Unit	2021	2020	2019	2018	2015
Customer Satisfaction: Alloys	Rate on 10	9.2	n/a	8.8	n/a	9.2
Customer Satisfaction: Stainless		7.9(2)	8,0(2)	n/a	7.6(2)	7.4(1)
Innovation (R&D spent)	€m	18	16	20	20	16
Lobbying Expenses - Europe		0.64	0.87	0.20	0.38	n/a
Lobbying Expenses - Brazil		0.45	0.12	0.22	0.17	n/a
New Stainless Products (3)	% of sales (index base 2015)	96	82	113	123	100
New Grain-Oriented Products (4)		2,032	1,735	1,735	690	100
New Non Grain-Oriented Products (4)		2,393	0	122	49	100
New Special Carbon Products		255	485	386	254	100
Fraud Allegations Reported	#	13	12	12	12	11
- Forensic Cases Founded		4	4	1	2	5
-- Significant Cases(5)		0	0	0	0	0
Ethical Allegations Reported(6)		10	4	0	0	0
- Ethical Cases Founded		2	4	0	0	0
-- Significant Cases(5)		0	0	0	0	0
Local Purchase at Main Sites	%	46	51	50	50	54
Stakeholder Engagement at Main Sites	%	100	100	100	64	n/a

(1): Europe, (2): Brazil ,
(3): European and Brazilian production together. (4): Electrical Steels Grain Oriented and Non Grain Oriented produced in Brazil.
(5): Following review by the Audit & Risk Management Committee.
(6): Human Rights including Health & Safety, Environment, Data privacy and other topics that can be reported through the whistleblowing hotline after scope extension in 2019-2020.

Innovation and growth

> After more than 2 years of intensive work, 7500 m³ of concrete, 9000 ton steel for the building and equipment, 500 km of electrical cabling and an intensive period of engineering, mounting and commissioning the first 2B coil on the new annealing and pickling line of Genk was produced on March 27th, 2021.

The new BUL4 is an innovative annealing and pickling line beyond the state of the art. The extensive use of information technology and robotization ensures a highly automated production process. Besides the classical furnace and pickling section, the line is equipped with an inline skinpass that allows to further enhance the quality of the surface and together with the inline edge trimming also reduces stocks and logistic issues.

The use of modern machinery and the digitalization of the processes ensure a high quality of our products, based on big data management models. At the end of the line samples are taken automatically in an ergonomic way and the coils are strapped automatically and labelled by a robot, ready for direct shipment to our customers and our integrated service centres. Full attention has been given to safety, including the use of LoToTo[6] and Rimses Safety[7]. With respect to maintenance, an approach of reliability management has led to the preparation of the preventive plans as an integral part of the project.

Safety, ergonomy, innovation, robotization, digitisation and sustainability are the cornerstones of this new investment. This investment enables Aperam to strengthen its position as an important and sustainably safe player in a global and highly competitive market.

> On September 6 and 7, to celebrate this achievement, our Genk office welcomed some thirty financial analysts, investors and bankers for our annual Capital Market Day. In addition to a site visit of the brand new line, our CEO, Tim di Maulo, presented our business strategy, followed by a presentation of our S&E Europe segment by Bernard Hallemans and a presentation of the A&S segment by Frédéric Mattei. Finally, our CFO, Sudhakar Sivaji, presented our financial policy and our medium-term objectives.

[6] Lockout Tagout Tryout (LoToTo) process outlines the steps employees must take to ensure machinery is isolated, dispersed of any stored or potential energy and rendered safe for service and maintenance tasks, before being re-energised for production.

[7] Rimses safety report provides an overview of all the safety measures that apply to a work order. Working permissions and safety certificates required for a process step are also part of Rimses Safety.

Social Relations

We believe that our operations are run in a constructive social climate. In line with the previous, our last Engagement Survey (October 2021) indicated a workforce aligned with the company's strategy and its mission to produce products of high social value, and ready to recommend Aperam as a good employer, with a high percentage of "favorability" to the questions from the "sustainable engagement" chapter of our Climate Survey, reaching 80% at global level, with significant differences depending on the countries (see right-hand table).

> **We have a strong culture of social dialogue,** which is reflected in our numerous exchanges in the local working councils, but also in our social agreements (particularly in France) that formalise our social policy with the unions.

As our divisions and operations cross borders, some of our projects take on a regional or international dimension. The European Works Council (EWC, initiated in April 2013) allows us to share and discuss with employee representatives our context, strategy and projects. Senior Management is very much engaged in this process, participating in discussions and giving a strategic outlook on the evolution of their business.

> In 2021, we held our 4 regular meetings with our EWC (select committee meetings and plenary sessions), and decided that each future plenary session will include within the agenda a "Sustainability" topic.
Working under the EWC umbrella, a specific H&S sub-committee, consisting of employee and employer representatives, continued to focus on reviewing and providing recommendations on H&S initiatives. It is by involving the members of this committee that we finalized our "Just Culture" in safety and decided to launch the MyCoach app', which is an innovative e-Coaching program that provides to our employee the knowledge, techniques and tools to boost physical and mental well-being and to promote both personal and professional development. It is a personalised tool and strictly voluntary.
At group-level, we report a 3.3% absenteeism for 2021 (+0.4 pts, see also p. 15-16), with important variations depending on countries (See adjacent table). However, these past two years, with the COVID-impact, and even more so in 2021 as it was not mitigated anymore by the economical unemployment in Europe, the figures need to be interpreted cautiously.

> In addition to these regular meetings, we also held 5 extraordinary meetings. We shared in Europe an important project of revision of our Footprint, integrating socially responsible measures and with strong partnerships with the local and national authorities of the countries concerned (see also next page).
We did not have any economic restructuring, resulting in collective redundancies, and the use of Temporary Employment was only in the full respect of the local laws, to deal with the impacts of the covid crisis.
As for 2020, we had to resort to partial unemployment but in a very limited way only for reasons related to the COVID pandemics. In fact, the activity itself was at a much higher level so we did not use unemployment for economical reasons.

Indicator	Unit	Belgium			France			Brazil		
		2021	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Temporary Unemployment	FTE	**35**	227	111	**32**	221	45	**6**	77	n/a
Employee satisfaction	%	**72%**	nc	nc	**70%**	nc	nc	**88%**	nc	nc
Absenteeism	%	**5.7%**	3.3%	4.8%	**4.8%**	4.7%	4.6%	**1.9%**	1.9%	1.4%

Voice

"We are convinced that dialogue with employees and their representatives, even in difficult situations or profound transformation, is an important pillar of our strategy and operating mode.
These relationships have been reduced in the context of the covid crisis (exchanges partly by video, less proximity, climate of collective anxiety, etc.) and mostly focused on the management of the health crisis and its consequences,
but now we need to reinvent and strengthen them."

Florian de Gélis
Employee relations in the European Work Council and Head of Human Resources France

Pont-de-Roide (France): a turnaround 180 years in the making

Increasing Pont-de-Roide's competitiveness is one of the key goals of Aperam's industrial plan, which was initiated in 2020. As part of a new strategy, Pont-de-Roide will transfer its rolling and annealing activities (first production centre) to the Gueugnon unit. This will allow the site to focus on the activity of its second centre (cutting to length, slitting, shipping).

To ensure the transformation's success, a significant investment is being made to modernise the ZR2 rolling mill, eliminating the safety risks associated with the manual flatness measurement operation while also upgrading the system. A large width precision slitting / cutting to length line will also be installed. The transformation is expected to be completed by 2023.
In parallel to these additions and upgrades, line 4, used for pickled annealing, was stopped in the fourth quarter of 2021, and ZR3 rolling should be stopped during the first half of 2022. To preserve the technical and human expertise in these fields, a "knowledge capitalization" approach was implemented to record technical information and collect employee feedback. A video recording of these testimonials is currently under production.

Of course, such a major transformation requires that the human dimension be fully addressed. Stopping the use of certain tools or reorganising teams generates a need to renew and/or acquire new skills. Actions have been taken to identify employees who are likely to retire by the end of 2026 and will not need to upskill. For others a capacity building plan is being rolled-out that includes competency matrices providing a clear vision of existing skills (what teams can do) and their flexibility (what teams already do), along with a personalised approach to facilitate the operators' training plans. 25 people have already received training, for a total of 350 hours.

Since early 2021, management and trade unions have worked on an agreement to support the change in the industrial organisation. Signed at the end of 2021, it adds advantageous measures (mentoring, internal mobility, end-of-career scheme) to the existing range of tools from the GPEC (forward-looking management of jobs and skills) agreement of December 22, 2015.

https://youtu.be/2O4HAeT6jsA

Left: Operators of line 4 with the last annealed coil.

Our Employers' Impact GRI 102, 201-1, 204-1, GRI 413-1l

Local Contribution	Unit	Belgium	Brazil	France	WorldWide
Plants/Division	sites	Châtelet, Genk from Stainless Europe	Timóteo, BioEnergia from Stainless & Electrical Steel South America	Imphy, Amilly, Rescal from Alloys : Gueugnon, Isbergues, Pont-de-Roide from Stainless Europe	Imhua (PRC), ICS (IN) from Alloys & Specialties Usti (CZ), Rodange (LU) from S&S Tubes
Service Centres		Genk (BeNeLux).	Campinas, Ribeirão Pires, Viracopos, Caxias do Sul	Isbergues (Lusignan)	Germany, Italy, Poland, Iberica, USA, Argentina;
Main Offices		(Genk)	Belo Horizonte and São Paulo	Saint-Denis	**Luxembourg HQ** and Sales Offices(1)
Own Staff (End of Period)	**FTE**	1,957	3,706	2,388	1,471
o/w Blue Collars		*1,276*	*2,848*	*1,386*	873
Forex rate: BRL	€	n/a	6.38	n/a	n/a
Wages & Benefits	EUR million	185	75	193	81
Community Investments		0.0	0.4	0.0	0.2
Payments to Government		31	34	18	53
Economic Value Distributed		**2,981**	**1,403**	**2,012**	**n/a**
CAPEX		73.3	53.3	21.3	3.5
Total Tax Contribution (2)		82.8	58.4	98.7	n/a
Local spent of main sites (3)	%	43.9	29.1	59.9	n/a

(1) Canada, China, Czech Republic, Dubai, India, Japan, Korea, Mexico, Nordic, Russia, Switzerland, Thailand and the United Kingdom.
(2): Sum of all the amounts levied with respect to Corporate tax, other taxes (taxes on assets, environmental tax,etc.), including social contributions (employer and employee share), the latter being also included within Employee Wages & Benefits (GRI-201-1)"
(3): % of Local spent of main sites (Châtelet, Genk, Timoteo, Imphy, Gueugnon, Isbergues, Pont-de-Roide) excluding Raw Materials, with local spent defined as paid to suppliers respectively from Belgium, in Vale do Aço (Minas Gerais), and France. (GRI-204-1)

Responsibility in the value chain

Overall Supply Chain CSR Risk Assessment methodology

In 2021, Aperam went further on the deployment of its last (2020) version of the Responsible Purchasing Policy. This policy is to be read in conjunction with our Code of Business conduct, which is also communicated to suppliers, and our general purchasing conditions that all highlight our principles and our expectations towards our suppliers. The same policy requires suppliers to participate in regular assessments and to inform us diligently in the event of significant incidents, for instance any impacts on local communities or on the environment.
Our policy also establishes clearly that working with supply chains that do not comply with our high ethical standards is not aligned with our practices. For instance, we remain attentive to our purchases involving the PRC province of Xinjiang to avoid benefiting in any way from forced labour imposed on the Uyghurs. In the end, when our due diligence concludes that a situation deviates from our standards and is not likely to be remediated and improved, and/or our demands in terms of information or monitoring remain insufficiently addressed, the business relationship can be either suspended or terminated.

In 2021, we informed 100% of the suppliers of both Raw and non-Raw Materials of this new policy. But proper implementation also requires a continuous training of the teams: by the end of 202, 100% of Sourcing buyers had completed the training on so-called “Conflict Minerals”, and also a specific “Protecting Human Rights” module. On the Non-Raw Material Purchasing team (around 80 buyers worldwide), 94% of the buyers got trained internally on Responsible Purchasing and on the ResponsibleSteel™ framework.

Risks amongst Suppliers of Raw Materials

> In 2021, we initiated a reinforcement of our investigations and stakeholder allegation watch. In particular, we launched the bi-annual global assessment campaign to assess our 106 raw material suppliers and decided that this study will be held yearly. In addition, we launched a study of CO_2 emission to the major suppliers in order to understand our upstream CO_2 footprint.
Based on the 2021 analysis, we identified only 1 supplier with potential H&S, environmental and ethical risks. These risks are partly due to a lack of required data and/or answers. Also, 14 lower risk suppliers (agents/traders) had not completed the full auto-assessment.

However, recent reports related to suppliers of FerroNickel from Guatemala raised our attention, triggering a review of our risk analysis in accordance with our processes. Considering the need for in-depth studies with a specific trading firm, we decided to suspend supplies. Since then, the relationship was terminated.

Interactions at Timoteo Shipping hall.

Risk amongst Freight Suppliers

> In 2021, in a context where many new carriers had to be developed to mitigate the drivers’ and transport capacity’s shortage, we had all entities assess all their carriers and other suppliers (176 in total) for Health & Safety, Environment and Human Rights. Further, we requested five suppliers an action plan :

- A company had to be sensitised to Health & Safety and requested to apply systematically all safety rules after flagrant ignorance was observed ;
- A second one was challenged for Human Rights issues, after being suspected by the justice of its country. The case has been sorted, and the supplier was finally confirmed after presenting a complete and detailed action plan ;
- The other three were requested action plans. Their performance is supervised with deep scrutiny and subject to requests for continuous improvement as part of our process.

Risks within Non-Raw Materials

> In 2021, a new supplier assessment method was implemented aiming to have a 360º view on key dimensions such as H&S, Environment, Sustainability, Quality and Performance. Two assessments were performed on our critical suppliers, one being a supplier self assessment focused on governance, certifications, policies and general documentation and the other being Aperam’s internal assessment taking into account the supplier performance on aspects such as technical specification meets, contract clauses/KPIs follow-up, delivery performance, claims registration/ treatment, audits performed/results, etc.

Supply Chain Risk Assessment

Supply Chain follow-up	Year	Universe covered (#)	Scope analysed (#)	Risks identified in terms of:			Suppliers presenting risks	
				Health & Safety	Other Human Rights & Ethics	Environ-ment	Total #	o/w recurring (>2 ans)
Raw Materials	2017	94	81	3	6	4	13	*n/a*
	2018[1]	95	82	2	2	4	8	*n/a*
	2019	96	77	2	3	2	7	*n/a*
	2020[1]	86	65	2	2	2	6	0
	2021	106	60	1	1	1	1	0
Non-Raw Mats (main sites' suppliers + transport)	2017	92	92	8	1	4	13	*n/a*
	2018	116	116	9	5	8	22	*n/a*
	2019	194	194	13	9	7	29	*n/a*
	2020	242	242	6	21	10	37	0
	2021	239	239	7	12	8	27	1
Total	2017	186	173	11	6	8	25	*n/a*
	2018[1]*	211	198	11	6	12	29	*n/a*
	2019	290	271	15	13	9	37	*n/a*
	2020[1]	328	307	8	23	12	43	0
	2021[1]	343	299	8	13	9	28	1

Both evaluations generate the SPI (Supplier Performance Index), which classifies the supplier on levels A, B & C. Aperam recognizes the suppliers that demonstrate satisfactory adherence level towards its policies and grants a Supplier Class A Certificate to the best rated. For suppliers classified as B & C, action plans are put in place in order to improve supplier's compliance towards Aperam's standards and policies. The new evaluation method is performed on a yearly basis although each supplier will be assessed every 2 years.

Voice

"It is key for Aperam that our suppliers also match our sustainability credo and goals. Our strong values translated into policies and processes are continuously improving to better follow our suppliers and closely work together to overcome any deviation of such values.

An example is this new evaluation process implemented in 2021 bringing good results and maturity improvement both at the suppliers and our buyers, and also the IT investments ongoing on process improvement."

Tulio Soares
Global Business Analyst

[1] *Update and follow-up of previous year's assessment for Sourcing.*

In order to proof test and further improve this new process, we ran 2 waves of evaluations in 2021. March-May 2021 related to 2020 performance and November 21-February 22 related to 2021's. As of February 2022, 100% of the action plans related to wave 1 have been implemented, 30 action plans from wave 2 are ongoing, to be implemented in 2022. In the course of 2021, the vendor's questionnaires have evolved to be more assertive on some specific dimensions (e.g. fraud alerting systems) and better match Aperam's sustainability strategy (in particular CO_2 emissions reduction targets and gender diversity). As a conclusion, 2021 was a key year for our sustainable procurement process improvement. Overall, reflecting the efforts on this assessment process, we observe a risk reduction of 27% in comparison to 2020, specially from the Human Rights & Ethics.

■■■ Even when dealing with global and reputational firms in our own and well-regulated countries of operations, Aperam remains attentive to media coverage and suspicions of pollution. In 2021, a risk was identified in Belgium, as part of our management of change, while we were actively looking for a product substitution by a new by-product from another supplier. After the identification of a media coverage highlighting a suspicion of contamination, a due diligence was carried out, and official requests for information released. As they did not fully discard the risk and the suspected occurrence, Aperam's decision was to put the trial on hold.
As next steps, Aperam will follow very closely the development of the action plan engaged by this particular unit to meet the regulation and demands imposed by the authorities. Only when the situation will be normalised will Aperam launch a new assessment to ensure the full conformity of the product proposed.

Risks and Compliance

Risk Monitoring

A Strong Process in Place

Our Risk Management process, facilitated by the Global Assurance Risk management function, was recognized in 2016 as being 'best in class' by an external assessment and according to the Standards of International Internal Audit. In 2021, a new external assessment confirmed that several best-in-class practices have been integrated within the Aperam risk management process which could be considered as mature with some heterogeneous levels within the Group. A top-down (in Q1-Q3) and a bottom-up (Q4) risk assessment is currently performed in order to identify, assess, mitigate and monitor all risks with a review of the mitigation action plans for all key risks. The process encompasses all possible areas, from taxes to natural disasters, and includes such topics as corruption, electricity prices, economic sanctions and money-laundering. Each risk is assessed in terms of impact and likelihood.

> This mapping is reviewed by the risk owners until the Leadership Team level. All key risks at group level are consolidated into a Global Risk Matrix, which is validated by the Audit and Risk Management Committee and are disclosed in the Aperam Annual Financial Report (GRI 102-15 - p.58-60).

> In 2020, this process was enhanced by adding several categories related to fraud risks, cybersecurity risks and compliance risks to raise the awareness of all participants and, in particular, plant managers, of their joint ownership and accountability over such risks, together with the Risk Management & Compliance Functions. In 2021, we continued the improvement of our processes, reviewing our impact guidelines with a specific look at our severity assessment grid and including risks pertaining to the physical or mental health of all publics, to social media impact and to the satisfaction of our local stakeholders. This was also in line with opportunities of improvements highlighted by our ResponsibleSteel audit.

In 2021, 20 fraud allegations were received resulting in 13 forensic investigations with four cases founded, none of which had a material impact on Aperam (GRI 205-3) and 12 investigations on non fraud allegations in 2021.

> All allegations outside of fraud, such as Human Rights (which cover Health & Safety, Harassment or Discrimination) are reported within "Ethical", while Environment or Cybersecurity/Data Privacy are categorized as "Others". We see some cases appearing but only in Brazil and more communications are needed to ensure all employees in Aperam will use this channel - GRI 102.17

All cases were shared with the Audit and Risk Management Committee, which reported appropriately to the Board of Directors.

Ethics & Compliance GRI 205-2 to 3

Indicator	Unit	2021	2021 Belgium	2021 Brazil	2021 France	2021 Other	2020
Fraud allegations reported	#	13	2	9	0	2	12
- Forensic cases founded		4	1	2	0	1	4
-- significant cases		*0*	*0*	*0*	*0*	*0*	*0*
Ethical allegations reported(1)		**10**	**0**	**10**	**0**	**0**	4
- Ethical cases founded		2	0	2	0	0	4
-- significant cases		*0*	*0*	*0*	*0*	*0*	0
Other allegations(2) reported(1)		**2**	**0**	**2**	**0**	**0**	0
- Other cases founded		1	0	1	0	0	0
-- significant cases		0	0	0	0	0	0
Training Rate (All White Collars)	%	78	n/a	n/a	n/a	n/a	52

(1) Through the whistleblowing hotline after scope extension in 2020

(2) Environment, Cybersecurity/Data privacy

In addition to these investigations, our Global Assurance Department performed 56 audits or advisory services in 2021. These provide a full review of our small and medium entities, high risk processes or emerging risks. Since 2018, the team has covered some sustainability-related topics such as Health & Safety and environmental issues. In 2021, our internal auditors initiated a specific study on Water consumption and participated in the preparation of the ResponsibleSteel™ certification in Europe.

Rolling Out our Compliance Framework

Mission and Organisation

> In 2021, our Compliance Framework further advanced our risk mitigation efforts. Highlights include:

- Implementation of anti-corruption, anti-money laundering and economic sanction policies; conducting training; and introducing initiatives to strengthen our compliance culture. Thanks to our proper due diligence, we can confirm that, in 2021, we did not trade with entities from OFAC sanctioned countries, nor with any of the entities targeted by OFAC targeted sectoral sanctions.
- Restructured the Group Policies and placed them on the Group intranet to make them easily available and accessible to all Aperam employees.
- Ran an in-depth Compliance Risk assessment with input from all concerned business leaders. This resulted in detailed risk matrices covering all compliance topics and included an evaluation of country/activity-specific compliance risks.

Communications

Regular awareness-raising initiatives are crucial to fully embed compliance into our culture, mindset and processes. Our communication schedule aims to cover all our topics in just a couple of years, focusing on a few topics every year. In 2021, the following company-wide communication initiatives were organised:

> As with the last three years, Aperam once again celebrated International Fraud Awareness Week. The goal of this initiative is to raise awareness about various fraud prevention and compliance topics and ensure a new, shared vigilance happens at all levels of the organisation.
Aperam continues to be an official supporter of the International Fraud Awareness Week event. From November 15 to 19, nine live sessions were organised with the participation of the Purchasing and Sourcing teams, who were the target audience of this year's edition. 184 participants from 18 countries joined the live sessions.
The live events were complemented by short movies, which were sent every morning of the week to all Aperam email holders. These films covered such important compliance topics as conflicts of interests and how to deal with confidential and sensitive information.

Cybersecurity Strategy

With the current atmosphere of uncertainty and constant change, Cybersecurity and Data Breaches remain a major growing concern. In its combat against Cybercrime, Aperam has established a **Cybersecurity Strategy** based on **4 pillars**:

1. As our first line of defence against Cybercrime lies with our employees, **User Awareness** is the first pillar of the Aperam Cybersecurity Strategy: In 2021 we introduced regular email phishing simulations in local languages, Short online training when employees got phished within this simulation accompanied the awareness program but also poster campaigns, quiz, and regular communications. The phishing emails used were very convincing and as the outcome emphasised the importance of awareness and training, these initiatives will continue in 2022

2. A second pillar is focussing on a timely **Resolution of Security Vulnerabilities** identified by regular scanning of the IT resources within the internal network and by penetration tests on our websites, accessible from the Internet.

3. Within a third pillar, Aperam is **Raising New Defences** to further protect its assets and information by introducing the latest technologies, like multifactor authentication and profounded monitoring tools to detect and alert on any unusual behaviour within our IT environment.

4. As backup is the last line of defence against Cybercrime, Aperam is **Revamping and Testing its Disaster Recovery Plans and Business Continuity Strategies** to ensure critical business processes are restored in a timely manner after being a victim of a Cyberattack.

In addition, an enhanced IT security communication channel will be established within Aperam, accompanied by an improved Cybersecurity Dashboard to support and assist the Aperam Management as part of their risk matrix assessment related to Cybersecurity and Data Protection Risk within their own perimeter initiated in 2021.

> 2021 also saw the company renew its Code of Business Conduct training. The self-guided training is available to all Aperam employees and consists of a short video featuring real-life examples and a quiz (see next page picture).

2021 Compliance posters.

The new in-house Code of Conduct training (English version).

Voice

"The compliance team in Brazil is also helping the organization advance its ESG agenda, with a focus on preventing or mitigating such risks as scarcity of natural resources, human rights abuses in the supply chain, workplace discrimination, accounting fraud, data breaches and more.

When we train our employees and business partners on compliance topics, we are not only helping them become more and more compliant with regulations, we are also inviting them and their families to be part of the construction of a more ethical society. In doing so, we are contributing to building a better, more ethical, equal and fair world."

Renato Pirfo
Head of Legal and Compliance Officer in Brazil

Lorena Ribeiro
Global and local Compliance analyst

> The last company-wide initiative, led by the Sustainability team and with the support of the Compliance, Corporate Inclusion & Diversity Working Group, and Human Resources teams, covered a completely different topic related to our Code of Conduct and Human Rights policies: the fight against discrimination and the promotion of diversity (see p. 23)

Alignment & Behaviours

In terms of alignment, we continued with the roll-out of the routines started in 2017, including the annual "compliance certificate" that summarises the year's actions for key leaders and site managers and the declaration of potential conflicts of interests for all exempts. Aperam's induction training also ensures that joiners are quickly informed of the company's key policies, with repeat sessions happening regularly to keep the topic at the top of mind. For instance, the 2021 mandatory compliance training pack included information on:

- Conflicts of interest
- Respectful workplace
- Data Protection
- Fraud awareness

These training sessions achieved over 75% participation! GRI 102-15

Technical Expertise, Audit and Continuous Improvement

Regarding continuous improvement, 2021 saw several in-depth projects related to the automatization and improvement of some of the routines embedded in our People Management system.

> First, thanks to the implementation of an automatic refresh function, all our mandatory declarations, such as Aperam Insiders' personal data and the Compliance Certificate, were automatically updated and refreshed. This allows for a more efficient analysis and follow up by the Compliance Team, resulting in:

- 99% completion of the compliance certificate
- 92% achievement on the conflict of interests declaration

Second, this same automatic refresh feature allowed us to auto update all our Aperam Insiders' personal data, ensuring an "Insider register" that not only complies with Luxembourgish regulations, but is also extremely effective.

> Other efforts focused on updating our third-party verification procedures, bringing them in line with regulations related to anti-money laundering, economic sanctions and anti-bribery - to name a few:

- Deployment of an automated and integrated screening tool for suppliers, expected to go into effect by mid 2022.
- Ongoing pilot analysis of the automation of customer screening in Stainless Europe and S&S.

Compliance Week at Aperam Brazil

In October 2021, Aperam South America held a Compliance Week with different activities tailored to various audiences. The highlight was a virtual Compliance Seminar that attracted more than 500 people, including people from our Brazil-based S&S and Tubes Sites.

The seminar was divided into two sessions, each of which lasted two hours. Both focused on human rights, discussing topics related to H&S, labor law, diversity and inclusion and included an extensive quiz on psychological and sexual harassment and discrimination. It was the perfect opportunity to share best practices from our different sites and reinforce the important role of our local Compliance Officers and ambassadors, playing in the fight against sexual harassment. It was also a chance to train people on our local procedure of investigations and sanctions in the case of misconduct related to ethics and compliance.

The seminar also had a very special external speaker, a Compliance Officer from a big multinational company who spoke about diversity and respect, sharing his own experiences and discussing how he helps his company work towards becoming a truly diverse and inclusive company.
The four hour training is available in our local e-learning platform and will be recommended to new exempt joiners.

Also during Compliance Week, we had several communications to blue collars via their supervisors and to white collars via emails. These communications focused on different topics in our Code of Conduct. We also launched new screensavers and posters about our compliance hotline.

Global Data Privacy at Aperam

As an international company with global systems and teams located both in and outside of Europe, Aperam not only enforces the European General Data Protection Regulation (GDPR), we also address dataflows outside the European Union. Aperam's Data Protection team is supported by local data protection correspondents at site level. A Data Protection Committee is also in place to review all ongoing actions and exchanges with the data protection authorities.

Aperam also sees compliance with the GDPR as an opportunity to rethink its day-to-day activities and customer relationships, even beyond data protection.

Voice

"For a global company like Aperam, engaging with all stakeholders in a structured and harmonised way is key. With respect to the GDPR, Aperam relies on local data protection correspondents. Thanks to their dedication and strong support, we have been able to further strengthen our processes and best practices in 2021.

The awareness of our stakeholders also plays an important role. With this in mind, our GDPR communications were cascaded across the Group, and an online training on how to detect and react to data breaches was proposed to our employees."

In 2021, we also launched a new Data Protection logo and motto, because we believe that Data Protection is more than a right, stated by data protection laws, but it's a culture and we need the involvement of all our employees on this important compliance matter!"

Laurent Beauloye
Company Secretary, Head of Communications and Data Privacy Officer

Relationship with Authorities

In principle, Aperam only engages in policy debates with governments and policymakers on topics that are of concern to its business.
In particular, our Code of Conduct stipulates very clearly that Aperam shall never subsidise any public body, civil servant, member of a political party or union. We also respect best practices in anti-corruption and promote a fair and competitive marketplace without the use of undue influence.
Our expenses in the context of public affairs and trade defence are detailed below, and include all relevant costs borne by Aperam, including the share of the fees paid to National steel making associations that relate to public affairs activities as well as Eurofer.

Lobbying expenses

Indicator	Unit	2021	2020	2019	2018	2017
Expenses - Europe	€m	0.64	0.87	0.20	0.38	0.10
Expenses - Brazil		0.1	0.12	0.22	0.17	0.10

Carbon markets and competition

The EU aims to achieve climate-neutrality by 2050, in line with the EU's commitment to global climate action under the Paris Agreement and the European Green Deal. We fully agree and support this EU target. This objective will translate into new regulations and incentives to invest in the transition (see also Taxonomy p. 34), reduce energy consumption and force all industrial players to adapt their processes accordingly.

As part of the European Green Deal, it is expected in particular that the EU will adopt new and ambitious legislations addressing GHG emissions, circularity, waste management, sustainability, energy, and industrial emissions.

Whilst these new legislations will certainly require the steel industry to adapt and make significant investments, they also represent an opportunity to accelerate the transition to a circular, low CO_2 business model of which Aperam wants to be a frontrunner.
It will be important in this context that the European ambition on sustainability and decarbonization goes hand in hand with appropriate measures to promote and defend a global level playing field, in order to ensure that the European industry is not put at a competitive disadvantage versus imports from countries that do not have equivalent goals and ambitions.

Trade Defense Update

For a long time, Aperam has been closely working with steel industry associations and other local trade associations, especially in Europe and South America, to promote the preservation and development of a level playing field for all market participants.
More and more, this work has also been driven by environmental concerns.
This activity has been particularly intense since 2018 and remains so today, due to the prolonged impact of U.S. protectionist measures (Section 232), the need to secure our markets from a growing number of unfair international trade practices (dumping, various forms of government subsidies, circumvention, etc.), and an increasingly difficult economic environment.

> In Europe, these issues have always been addressed within Eurofer, the European trade association, both during the periodic meetings dedicated to the steel industry's trade problems (External Committee) and, more specifically, within the forums dedicated to the subsector (Stainless Steel Working Group). In 2021, Aperam intervened through Eurofer in the following files:
- European safeguard measures on steel products
- Anti-dumping proceedings (against China, Taiwan and Indonesia) concerning imports of certain hot rolled stainless steel sheets and coils
- Anti-dumping proceedings (against China, Taiwan, India and Indonesia) concerning imports of certain cold rolled stainless steel sheets and coils
- Anti-subsidies investigation (against India and Indonesia) concerning imports of certain cold rolled stainless steel sheets and coils.
- A dispute at the World Trade Organisation (WTO) against Indonesian export restrictions on raw materials used in stainless steel production, which unfairly restricts international producers' access to raw materials for steel production, particularly nickel.

> In Brazil, Aperam and IaBR (Brazilian Association of Steel Producers) are regularly supporting the Brazilian Authorities for Trade Defence to monitor unfair trade practices. In 2021, Aperam participated in the following cases:
- An Anti-Dumping investigation on Stainless Steel Flat CR 304 (Indonesia and South Africa), launched on Feb, 25th and closed on Nov, 4th.
- An Anti-subsidy investigation on Stainless Steel Flat 304 CR (Indonesia), launched on June 2, 2021.

Stakeholder Relationships

Aperam sites are encouraged to regularly engage with local stakeholders, as doing so is consistent with our values and management best practices and also very important to our employees, who are also often our neighbours. This is why we formalised our approach in a formal External Stakeholders Engagement Policy, released in March 2021, and developed specific tools (see insert).

> In Brazil, we have a Foundation that is supporting local communities with “social impact investing” with particular attention on such topics as health, sustainability and employability. Called the Aperam Acesita Foundation, the organisation operates in Timoteo and the Jequitinhonha Valley, where we have our forestry (see next page).

> In Europe, our community actions are less structured and more opportunistic, when they do not model along the lines of a National or Regional event, like the “Weeks of the Industry”. They can also be very dynamic on some of our smaller S&S sites, with family days, local fairs and Christmas events. This being said, we are in the process of reviewing our approach, to be more proactive, as the ResponsibleSteel™ framework requests, and develop a more systematic and cohesive engagement and development plan in cooperation with local players. This will be fully embedded into our risk analysis to become a truly operational tool. See Yves’ testimony (insert) to understand how it has impacted our approach.

Proud team with the ResponsibleSteel™ certificate in Châtelet.

ResponsibleSteel™ impact

When I was first told about ResponsibleSteel™, I must admit that my initial reaction was a little negative! Another new standard when we are already certified for ISO 9001-14001-45001 etc... What's the point of adding another one? It was only later that I realised the importance and scope of "ResponsibleSteel™" compared to a ‘regular’ ISO standard.

The project was taken up by a dynamic team at the corporate level and by the managers at the various sites concerned, who were highly motivated after receiving detailed explanations of what the RS standard was.
The twelve principles discussed allow us to have a much broader view of the way we work, of our integration in our immediate environment and of our relations with all stakeholders. For me, this standard has prompted me to develop a broader vision of environmental issues. Despite the fact that we are in an area devoted to industrial activities, the research I had to carry out on the existing biodiversity, on the means to be implemented to protect or develop it, enhanced my approach to my mission.

Putting forward all the expectations and needs of all the interested parties is also a completely new approach. Contacting local residents, government agencies, social partners, local and regional authorities, etc., to ask them for their broader views on what they think of Aperam and its activities gives us a different vision of our image and what they expect from us.
It is now up to me, to us, to pass on this message to all the employees of the site. Like safety and production, any action, any operation must be thought through with a careful environmental approach before being implemented.

The future of our site will be closely linked to the evolution of everyone's mentality and I think that the ResponsibleSteel™ standard is an essential tool to achieve this.

Yves Bernis
Châtelet Environmental Coordinator

Gueugnon team with the ResponsibleSteel™ certificate.

In 2021, after a long COVID-related break, several Aperam's plants resumed their stakeholder engagement practices. Several participated in the Industrial Weeks events in Belgium and France. In Isbergues were invited youngsters as well as some 150 people, via Employment Agencies for shop floor visits or through a specific Lounge organised with the other industrialists residing on the site.

■■■ The Wallon Châtelet plant arranged a virtual visit that was followed by 100,000 people on Facebook and on the Sudpress website as part of an event that gathered 150 companies from Wallonia (see picture to the right). During 45 minutes, our Plant Manager presented the company and the specific activities of the plant, spoke about our recruitment needs and invited women to apply for jobs that are too often considered masculine, such as production operator.
Our Genk plant took part in the annual Flanders' *VokaOpenBedrijvendag* (VOKA) and opened its doors to an important public that same day, limited to 600, for Corona-related reasons. Following a very strict protocol addressing COVID and general safety precautions, the public could visit during almost an hour our stainless steel operations and recent investments in groups of 20 people guided by some 80 enthusiastic employees and veterans happy to show them around. This open door was also the opportunity for employees and the public to exchange on the plant's commitment to sustainability, advancements in automation and robotics, and the recent ResponsibleSteel™ certification.

Stakeholder Engagement, the Aperam Way

- ✓ Official Stakeholder Engagement policy
- ✓ Group Sustainability report in English
- ✓ Country supplements in local languages
- ✓ Entrance Posters and site-specific web pages with key Social & Environmental indicators
- ✓ Ongoing Environmental monitoring
- ✓ Stakeholder dialogue directly by sites or via our Acesita Foundation
- ✓ Development program via our Foundation
- ✓ 24h/7 Online contact form in local languages
- ✓ Company-wide Impact Assessment (2016)
- ✓ Human Rights/Discrimination risk method
- ✓ Biodiversity risk assessments in progress

(All public documentation available at www.aperam.com)

11 SUSTAINABLE CITIES AND COMMUNITIES

Above: Industrial Week in Wallonia.

Above: For Flanders' VokaOpenBedrijvendag (VOKA), the number of visitors was limited to 600 participants due to COVID-19 constraints.

Right: Aperam Genk's participation in the Industrial Week (VOKA Open Door Day in Flanders) was even featured on the National TV channel: VRT news, with an interview of Gert Heylen Plant Manager

Employee Survey

76% are proud of Aperam's contribution to the Community

■■■ Launched at the end of 2018 by the French State, the “Territory of Industry” approach aims at the industrial reconquest and the development of some territories by working around 4 axes: Recruit ; Innovate ; Attract projects ; Simplify. This new approach offers cities and industrial companies the opportunity to partner in favour of revitalising their industrial landscape : 148 Territories are thus mobilised throughout France. The Bourgogne-Franche-Comté region has 10 territories including that of Nevers/Val de Loire, which brings together 8,500 people working in industry of which 800 at Aperam Imphy.

Each Industry Territory must set up a local project committee, led by an elected-industrial pair. Our Imphy unit was selected as the industrial member of the tandem. The pairs are the keystone: manufacturers have their own strategy and constraints, elected officials have theirs on land use planning, but in the end we must find a common approach. Nevers Val de Loire was the first territory of Bourgogne-Franche-Comté to sign its contract in December 2019; This is proof that there is a strong expectation.

The great strength of this industry territory is to have understood that we are in an ecosystem, and that if we work together, we will have a good chance of solving our difficulties. This program is first and foremost about establishing stronger links between local authorities, manufacturers, state services and consular chambers.

There is a strong teamwork using project methods from the industrial world to serve shared ambitions. The overall plan is structured around 8 action sheets, two of which are very emblematic of the pooling of our efforts:

- the real estate offer to attract new projects to the Territory
- recruiting new people in our industrial companies

As to the real-estate offer, the subject is two-fold: companies that need premises to develop their project want a solution within a few months, and the law on the non-artificialization of land leads to an interest in disused buildings called industrial wasteland. These wastelands are numerous and vast on this particular territory.

Work in project mode made it possible to define a roadmap with the elected representatives concerned, for 8 large wastelands in 6 months. From a financial burden, these surfaces could once again become places of wealth creation.

With respect to the recruitment at industrial sites, no company can attract new people alone, we must also introduce them to social life, leisure, schools, care offers, means of communication… And the employment of the spouse is also an excessively important question: sometimes, employees leave us after two or three years of presence because their spouse did not manage to find a job.

Our ambition is to build a Workforce Management for all of our Territory based on the strategic challenges facing our companies in the 5 years ahead, in order to define the needs in jobs and skills, and in terms of training (initial or continuous).

The project celebrated 2 concrete achievements in 2021: Firstly, the design of digital and paper brochures to promote the attractiveness of the area: they’re giving the candidates who have spotted an industrial job a good deal of information for them and their family to help them settle into the Nièvre ! Also to be noted was the opening of local companies for a communication event called “Osez l'industrie” (factory visit, conferences). The implementation will continue in 2022.

Voice

“Investing time and efforts to partner with other industrialists and local elected officials appeared to me as truly essential to create a new momentum in favour of the dynamization of the industrial presence in our Territory and the rejuvenation of its image.”

Jean-Christophe Trontin
Imphy Alloys Plant Manager

Aperam Acesita Foundation

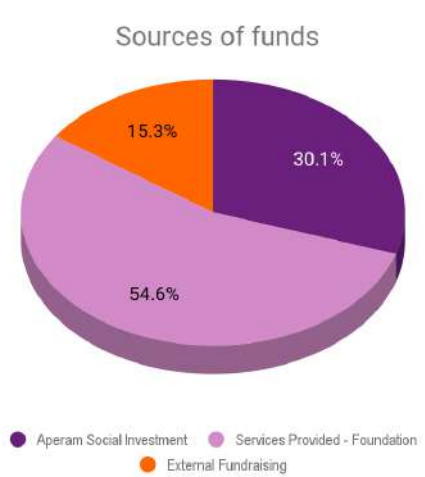
The Aperam Acesita Foundation continued in 2021 to be primarily responsible for carrying out the vast majority of initiatives for development and social strengthening operations in the regions of Vale do Aço and Jequitinhonha, through the roll-out of programs, projects and actions, to more than 26 thousand people with a financial investment of approximately R$ 3.71 million, of which R$ 2.65 million is directly invested in social projects (see pie chart for the split by area).

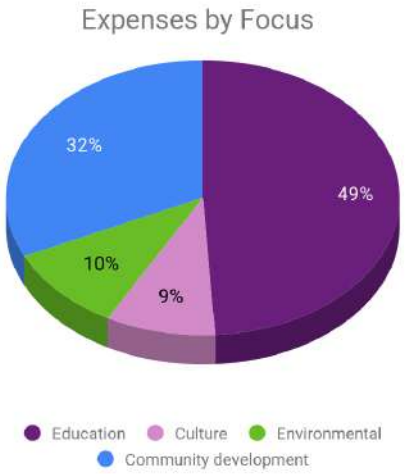
With the continuity of the Covid-19 pandemic, and the need of having adapted conditions to implement the projects in the communities served, who participated sometimes distantially, other times in person, we maintained the respect for the safety issues in relation to the health of all those involved. This particular condition brought the need for much more focused projects and actions, resulting in a reduction in the number of beneficiaries of the programs, compared to previous years. By maintaining various actions and events via the web, through the Aperam channels in Brazil, we totaled more than 65 thousand views of all events arranged.

Aperam Acesita Foundation Activity GRI 413-1

Indicator	Unit	2021	2020	2019	2018
Beneficiaries	#	> 26,000	> 40,000	>65,000	>64,000
Cultural Events		60	94	89	102
Online Events - Views		> 61,000	>265,000	n/a	n/a
Social Impact Investments (Social Projects only)	BR$ million	2.7	1.9	2.3	2.9
Other Aperam Acesita Foundation Expenses		1.1	0.8	0.9	n/a
Total Investments by the Foundation(1)		**3.7**	2.7	3.2	2.9

(1) Including expenses linked to the services provided.





- **Education and Training**

- Continuous Training of Education Professionals and Students.
We made available the training for education professionals in the Vale do Aço and Jequitinhonha regions, with the objective of providing the opportunity for permanent development, aiming at quality education, professional development, mental health of socio-emotional skills and a renewal in pedagogical practices.

Through the “Educational Circuit”, several pedagogical training meetings were held, benefiting more than 1000 people, who shared their knowledge through the training offered.

- School complementation projects:
Training in Traffic Education and the Drug Resistance Educational Program focused on children and adolescents, carried out in partnership with the Military Police and City Halls of the Vale do Aço region, as well as the Firefighters program in Schools, with the objective of working on the safety of students and education professionals, carried out in partnership with the Military Fire Brigade, which benefited more than 2 thousand students in 23 schools in the Vale do Aço region.

- Women's Empowerment - Entrepreneurship

Entrepreneurship program " Future of Work" with the objective of stimulating the entrepreneurial spirit and protagonist through the knowledge of the possibilities of career projection within the new perspectives of the market, benefited 212 young girls or who identify with the gender, from 15 to 20 years old from Vale do Aço and Vale do Jequitinhonha, with a workload of 1,200 hours of training.

- Student Connection

The project "Atletas Cidadãos" (Sportive Citizens) carried out through a partnership with Fundação Itaú Social, with the objective of implementing an educational platform to expand pedagogical practices, through the development of students' skills, through dynamic classes, interactive multimedia, simulations and games, adapting the school model the reality of the pandemic. Two rooms were created with all the necessary resources (tablets, internet, pedagogical games, etc.). Connection equipment, resources and the pedagogical platform were donated to the City Hall so that the cycle can be restarted in the coming years with other students.

• Professional Qualification

- Industrial

The Instituto do Inox, a qualification centre that is a partnership between the Aperam Acesita Foundation and the Associação de Aposentados de Timóteo, with the objective of promoting professional training and qualification, in many cases for socially excluded people who are looking for their first job, trained and qualified 41 people in stainless steel workability processes, including qualification in welding and finishing of stainless steels. Of note is the class held exclusively for women, for training and qualifying welders in the TIG (Tungsten Inert Gas) Process. More than 400 hours of training and capacity building were carried out in these qualifications. Another important qualification was that of employees of Aperam PCD (People with Disabilities in Portuguese), with more than 10 thousand hours of training for 30 employees with the objective of improving the development of competences, preparing them for work opportunities in the positions and areas previously identified .

- Rural

In partnership with SENAR (National Rural Learning Service) and Rural Employees Unions, it developed rural vocational training with the communities, with the objective of training professionals for the rural labour market, through various topics, such as Recovery of spring, backhoe loader, recovery of degraded areas, nursery, among others, benefiting more than 1100 people with a training workload of over 23 thousand hours in the communities involved in Vale do Aço and Jequitinhonha.

• Culture

Contributing to the cultural strengthening of the community and providing moments of rescuing and consolidating Christmas culture and tradition, the Christmas decoration of the facade of the Aperam Acesita Foundation and the now traditional Christmas Cantata were carried out, since it has been a landmark for more than two decades and tradition in the region's Christmas festivities. Due to the pandemic, the traditional model of the Christmas cantata was changed, being performed in a new format, itinerant, which toured the various neighbourhoods of Timóteo, where the children's choir of Aperam South America, performed in the squares. More than 15,000 people participated in these moments, whether visiting the Christmas decorations, where several records of the celebration of the families were made, or through the cantatas held in the various squares of Timóteo.

- Project Notice - Environmental Initiatives

Project Notice aims to select and support not-for-profit social organisations dedicated to developing environmental technologies. The goal is to promote projects that can have a positive socio-environmental impact in communities located in the areas covered by Open BioEnergy. Five social organisations were awarded. With a focus on the sustainable use of water resources and the use of sustainable energy, these projects collectively benefit 303 people in the Jequitinhonha Region.

● Aperam Bem Maior Project

The Aperam Bem Maior project, launched in 2020, aims to minimise the impact that COVID-19 has on the communities surrounding the company. In 2021, a total of 321 volunteers participated (employees and others) and, together, produced and distributed 50,000 face masks and almost 4,000 hospital gowns to hospitals, healthcare facilities and to the general public. The initiative also donated more than 10 tons of food, personal hygiene items, and hand sanitiser to socially vulnerable communities.

Other important actions by Aperam volunteers included repairing 19 respirators for the hospitals in the Valley of Steel; donating stainless steel to set up a COVID-19 testing site in Minas Gerais, and producing face shields for healthcare professionals. The project also conducted educational blitzes in various communities, working to alert everyone about the need for social distancing, how to properly use face masks, and the importance of sanitising one's hands.

The project also donated 1.2 million reais in hospital equipment for treating and monitoring COVID-19 to four hospitals/healthcare facilities in the Jequitinhonha Valley Region. This substantial donation strengthened the entire health system in the region, which has more than 130,000 inhabitants.

Aperam also participated in public campaigns like the #unidospelavacina initiative. Created in Brazil, this movement aimed to improve the distribution and vaccination of people. Aperam donated thermal boxes with temperature control and computers, earning the Company the recognition of being a sponsor and a proud partner of the movement.

For more information (in Portuguese), please visit: http://brasil.aperam.com/sustainability/fundacao-aperam-ace sita/a-fundacao/

A Focus on Sustainable Innovation

Our mission is to provide innovative steel and alloy solutions that are affordable, long-lasting, and that offer the strength and versatility our customers have come to expect. That's why we place a particular focus on growing our portfolio of high-value added products and solutions. For example, we continue to develop innovative products through our research and development initiatives (see *A Clean Tech Trailblazer*), while also leveraging our marketing and communication efforts to expand our brand recognition and grow our market share.

Sale of New Products by Category

Indicator	Unit	2021	2020	2019	2018	2017	2016	2015
StainlessSteels	Index base 2015	96	82	113	123	121	127	100
Electrical Steels - GO (1)		2,032	1,735	1,735	690	157	0	100
Electrical Steels - NGO (2)		2,393	0	122	49	22	91	100
Special Carbon Steels		255	485	386	254	230	153	100

[1] GO: Grain Oriented - [2] NGO: Non Grain Oriented

Employee Survey

91% believe in our Products

85% see Aperam as Customer-oriented

Note: after a certain amount of time (e.g., 5 - 7 years), a product can no longer be considered 'new', which explains the decrease in 'new' projects seen in 2020.

Yet while we are intent on growing, we want to ensure we do so sustainably. To do this, we are dedicated to producing products and solutions that both drive a circular economy and enable the sustainable world our future demands

A Clean Tech Trailblazer

When it comes to clean technology, Aperam continues to be a trailblazer. Take for example the global hydrogen market, a sector that Aperam has been active in for some time now. "Thanks to our strong partnerships across the hydrogen value chain, we've been able to significantly advance our work on the stainless steel boiler plates used with fuel cells," says Saghi Saedlou, Manager of Research and Innovation at Aperam Stainless Europe.

However, before hydrogen can become a viable source of fuel, the right infrastructure must first be put into place. Here, Aperam is leveraging the lessons learned from its fuel cell work to begin developing solutions for the entire hydrogen ecosystem – from storage to transport to use.

The R&D team is also regularly conducting market research on areas where stainless steel has the potential to bring a unique added value.
"A recent investigation identified areas where stainless steel's unique properties could make the battery systems used in electrical vehicles more robust," says Saghi Saedlou. According to her, this information serves as a blueprint for developing new stainless steel solutions.

But Aperam's R&D initiatives are by no means limited to the transportation sector. The team is also dedicated to developing sustainable solutions to some of society's most pressing problems – including the use of plastic packaging. For example, the Zero Plastic Project aims to position stainless steel as a sustainable alternative to the plastic packaging used in grocery stores. "Soon not only will you be able to bring your reusable cloth bag to the supermarket, you will also be able to bring a reusable stainless tray to get your meat, poultry, and fish products packaged," explains Saghi Saedlou.

The solution is currently being co-developed with the company's customers and in conjunction with Aperam's Services and Solutions segment. "This project is an excellent example of how our research and innovation initiatives leverage the strengths and capabilities found across the company and within our network of partnerships," adds Saedlou.

The company also has a pipeline of sustainable solutions for the building sector, including applications for roofing, facades, and structures. In addition to their excellent durability and long life span, because it is infinitely recyclable, stainless steel has become the material of choice for the building and construction sector, which now has an obligation to ensure the products and materials they use have a low carbon footprint.

Voice

"Whether it be new solutions for the transportation, packaging, or building sectors, our goal is always the same – to provide the very best stainless steel solutions for our customers and to help them transform those solutions into innovative products that ultimately benefit the end user."

Saghi Saedlou
Head of Stainless Steel Research, Europe

Enabling a Hydrogen Powered Future

Stainless steel and alloys are already being used in a number of important hydrogen applications, and Aperam is in the process of developing an array of innovative solutions, including water electrolyzers, stacks, storage tanks, water purifiers, and pipes. In addition to developing solutions for transporting and storing hydrogen, such as trailer and storage tanks, ships, and pipelines, we're also developing various end-user applications. These include the fuel cells used by hydrogen powered vehicles and the CHP (Combined Heat Power) units used by hydrogen heated homes and buildings.

Hydrogen Europe

Hydrogen is a key component to creating a new, sustainable, industrial era. That's why Aperam is a proud member of Hydrogen Europe, the European hydrogen and fuel cell association representing more than 300 industry companies and 30 national associations. We are also a big supporter of **Hydrogen Now!**, the international organization dedicated to making the hydrogen economy a reality for the world.

Alloys Drive the Future

Due to their efficiency and sensitivity, iron-nickel alloys are well-positioned to meet the requirements of the actuators, motors and sensors that will define many critical applications in the future. For example, their high performance makes them particularly well-suited for the medical field, including for the imaging and precise measurements needed in diagnostic research and for such devices as respirators.

Another area where Fe-Ni alloys bring an important added value is transportation and, in particular, electric transportation. In fact, the electric cars and eVTOLs (electric vertical take-off and landing) that are being designed today are already incorporating iron-nickel alloys as a means of optimising acceleration and torque while also decreasing energy use.

Customer Satisfaction

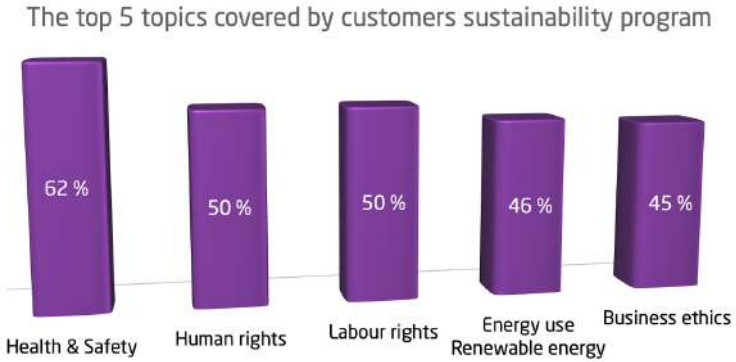
Indicator	Unit	2021	2020	2019	2018
Customer Satisfaction: Alloys	Rate on 10	9.2	n/a	8.8	n/a
Customer Satisfaction: Stainless		7.9(2)	8,0(2)	n/a	7.6(2)

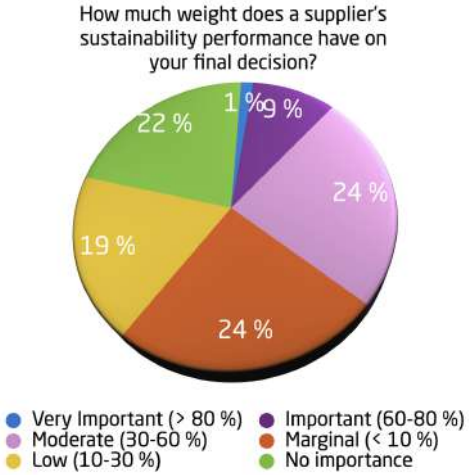
(1): Europe , (2): Brazil

Customer satisfaction remains a top priority, and something we measure via our customer satisfaction survey. Our 2021 survey (stainless in Brazil), the first since the start of the pandemic, gave us a score of 7.9, a slight decrease from 2020. Specific plans are in place for 2022, all of which aim to improve the overall score.

Customer Sustainability Survey

At the end of 2020, Aperam conducted its first customer sustainability-specific survey, the results of which were fully analysed in 2021. Answers came from customers operating in a variety of sectors, including automotive, white goods, and thermal applications. Questions inquired about whether a customer had a sustainability program, how they monitored their sustainability activities, and how much weight sustainability is given in their purchasing decisions.





The results showed that a company's ESG commitment varied greatly across different sectors. For example, the automotive and consumer goods sectors tend to have robust ESG programs, the result of both the stringent regulations they face on CO_2 emissions and consumer demand.
For other markets, we see that ESG is not yet a part or not an important part of their purchasing decisions, demonstrating the need to provide education and information about the value of sustainability.

Here, Aperam is dedicated to developing awareness about the difference between stainless competitors, highlighting the advantage of using stainless made from recycled scrap to lower CO_2 emissions and industry's impact on biodiversity.

How Our Environmental Product Declarations Benefit our Customers

As part of our environmental stewardship efforts, Aperam uses Environmental Product Declarations (EPD) to communicate about the environmental impact our products have across their lifecycle – including total carbon footprint and energy use throughout the supply chain.

Based on an independently verified life cycle assessment that follows ISO 14025, these EPDs also allow our customers to make informed decisions about the stainless steel they purchase. Furthermore, they help our customers calculate the environmental impact of their own application's lifecycle. This last point can be of particular interest to the building and construction sector when working under a 'green building' regulation.

EPDs are now available for (Aperam Stainless Europe's products):

- Cold Rolled – 304, K30 and K41 series
- Hot Rolled – 304 series

Growth by Substitution

Sustainable Alternative to Plastic Packaging

In the U.S. alone, an estimated 2.5 million plastic bottles are thrown away every hour - that's 22 billion bottles every year! And this is on top of the 100,000 tons of plastic straws and a countless number of plastic items that are thrown away after a single use. Instead of filling our landfills and oceans with plastic, why not make the switch to stainless steel?

Reusable and 100% recyclable, stainless steel is quickly becoming the sustainable alternative to single use plastics. For example, stainless steel water bottles, straws, plates, trays, cups, cutlery, and containers are environmentally friendly, durable, hygienic and safe. Because stainless steel is easy to clean, it can be reused endlessly, which results in less waste being produced and thrown away.

But these are just a few examples of how simple it is to substitute plastic with stainless steel, and Aperam continues to develop new stainless steel packaging solutions.

Redefining the Tipper Trailer

With our ENDUR brand high-strength stainless steels, Aperam has redefined the tipper trailer. By combining high hardness and mechanical resistance with corrosion resistance, ENDUR has positioned itself as the go-to-solution for the tippers (dump trucks) used to transport humid and corrosive products.

Offering increased equipment life spans, reduced downtime for maintenance and the possibility of weight reduction, companies like Facchini S.A., one of Brazil's leading utility truck manufacturers, has opted to use ENDUR for the open-box beds installed on its tipper trucks.

A Better Way to Transport Charcoal

Aperam BioEnergia is an essential component to our sustainability strategy. By producing charcoal from our own eucalyptus forest, it allows us to replace fossil fuels (coke) with a natural and renewable energy source. However, before charcoal can be used in our steel-making process, it must first be transported from the BioEnergia plant to the Timoteo plant – a process done via box trucks.

Over time, the truck trailers have begun to show some wear and tear, the result of corrosion caused by the charcoal and water. Instead of simply replacing the trailers, BioEnergia suggested creating a more resistant alternative. And for that, they used ENDUR 300.

At 1.50 mm thick, ENDUR 300 increases the box trailers' corrosion resistance, wear resistance, and mechanical resistance, while also reducing overall weight. As a result, the box trailers are expected to see their lifespan double, if not triple.

Currently, 13 of BioEnergia's fleet of 130 trucks feature the ENDUR box trailer, with more to be added in the near future (See also, p. 45).

Lean Duplex: The Material of Choice for Water Treatment Applications

When it comes to wastewater treatment applications, Lean Duplex stainless steels are well-positioned to serve as a good alternative to more commonly used austenitic grades like 316L. In fact, according to a new study published by *Materials and Corrosion*, a leading European journal in its field, Aperam's DX2202 grade of Lean Duplex stainless steel offers similar localized corrosion resistance as the 316L austenitic grade.

Beyond corrosion resistance, DX2202 offers a number of other benefits as well. For instance, its dual-phase structure gives Lean Duplexes mechanical properties that simply cannot be obtained when each material is used separately. This is why these grades have about twice the mechanical resistance as their austenitic counterparts, allowing for thickness reduction in some cases. Furthermore, the

material is easy to weld and, being four times less dependent on nickel price evolution, is more price competitive than austenitic alternatives.

Add this all up and there's no room for doubt: Lean Duplex DX2202 is a good candidate to replace 316L in water treatment applications.

Lean Duplexes were also the focus of a dedicated webinar. Held in November, the webinar highlighted what makes Aperam's Lean Duplex grades (DX2002/ DX2304) the material of choice for water, wastewater, and biogas applications.

DEKOR Tubes

Stainless steel tubes bring a number of key advantages to the table, including aesthetic appeal, cost-effectiveness, durability and corrosion resistance. They're also incredibly easy to maintain and clean. As a result, stainless steel tubes are the material of choice for a range of interior décor and architectural projects.

Unlike most tubes, which are made from austenitic stainless steel, Aperam's DEKOR tubes are made from ferritic stainless steel. Using at least 16% chromium and stabilized with niobium, our ferritic stainless steel tubes offer excellent resistance to corrosion and good welding performance. And because they do not require added nickel or manganese, these tubes also provide a great cost-benefit ratio.

Ferritic stainless steel tubes are already being used in the agribusiness, automotive and white goods sectors and are now available for applications in agriculture, decoration, construction – amongst others.

Stainless Steel – The Right Choice for Animal Nutrition Equipment

The feed troughs, mixers and carts used in agriculture have long been plagued by corrosion, abrasion and short service lives. That's why many livestock producers are making the switch from carbon steel to equipment made entirely out of stainless steel.

According to field tests, animal feed equipment made from Aperam's 410 and ENDUR 300 grades of stainless steel have a lifespan that is three times as long as comparable equipment made from carbon steel. Offering superior mechanical properties, stainless steel troughs can weigh up to 30% less, meaning less fuel is needed to transport the equipment. And because both grades offer unmatched resistance to corrosion and abrasion, there is less need for maintenance. This also means more protection for the feed against the elements, resulting in better quality nutrition for the livestock.

With ResponsibleSteel™ Certification, our Customers Know They've Selected a Partner of Choice

With Aperam being the first stainless steel player to be certified by ResponsibleSteel™, our customers know that they have selected a partner of choice, offering them the responsibly produced, 100% recyclable and low carbon solutions needed for the sustainable society we desire. It also means one can safely rely on our full commitment to accompany you further in achieving your own ESG, environmental and climate protection goals.

We look forward to further working with you and your teams in order to provide you with responsible and sustainable stainless steel solutions to address your current and future materials needs.

Voices

"The ResponsibleSteel™ certification completely changes the way we do business with our customers in terms of sustainability.
It is now our job to understand what they need and to explain how we can help them reach their own sustainability targets."

Nicolas Changeur
CEO of Aperam Services & Solutions and CMO Officer for Stainless & Electrical Steel Europe

Responsible™ Steel | standards & certification

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

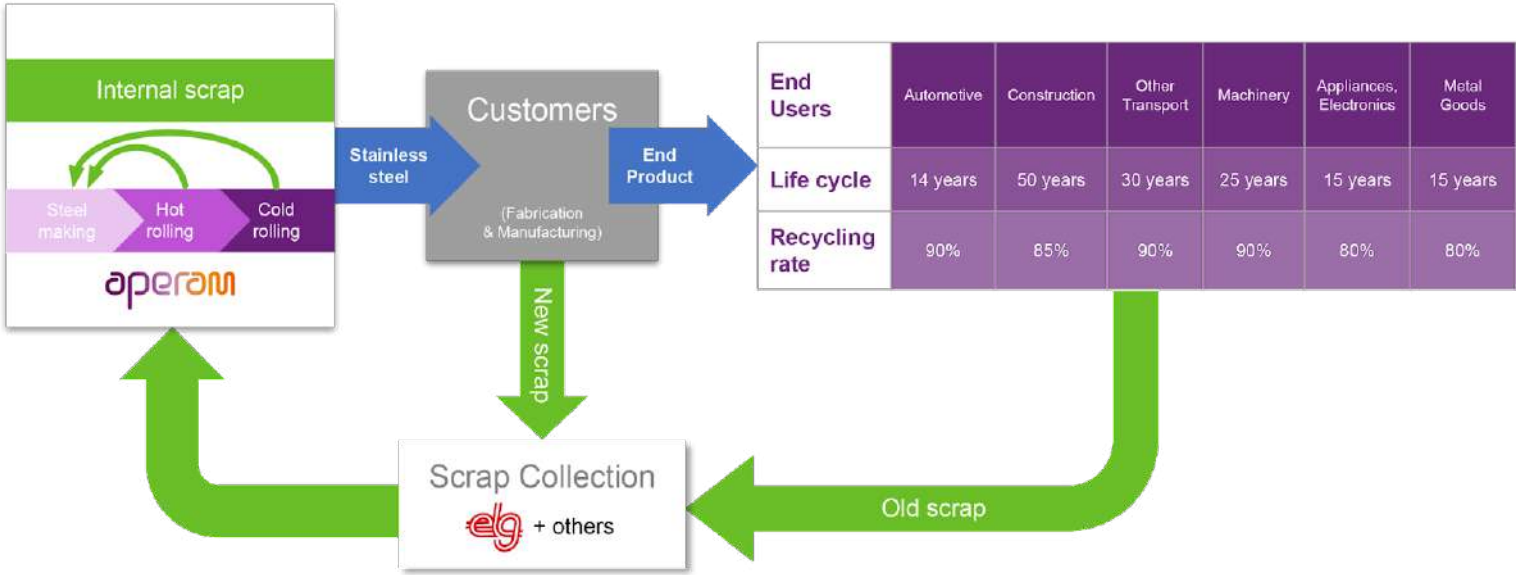
Aperam Completes ELG Acquisition…

In Europe, scrap is a key strategic raw material. It is also our cheapest raw material. As the world's second-largest stainless steel producer, acquiring ELG, the world's second-largest scrap supplier, has an obvious strategic rationale. It also marks another key milestone in our sustainability journey (See also p. 12).

That being said, it's not just Aperam that benefits from the addition of ELG – our customers benefit too. Through ELG, Aperam stainless steel will be produced using very high levels of scrap, meaning our customers benefit from knowing that the stainless steel they purchase from Aperam has the lowest CO_2 footprint. This is particularly important as end users become increasingly concerned about the environmental footprint of the products they purchase.

…and Enables the Circular Economy

Most importantly, our acquisition of ELG places us at the heart of the circular economy. To illustrate, although many of the products that our end users produce have very long lifespans, eventually, the stainless steel becomes scrap. And when it does, ELG is there to collect it and reprocess it into raw materials. Aperam then uses this raw material to produce the stainless steel that our customers transform into their end products.
From scrap to stainless steel and back to scrap again, the cycle continues, ultimately creating the sustainable world our future demands.



End Users	Automotive	Construction	Other Transport	Machinery	Appliances, Electronics	Metal Goods
Life cycle	14 years	50 years	30 years	25 years	15 years	15 years
Recycling rate	90%	85%	90%	90%	80%	80%

Growth through Service

Our industrial footprint in Europe and South America is perfectly complemented by our global service centres and sales networks, which are part of our Services & Solutions segment. In a volatile market environment, we believe that providing better customer service is the key to achieving financial and operational excellence.

Customer Service – Digitised

Simplify Orders and Save Time with e-Aperam

Aperam isn't just a stainless steel company, we're also a service company. This means ensuring our customers have the innovative materials they demand when and where they need them. For that, there's e-Aperam.
e-aperam is a comprehensive set of tools located in one convenient location and available 24/7.
Not only can customers place their next order for electrical steels, special carbon steels and stainless steels in just three steps, they can also check the material's certificate of quality, invoice and other order-related documents.They can even communicate directly with Aperam regarding special requests and unique needs.

Quotes Made Easy

Our Request a Quote feature makes it easier than ever for users to get information about our products and grades. Integrated into the Aperam website, to request a quote, all one needs to do is click on the basket icon located at the bottom of each product page. The feature also gives one the possibility to upload a PDF before submitting their request, or to reach out to their Commercial Contact. Once a request is received, it goes to a sales representative, who then follows up to discuss the request in detail.

Customers can then utilise the platform's My Quotes tool to manage, review and validate all their quotes – anytime, anyplace. No more wasting time trying to find a quote buried in your inbox. Simply login to e-Aperam and accept an offer.

Whether ordering by kilogram, piece, or package, e-Aperam has an advantage for every user.

Customer Newsletter

In 2021, we launched our *Made for Life* customer newsletter and published seven editions – including a special edition about our acquisition of ELG. Delivered direct to the subscriber's inbox, this bi-monthly newsletter is a great source for information, ideas and best practices on leveraging the many benefits of Aperam's products and services. This year, readers also gained access to a range of exclusive features, including e-books, inside reports and economic summaries.

Inox Talks

Webinar series
Inox
Talks

This year saw the continuation of our Inox Talks webinar series. Organised by Aperam South America, the webinars bring together opinion leaders, specialists, clients, and Aperam representatives for an in-depth discussion on new applications and alloys and the technical and economic advantages of stainless steel solutions.
The webinars can be viewed via the Aperam YouTube channel.

About this Report

This report is based on Aperam figures and inspired by the following initiatives: United Nations Global Compact; Carbon Disclosure Project; ISSF Sustainable Charter; WorldSteel Sustainable Charter, ResponsibleSteel™ principles ; and the Global Reporting Initiative (see Index below). Other GRI-related references are within our Online Supplements at www.aperam.com/sustainability.

GRI Index	Disclosure code	Reference
All indicators	103	Disclosure on Management Approach Online Supplement C.
Economics		
Economic Performance	201-1	Direct economic value generated & distributed - p. 6 - 7, 53.
Procurement Practices	204-1	Proportion of spent on local suppliers at main sites - p. 50, 51, 53.
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures p. 56 - 58.
	205-3	Confirmed incidents of corruption and actions taken p. 56.
Environmental		
Material	301-2	Recycled input materials used: - p. 31, 43.
Energy	302-3	Energy intensity - p. 31, 35.
	302-4	Reduction in energy consumption: p. 35.
Water and Effluents	303-3	Water withdrawal - p. 31, 39 - 40.
	303-4	Water discharge - p. 31, 39 - 40.
	303-5	Water consumption - p. 31, 39 - 40.
Waste	306-1	Water discharge by quality and destination - p. 31, 39-40.
	306-2	Waste by type and disposal method - p. 31, 42.
	306-3	Waste generated p. 31, 42.
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas, p. 46.
Emissions	305-1	Direct (Scope 1) GHG emissions- p. 31 - 33
	305-2	Energy indirect (Scope 2) GHG emissions - p. 31 - 33
	305-3	Other indirect (Scope 3) GHG emissions - p. 31 - 34
	305-4	GHG emissions intensity - p. 31 - 34
	305-7	NOx, SOx and other significant air emissions - p. 31, 36 - 37.
Labour		
Occupational Health & Safety	403-1	Health and safety management, assessment, consultation, training, prevention - p. 15 - 16.
	403-5	Worker training on occupational health and safety - p. 15 - 16, 26.
	403-9	Rate and gravity of injury, occupational diseases, lost days, absenteeism, number of work related fatalities, by region and gender: p. 15 - 16.
Training & Education	404-1	Average hours of training per year per employee by gender, and by employee category - p. 15 - 16, 25 -26.
	404-3	Percentage of employees receiving regular performance reviews, by gender and by employee category - p. 25.
Diversity	405-1	Diversity of governance bodies and employees - p. 19, 21, 23 and Annual Report 2021 (Board of Director and Leadership Team) - p. 67 - 75, 77, 82.
	405-2	Ratio of basic salary and remuneration of women to men - p. 21.
Supplier Assessment for Labour Practices	414-2	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken: Present report - p. 53 -54.
Society		
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programmes - p. 50, 60 - 65.

General Standard Disclosure		Information or comment and Reference (page number)
Organisational profile, Governance & Strategy		
GRI 102-14	**CEO statement**	Opening Words. Current report, p. 4-5.
GRI 102-1	**Name of organisation**	Aperam Cover and Back Cover.
GRI 102-2	**Primary brands, products, and services**	Aperam Annual Report 2021 p.19, 54-58, Current report p. 7-8.
GRI 102-3	**Location of headquarters**	Back Cover
GRI 102-4	**Countries of operation**	Production facilities are listed by geography in Aperam Annual Report 2021, p. 14-18.
GRI 102-5	**Ownership and legal form**	Public limited company in Luxembourg.
GRI 102-6	**Markets served**	Key markets and sales by destination. Current report, p. 7 and Annual Report 2021 p.19, 35, 152.
GRI 102-7	**Scale of organisation**	Aperam Annual Report 2021 p. 14, 117 and 208.
GRI 102-8	**Employees and workforce**	**Employees:** Figures based on FTE as of December 2021, Full time own employees at year-end excluding Haven Genk. A small portion of the workforce at BioEnergia in Brazil is subject to variations due to seasonal factors (growing cycle of the trees: planting, harvesting etc.).
GRI 102-9	**Description of supply chain**	Description of supply chain available within our Online Supplement C – p. 1.
GRI 102-10	**Changes to organisational profile**	Purchase of ELG, not covered in this report - see Current report, p. 12 and Annual Report 2021 p. 12.
GRI 102-11	**Precautionary approach**	See our Risk Management in Current report, p. 56 and Annual Report 2021 p.58-59.
GRI 102-12	**External initiatives**	We operate in partnership with various organisations, principally with the ResponsibleSteel™ association and through the Aperam Acesita Foundation in Brazil. p. 63-65.
GRI 102-13	**Associations and advocacy organisations**	EUROFER, Brazil Steel Institute, ISSF and WorldSteel. Annual Report 2021, p. 66.
GRI 102-15	**Key impacts, risks, and opportunities**	Annual Report p. 54, Current report and Supplements B and C.
Identified materials aspects and Boundaries		
GRI 102-45	**Entities consolidated in financial statements**	Aperam Annual Report 2021, p. 185. ELG is not covered in the current report (as mentioned in the first page caveat note, p. 2).
GRI 102-46	**Process for defining report content and topic boundaries**	In line with the GRI framework. Current report, p. 11, Supplement B. Description of our Stakeholders groups, reporting process and materiality analysis to be found within our Supplement C
GRI 102-47	**List of material aspects**	Current report, page 12-13. Description of our Stakeholders groups, reporting process and materiality analysis to be found within our Online Supplement C.
GRI 102-48	**Restatements**	Restatements may result from: Mergers or acquisitions, change of scope of segments, base years or periods, nature of business, measurement methods and tools.
GRI 102-49	**Changes in scope and boundaries**	No significant changes on scope and boundaries (ELG acquisition not covered in the report).
GRI 102-50	**Reporting period**	Calendar year 2021 (Annual) is reported in the Made for life Report 2021. Previous issue reported on calendar year 2020.
GRI 102-52	**Reporting cycle**	
GRI 102-51	**Previous report**	
GRI 102-53	**Contact point**	sustainability@aperam.com or contact@aperam.com
GRI 102-55	**Content Index**	Reporting to GRI in accordance at Core level. Current report, p. 1.
GRI 102-56	**External assurance**	Main report, and online supplement bundle. Current report, p. 1.
Stakeholder Engagement		
GRI 102-40	**Stakeholder groups**	Description of our Stakeholders groups as well as our reporting process and materiality analysis is to be found within our Supplement C. Current report, p.12-13, 60 and further, and Supplement B.
GRI 102-42	**Identification and selection of stakeholders**	
GRI 102-43	**Approach to stakeholder engagement**	
GRI 102-44	**Key topics and concerns**	
GRI 102-41	**Collective bargaining agreements**	100% of the Aperam employees are covered by collective bargaining agreements
Governance, Ethics and integrity		
GRI 102-18	**Governance structure**	Current report, p. 11, Annual Report 2021, p.68-88.
GRI 102-16	**Values, principles, standards, and norms**	Values in Current report, p. 9, Aperam Code of conduct – available on the web in multiple languages.
GRI 102-17	**Mechanisms for advice and concerns about ethics**	Annual Report 2021 p. 104, Current report p. 56.

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For all sustainability feedback: sustainability@aperam.com

For more information, please visit our website:
www.aperam.com/sustainability

Aperam Becomes First Stainless Steel Company to Earn ResponsibleSteel™ Certification

pwc

Independent Limited Assurance Report on a selection of Key Performance Indicators disclosed in the Sustainability Report 2021 - Made for Life

To the Board of Directors of
Aperam S.A.

We have performed a limited assurance engagement with respect to a selection of Key Performance Indicators disclosed in the Sustainability Report 2021 - Made for Life (the "Sustainability Report") of Aperam S.A. (the "Company" or "Aperam") as set out in the "Scope" section below.

Scope

The scope of our work was limited to provide limited assurance over the selected Key Performance Indicators as set out in the table in Appendix 1 (the "Selected Information").

Our assurance work was performed with respect to the information related to the year ended 31 December 2021 only and we have not performed any procedures with respect to earlier periods or any other elements included in the Sustainability Report and, therefore, do not express any conclusion thereon.

The Assessment Criteria

The Selected Information was prepared in accordance with certain sections of the Global Reporting Initiative (« GRI ») framework and additional methodologies defined by Company's policies (together the "Assessment Criteria") for the year ended 31 December 2021, accompanying the KPI disclosures in the Sustainability Report.

Management considers the Assessment Criteria relevant for the purpose of the Company's business and for the ultimate users of the Sustainability Report.

Responsibilities of the Board of Directors

The Board of Directors of the Company is responsible for:

- developing appropriate Assessment Criteria against which the Selected Information is assessed and applying those Assessment Criteria consistently;
- ensuring that those Assessment Criteria are relevant and appropriate to the Company and its stakeholders;
- designing, implementing and maintaining internal control procedures that provide adequate control over the preparation and presentation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- selecting and applying appropriate policies, and making estimates that are reasonable in the circumstances;
- the preparation of the Selected Information in accordance with the Assessement Criteria;
- retention of sufficient, appropriate records to support the reported data and assertions included in the Selected Information.

pwc

Inherent limitations

The Selected Information needs to be read and understood together with the Assessment Criteria which the Company is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time. In addition, greenhouse gas emissions ('GHG') quantification is subject to inherent uncertainty because of such things as emissions factors that are used in mathematical models to calculate emissions and the inability of those models, due to incomplete scientific knowledge and other factors, to precisely characterize under all circumstances the relationship between various inputs and the resultant emissions. Environmental and energy use data used in GHG emissions calculations are subject to inherent limitations, given the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques may result in materially different measurements.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants as adopted for Luxembourg by the "Commission de Surveillance du Secteur Financier" ("CSSF"), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Our firm applies International Standard on Quality Control 1 as adopted for Luxembourg by the CSSF and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Responsibility of the "Réviseur d'entreprises agréé"

Our responsibility is to express a limited assurance conclusion on the Selected Information as set out in the Appendix 1 based on the procedures we have performed and the evidence we have obtained. We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the "International Auditing and Assurance Standards Board" (IAASB) as adopted for Luxembourg by the "Institut des Réviseurs d'Entreprises". This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Selected Information has not been prepared, in all material aspects, in accordance with the Assessment Criteria.

A limited assurance engagement involves assessing the suitability in the circumstances of the Company's use of the Assessment Criteria as the basis for the preparation of the Selected Information, assessing the risks of material misstatement of the Selected Information whether due to fraud or error, responding to the assessed risks as necessary in the circumstances, and evaluating the overall presentation of the Selected Information.

In a limited assurance engagement, the procedures vary in nature and timing and are less in extent than for a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement.

Within the scope of our engagement we did not perform an audit or a review on external sources of information or expert opinions, referred to in the Sustainability Report.

Within the scope of our limited assurance engagement, we performed, amongst others, the following procedures:

- We gained an understanding of the Selected Information and related disclosures;
- We gained an understanding of the Assessment Criteria and their suitability for the evaluation and/or measurements of the Selected Information;
- We gained an understanding of the internal control procedures in place supporting the gathering, aggregation, processing, transmittal of data and information and reporting of the Selected Information, including controls over third party information (if applicable) and performing walkthroughs to confirm our understanding;
- Based on that understanding, we assessed the risks that the Selected Information may be materially misstated and determination of the nature, timing and extent of further procedures;
- We inquired relevant Company management, personnel and third parties;
- We performed analytical procedures related to the Selected Information;
- We considered the significant estimates and judgements made by management in the preparation of the Selected Information;
- We performed limited testing, on a selective basis of evidence supporting the reported Selected Information and assessed the related disclosures; and
- We obtained representations from management and the Company's Sustainability responsible officer over the completeness and accuracy of the information presented.

Limited Assurance Conclusion

Based on the procedures we have performed and evidence we have obtained, nothing has come to our attention that causes us to believe that the Company's Selected Information for the period from 1 January 2021 to 31 December 2021 has not been prepared, in all material aspects, in accordance with the Assessment Criteria.

Restriction on Use

Our report has been prepared for the Board of Directors of Aperam S.A., and solely for the purpose of reporting to them the "Selected Information" disclosed in the Sustainability Report and must not be used for any other purpose. We do not accept nor assume responsibility or accept any liability to any other person for this report.

PricewaterhouseCoopers, Société coopérative
Represented by

Luxembourg, 28 April 2022

Gilles Vanderweyen
Réviseur d'entreprises agréé

Appendix 1
Selected Information Table

Key Performance Indicators	Units	GRI Referentials	Topics
LTIFR - All	%	GRI 403-9	Occupational health and safety
Severity Rate - All	%	GRI 403-9	Occupational health and safety
Energy: Elec + Nat. Gas + LPG	GJ/tcs	GRI 302-3	Energy
Energy: All	GJ/tcs	GRI 302-3	Energy
- CO2 sequestration -- *Also named Sequestration (absolute value - incl. fires) in the report*	ktCO2e	-	Emissions
- GHG emissions (net) - *Also named Scope 1+2 net intensity (all tons) in the report*	tCO2e/tcs	GRI 305-4	Emissions
Dust emissions (exhaustive)	t	GRI 305-7	Emissions
Dust emissions (exhaustive)	g/tcs	GRI 305-7	Emissions
Water Consumption	million m^3	GRI 303-3	Water and effluents
Water Consumption	m^3/tcs	GRI 303-3	Water and effluents
Scope 1 - Non-Biogenic (absolute value)	ktCO2e	GRI 305-1	Emissions
Scope 1 - Biogenic (absolute value)	ktCO2e	GRI 305-1	Emissions
Scope 2 (absolute value) location based	ktCO2e	GRI 305-2	Emissions
Scope 2 (absolute value) market based	ktCO2e	GRI 305-2	Emissions
Scope 1+2 gross intensity (own tcs)	tCO2e/tcs	GRI 305-4	Emissions
Scope 1+2 gross intensity (all tons)	tCO2e/tcs	GRI 305-4	Emissions
Scope 1+2 net intensity (own tcs)	tCO2e/tcs	GRI 305-4	Emissions
Metallic scrap ratio	%	-	Metallic scrap

Supplement A

United Nations Global Compact references

To facilitate stakeholders' understanding and benchmarking of our corporate responsibility performance, we show how our operations and strategy align with the UNGC's ten principles (www.unglobalcompact.org).

Our Sustainability Report and specific additional items (as noted) represent our UNGC Communication on Progress (COP).
1. Our Statement by the Chief Executive is on p. 4-5 of the 2021 Made for Life report.
2. Our practical actions to implement the Global Compact principles in the four key issue areas of human rights, labour, environment and anti-corruption are described in our Sustainability Report, as well as in online supplement C which covers our disclosures of Management Approach (MA).
3. Our measurement of outcomes is described in the performance dashboards "at a glance" of each section, on p. 14, 30, 49 of the 2021 Made for Life report.

Further detail is provided in each chapter:

Human Rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
Principle 2: make sure that they are not complicit in human rights abuses.

>> Assessment, Policy, Goals and Implementation:
Our policies and how we implement them are described in all our Sustainability reports and in the online supporting documents, specifically:

■ Sustainability Report p.54-66 (Supplier impact, Risk and Compliance, Stakeholder relationships) and Online Supplement C (Economic; Supply chain management);
■ Code of Business Conduct, available on www.aperam.com under sustainability and corporate policies;
■ Purchasing Policy, available on www.aperam.com under sustainability and corporate policies and purchasing page;
■ Annual Report Corporate Responsibility Statement p. 54-58;
■ Online Corporate Governance at Aperam' page: https://www.aperam.com/investors/corporate-governance/board-composition-committees
■ Human Rights Policy, available on www.aperam.com under sustainability and corporate policies.

Labour

Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4: the elimination of all forms of forced and compulsory labour;
Principle 5: the effective abolition of child labour; and
Principle 6: the elimination of discrimination in respect of employment and occupation.

>> Assessment, Policy, Goals and Implementation:
Examples of how we implement our policies are described in the 2021 Sustainability Report and in the online supporting documents, specifically:

■ Sustainability Report p.19-23, 54-55 ,56-59 (Diversity of talent, Supply Chain, Risk and Compliance) and Online Supplement C;
■ Human Rights Policy, available on www.aperam.com under sustainability and corporate policies;
■ Code of Business Conduct, available on ww.aperam.com under sustainability and corporate policies;
■ Purchasing Policy, available on www.aperam.com under sustainability , corporate and purchasing policies.
■ Annual Report Corporate Responsibility Statement p. 54-58; and
■ Online Corporate Governance at Aperam' page: https://www.aperam.com/investors/corporate-governance/board-composition-committee

United Nations Global Compact references
continued

Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges;
Principle 8: undertake initiatives to promote greater environmental responsibility; and
Principle 9: encourage the development and diffusion of environmentally friendly Technologies.

>> Assessment, Policy, Goals and Implementation:
Our policies and how we implement them are described in the 2021 Sustainability Report and in the online supporting documents, specifically:

■ Sustainability Report p. 31-48 (Environmental impacts) and p. 67-73 (Product & Customer responsibility);
■ Environment, Energy, Health and Safety policies, available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Code of Business Conduct, available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Purchasing policy, available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Annual Report Corporate Responsibility Statement p. 107-110; and
■ Online Corporate Governance at Aperam' page: https://www.aperam.com/investors/corporate-governance/board-composition-committee

Anti-Corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

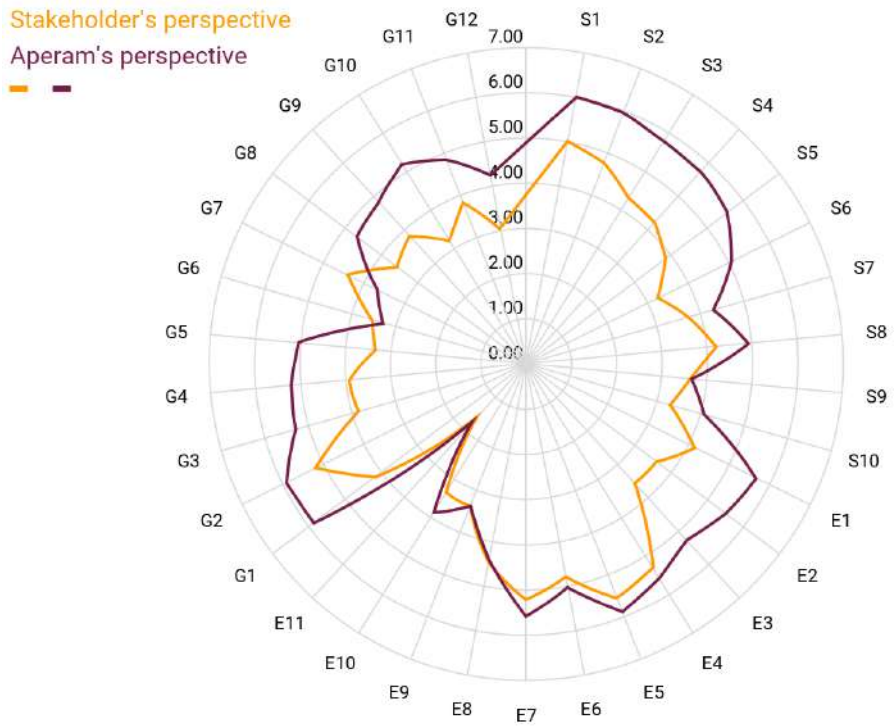
>> Assessment, Policy, Goals and Implementation:
Aperam Policies and implementation are described in the 2021 Sustainability Report and in the online supporting documents, specifically:
■ Sustainability Report p. 56 (Risks and Compliance);
■ Code of Business Conduct, available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Purchasing Policy, available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Anti-corruption and bribery policy on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Annual Report Corporate Responsibility Statement p. 104-106; and
■Online Corporate Governance at Aperam' page: https://www.aperam.com/investors/corporate-governance/board-composition-committee.
■ Anti-Money laundering policy available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;
■ Tax policy available on www.aperam.com under Sustainability > Environmental and Documentation > Group > Corporate Policies;

In addition, Aperam underlined in its 2018 report its full support to the United Nations Sustainable Developments Goals. In particular, the reasons for our unconditional support to nine of them, which are listed below, are detailed all along the 2021 Made for Life report as well as in the previous reports.

Supplement B

The Report Materiality Process at Aperam

2021 Group Materiality matrix



This graph presents the Stakeholders' and Aperam's perspective points concerning the Material topics. The items are listed below as per their priority level, a priority ranking which has been defined by multiplying the notes given from both perspectives (this year, assessment made by the site managers according to the exchanges led during the year 2021 with local different stakeholders).

1	E05 Industrial security & Pollution Prevention	12	S05 Competencies & Employability	23	S06 Employer Branding
2	G02 Business Ethics & Legal Compl.	13	S08 Diversity & Equal Opportunity	24	G10 Innovation and product differential
3	S01 Occupational Safety	14	G04 Competition & free trade	25	G07 Urban Integration & circulation
4	E04 Air & Dust Emissions	15	G03 Customer Satisfaction	26	S07 Stakeholder & Community Engagmt
5	E07 Climate Change, CO2 & severe weather	16	E02 Energy footprint	27	S10 New work patt. & Work/Life Balance
6	S02 Health	17	E08 Noise and smells	28	S09 Philanthropy & Social Impact Invest.
7	S03 Social Dialogue & resp. variabilization	18	E03 Environnement Mang. Syst. & Awareness	29	E10 Biodiversity
8	G01 Cost Leadership & Efficiency	19	G09 Sustainable Supply Chain & Resp.Purch.	30	G12 Positioning in the Value Chain
9	S04 Employee Engagement	20	G11 Digitalization, Data Priv; & cyber-criminality	31	G06 Local Development
10	E06 Water Management	21	G05 Cash, Debt & Financing	32	E09 Transport impact
11	E01 Raw Material Cons., Waste & recyc	22	G08 Mkt Dynamics & new consumption patt.	33	E11 Dismantling

Determining Report Content

We follow a structured process to identify our most material sustainability issues and determine the content of our report.
This is based on the GRI Reporting Principles for Defining Report Content. To determine if an Aspect (Topic) is material for us, we assess its potential impact in sustainability terms and on our business. This assessment evaluates potential financial and reputational risks to Aperam; the importance to our stakeholders and the links with our mission and goals. Initially, from our internal risk perspective, we evaluated the magnitude of the impact using a 12 points scale from Minor risk to Critical risk, and we started with this methodology to assess our Sustainability risks too.

> In 2014, further to regular stakeholder engagement at our six main plants in Europe and Brazil, we updated the 2013 assessment and improved our local and Group-level materiality dashboards and we identified 12 sustainability Aspects for the Aperam.

> In 2015, decided not to conduct a full review but to drill down on a specific stakeholder group: Aperam employees. As a result, we used a specific Survey, asking our people to prioritize topics on the three pillars of our Sustainability strategy: Aperam people; Environment; Governance. The responses collected from our worldwide staff from all Divisions confirmed that our previous matrix was still valid, with Health & Safety undisputedly the primary focus of the Company and Aperam employees fully supporting the action plans deployed to that regard. The survey also highlighted two additional topics, "Local Pollution Prevention" and "Quality of Life at work", which were then added to our matrix and 2015 report.

Also, we received questionnaires from several ESG-rating agencies and enquiries from shareholders' associations. We have taken these elements into account both for our internal focus on some areas and for our 2015 Sustainability reporting.

> In 2016, our matrix was updated using the 2014 methodology, but taking into account the answers from our 11 major sites including three sites for Service & Solutions (Brazil, Germany and Italy) and two additional industrial units with more specific business, Précision in Pont-de-Roide and BioEnergia. Some topics emerged at that time (eg. 'Noise' 'Traffic', although they did not rank on the top.
Indeed, the Group matrix is being consolidated using each of the matrices defined by our units and weighing their responses based on the number of their employees, so the smallest units cannot reshuffle the top topics. A final fine-tuning was performed using the feedback of our Leadership Team to reflect the opinions of non-local stakeholders (eg. Professional Associations, Large Industrial customers, ESG analysts,...).
Thanks to this process, we expanded the scope to cover 85% of our global workforce and managed to reflect the diversity of our sites, stakeholders and material topics.

> In 2017, we decided to continue with the approach initiated in 2015 trying to focus regularly on one specific Stakeholder group and we set up specific meetings to engage with local authorities at each of our main sites.
Such meetings were an opportunity to explain our strategy in detail, present short term action plans on stakeholder engagement at local level and evaluate each of the material aspects of our GRI matrix in face-to-face meetings. It was the opportunity for a typical "helicopter view" exercise where the important points which are perfectly handled get no less attention than the less important areas where some issues need solving.
This exercise allowed us to confirm that our matrix was still valid while refining our vision, in particular thanks to the add-in of four distinct topics:

- "Urban integration", was not in our matrix and had never arisen until then.

- "Industrial Security": we had already covered in previous reports, within the "Pollution prevention" chapter where we were describing the protocols in place to ensure quick reactions in case of accidental pollution. It is obviously clearer to distinguish these two topics as matters of intrusions are also covered by National programs, in particular with the European anti-terrorism context whereas "Pollution prevention and remediation" can deal with awareness, installations such as retention basins or regular simulation exercises.

- "Noise" : the issue was tackled in view of our Environmental permits, but not identified among the most material ones, especially at the largest plants.

- 'Traffic' was considered into the Transportation impact, but it gained importance in our matrix with Local Authorities confirming their concerns in relation with 'Urban integration' and/or congestion.

> In 2018, we changed our scale analysis from twelve to six points from Minor to Critical risk, and requested our eleven major sites to update their local matrix. We observed slight differences between both 2016 and 2018 Group-level matrices, with eight of the top ten items of 2016 still there in 2018, and the inclusion of three topics. As a result, the topics 'Fair business practices', 'Energy consumption', and 'Waste & Recycling' ended up within the top ten topics.

> In 2020, we decided to consider the discussions from the ResponsibleSteel™ forum as the main source for checking and updating our materiality matrix. It makes sense as all those members and participants reflect different interests and perspectives, from industrialists who know the difficulty that we can face, NGOs and Unions that stress the responsibility of heavy industry in the protection of the living beings, down to customers and suppliers, that bring a different perspective.

As a result, and based on the discussions held to define the ResponsibleSteel™ site-specific standard, we decided to add two material aspects ('Biodiversity' and 'Decommissioning'), previously identified but not considered of paramount importance and therefore not reported upon systematically.

> In 2021, we updated our matrix based on the same methodology (site-level input consolidated based on FTE weighing, plus LT feedback), but also taking into account the audit led during the year, according to the framework of ResponsibleSteel™. This included direct exchanges between our AFNOR auditors and our stakeholders. Although they remained confidential, the generic feedback we received was that we do not disregard the major topics. We also added a specific 'Local Development' topic, to recognize the expectations of ResponsibleSteel™ and to separate the 'Health' subject from the 'Safety' topic to reflect the new program set up in the aftermath of COVID. We also merged and/or renamed a couple of topics for further clarity like 'Social Dialogue and Responsible Variabilization', the new 'Stakeholder and Community Engagement' or the 'Raw material consumption, Waste and recycling' as they come as the two faces of the same coin for us.

The final matrix is available on the first page of this Supplement, with the total list of material topics (GRI 102-47) also reported within the main 2021 Made for Life report (p.13).

GRI Index

GRI Index	Disclosure code	Reference
All indicators	103	Disclosure on Management Approach Online Supplement C.
Economics		
Economic Performance	201-1	Direct economic value generated & distributed - p. 6 - 7, 53.
Procurement Practices	204-1	Proportion of spent on local suppliers at main sites - p. 50, 51, 53.
Anti-corruption	205-2	Communication and training about anti-corruption policies and procedures p. 56 - 58.
	205-3	Confirmed incidents of corruption and actions taken p. 56.
Environmental		
Material	301-2	Recycled input materials used: - p. 31, 43.
Energy	302-3	Energy intensity - p. 31, 35.
	302-4	Reduction in energy consumption: p. 35.
Water and Effluents	303-3	Water withdrawal - p. 31, 39 - 40.
	303-4	Water discharge - p. 31, 39 - 40.
	303-5	Water consumption - p. 31, 39 - 40.
Waste	306-1	Water discharge by quality and destination - p. 31, 39-40.
	306-2	Waste by type and disposal method - p. 31, 42.
	306-3	Waste generated p. 31, 42.
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas, p. 46.
Emissions	305-1	Direct (Scope 1) GHG emissions- p. 31 - 33
	305-2	Energy indirect (Scope 2) GHG emissions - p. 31 - 33
	305-3	Other indirect (Scope 3) GHG emissions - p. 31 - 34
	305-4	GHG emissions intensity - p. 31 - 34
	305-7	NOx, SOx and other significant air emissions - p. 31, 36 - 37.
Labour		
Occupational Health & Safety	403-1	Health and safety management, assessment, consultation, training, prevention - p. 15 - 16.
	403-5	Worker training on occupational health and safety - p. 15 - 16, 26.
	403-9	Rate and gravity of injury, occupational diseases, lost days, absenteeism, number of work related fatalities, by region and gender: p. 15 - 16.
Training & Education	404-1	Average hours of training per year per employee by gender, and by employee category - p. 15 - 16, 25 -26.
	404-3	Percentage of employees receiving regular performance reviews, by gender and by employee category - p. 25.
Diversity	405-1	Diversity of governance bodies and employees - p. 19, 21, 23 and Annual Report 2021 (Board of Director and Leadership Team) - p. 67 - 75, 77, 82.
	405-2	Ratio of basic salary and remuneration of women to men - p. 21.
Supplier Assessment for Labour Practices	414-2	Significant actual and potential negative impacts for labour practices in the supply chain and actions taken: Present report - p. 53 -54.
Society		
Local Communities	413-1	Operations with local community engagement, impact assessments, and development programmes - p. 50, 60 - 65.

The Boundary Protocol

Aperam operates in Europe and South America and the specific sites that are subject to the materiality process were (the same) eleven production facilities from Brazil, Belgium, France, Germany and Italy, representing over 80% of our workforce. Operations within the boundary of the report represent all main entities included in our consolidated financial statements (GRI 102-45).
This list of entities is provided p.208 of our 2021 Annual Report.

However, there are entities included in our consolidated financial statements that are not subject to the sustainability reporting processes and coverage (GRI 102-46). These are as follows:

■ Process: As described, the materiality assessment is based on the eleven significant sites and the views of the ESG Committee. The resulting list of material Aspects is then applied to the whole Group.
■ Materiality Process: The materiality process highlights topics that are material for the Group and does not supersede local analysis and specific site-based action plans. Additional information identified in the GRI G4 Mining and Metals Sector Disclosures document is somewhat relevant to Aperam operations and reporting; for example, 'Additional disclosure requirements' for Economic and Environmental information is not relevant but we have included information for the local community aspect; and
■ Coverage: We report performance data for the Group (G4-102-46).
Aspects, their indicators and the materiality boundaries are shown below. The disclosures on Management Approach (MA) information is shown in Supplement C.

Reporting notes

General reporting notes:

Safety data covers all our operations, as well as contractors on site.
People data does not include contractors but cover all employees at year end, in Full-Time Equivalent, including Aperam Drosbach Headquarters, Alloys ICS and excluding Haven Genk.
Environmental data covers all main industrial sites, service center operations and corporate offices, with the following exceptions: raw material data excludes packaging and miscellaneous parts.

Specific indicators notes:

■ 204-1: Local supplier information covers mainly non-raw materials industrial purchasing for our most significant operations in Europe and Brazil, including BioEnergia starting 2021. It excludes our Services and Solutions units, which have tiny units.
From 2016 reporting on, we have started to include local services suppliers, and we are trying to strengthen our methodology and improve our scope, for instance adding the area around our BioEnergia's operations in 2021.

■ 205-2: This indicator is addressed as part of our Compliance section and can cover training relative to our Code of Conduct, Corruption, Conflicts of interest, Money Laundering and other anti-Fraud training. Such training exists for all employees' categories but it is followed as part of MyHR, for White Collars, and reported annually, and monitored separately for Blue Collar employees, at unit level and through a multitude of less sophisticated ways that do not guarantee a quality consolidated information. Therefore, we currently only report on White Collar training.

■ 205-3: Confirmed incidents of corruption are reported as 'founded fraud allegations' as they can entail a large spectrum of incidents from thefts to sophisticated fraudulent schemes sometimes involving corrupt employees. We do not detail the actions taken but proven misconduct of such cases traditionally lead to contract termination and legal proceedings.

■ 301-2: Confirmed incidents of corruption are reported as 'founded fraud allegations' as these can entail a large spectrum of incidents from thefts to sophisticated fraudulent schemes sometimes involving corrupt employees. We do not detail the actions taken for confidentiality reasons but proven misconduct of such cases traditionally lead to contract termination and legal proceedings.

■ 306-1: Steel production is based on the melting of different raw materials and processing of slabs into coils or smaller formats of steel (such as sheets, tubes, bars and wires). The process generates by-products, such as slags or scraps, together with industrial wastes (dust, slag, sludge, oils, acid, refractories and paper).

These residues, many of which have a metallic content, are considered valuable so they are sorted and considered as potential materials for reuse or treatment. Usually they are reused in the process or sent for treatment at Recyco or an external firm, but in some cases they are simply stored for the future, in wait for a sustainable technical and economical solution, or land-filled. All these volumes are taken into account in our calculations and zero-waste target.

■ 305-1: Direct (Scope 1) GHG emissions are reported and receive an external assurance. Considering the chemistry linked to the steelmaking process, and also the impact of our biomass (charcoal) in the calculations, we are constantly trying to refine our figures and methodology, in line with the best practices.

■ 305-2: Energy indirect (Scope 2) GHG emissions are calculated based on location-based emissions factors and also reported based on market-based emission factors, the latter coming from our own suppliers with supporting documentation. As we develop the usage of renewable energy, also through the set up of local solutions (eg. photovoltaic panels), the gap between the two calculations is due to increase.

■ 305-3: When looking at our Scope 3 emissions, we mostly focus on the Upstream GHG emissions (Scope 3a), and specific Downstream emissions on areas such as Transport or Information Systems. At this stage, we can only provide rough estimates but we are progressively refining our figures, based on detailed product analyses (Life-Cycle analysis from our Environmental Product Declarations, the first were released in 2021) and on local emission factors. However, we launched a process to collect more precise information from key suppliers in 2020-21 and shall report based on the same going forward.

■ 305-4: As for most of our indicators, we usually check the absolute values in order to produce an intensity ratio to decorrelate the information from the production level of our tools. The intensity is calculated based on our production, using the standard industry indicator of tons of crude steel ex-caster, in short tons of crude steel or slabs. As for the intensity of our GHG emissions, we report the emissions scope 1 and 2 put together but we aim to disclose going forward intensity in terms of scope 1+2+3a (upstream).

See also the Supplement D.

■ 305-7: As it is the most relevant indicator to our local stakeholders, dust emissions are reported consolidated at Group level. NOx, SOx indicators are also disclosed for our sites in Europe.

From 2016 on, we have improved our measurement protocols, increasing their frequency and aiming at online monitoring and we introduced a logic of stress-test with the aim to identify our weaknesses and ensure compliance at all times, at some of our most emitting sites. The data from the measures taken on top of our regulatory obligations have been integrated in our total dust emissions calculations (so-called "exhaustive" emissions data) starting 2020, next to the dataset calculated using the regulatory methodologies defined in our permits.
As for most indicators, we follow them in absolute values and in intensity.

See also the Supplement C.

■ 306-2: Steel production is based on the melting of different raw materials and processing of slabs into coils or smaller formats of steel (such as sheets, tubes, bars and wires). The process generates by-products, such as slags or scraps, together with industrial wastes (dust, slag, sludge, oils, acid, refractories and paper).

These residues, many of which have a metallic content, are considered valuable so they are sorted and considered as potential materials for reuse or treatment. Usually they are reused in the process or sent for treatment at Recyco or an external firm, but in some cases they are simply stored for the future, in wait for a sustainable technical and economical solution, or land-filled. All these volumes are taken into account in our calculations and zero-waste target.

■ 403-5: This H&S training indicator is provided in total, using our Learning Management System. We also highlight the home-made training (physical or digital) linked to the cultural maturity of our employees.

Reporting notes (Continued)

■ 403-9: This health & safety metric also covers the subcontractors working on Aperam sites. In 2018, we reviewed the reporting process and methodology used for the calculation of the severity rate. With the implementation of our new standard across 100% of our entities, we have resumed this reporting starting 2020 figures including some historical recalculated data.

■ 404-1: This training indicator is provided in total and by country, using our Learning Management System from 2020 on. Data is available on a split Physical/e-Learning and the proportion of hours per topic is given. The information is provided for Exempts/ Non-Exempts, but not by gender.

■ 404-3: This career development indicator is currently provided with the split by employee categories but not by gender nor age.

■ 405-1: This Diversity indicator is provided partially with respect to Aperam's governance body, knowing that information (age, nationality, experience and education) on our Board of Director and Executive Committee - referred to as Leadership Team- is extensively disclosed within our Annual Report. With respect to Aperam's workforce, the information is reported for the whole group in terms of gender, by employee type, as well as information regarding age groups.
We use this information to reflect on the diversity of our new hires and leavers but we aim to develop further such indicators in line with Global Data Privacy Regulations to ensure we ensure equal opportunities for all Aperam employees.

Starting with the 2021 report, we are also reporting additional information on a smaller scope to reflect the share of employees with disabilities (Belgium, Brazil and France) as well as supplementary information voluntarily disclosed by our employees in Brazil as part of our Inclusion & Diversity program.

■ 405-2: The Gender pay gap is calculated for all exempts men and women alike globally, using external market data by country for a given responsibility level. It allows us to make sure we are paying our people over the market median for a given job/responsibility, as we aim to ensure we continuously provide competitive remuneration to our employees. The individual gap to this local reference in percentage is summed up for all exempts and then the average gap for women is compared to the one for men. This way, we have not only the average gap to the market median, but also the gender-related pay gap.

For non-exempt employees, we do not have the possibility to use the same method as we lack data on each market reference by country but we usually have salary grids negotiated with employee representatives for most of the non-exempt roles. We also comply with local regulations that may require, like it is the case in France, to conduct assessments for non-exempts following a pre-defined methodology using also the age and seniority in the roles. We also report this information.

■ 413-1: This indicator reflects the proportion of our sites that conduct active stakeholder engagement, within the eight main industrial sites analyzed in greater detail (excluding Service centers - see section 1).

Using an extensive mapping of existing practices conducted in 2016 over 30 of our sites, we validated what are Aperam corporate guidelines in terms of stakeholder engagement and defined a clear methodology to assess what we mean with "active engagement". Based on this method, we are able to report the indicator, using several clear criteria:
> Impact assessment (based on the 2016 systematic mapping)
> High end grievance mechanisms (including a 24/7 availability)
> Public disclosures of results
> Practices of Stakeholder engagement beyond legal requirements (such as those conducted by the Acesita Foundation, Open Days and other cooperation patterns).
On top of local initiatives, our new official guidelines and generic communication tools (including entrance posters displaying KPIs and contact forms to interact in local language) help our sites to engage more effectively with local stakeholders.

In late 2021, we started a full review of our practices based on the take-aways of our ResponsibleSteel^{tm} audit, which will define more demanding engagement modes for our main plants. A piloting will be organised in 2022 on the Stainless Europe perimeter and we aim to revise our methodology for evaluation based on this, to come closer to true 'local development plans', even when it is not a formal request from local stakeholders.

Managing risks at Aperam

Risk management processes are embedded in the organizational culture. They support decision-making and continuous improvement, and allow us to identify and act on opportunities. Our Global Assurance department facilitates this process and prepares the Risk Management reporting elements for both the Management Committee and the Board's Audit & Risk Management Committee.
Our framework for managing risk is based on:
■ COSO Enterprise Risk Management Framework;
■ ISO 31000 principles and guidelines for risk management; and
■ Benchmarking with external companies.

Our Audit and Risk Management Committee supports the Board of Directors in fulfilling their corporate governance duties relating to defining and reviewing risk, managing risk assessment, and risk audit, all the above including sustainability risks as well.
Our Risk Management Manual describes risk as a pillar of corporate governance and organizational responsibilities for risk.
Our numerous Aperam Policies and Whistleblowing protocols allow employees to raise concerns over possible irregularities and malpractices that would contravene our Code of Conduct. In addition, the compliance programme set up in 2014 (including a network of local champions and a full set of policies) has pursued its roll-out in 2021, with a focus on Ethics and Anti-Fraud, the full refresh of Aperam's policy library and the update of our Code of Conduct training for White Collar employees. The implementation of these actions was carried out in close cooperation with our Legal department and our Combined Assurance risk management function.

The Report Materiality Process at Aperam Continued

Below is a summary of the stakeholders we engage with, and whose feedback also serves as a basis for the preparation of this report.
Stakeholder engagement is an ongoing activity at each site, and it is the responsibility of the site's General Manager or equivalent. Any new issues that require attention are shared with key subject matter experts within Aperam and are then included in our materiality assessments.

Employees & Management

Unions, European Work Council,
Educational Institutions & trainees,
Retired Aperam employees,
Students and potential joiners.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– Collective agreements including CSR based incentives,
– Proximity meetings,
– HR and Human Rights policies,
– H&S programmes and H&S days,
– Data Privacy policies,
– Yearly performance appraisals and employees' development plans,
– Training plans & catalogs,
– Professional Committees,
– Climate Surveys and other surveys,
– Newsletters incl. Bonus letters, Gender Diversity Focus and H&S newsletters
– Videos on Company results and campaigns.
– Events such as Anti-Fraud Week.

Authorities & regulators

Governments and local authorities,
Competition Authorities,
Standardisation Authorities.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– Regular meetings with local authorities,
– Policies and formal procedures eg. Antitrust, Anti-Corruption, Anti-Money Laundering, Economic Sanctions,
– Events such as the Anti-Fraud Week.
– Compliance programmes and trainings, including specific intranet page and Ethics & Compliance Academy,

– Regular measurements, certifications and risks prevention protocols,
– Combined Insurance audits and alerting systems (Whistleblowing lines, network of Compliance correspondents)
– Diligent responses to enquiries,
– Support of global initiatives such as CDP, Global Compact.

Communities

Neighbours & Communities,
NGOs & Local Associations,
Local Media, local Academics,
Local economic players.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– Ethical, H&S, Environmental and Human Rights policies,
– Responsible Purchasing policy and support of local suppliers,
– Stakeholders' days or meetings, site visits, open days or Family days,
– Specific newsletters or internet pages, press releases, interviews, social media,
– Acesita Foundation programs, philanthropy, "Territoires d'industrie"
– Pollution prevention training exercises and the leaflets distributed to provide the instructions in case of emergencies,
– Local development and student fairs
– Our new Stakeholder engagement policy and internal guidelines including Site-specific entrance posters, Country supplements and contact forms.

Customers

Customers,
End Consumers,
Subscribers.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– Meetings, site visits, trade fairs and technical customer trainings,
– General Sales Conditions,
– Product documentation,
– Antitrust & Anti-Corruption policies,
– Economic sanctions policy and protocols,
– Requests for quotations and annual contract negotiations,
– Customer satisfaction surveys,
– R&D partnerships,
– Sustainability and/or Ethical questionnaires (customer-specific ones, EcoVadis, etc.).
- Customer Newsletters or web series

Financial partners

Shareholders,
Banks & investors,
Stock Exchanges,
Financial & ESG Analysts.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– Annual and Sustainability reports,
– Policies on Anti-Fraud, Insider dealings, Money-Laundering, Double-Signature protocols
– Regular assessments, certifications and risks prevention protocols
– Combined Insurance audits and alerting systems
– Earnings & press releases, IR meeting & IR day, interviews, web-site pages,
– Shareholders meetings, general meeting and votes, dividend payment,
– ESG-specific Investor Relations' conferences
– Investors' Days, sites' visits.

Business partners

Suppliers and Subcontractors,
Trade Associations,
Audit & Certification firms
Sectoral initiatives.

Our engagement is reflected in:
– Aperam's updated Code of Conduct,
– ResponsibleSteel™ certification standard (and certificate for 4 plants)
– General Purchase Conditions,
– Environmental policies,
– Sustainable Sourcing charter,
– Associations, working groups and exchanges on H&S best practices,
– Subcontractor Safety Charter,
– Requests for quotations and annual contract negotiations,
– Congresses and trade fairs,
– R&D partnerships,
– Certification audits and site visits (Boss to boss meetings),
– Direct dispatch of general communications such as Sustainability reports or Gift policies.

Supplement C

Aperam GRI Index 2021 – section 103 Management Approach (MA)

Economic

Economic performance

The circulation of economic value generated by private industry has a positive impact on local communities, regional economies and national trading balance sheets, primarily as a result of the jobs created by our commercial activity. The tax we pay to the state and the programmes we run to improve social conditions in communities where we operate also make an important positive contribution to society. In addition, the returns we pay to our investors facilitate their continued financial interest in Aperam.

We manage our potentially negative impacts via a range of suitable channels. Our legal, commercial and financial matters are managed through appropriate governance and executive processes in accordance with the laws of the Grand Duchy of Luxembourg where we are listed, as described on p.115 of our Annual Report.

We assess the effectiveness and quality of our approach through internal audit and external assurance, in accordance with our listing requirements. We also assess sustainability risks via our group risk register and management process (see p. 58 of our Annual Report), and set medium to long-term numerical targets (five- to ten-year) to roll out our environmental roadmap and usually shorter-term targets (two- to three-year) on social and governance action plans, with longer term qualitative objectives. In the 2021 report, we disclose for the first time longer targets pertaining to social topics.

We report the economic value generated at Group level. In the past, we complemented them with a few sub-indicators consolidated at divisional level that are followed operationally, including some by region (Europe/Brazil for the Stainless & Electrical Steel Division), but we have chosen not to disclose them in this report as they are less relevant to external stakeholders. However, as we did for the first time in the 2020 report, we provide also in 2021 in our main report, additional information (p. 53) , related to our three biggest countries of operations: Belgium, Brazil and France, which is complementary to the three Country supplements that we have been releasing every year since 2017.
Such elements pertain to local economic contributions, such as the salaries paid, investments made, total tax contributions (as well as local spending - see GRI 204-1).

Our human resources teams manage the employment impacts through a wide range of policies and practices in line with our values and using trained experts. In 2020, considering the magnitude of the phenomenon across the planet, we decided to disclose data related to the impact of temporary economic unemployment in terms of full-time equivalent, thereby providing an estimate of the variabilization we managed to realise responsibly, without recurring to permanent layoffs. This data was updated for 2021 (p.52).

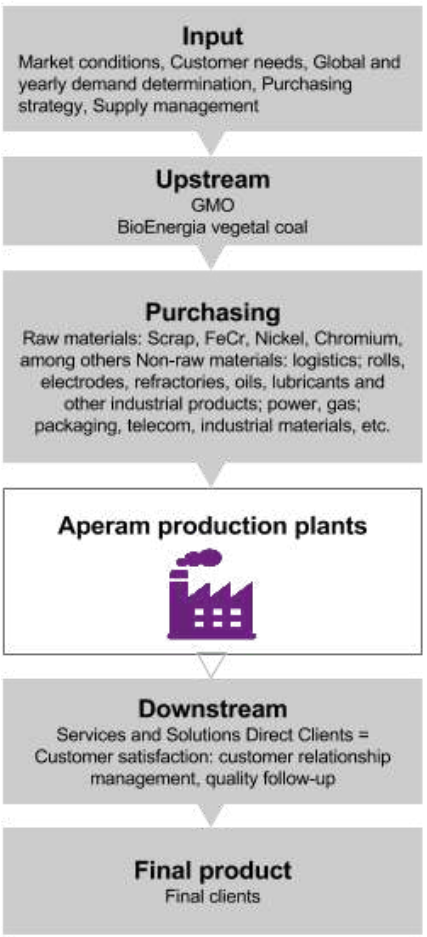
We manage our community impacts primarily through our Acesita Foundation in South America and through local action plans defined jointly with local stakeholders at our European sites. Information on this topic is provided p. 61-66 and further in this document (section Stakeholders>Impact on Local Communities.

>> Indicator:
GRI 201-1 Direct economic value generated and distributed.

Procurement – Supply Chain

We have around 8,000 partners in our global supply chain, though the exact number varies from month to month. Subcontractors also work on our sites. Our General Purchasing Conditions require our partners to respect quality, environmental, safety and labour practice regulations, and the subcontractors that perform services on Aperam premises have to comply with our General Health and Safety Instructions (GHSI) to ensure they align with our high safety standards.

Supply Chain



In support of our company vision, the United Nations' Global Compact principles, and the ResponsibleSteel ™ principles, we work with our suppliers to:
■ Operate a lean supply chain that supports our corporate policies;
■ Develop procurement solutions in line with customer's, regulatory and wider stakeholders' expectations; and
■ Create long-term value and reduce risk for all stakeholders.

We aim to achieve these objectives by setting standards for sustainable procurement, and by collaborating, innovating and embedding sustainable purchasing into our business processes.

In 2020, we put in place an updated Purchasing Policy (acting on the whole group sourcing and purchasing activities) describing how we work with our suppliers and require them to meet our standards on health and safety, human rights, ethical and environmental topics, and be transparent by disclosing results periodically. We encourage our suppliers to work with us to identify and develop ongoing improvements to our sustainable procurement. The result of this analysis is shown on the 2021 report (p.54-55).

Aperam procurement department is composed of two separate teams, the first one in charge of sourcing raw materials and the second in charge of non-raw materials purchasing.

> The Raw Material Sourcing team optimises centrally the supply chain process for raw materials such as Nickel, Chromium, and recycled (carbon) steel and stainless steel (scrap). Many of these extractive raw materials come from a few high-density deposits on Earth and shape narrow oligopolistic markets with a small number of global players, meaning that there are few options globally. As a result, this category is excluded from our local spent analysis.

> The key objective of Non-Raw Material Purchasing is to have an effective buying process for our industrial sites with a platform for central buying. Non raw-materials are mostly composed of operational products (such as rolls and electrodes), industrial products (such as oils and lubricants) and various services including logistics, industrial and IT services (see diagram above) (GRI 102-9), many of which can be sourced locally.

We explain our approach to managing community impacts further but we consider that careful selection of our partners and local spending are some of the ways we can contribute to the promotion of sustainable business practices and local development. We are conscious that smaller suppliers are part of a community where economic development may be limited or where there may be social deprivation, in particular in isolated areas and/or in Brazil.

>> Indicator:
GRI 204-1 Percentage of spending on local suppliers

Anti-Corruption

Aperam follows the best standards in terms of Business Ethics, notably through its Code of Conduct, and defends a zero-tolerance policy.

We regularly benchmark and update our policies and procedures to address all the dimensions of Corruption, from minor conflicts of interests, traffic of influence, facilitation payments, up to international corruption and money laundering supporting terrorist financing. Based on best practices such as those developed in France (Loi Sapin II), the risk assessments in terms of Corruption are regularly updated based on real cases and scenarii and also split by geographies.
They are complemented by focused awareness-raising information sessions focusing on some particular functions (commercial, buyers), organised yearly during the Global Anti-Fraud Week promoted by the Association of Certified Fraud Examiners. Additional detailed analysis can also be led, for instance with respect to the external agents used to develop our sales where we have little local presence.

Our Compliance organisation trains all our employees with the support of a network of local correspondents able to provide all explanations and advice in the local languages. Various operating modes are used, from digital learning through our MyHR platform down to information meetings, quizzes, and gamified sessions, depending on the best solution for the different categories of employees.

Since 2020, for enhanced efficiency, our Compliance organisation is even more closely intertwined with our Internal Audit and Forensic Department that is investigating any allegation reported in the field of Fraud through our multilingual Whistleblowing systems. The Compliance organisation is regularly reporting to a Committee gathering the Company's Chief Finance Officer, Legal Counsel, Head of Global Assurance (Internal Audit & Forensic), Group Sustainability Officer and representative from the Commercial and Human Resources functions as needed. The reporting is done on a quarterly basis to our Audit & Risk Committee and on a yearly basis within our Annual and Sustainability Reports. See Ethics & Compliance table in 2021 report (p. 56).

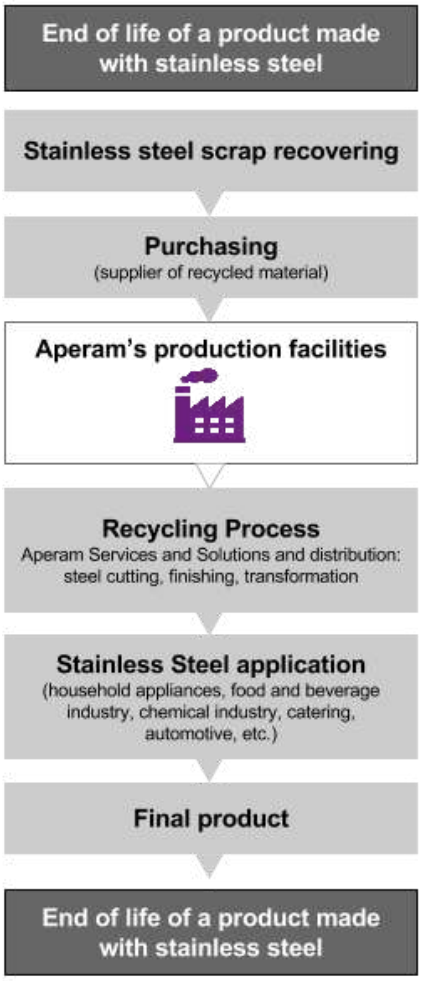
>> Indicator:
GRI 205-2 Communication and training about anti-corruption policies and procedures.
GRI 205-3 Confirmed incidents of corruption and actions taken.

Environmental

Materials and Waste

Stainless steel is 100% recyclable, meaning our products are at the beginning and the end of the product life cycle (see graph next page). In addition, the production process requires various materials, which can be primary ones or from recycled sources. So for a stainless steel producer, the right usage of input materials is key and there is a blur line between materials and residues.

Lifecycle of stainless products



Firstly, extracting minerals and ores is more costly than collecting scraps (for us and for the community as a whole, considering the related externalities). As a consequence, the usage of recycled metallic input has a positive impact on our profitability. They can come in the form of scrap, but also as a residue (or by-product) with a high grade of metallic components - such as meltshop dust and slags.

Secondly, the properties of our various grades, as well as our energy intensity, depend upon the right dosage of the different ores. Also, our production process generates a lot of different residues (e.g. sludge, dust, slag), many of which still contain valuable chemical elements.

Finally, our melting, rolling and shipping processes request more diverse materials than simply metals, and our purchases encompasses consumables such as gas, refractories (made from silica, alumina, etc.), oil or acids, that can often be recycled. As a result, on a day-to-day basis, we are striving to avoid any type of waste, as they are also costly to manage (landfill or treatment cost). We are promoting recycling and reuse and trying to reduce total consumption as much as possible.

Actually, we have committed to become a zero-waste company and are actively looking for various options to leverage all types of residues and extract value out of them. We are partnering with external firms and have also implemented our own recycling channels, notably through our fully-owned Recyco subsidiary and our newly acquired scrap recycling site in Zutendaal - and starting 2022, the new ELG business purchased by Aperam in December 2021.

To monitor the deployment of this policy in Aperam, we use various indicators followed at site level and regularly reviewed by the management. Amongst them are the scrap usage ratio (metallic recycled input material at the melting phase) and our yield indicators (in all our transformation sites), which consolidated figures we do not disclose for confidentiality reasons. As a consequence, the total input breakdown (GRI 301-1), is material but not disclosed.

We are also monitoring our Waste recycling ratio and our Recycled Manufacturing input ratio, which takes into account products ranging from scraps to paper, via refractories providing the exhaustive breakdown of Aperam waste by type.

>> Indicators:
GRI 301-2 Recycled input materials used.
GRI 306-2 Management of significant waste-related impacts.
GRI 306-3 Waste generated.
GRI 306-3 Waste diverted from disposal.
GRI 306-5 Waste directed to disposal.

CO_2e and Energy consumption

Steel making is amongst the most CO_2e and energy-intensive industrial processes. As energy costs can increase and environmental regulations progress, we have invested in more efficient methods and equipment.

Our Environmental and Energy Policies commit to a long-term approach to resource-efficiency and sustainability and cover all Aperam sites and operations. They promote new efficiency programmes, and tight collaboration with suppliers and customers to maximise the resource efficiency of our steel products, decarbonize our processes and fight Climate Change.

We identify and implement energy conservation measures to cut costs and protect from price and supply volatilities both our customers and ourselves. We also aim to increase the share of renewable energy consumed, either through the purchase of green power or via the installation of renewable sources of energy (windmills, photovoltaïc panels), either on a stand-alone basis or in partnerships.

Since production can vary, and that our tools cannot be shut down easily nor quickly, monitoring our energy intensity (together with absolute energy use) is also a key metric for our financial performance. Considering the fact that we may purchase more or less semi-products, further processed on our lines, we have introduced a specific intensity calculation methodology - see also Appendix D.
However, not all the energy has the same impact on GHG, and our charcoal is an energy that we do not want to reduce as, in Brazil, on top of its energetic capacities, it brings a carbon content that is integral to the chemistry of our metallurgy. Therefore, we focus on electricity, LPG and natural gas for our optimization action plan.
As a result, and since 2020, we have in place two targets that address our energy use, the first one focused on a restricted scope of energy (after removal of charcoal and other miscellaneous as diesel), and the second one on CO_2:

- A 11% reduction by 2030 (from a 2015 baseline) decided in 2020, and focusing on electricity, LPG and natural gas, aiming at 7.8GJ/tcs.
- A 30% reduction in carbon intensity by 2030, scope 1+2 (from a 2015 baseline).

We monitor the effectiveness of our energy management based on data at site level, and our performance relative to the two targets above (p. 31-35).

>> Indicators:
GRI 302-3 Energy intensity,
GRI 305-1,2,3,4 GHG emissions (Scopes 1,2, Other) and intensity.

Emissions

Local air quality is an important issue for our operations: dust (particulate matter) is one of our main material issues every year, but we also emit volumes of NOx and SOx and other air emissions.
All are carefully treated and monitored at the chimneys at each of our sites according to the local regulations. Indeed, we operate in jurisdictions where air quality regulations are enforced and we monitor our performance in relation to the operating limits defined in our permits. We use external firms to take measurements and accredited laboratories for analysis but we also have local air quality monitoring stations. Units report to the authorities according to the agreed periodicity, by chimney and in nano-grammes by cubic metres (ng/m^3) and can also be submitted to impromptu audits. Any punctual non-conformity is quickly addressed, in liaison with local authorities.

Since our level and mix of production can vary, both of which can have an impact on our tools and emissions, we look at our performance using absolute and relative metrics. We also assess our total impact taking into account all additional measurements, including those taken during abnormal conditions of operations and we run simulations and stress tests. This “exhaustive methodology” is more reliable and allows better identification of the dedusting systems that need preventive maintenance. The emission volume estimate based on the data reported to the authorities is called the “regulatory emissions” (total of each legally reported ng/m^3 * flow measured * operating hours of the chimney for the semester) but we also use - and have reported publicly since 2016 - the total volume based on our “exhaustive methodology”, with many more measurements taken into account.

Diffused dust is measured periodically to evaluate the leakages and identify the areas for improvement. It is a relevant indicator, as it reflects directly the nuisances caused to local populations but this last metric is impacted by external factors (wind, agriculture, etc.), rendering the interpretation subject to debate, so we mostly use it internally (unless it is reliable enough) and report publicly on ducted dust emissions.

With the aim to acknowledge our external stakeholders’ expectations and ensure that progress is continuous, we have a multi-year action plan with global targets and more frequent measurements. With our 2020 goal being achieved (-12%, from 2015 point), we announced in 2020 a new target of a -70% decrease of our ducted dust emission intensity in 2030 compared to 2015, something for which we are committed while also reducing the diffuse (non ducted) dust (p. 36-37).

>> Indicator:
GRI 305-7 Other significant air emissions (Dust only).

Water

Water is an important resource. Our significant sites of operation are not located in water-stressed regions, except for BioEnergia’s plantations. However, they meet their water-related permit conditions and strive for continuous improvement.

Our Environmental Policy commits us to a long-term approach to resource efficiency and environmental performance. We operate in jurisdictions where water quality regulations are strongly enforced. The vast majority of our water (more than 90%) is sourced from surface waters – local rivers and canals. The rest is sourced from rainwater collection, that we try to develop, groundwater and municipal supplies. We do not receive wastewater from any other organisation.

Where we are abstracting water, this must be in accordance with the conditions of our abstraction licence. We are subject to periodic inspections from the relevant authorities to ensure full compliance. We monitor the effectiveness of our water management based on data recorded at site level, and in terms of our total annual consumption (m^3) and our relative consumption per tonne of crude steel (m^3 per tonne of crude steel).

We monitor water consumption and discharge carefully at each site, through automated metering wherever possible. Through this we are able to accurately measure our consumption (in cubic metres) on a monthly basis at significant sites of operation, as well as the proportion of recycling of water, comparing our needs to our consumption. We report this recycling rate as the percentage of closed circuit, since it better materialises our efforts. We have an Aperam target of -40% reduction of water intakes in 2030 in intensity compared with 2015 (ie -8% versus 2012).

Starting 2017, we have begun to report on water discharge volume and quality (metal and suspended solids, relative to our production), as it appeared as an important information for our local stakeholders: it can impact the quality of the rivers and related activities (fishing) (p. 39-41).

>> Indicator:
GRI 303-3 Water withdrawal.
GRI 303-4 Water discharge.
GRI 303-5 Water consumption.

Biodiversity

To the exception of BioEnergia, which is by essence managing carefully the biological balance of its forestry to produce wood for our future charcoal, our sites are mostly located in industrial areas and/or in perimeters that have remained unchanged for numerous decades and operate in such way (water discharge, air emissions) that they are not considered by the Authorities as posing acute biodiversity problems.
As a fact, Bioenergia has the legal obligation to maintain areas of native forest to ensure the local biodiversity thrives, with a particular focus and monitoring on endangered species and large mammals. The unit reports on this periodically and is also attentive to the matter as part of its FSC(C) certification.

The other main plants are not located close to any Ramsar or IUCN Protected Areas. A river is usually next to the main plants, as historically, the hydro energy and the cooling waters were necessary to our operations, but the specificities of the operating permits ensure no harm is done to the natural environment.
This also explains why our steel plants used to have a more sporadic and opportunistic approach regarding the promotion of biodiversity, which issue was not covered either by their Environmental Certifications.

However, with Aperam’s involvement within ResponsibleSteel™, we have decided to develop a more proactive approach to biodiversity conservation. As a result, in 2020-21, we initiated the development of procedures involving a precise identification of impacts. We aim to roll-out training and awareness-raising of employees on the interactions between climate change and biodiversity destruction, and more specific KPIs to better monitor the way we can act positively on the topic (p. 46).

>> Indicator:
GRI 304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.

People

The workforce of Aperam represents an asset for the company, as well as a significant part of the costs. Therefore it is key to the competitiveness of the company. The Full-Time Equivalent (FTE) of the total workforce is used to calculate several KPIs, including 'productivity' (ton/FTE) and 'competitiveness' (total cost of employment/ton). Achieving our targets on these KPIs is vital for the sustainability of Aperam, and doing it responsibly is in line with our values.

In times of hardship, we can adjust our workforce, firstly by freeing up interim employees, also using Economic Unemployment - and, when it cannot be avoided, by implementing responsible restructuring measures discussed with employees representatives.

The data on our workforce are reported by each entity in a unique IT system MyHR. We measure the internal workforce by FTE at the end of the period – this number varies only a little and so the average workforce is only disclosed annually as it is frequently asked by some external stakeholders. Details such as the employment contract, employment type, gender, region, also give us a view of the structure and diversity of the workforce (see below chapter on Diversity). HR data are consolidated monthly at the Group level.

The external workforce (including supervised workers) is usually measured by the average FTE in the period and this workforce can vary a lot (eg. due to seasonal variations and scheduled annual maintenance or harvesting, for example). At the Group level, supervised workers are counted as part of sub-groupings but not statistically consolidated on an individual basis. We therefore do not report their split in detail eg. by gender or employment type.

The effectiveness of our employees and their ability to innovate are key to the company's success. This is why we remain attentive to their level of commitment and follow closely their satisfaction using global employees surveys that are integral to the development of an efficient Human Resources framework.
Starting 2021, we disclose a new objective to obtain 80% both in the response rate and the sustainable commitment of our employees.

Diversity and Equal Opportunity

We have stated in our Code of Conduct, Human Rights and Gender Diversity Appendix our commitments to promoting diversity, refusing discrimination and facilitate the development of each employee.

Since 2018, we pay accrued attention to the proportion of women in our staff with a view to re-balance their presence, especially at shop floor level and so, on top of our detailed workforce tables, we report the split by gender for some of the KPIs. We are following up the gender pay gap to ensure equal opportunities.
In the 2021 report, we disclose for the first time our target to increase our percentage of women exempts to reach 30% by 2029 (p. 21-22).

In the 2021 end, we extended further our Inclusion program, notably by the creation of specific roles to drive the program in Europe and Brazil, but we are not able to track these additional diversity aspects efficiently and will see how to improve our follow-up in 2022, also minding local regulations and gaps in definitions. We only report partially the diversity of our governance bodies and employees, with gender available for the full Aperam but other criteria on a smaller scope (eg. Disability only for Belgium/ Brazil/ France).

We want our workforce to be able to bring their full self to Aperam and feel welcome to participate with all their abilities to its success. Therefore, we remain attentive to any incident of discrimination and are regularly rolling our training and awareness-raising information to promote diversity and clarify the reporting channels available to report any harassment or misconduct. We have processes in place to investigate fairly any case brought forward, in particular via our Whistleblowing system, but the reporting is not mature enough to ensure we capture all incidents reported to local management as part of Human Resources issues so we cannot provide a consolidated view (GRI 406-1).

>> Indicator:
GRI 405-1 Diversity of governance bodies and employees.
GRI 405-2 Ratio of basic salary and remuneration of women to men.

Occupational Health and Safety

Nobody working for, or with, us should have their health and safety compromised in any way. This is Aperam's top priority across the Company, for anyone at any moment. There are three drivers for good management of our health and safety performance: legal, moral and financial. Our health & safety management and practices are governed by our Health & Safety Policy and supported by a Management System approach, with certification and continuous improvement.

Our Leadership Team has reinforced this heightened vigilance by establishing a new organisation in 2020 so that the program can be efficiently deployed. In 2021, it was further strengthened with new roles in charge of a specific Health program (including Mental Health). Our roadmap is built around three main axes: 'Organisation', 'Standards and Tools', and finally 'Cultural Maturity', which necessitates a long-term approach on training.

We have monthly, senior level health & safety global conference calls to discuss general performance, the management response required and individual incidents using detailed descriptions, root cause analysis and photographic evidence. This is a check on how well we are managing safety.
To comply with the Aperam safety standards, all accidents are only counted once, and are put in the highest category. So, if the accident resulted in a fatality (as sadly was the case in 2015 and 2018), it is categorised as such. We assess if the person was absent from work for at least one day, excepting the day of the incident. If this is the case then the incident is categorised as a lost time incident (LTI). If not, we assess if the person benefited from 'adapted work' as prescribed by a medical professional. If this is the case then the incident is categorised as an incident requiring medical aid. If not, we count it as an incident requiring first aid.

When we uncover an issue, we establish a thorough management response. In 2018, we unfortunately had a fatal accident on the Genk site. A thorough root cause analysis has since been performed, as well as an independent site H&S audit. Both have led to the implementation of a series of actions, on site as well as at the Group level, to avoid such a tragic accident from being repeated.

We use a combined Lost Time Injury (LTI) Frequency Rate, which incorporates the impact of lost days as

well as of occupational disease. For this reason we do not collect distinct data to report an Occupational Diseases Rate (ODR).
We also use a Severity rate and a number of leading indicators to check on the deployment of our programs.
Also, we track performance very closely and report on it monthly within our Group internal newsletter. To be more efficient, we are in the process of deploying enhanced Information systems, while introducing more KPIs, in particular to have a more holistic and prospective vision (using the TRIR) and to cover more specifically the Health topics (see further).

The absenteeism rate is monitored only for our employees, excluding supervised workers. The rate is defined as the number of hours of absence for illness up to a maximum of six months divided by the number of theoretical to-be-worked hours. We calculate this based on the time and attendance data reported each month by each entity. Also, small entities are not included – the workforce of small entities is 3% of the workforce of Aperam. At Group level, the time and attendance data are available by site, country and Division but not by gender or age.

Training is central to our Health & Safety program and delivered in local languages. Aperam employees, as well as subcontractors, are briefed and trained on safety. Some of the training is very long and intensive, mixing awareness- raising, shop floor audits and case studies. We received an award for the SAFE training program, which involved a full week training for the entire population of operators .There is also a well attended annual Health & Safety Day and a competency framework to make sure people have the right skills and equipment to do their job safely.
In 2020, we started to audit the H&S Cultural Maturity on site, through discussion sessions gathering employees from all departments that had been designed with consultants to identify the mental blockages in force. In 2021, we built upon this for new training involving the management ('SAFE- Me with my team').

Safety is material inside Aperam as well outside the organisation (cf. GRI 102-46 Boundary protocol). Subcontractors are operating inside or outside of Aperam and for whom safety is material, so they are part of our reporting (p. 14-18).

>> Indicator:
GRI 403-1 H&S Management System.
GRI 403-5 Worker training on H&S.
GRI 403-9 Work-related injuries.

Training and education

People are at the heart of Aperam and we want to develop them all and retain in particular the most talented. It is key that we listen to our employees and that we support them so that they are equipped to develop themselves and deliver quality-work, so personal development is part of our annual review meeting process. In addition, it is vital that we have a competency framework and management system that helps us anticipate, works efficiently and that is recognised by our people.

Specifically, through our talent development programme – Global Exempt Development Programme (GEDP) – we provide our exempts and managers with annual appraisals and career development reviews. With this, at the annual review, a manager assesses whether or not an individual has achieved the yearly goals and expectations from their career plan. The latter are tailored to specific roles, and by measuring an individual's performance annually, both the manager and the employee can formally evaluate performance against the plan and find the best ways to move further. We monitor the number of annual appraisals conducted yearly and regularly bring new features to make this regular exercise a valuable tool for self-development, for instance the ability to request feedback from peers.
We also monitor Blue Collar and White Collar workers through annual interviews, which are progressively integrated within the same system (MyHR). We report the information for the group and by employee category - but again not by gender and other detail.

We also provide our workforce with the necessary tools to maintain and upgrade their competencies and their behavioural skills via external training or on-the-job learning experiences. Since 2018-2020, we have been using the e-Learning module of MyHR to strengthen our monitoring and provide adapted content, both for in-person and online courses, many of which are being designed in-house.
In the 2021 report, we communicated for the first time our objective to boost the share of Digital Learning and see it reaching 30% of the total training time by 2029 (p. 19-20).

>> Indicators:
GRI 404-1 Average hours of training per year per employee
GRI 404-3 Percentage of employees receiving regular performance and career development reviews ;

Stakeholders

Supplier assessment for labour practices

The way we assess our suppliers and subcontractors is guided by our Code for Sustainable Sourcing and Purchasing, supplier commitment programmes, supply chain risk assessment, supplier awards, on-site contractor rules and our General Terms and Conditions. They govern how we work with suppliers to understand performance and improvements, how we support them and how we focus on key areas for improvement (see also p. 54-55, Supply Chain).

Suppliers and subcontractors are subject to pre-qualification reviews and on-site induction and training, audit and dialogue, principally on health and safety labour practices, but nominally on wider human rights and ethical standards. Our supplier evaluation is the tool by which we assess suppliers on business performance, and decide on improvement action plans and boss-to-boss discussions, for example. The actions taken with subcontractors on site include action plans on site safety, briefings upon site access and the use of temporary workers, for example.

Expectations are described in such action plans, but they are also enshrined in the contractual documents, which are subject to our procurement policies described above. In addition to our preventive measures, we have procedures in place for terminating a relationship with an existing supplier in case of detection of non-respect of any rules on labour practices.

Since 2010, we also assess sustainability practices of our raw material suppliers. Our raw materials supplier survey covers topics such as health & safety management, human rights, business ethics, environmental management, REACH and conflict materials. In addition, all suppliers are engaged to respect the General Purchasing Conditions, attached to the contract.
In 2016, we started to use the same approach for non-raw materials suppliers.
In 2020 a new methodology was put in place to better assess our raw materials and non-raw materials suppliers. We based our analysis on the responses given directly by our partners in detailed questionnaires covering topics related to ethics, H&S and other human rights, environment, stakeholder engagement and supply chain responsibility. The aim was to screen (potential) suppliers, to red-flag those with mediocre scores and

to follow-up on any remediation action requested by Aperam. On top of the initial scope covering subcontractors and raw materials suppliers, we included as well non-raw materials suppliers that have a direct impact on the quality of our final products or on the production process.
In 2021, we continued with the same reporting, after a year of training and consolidation of our operating modes, including efforts to improve our stakeholders' watch (p. 54-55).

>> Indicator:
GRI 414-2 Negative social impacts in the supply chain and actions taken

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Impacts on local communities

We contribute to the economic livelihood of those who work for us directly and those in the supply chains serving us, we pay company taxes where we operate, and we operate community involvement in line with our values and with frameworks such as the UN Global Compact and ResponsibleSteel™.

In addition, in order to promote sustainability in its host regions, Aperam operates the Aperam Acesita Foundation in Brazil with social impact investment projects in culture, education, health, environment and development. Since 1994, the foundation has helped integrate Aperam into the community of Timóteo, and the Jequitinhonha Valley, partnering with non-governmental organisations, governments at federal, state and city level, global agencies, foundations and institutions. Our team there runs projects using volunteers as well as funded programmes to promote development for all publics. They conduct community needs assessment, using feedback from the common people, local partners and our Environmental Education Centre (Oikós). We provide elements regarding the funding, number of events and number of beneficiaries.
In Europe, we continue to focus on specific partnerships on more of an ad-hoc basis at each of our sites but we started to report also on the donations organised to support local events.

In 2016, in order to homogenise our practices we organised an inventory for 30 sites. The result of this analysis became the guidelines to have specific criteria to GRI 413-1 assessments.
In 2017, we have defined and validated these guidelines and prepared the implementation, which include the roll-out of additional communication tools to interact efficiently with communities. Based on these preliminary works, we were able to formalise a clear methodology to assess in a fully auditable manner the number of sites that meet the criteria proposed by the guidance elements regarding the GRI 413-1 indicator, and also, it helps us to follow up on improvements in this area. In 2020, we validated our Stakeholder Engagement policy to formalise our engagement patterns and promote practices in relation with the size and impact of our sites. In 2021, thanks to the preparation of our ResponsibleSteel™ audit in Europe, we initiated the review of our engagement practices with the aim to be more proactive, go beyond the historical relationships to cover more aspects and develop a stronger cooperation with local stakeholders (p. 61-66).

>> Indicators:
GRI 413-1 Operation with local community engagement, impact assessments, and development programs ,
See also earlier:
GRI 201-1 *Direct economic value generated and distributed,*
GRI 204-1 *Proportion of spending on local suppliers.*

Products

Product and Service labelling

Health and safety impacts of products are assessed at the metallurgical design stage and certification relating to materials safety in the use phase is in place. This applies to all significant products.

Stainless steel is manufactured and independently certified according to international standards such as the EN, ASTM and UNS series. We are regularly audited on these certifications. Our latest material safety data sheets confirm the absence of health or toxicological hazards.
We meet European regulations and French ministerial decrees relating to materials intended to come into contact with food. Finally, Aperam Stainless Steel Europe achieved compliance with EU REACH regulations again as our products do not contain any substance listed on the Candidate List of the European Chemical Agency.

Product information of this type is provided to customers. Regular product sheets and brochure documentation disclose the raw materials.
In 2021, we completed the disclosures with the release of our first Environmental Product Declarations, with externally verified information about the life-cycle assessment impacts of such products in terms of CO_2 emissions and water consumptions (for instance).
We have no recorded incidents of non-compliance relating to product Information.

Customer satisfaction is of paramount importance to us for business reasons and it is part of our collaborative approach to R&D. We survey customer satisfaction regularly, usually every one to two years, overall, and in line with our market approach i.e. by market and/or product lines. This enables us to monitor how well we are meeting their requirements. Results are discussed by each Commercial organisation and the Leadership Team (p. 69).

>> Indicator:
GRI 102-43 Approach to stakeholder engagement - (Results surveys measuring customer satisfaction).

Supplement D

Aperam Methodological Appendix

Introduction

As Aperam is always willing to track and follow-up its performance in the best possible manner with the aim to improve further, there can be adjustments of methods over time. For instance, with the aim to have a proactive approach to the risks of non compliance pertaining to dust emissions, we have decided to release stress tests and to report on these figures, including measures taken at times of dysfunctioning of installations, in parallel with the figures calculated in line with local regulations that demand to rely only on data reflecting 'normal operating conditions'.
In these circumstances, our approach is always to promote transparency and explain our rationale.

In this appendix, we propose to detail our enhanced methodologies as they are implemented and to highlight how and why they can deviate from existing norms.

GHG emissions

Context

Steelmaking is a sector that has an important responsibility for the decarbonization of the economy, as it is a heavy energy consumer and also can emit CO_2e as part of the chemistry of the metallurgical process. In addition, the raw materials used in the process for the stainless steel production can be from recycled or extractive sources, the latter requiring high-energy extraction processes. As a result, the CO_2e emission categories material to steel making -and to the stainless sub-sector in particular- are the scopes 1, 2, and 3a (upstream, raw-material and consumable part).
Conscious of its impact, Aperam has converted its Brazilian Blast Furnaces (hereafter BF) in the 2010s to accept charcoal instead of extractive coke and is striving to increase further the scrap input in its European Electric Arc Furnaces (hereafter EAFs). This is impacting both the scope 1 and scope 3a emissions. The company is also working to improve its energy efficiency and the share of low-carbon energy it consumes, thereby impacting its scope 2 emissions.
In addition, in the past, questions from stakeholders were mostly focused on scope 1+2 emissions but we have seen a growing interest for the scope 3 (or total footprint i.e. scope 1+2+3) assessments, in particular from investors and Business-to-Consumers customers. As we also believe it is a much sounder ground for comparisons, and because it is also a request from the SBTi, we also aim to quantify our scope 3 to be able to report it, as part of our carbon-neutral roadmap, but we're not able to do it in full yet for lack of reliable data.

In addition, in the past, although the company has been using the simplified assumptions prevailing in the steel industry - the major ones being the ISO 14404-1 and 14404-2 standards, which consider biomass to be carbon neutral on a full life cycle analysis -, we were convinced that the exemplary forestry management of our FSC-certified BioEnergia unit (which is producing the wood and carbonising it into charcoal) was not correctly taken into account in our publicly released CO_2e emissions. As we aimed to provide a fully detailed roadmap for our decarbonization trajectory, we went further into the details of our emissions calculations and identified areas of improvements to better quantify our impacts as well as to reduce them. In particular, we saw emerging practices in Brazil, whereby the forestry's carbon capture was identified and assessed separately from the emissions related to the consumption of the charcoal it was turned into, in compliance with the GHG Protocol that requires separate reporting of CO_2e emissions and capture. Such practices were making it possible to identify the yearly removal operated by the managed parcels (cultivated parcels as well as managed reservation areas of native vegetation).

Further, the CO_2e emissions linked to biomass need to be reported differently, as biogenic emissions, from the other scope 1 emissions. As a result, starting 2021, we report separately our scope 1 biogenic emissions, mostly from charcoal, from our scope 1 non-biogenic, the latter being added to the scope 2 emissions (Market-based) to report Aperam's carbon footprint intensity, with a gross impact (A') or a net impact (B' and B'' - see below).

For CO_2e accounting, we use emission factors for some input elements, particularly the raw materials and the energy but we also use chemical analysis run by our own laboratories - this is the case for our own products (eg. crude steel) or by-products (eg. slags). The emission factors can be provided by the professional associations (WorldSteel, International Stainless Steel Forum - ISSF) or the National Authorities, but they can also come specifically from our suppliers. As a matter of fact, we are currently working with our suppliers to refine our scope 3a data so that they really reflect the footprint of the product we buy instead of the average footprint of the selling entity's mother company. This is also educating our buyers to integrate this factor in their decision-making.

All these CO_2e footprint data are not only used for our own Sustainability reporting and monthly monitoring, they are also integrated as part of our Carbon Disclosure Project (CDP) submissions -which has rated us "Management level" for a few years- and consistent with those used for our European Trading Systems mandatory EU reporting for our European plants or for the EU-Taxonomy mandatory reporting assessments.
In addition, starting 2022, our CO_2e footprint is one of the sustainability indicators integrated as part of our €500 million unsecured Revolving Credit Facility.

Description of the need

Avoiding double-counting and mixing of biogenic/non-biogenic emissions

Our process is fully embedded in the circular economy philosophy as it aims to be recycling / using all the by-products we generate during the production process. This brings additional complexity in our footprint inventory. As reflected by our recycling ratio (over 90%, i.e. 93% in 2021 GRI 301-2), many by-products generated during a melting shop phase (i.e. recorded as stocks and not consumed materials) are re-entering the process as input for the further steps of the production process. This is the case, for instance, of blast furnace gas, almost 100% of which is reused as heating energy further down in the process in the Timoteo plant. The blast furnace process transforms the input materials (eg. charcoal, iron ore, lime, refractory) into pig iron and BF gas (mainly). The carbon (or carbon-equivalent) content (atoms) of such gas, identified at our laboratories thanks to chemical analysis, obviously comes from the input materials. So if we count the C-emissions from the input material at the BF stage of the process, counting also as emissions the carbon content of the gas during the phase of its reuse would mean double-counting the C atoms release. So firstly, we have to identify the volumes stocked as residues or (by)products to really focus on the consumptions only. Then, we need to always keep in mind the origin of the C-content when calculating the impacts at each phase of the process. This means that we have to "follow" the C-content, to identify the theoretical impacts at each phase and to neutralise in the total those already taken into account to avoid any double counting.
When you add to this that charcoal is triggering only biogenic emissions, you understand that tracing the C-content from biomass across the process is important to avoid counting several times something that must only be reported as part of the scope 1 biogenic and not in the scope (1+2) footprint (non-biogenic)!

Sequestration of forestry

Our forestry is planted with eucalyptus clones, always more adapted to the local conditions via genetic selection. We usually harvest it every seven years to optimise the charcoal production for our blast furnace's needs. The forestry has been planted for decades and is not contributing to deforestation. It is regularly replanted, each time with the best new breeds from our R&D laboratory and we consider that we must always have a potential of seven years of charcoal production being cultivated.
The impact of charcoal considered at zero throughout its lifetime is a simplified assumption according to ISO 14404-1, reflecting the circular process from the production phase (forest, CO_2e storage by the trees) to the consumer (BF, CO_2e release from the charcoal). However, this assumption does not consider the impact of a well managed forestry leaving branches and leaves deposits to degrade into humus: only the trunks are carbonised and turned into charcoal, so only the carbon fixed on the trunks is emitted at the blast furnaces! This means that only a share of our large forestry is considered, and that the remains of the cut trees that we leave on the soil as well as the significant areas of native forest maintained to act as a harbour for biodiversity are not counted at all.

Starting 2019, some companies in Brazil have certified the impacts of their forestry and we have used them as benchmarks. In parallel, Aperam BioEnergia is known in Brazil for its excellent practices (FSC certification, genetic selection of seedling, biological pest control, etc.), for which it receives regular awards (see Sustainability reports).
With that in mind, we hired consultants to develop a methodology in order to assess the full impact of CO_2e of the entire forestry: end-of-year stock of CO_2e i.e sequestration and yearly flow i.e emissions or removals. The results of their work was that the sequestration was very significant, corresponding to a very significant annual CO_2e capture (several hundreds of $ktCO_2e$). Consequently, we decided firstly to assess and certify the methodology with an independent third-party verification run by a local firm and finally to roll it out as a routine to better reflect the reality of our overall impacts.

Solution: the updated methodologies

Mass Balance Accounting

As of 2020, Aperam's approach has been based on a finer chemical analysis, This mass balance approach is also a more conservative approach to computing the CO_2e emissions from all our outputs (products, by-products).
The metallurgical effect of each input element needs to be analysed at each phase of the process as some consumables may have none, meaning their carbon-content may not be "emitted" but simply transmitted to the next phase of the process or stored permanently.
For instance, the materials introduced for the blast furnace phase of the process may have an important carbon content and even generate carbon emissions, but many of the latter may be captured within the BF gases. In that case, we have to count the carbon emissions either during the blast furnace phase of the process, or during the re-use of that blast furnace gas to heat up slabs (or generate energy) - but not twice. This means that we have to model the process and follow the transformation of the materials in order to track the C-elements and their origin at each phase (Blast Furnace, Melting Shop, Hot Strip Mill, Cold Rolling Mill).
Of course, if the origin of the C-element is considered as biogenic (i.e. our charcoal made from biomass), the emissions will be reported separately. So our calculations are allocating to each input and output categories a proportion of "C biomass" and "C non-biomass", which is calculated until the end of the process stage and allocated to the final products, by-products and emissions. For the elements that play a

role in the metallurgical phases, the CO_2e is considered as being from biomass origin to the same extent as for the total production input (averaging), reflecting the melting of all elements in this phase.

Assessing separately the yearly increase in the removals of the forestry and the emissions from the rest of the process

CO_2e scope 1 removals of our forestry

The reference used for the calculations is 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 1 Introduction, Page 1.11, with the “Tier-1” methodology for the non-cultivated (native) forest and the “Tier-2” methodology for the cultivated (eucalyptus) forest. This means that the CO_2e impact for the native forest is calculated directly, based on ratios adapted to the specific carbone capture of the plants. For the cultivated forests, it is the difference between the stock for the year N and N-1 and can either be a capture (positive result) or an emission (negative result).

The coefficients used in the calculation mostly come from the relevant Brazilian Authorities and depend upon the type of trees or forest (in our case, for the native forest, Mata Atlãntica and Cerrado).
Although we are actively combating pests and fires, the surfaces that may be impacted (which are replanted, including for the native plantation) are fully considered. Their removals will not be counted and the emissions incurred (particularly by fires) are calculated together with the other forest CO_2e emissions.

Non-Cultivated forest

These forests are not harvested, they are only protected from fire risk and maintained to thrive - they suffer no wood removal. Our FSC certification (renewed in the course of 2021) also encompasses requirements and verifications regarding these surfaces.

To calculate the CO_2e footprint of the forest, the key information concerns the spread of the areas analysed, according to the location with the type and maturity of the vegetation for each, and the carbon content of the biomass above the ground and underground. The maturity of the parcel is assessed by visual inspection and classified as low / medium / high level, with the size of the trees and density of the flora being a key element.

The general formula for the native forest is:

Potential CO_2e removals= Area surface (ha) * tCO_2e/ha * Coefficient

For each location/type of vegetation (here, Mata Atlãntica or Cerrado), the value of the “Coefficient” (of “regeneration”) depends upon the maturity of the parcel: full for the ‘high’ maturity vegetation (“avançado”) and minored by a 60% coefficient (as conservative position) for the flora in a low/medium stage of maturity.

The total removals are the sum-total of the removals of each parcel of native forests maintained by Aperam (exclusive of areas such as storage houses, roads, etc.).

Cultivated forest

All parcels are populated by trees of the same age and equally distributed, as planting is performed in one go for a full parcel using mechanical engines. For the cultivated forest, the removals are calculated for each parcel containing trees over two years of age ; before two years of age, the plants are not considered as wood and no removals are calculated (which stands as a conservative assumption).

To evaluate the carbon storage, we rely on the difference between the end stock (typically December 31st, Year N-1) and the entry stock (typically December 31st, Year N), in line with the "Tier 2" methodology as per the IPCC.
This is done by calculating the stock (both end and entry stock) following the same method, which is multiplying a coefficient of Carbon content for the dry matter by an evaluation of the total dry matter of the parcel. The latter is composed by the multiplication of:

- the volume of the trunks
- its expected normative density when it will be 6 years-old (depending on the species)
- the average annual increase in carbon in the Eucalyptus ("biomass expansion factor", needed to adjust the density to the age)
- the biomass dry matter[1], evaluating the other parts of the trees: live branches, leaves, roots, etc.

This summarises as:

Area surface (ha) * merchantable growing stock volume (m^3/ha)
*** D (wood density)**
*** (biomass expansion factor)**
*** [1+R (ton dry matter above and below ground : biomass)]**
*** CF (C-content by ton of dry matter)**

Forest inventory is held during the whole year by measuring samples/parcels (plot) on the field. We measure the tree trunk diameter and the height of the tree, which have all the same age on a given parcel. Then using mathematical models corroborated with sample measures, the wood volume is defined. According to our internal laboratory database, we elaborate the density per year.
Our FSC certification also ensures that our forestry management follows the best practices and that our stocks of live or cut trees are properly evaluated and regularly audited.

The total removals are the sum-total of the removals of each parcel of cultivated forest hosting trees of over two-years age.

CO_2e emissions of our other activities

The CO_2e calculation will follow the GHG Protocol (Corporate Standard, Scope 2 guidance, GHG Global Warming Potential Values - Feb 16 2016), ISO14064, ISO14404 and European Directive 2009/28/EC guidance.

Basically the GHG emissions calculations are based on the formula:

Quantity of consumption * GHG emissions per unit of consumption

Data collection and calculations apply to all Aperam's industrial plants (including service centres), headquarters, main offices and sales offices.
Data for the main plants are collected and consolidated by main production stage: Blast Furnace, Melting Shop, Hot Rolling Mill, Cold Rolling Mill (with Timoteo plant's production also detailed by product type Carbon & Electrical Steel vs. Stainless Steel - 2020 improvement) in order to be able to:
- follow scrupulously the main emissions and the reduction programs (on a monthly basis)
- follow scrupulously the C-content as defined above, to avoid double-counting and identify biogenic emissions, as well as
- to assess the emissions "as is" of the purchased tons (see § Adjusted ratios).

[1] Note: The below-ground biomass dry matter is deducted from the above-ground dry biomass mater by using the R ratio. Then the two CO_2e stored results are added.

Scope 1

For the calculation, the yearly consumption of following categories will be analysed:

- Production: Output material produced by the process stage (Pig Iron, Coil, etc.)
- Utilities: Industrial gas (DiHydrogen -Grey, Blue, Green-, Argon, Nitrogen, Oxygen…), Hot water, Steam, etc.
- Condensed Fuels: Coke (various), Coal, Oil (various), LPG, Consumed Charcoal, …
- Gaseous Fuels: Natural gas, Biofuel, BioGas, BF gas
- Materials: Scrap metals, Ferro-Alloys, Pure metals and other kinds of metals, Other materials (electrodes, refractory, lime, acid…).
- Residues: slag, sludge, dust
- Other GHG-Gas: CO_2e used for fire fighting, Gas used in air-conditioning system
- Forest: For cultivated and non-cultivated areas.
    - CO_2e emitted during the carbonization process and fires in forests.
    - CO_2e (CH_4) avoided during the carbonization process due to the usage of kilns' gas burners.

For the Scope 1 emissions, we cover the seven greenhouse gases identified by the 2015 update of the Kyoto Protocol and differentiate biogenic/non-biogenic emissions. The emission factors used come from our suppliers and our laboratories. They can also come from WorldSteel, ADEME, GHG / IPCC, if needed.

According to ISO Norm ISO 14404-1:2013 and ISO 14404-2:2013 (both chapter 6.2.3), the plant manufacturing steel records the quantities of raw materials, intermediate products and energy that are exported to outside users as the credit CO_2e emission sources, eg. slag or dust sold.

The total biogenic/non-biogenic emissions are the sum-total of the emissions at each process of each unit.

Scope 2

In respect to CO_2e Scope 2 definition, the collected and analysed elements are:

- Purchased electricity from the grid.
- Purchased electricity from Supplier
- Purchased renewable electricity (solar cell installation, windmill installation, dam).
- Purchased heating.

Until further notice, Aperam does not purchase compressed air, steam and cooling.

When the energy provider can supply the information, the CO_2e emissions ratio used is the gCO_2e/kWh - and the emissions are said to be "market based". For renewable sources (Solar, Windmills), the CO_2 scope 2 ratio equal to zero[2] gCO_2e/kWh.
Otherwise, the gCO_2e / kWh for the electricity from the grid ("location based") is established using a 3 (three) years-rolling average for Europe and Brazil (reporting year, year-1, year-2), with the following sources:

- European Union countries EEA database
- Brasil: Ministério da Ciência, Tecnologia e Inovações / Clima / Fator médio - Inventários corporativos.
- USA: EPA database (use of the last published values).
- Other countries: Use of the International Energy Agency (IEA) data published in 2011.

Remarks and interpretation

We report our CO_2e emissions using the GRI framework, under GRI codes 305-1, 305-2, 305-4 and 305-6.
Starting 2021, we also report "scope 1 biogenic emissions" and "scope 1 non-biogenic emissions", the latter being used for the calculation of the scope 1+2 footprint, together with the "market-based scope 2 emissions".

[2] However, a value is to be applied for any Scope 3 estimates.

We also report additional indicators tailored to our reality, in particular the consolidated impact of the year totaling emissions and removals, integrating the yearly removal, as “net emissions (scope 1+2)” (hereafter B’’).

Mass Balance Accounting interpretation

While this methodology was developed primarily to address the charcoal effect after the blast furnace phase (particularly as part of by-products) and before we started to report on biogenic emissions, the concept will prove particularly useful if we aim to develop the use of other biomass-based energy or materials. It is still useful to avoid counting twice the emissions of the same carbon dioxide at two steps of the process. As we aim to be a zero-waste company, we will increase further the re-use or recycling of all our by-products eg. dust, slags, etc and this approach will progressively be more and more necessary.

In 2020, the impact of this adjustment concerned only Brazil and meant less than 0.3% at the Group level - it did not change our 2030 objective.

Benefits from assessing separately the yearly increase in the removal of the forestry and the emissions from the rest of the process

As long as the stock sequestered into the cultivated forest equals the value of the previous year, it means that the cuts have been offset by the CO_2e capture operated by the forestry (excluding the parcels replanted during the year).
Calculating separately the biogenic/non-biogenic emissions and the removals operated by BioEnergia, rather than using the assumption “charcoal = zero”, is a heavy work we conduct in line with the GHG protocol and IPCC 2006 and 2019. However, it allows firstly to identify the specific emissions related to the cultivation and carbonization process (biogenic/non-biogenic, including emissions of methane not turned into CO_2e by kilns’ gas burners, fertilisers; etc) while evaluating the huge amounts of CO_2e stored in the forestry (soil, native forest, etc.).

To clarify the methodology and impacts, we present below a table (Table 1, incl. changes in relation to intensity ratios - see § Intensity ratios), providing a comprehensive view of the gaps between methodologies and highlighting the importance of the removal operated yearly by our forestry, in addition to a schematic (next page).
We also updated our objective, now at 0.3 tCO_2e/tcs by 2030, Scope 1+2 including offsets (B’’).

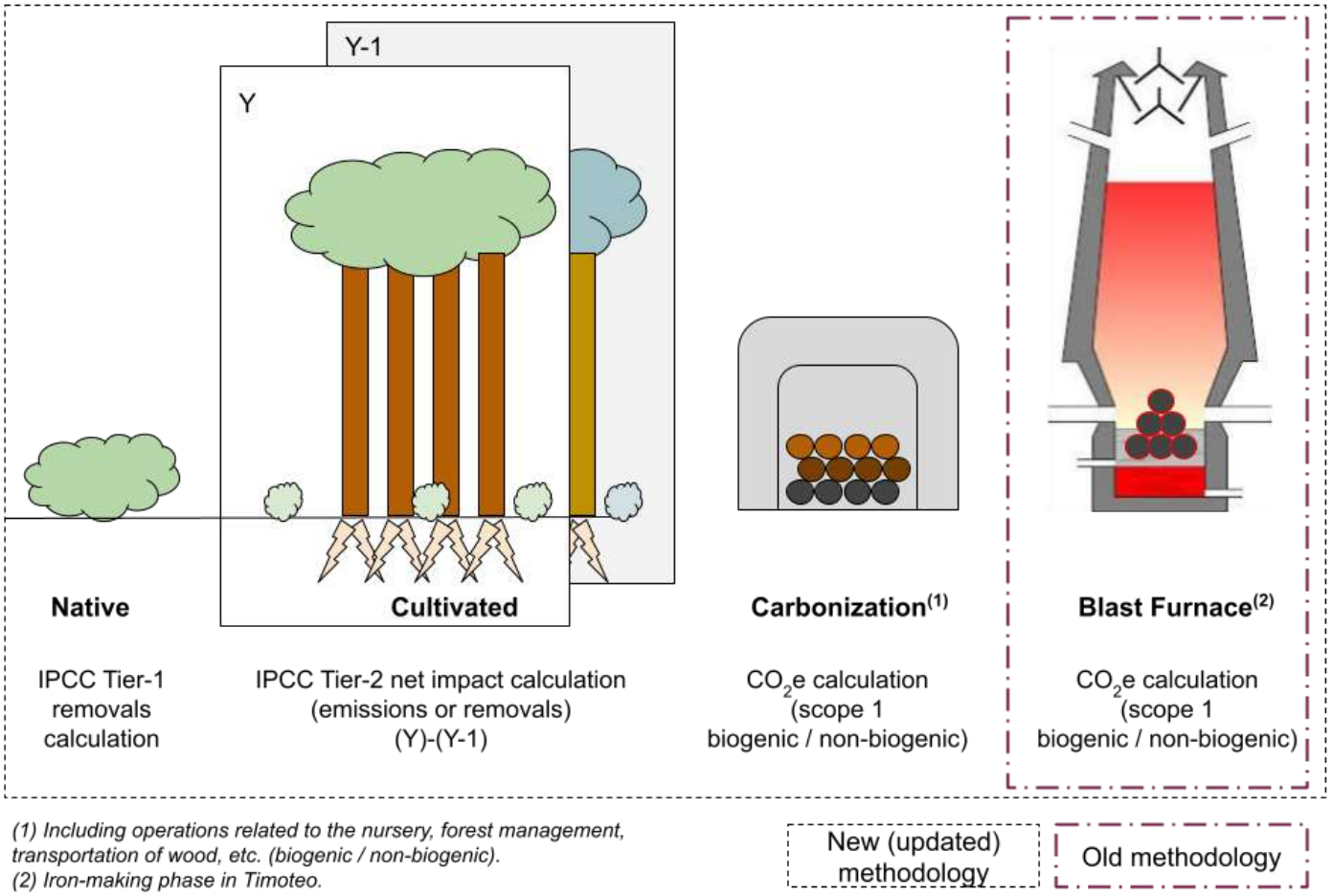
Table 1: GHG emissions (GRI 305-1 to 4)

Absolute values and intensities, by scope	GRI	Unit	Target	2021 (New)	2021 (Old)	2020 (Old)	2015
(a) Scope 1 - Non-Biogenic (absolute value)	305-1	$ktCO_2e$	n/a	939*	766	666	869
Scope 1 - Biogenic (absolute value)NEW	305-1	$ktCO_2e$	n/a	1,050*	n/a	n/a	n/a
Scope 2 (absolute value) - Location based	305-2	$ktCO_2e$	n/a	297*	297*	257	328
(b) Scope 2 (absolute value) - Market basedNEW	305-2	$ktCO_2e$	n/a	267*	267*	267	328
(A) Scope 1+2 gross (absolute value: a+b)	n/a	$ktCO_2e$	n/a	1,206	1,033	923	1,197
(c) Sequestration (absolute value - incl. fires)NEW	n/a	$ktCO_2e$	n/a	(467)*	n/a	n/a	n/a
(B) Scope 1+2 net (absolute: a+b+c)NEW	n/a	$ktCO_2e$	n/a	739	n/a	n/a	1,197
(A’) Scope 1+2 gross intensity (own tcs): (A)/tcs	305-4	tCO_2e/tcs	**0.37**	**0.56***	**0.46**	**0.47***	0.55
(A’’) Scope 1+2 gross intensity (*all* tons): (A)/tcsNEW	305-4	tCO_2e/tcs	**n/a**	**0.54***	**0.46**	**0.47**	0.54
(B’) Scope 1+2 net intensity (own tcs): (B)/tcsNEW	n/a	tCO_2e/tcs	**n/a**	0.34*	n/a	0.47	0.55
(B’’) Scope 1+2 net intensity (*all* tons): (B)/tcsNEW	**n/a**	**tCO_2e/tcs**	**0.30**	**0.33***	**n/a**	**n/a**	0.54

*Data having received external assurance.

We had our calculations externally certified in line with ISO 14064-1:2018.

Schematic 1: methodology



(1) Including operations related to the nursery, forest management, transportation of wood, etc. (biogenic / non-biogenic).
(2) Iron-making phase in Timoteo.

Air emissions

Context

Air emissions and primarily dust emissions are amongst the key topics of interest of our local stakeholders. According to our Environmental policy, Aperam's commitment is to go beyond legislation and reduce in a continuous manner its emissions of dust: it is repeated on our several external communication tools. To do so, we organise the containment of dust-emitting operations and/or installation of obstacles to prevent the spread of the diffuse dust mainly associated with material handling, stockpiling and transport activities.
To avoid stack emissions (released from identifiable sources), we can arrange water sprinkling in order to channel the dust via water (eg. Châtelet HSM) and, when possible, the ducting of dust, which can then be recuperated in filtering systems using fabric sleeves and treated in Recyco (or landfilled in Brazil). At critical points, we can set up continuous measurement and alerting systems triggered well below the authorised thresholds to launch analysis/corrective measures, and monitoring cameras can be added to detect visually and in real time any dysfunctioning.

The monitoring of the volumes emitted is organised locally, primarily according to the permits, and this is periodically verified by local authorities. Our measurement protocol is based on the following key principles:

- We follow ducted dust (particulate matters) via opacimeters, placed at the main sources of emissions, usually the chimneys, and chemical components by analysis. The volume of ducted dust

emitted is calculated by equipment, using the measures taken in mg/Nm^3 from the opacimeters. Once multiplied by a flow and a duration (operating hours of each equipment), it provides absolute value emissions and also allows a consolidation by process stage, plant, country, and ultimately at group level. Sometimes, the measures can be real time with our own systems, but generally, the assessment is done via sample measurement campaigns subcontracted to external firms at a frequency depending on the permit and on the local criticality of the topic (rom multiple times per month to once per year according the criticality of the dust emissions points). We can also be subject to impromptu audits organised by the legal authorities.

- Additional measurements can be organised beyond the limits of the plants, when requested locally, to evidence dust falls (immissions) or the presence pollutants (eg. Nickel and Chromium) and to have all elements to understand our impact on the environment. Of course, these metrics are also impacted by external factors (wind, agriculture, traffic, ..) and production mix. Therefore some baseline measurements can be organised to better identify the impact of our operations.
- NOx and SOx are only measured in Europe.

Units use all this data to report to the authorities according to the required periodicity, by chimney and in mg/Nm^3 and g/t.
The data undergo regular verifications from various auditors, for instance as part of the framework of our ISO 14001 and Sustainability reporting audits.

The diffused dust from industrial buildings is analysed separately and only counted in the Group total emissions when it is reported to the authorities, as it is the case for the Imphy plant (France). This small variation in the total emissions is negligible, diffused emissions being below 3% of the Aperam total, in absolute values (2021 data).

Description of the need

One of the problems we face is the heterogeneity of the measuring periodicity, a reflection of the diversity of the regulations in force and also the various impacts of our plants. The local Authorities request periodical communications of the measures (typically once a quarter but can also be once per year) and the specifications of such ‘legal measures’ usually clarify that those not taken during normal operating conditions cannot be considered.
A parallel issue is the variability of the performance of our dedusting systems. These are huge equipment with turbines to duct and cool the flow and filtering sleeves that need periodical maintenance. Indeed, when some sleeves are displaced, torn or pierced (as in a vacuum cleaner), they fail to filter the air flow, which explains an accrued release of particles through the chimneys. In this case, filters need replacement, which in turns requires a stoppage of the system and a maintenance operation with new sleeves.
On top of that, it is not always easy to detect when maintenance is needed or whether the dedusting performance is satisfactory. This is why we usually use dust emissions measurements to check the reliability of the system and to prioritise the actions in the maintenance schedule. Indeed, since 2016, we have also decided to intensify, beyond the legal requirements, our measurement frequency to enhance our performance, identify areas of improvement and adequately schedule our maintenance. In case of problem, our procedure even requests to increase the frequency of the measurement until a sustainable return to normal within the permit limit, in order to efficiently follow the results of the corrective action plan.

Thus we have measures that are valid for legal reporting use and others that are not qualified for the same, but that are still necessary for our own operations monitoring.

Solution: the different methodologies

At Aperam level, dust emissions are consolidated using several methodologies to address the various standpoints of our stakeholders:

- 'Regulatory methodologies' are used for local disclosures purposes mostly ('legal view'). They take into account the measures in line with our operating permits obligations. This figure is fully in line with the data reported to the authorities.
- The 'exhaustive methodology' considers all measures taken and is reported as part of our Sustainability reporting, in order to reflect the volume of the dust emitted with the best precision possible. To assess our impact in terms of total air emissions, each measure is considered from the date of the measure until the following measure, whatever the level of performance they reflect (in 'normal operating conditions' as per the regulatory demands or at times of dysfunctioning).
- As regard to NOx/SOx, we only report a total for Europe, using the 'regulatory methodology' as we are not organising additional measures.

For our calculations, where possible, we use the real-time measures of our opacimeters. However, sometimes, the opacimeters are not coupled with real-time flow metres and can only serve for the alerting of operational departments - in which case we rely on the regular measurement campaigns (mg/Nm^3) to compute our total emissions.

Remarks and interpretation

The totals based on the 'legal' measures (emissions using 'regulatory methodologies') provide a yearly estimate based on a couple of points (typically, the two semestrial measures by chimney). Our own internal exhaustive assessments benefit from a greater set of measures, which, considering the variability of the performance, significantly improve the accuracy of the assessment.
Considering this 'legal vision' as less homogeneous in terms of measuring points and less relevant to reflect the reality of our impacts towards our stakeholders, we are reporting on a consolidated level 'exhaustive assessments' that are taking into account all the reliable measures taken (incl. during breakdown of de-dusting installations) - we consider that it matches the GRI definition of the indicator "GRI 305-5: NOx, SOx and other significant air emissions". In 2020, the 'exhaustive emissions' in absolute values was presenting a +9% increase compared to the 'regulatory' measures-based total.

Overall, Timoteo emissions account for over 80% of the total emissions of the company.

Intensity ratios

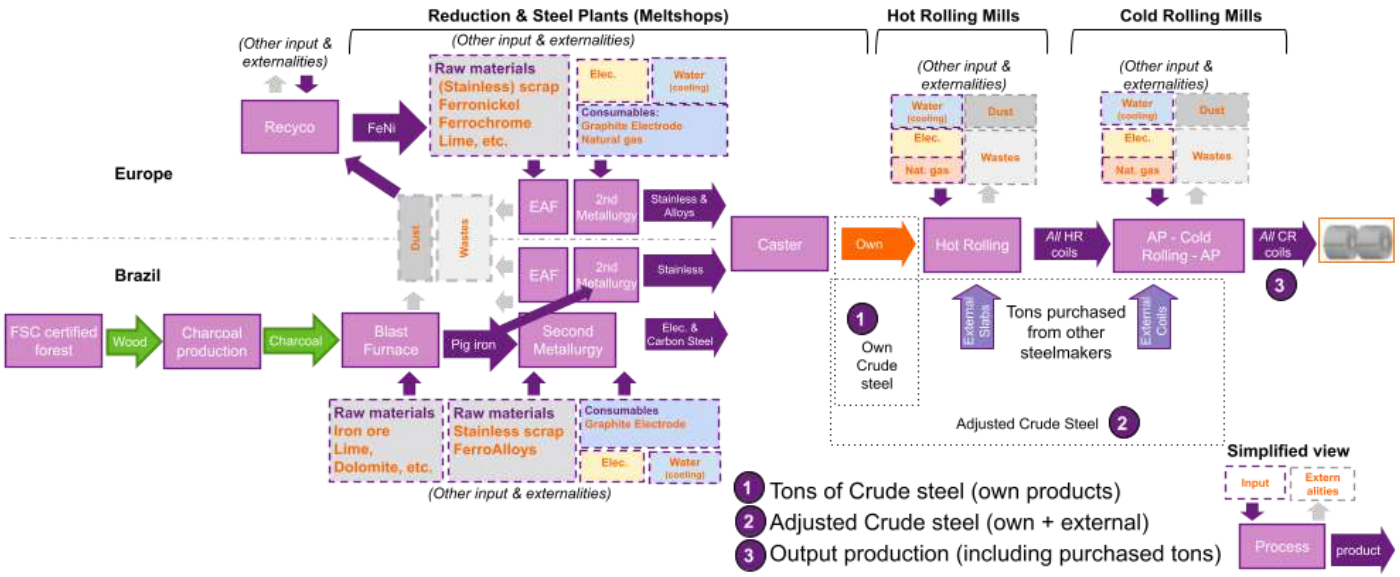
Context

The production process of steel is that of a transformation of primary or secondary raw materials into crude steel then turning it into long (bars, wires) or flat (coils that can be cut into sheets) products. For Aperam, it's mostly coils / sheets. As the crude steel is therefore a common denominator to all processes, whatever the end product is (very thin or ultra-bright stainless coil, pickled coil of carbon steel), it is traditionally used in the industry to calculate all ratios in intensity with the aim to decorrelate the absolute consumptions and emissions from the production level. For instance, the EU taxonomy and the ETS are both indicating thresholds in terms of CO_2e intensity calculated based on "tonnes of crude steel ex-caster", usually abbreviated "tcs" for tonnes of crude steel.

The graphic (Schematic 2) below represents the process within Aperam. The company can decide to increase its production by purchasing some semi-finished products to other steelmakers. These volumes will therefore join the flow of the total products passing through our tools. When these volumes are limited

or purchased in a very advanced stage of transformation, little input or externalities will be used or generated by their processing. This means that the marginal increase in absolute values (in terms of water, energy, or dust, for instance) will hardly be visible, compared to the total impacts of our “fully owned” production on the same criteria. Likewise, the ratio of total impacts/total production will not be distorted if the total production is very close to our own production. In that case, not counting the purchased volumes within the “tons of crude steel” used as a divider is not a problem and will hardly change the result of the ratio.

Schematic 2: Integration of Purchased tons into our Industrial framework



Description of the need

Problems come when the volumes of purchased semi-products (usually slabs or hot rolled coils) vary significantly. Indeed, the consumption and externalities are measured independently, in absolute values, and can significantly increase -or drop-, particularly if the products undergo heavy-impact phases of the process. For instance, an external slab will pass through the hot rolling step (and downstream), which is part of the total process in terms of energy consumption, and adds its kWh use to the relevant counters.

Unfortunately, as the counter used for the denominator in standard ratios is the ton of crude steel produced (slab, for convenience), this external slab cannot be counted with our own slabs - only with the original steelmaker. As a result, when one purchases significant volumes of external semi-products, one has an increased nominator and an unchanged denominator, ending up in a distorted ratio. It is particularly inconvenient if the volumes of external semi-products entering our process fluctuate over time: the ratios could improve or deteriorate, showing variations that are not reflecting our gains in efficiency and even mislead our own people in quest for constant optimization.

That is why, knowing that we have important variations in the proportion of external products transformed at our plants (0.2% in 2020 vs. 3.5% in 2021), we decided in 2021 to design a methodology to redress this anomaly.

Solution: the ‘adjusted’ methodology

The concept is simple: adjust the intensity fraction ‘fairly’ by recognizing all the impacts of the purchased products “as if” they were our own (that of the same plant), both at the numerator (consumption of energy and water, GHG and dust emissions, etc.) and at the denominator levels (production, here tonnes of crude

steel). This allows us to avoid 'false' variations over the years that would be justified only by the proportion of semi-products transformed and not by a change in the efficiency of our processes.
To do this, we must adjust both the numerator and denominator of the fraction, based on our own data of the period - and this is valid for all our main ratios: GHG and Air (dust) emissions, Energy and Water consumption.

- For the numerator (impacts), we already have the impacts generated by the products as they pass on our tools but we miss the impact they would have had, if they had been melted at Aperam's. To do that, we apply the same standard impacts generated by our own tons during the upstream part of the process (ie. average CO_2e emissions during the elaboration at the Meltshop). This means that first we calculate the impacts (absolute, intensity) of our own slabs in terms of water, dust, etc., at the process stage (eg for instance Melting shop Water Consumption). Then we allocate the same intensity ratio to the external tons. Finally this value is added to actual consumption. This sum reflects the consumption linked to our own production and the external inputs as well.

- For the denominator (production level), we add the purchased products to our own production. If the products are a coil, we have to recalculate the equivalent of tons of crude steel (slabs) that the purchased products represent. For instance, if we had a yield of 98% for our own transformation slabs to black coil (blackcoil weight / slab weight = 98%), we inflate (division) the tonnage of the black coils purchased by that factor to obtain a "slab equivalent". Then we add this "equivalent slab purchased" from the purchased back coils to our own tons of crude steel for an "adjusted total production". This figure will then be used as the divider to calculate all "adjusted intensity ratios".

Remarks and interpretation

As a conclusion, with such an approach we are getting closer to a product-specific approach and we erase the visual distortion linked to the fact that not all tons have passed through all the steps of the steelmaking process. We also make the comparisons between tools (as we do internally) and amongst steelmakers (as is done externally) more relevant.
In 2021, the adjusted 'intensity CO_2e emission' considering all tons (including purchased metal) was presenting a 2.5% gap compared to the standard ratio considering only our "own tons".

This approach was also decided knowing that we will progressively move to a comprehensive scope CO_2e reporting, i.e. from scope 1 to scope 3a (Upstream). At that time, we will aggregate the CO_2e footprint from the raw material mine ("cradle") to the delivery of our end-product ("gate").