

HYCAST®

By  Hydro

Sustainability report

2023



HYCAST®
Game Changer Casthouse Solutions

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01 Summary



Summary

Hycast impact people, society and the environment through our business. A materiality assessment is conducted to analyze the most important impacts. Based on this assessment we have defined four focus areas for improvement:

- Operational reliability and safety
- Low impact manufacturing and use-phase
- Attractive workplace
- Local community value creation

Key figures of our business and a carbon accounting are included. We have found that *purchased goods* is the most important factor in our carbon footprint, followed by *business travel* and *electricity*. Based on the findings. We have stated an ambition of reducing our carbon footprint by 40% within 2030 compared to 2023 values. The main actions to achieve this are:

1. Use fossil free steel.
2. Carbon neutral travel
3. Buy only renewable energy.
4. Transfer to carbon neutral transport.

Dear all,

How do our activities impact people and the planet?

I am pleased to present our 2023 Sustainability Report, which details our progress, challenges, and unwavering commitment to building a sustainable future. This report highlights not only our achievements but also the responsibilities we embrace as a company dedicated to minimizing our environmental footprint, supporting our communities, and driving innovation towards a more sustainable world.

In a rapidly evolving global landscape, sustainability is a cornerstone of Hycast's long-term strategy. We understand that our actions today have enduring consequences for future generations. Our approach is anchored in clear objectives outlined in our sustainability policy:

Planet:

- Environmental impact is considered throughout our entire value chain.
- Hycast is committed to lead the transition towards more sustainable casthouse solutions in the aluminum industry.

People

- We strive for highly competent and motivated employees, and a healthy working environment for personal development.

Profit

- Hycast has financial robustness as ambition for continuous development of the company and securing of jobs.

We aim to create a competent, inclusive, and sustainable work environment that embraces our differences. By leveraging a diverse workforce for increased value creation, we strive to enhance diversity, inclusion, and belonging in three key areas:

- **Inclusion:** Promote inclusive leadership and a culture where everyone can contribute their full potential.
- **Equality:** Ensure equal opportunities for all to contribute and succeed, recognizing that individuals have different starting points.
- **Diversity:** Seek diverse perspectives and skills to solve tasks and meet customer needs, including increasing diversity at senior levels.

In 2023 Hycast made a huge effort in streamlining work processes and on improving the overall work environment. This was needed to shape the organization to be able to face the possible growth we see possible in near future.

I would like to thank our dedicated employees who have contributed to our progress. For us, the establishment of a sustainability report marks the beginning of a journey, and it is through the collective effort of all our stakeholders that we can achieve positive change. As we look to the future, we reaffirm our sustainability commitments, confident that together we can make a positive impact on the world around us.

Thank you for your interest in our journey towards a greener future together!

Sincerely,

Ola Ulvund (MD)



3.1 Employees and diversity

At Hycast, we recognize that our employees are our greatest asset, and fostering a diverse and inclusive workplace is fundamental to our success. By embracing diversity, we strengthen our ability to innovate, collaborate, and achieve sustainable growth. The table below provides an overview of our historical data and targets related to employee gender balance, and diversity initiatives, reflecting our progress and ambitions in these areas.

	Unit	2023	2022	2021	2020
Employees (own)	#	62	58	56	54
Employees (hired)	#	3	4	4	0
Own employees in %	%	95.4 %	93.5 %	93.3 %	100.0 %
Apprentices	#	0	0	0	0
Apprentices in %	%	0.0 %	0.0 %	0.0 %	0.0 %
Total employees	#	65	62	60	54
Female employees	#	11	10	10	10
Male employees	#	54	52	50	44
Female employees in %	%	17.7 %	17.2 %	17.9 %	18.5 %
Female leaders	#	1	1	1	1
Male leadres	#	8	7	8	8
Female leaders in %	%	11.1 %	12.5 %	11.1 %	11.1 %
Average number of years employed - total	#	62	58	56	54
Average age - total	#	44.9	45.5	45.1	45
Turnover	#	3.10%	1.70%	1.70%	1.80%

3.2 Financial

At Hycast, we strive to balance economic performance with our environmental and social responsibilities. The financial figures below highlight our historical performance and targets, demonstrating our commitment to long-term value creation while aligning with our sustainability goals.



	Unit	Target	2023	2022	2021	2020
Revenue	kNOK	500 000	444 773	496 945	285 663	257 390
EBIT	kNOK	40 000	5 832	26 009	3 570	15 752
EBIT %	%	7-10%	1,3 %	5,2 %	1,2 %	6,1 %
EBITDA	kNOK		7 021	28 602	6 292	19 768
EBITDA %	%		1,6 %	5,8 %	2,2 %	7,7 %
Equity	kNOK		206 671	199 985	150 658	142 552
Equity %	%	40-50%	49,2 %	48,1 %	47,4 %	54,5 %
ROACE %	%		47,0 %	18,0 %	23,5 %	42,7 %
Salary to employees	kNOK		99 521	84 670	72 330	68 347
Dividend	kNOK		0	0	0	0
Taxes	kNOK		2 005	5 897	1 011	4 382
Investments	kNOK		0	871	560	1 667
Cost related to purchased goods and services	kNOK		287 192	350 290	181 328	148 291
Cost R&D/Technology	kNOK		16 395	18 918	16 683	16 030
Cost R&D/Technology %	%	3-5%	3,7 %	3,8 %	5,8 %	6,2 %
(EBIT+Cost R&D/Technology) %	%	12 %	5,0 %	9,0 %	7,1 %	12,3 %

and Environment -HSE!

Prioritizing health, safety, and environmental responsibility in all aspects of our operations. As an ISO 14001-certified company, we are committed to maintaining the highest standards in environmental management, ensuring that our activities align with sustainable practices and regulatory requirements. Our dedication to HSE reflects our core values of safeguarding our employees, minimizing environmental impact, and fostering a culture of continuous improvement.





HYCAST[®]
Game Changer Casthouse Solutions

A technology company
developing game
changer casthouse
solutions

Company overview

Solid industrial history

- Established in 1990 as spin-off from Hydro R&D
- 100% owned subsidiary of Hydro
- Commercial operations outside Hydro since 2009

Access to world-class testing facilities and partners

- Located in Sunndalsøra, Norway
- Close to Hydro Casthouse and R&D facilities
- Partnership with leading universities and institutes

Extensive casting process know-how

- Legacy from industrial production environments
- Considered innovation leader within casthouse technology
- Active player in the international scientific society through publications and presentations

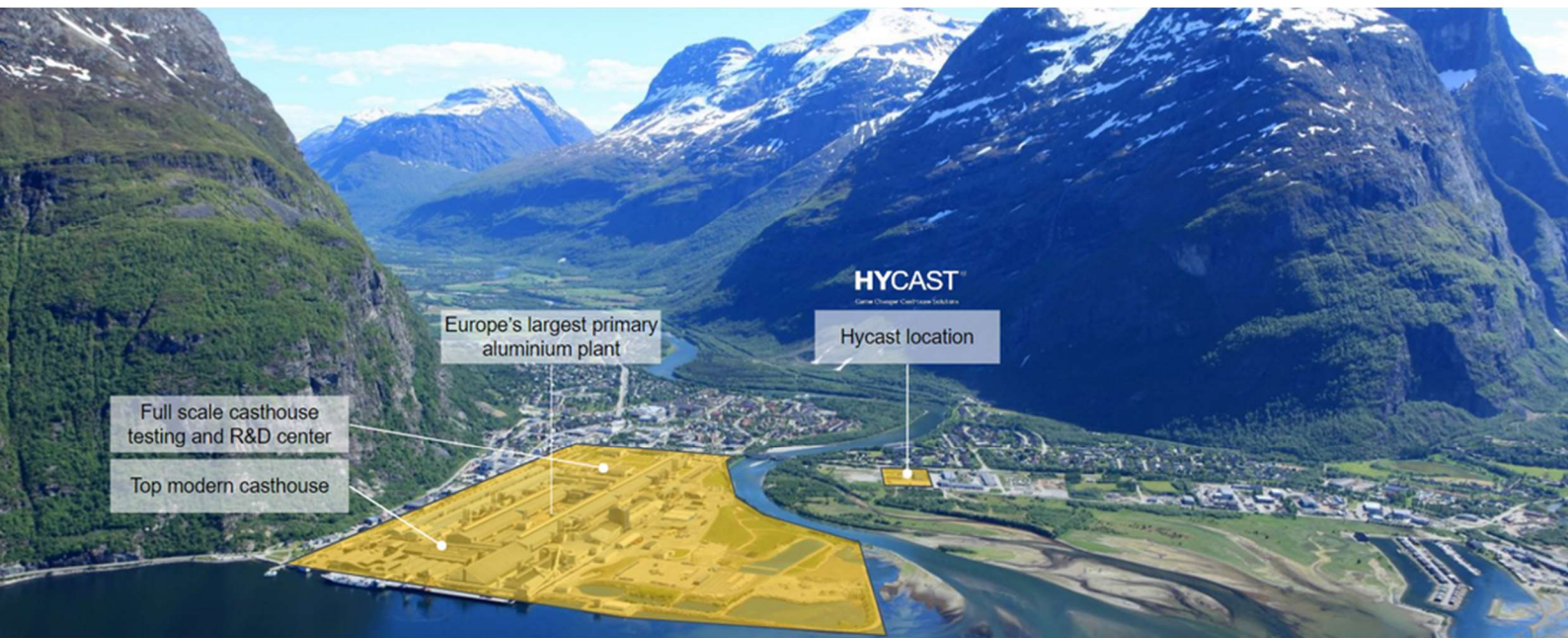
Built on people and core competences

- ~70 skilled employees across disciplines
- Lean and optimized operations

References from projects globally

- Europe, Middle East, Asia, North America

Location



Unique location with access to top testing and R&D facilities allows Hycast to be in the frontline of innovations and development

4.1 Our vision, mission and values



Vision

Game Changer Casthouse Solutions



Mission

Empowered by competent and motivated employees, we deliver cutting-edge, sustainable casthouse technology to the global Aluminium industry

Act as a strategic development partner securing Hydro's position on casthouse products.



Values

Care, Courage, Collaboration

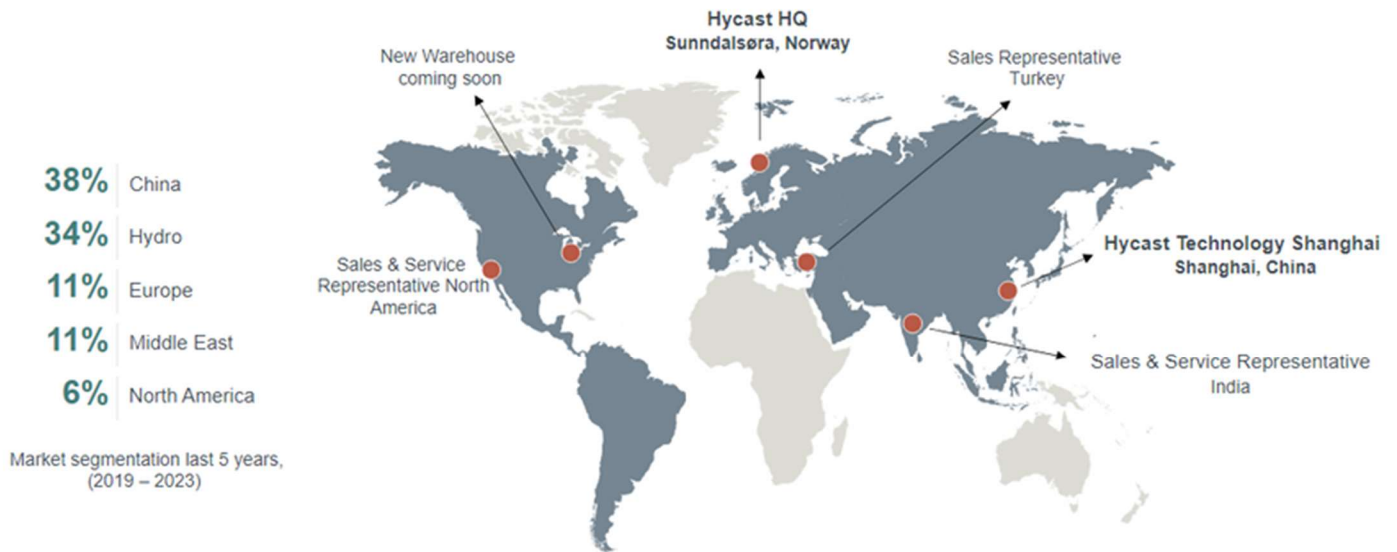
4.2 Project across continents

Project experience

For three decades Hycast has delivered state-of-the-art casthouse solutions around the world.



Extensive Experience World Wide



4.3 Innovation

30 years of research, development and innovation

- Hycast has its roots from Hydro R&D and innovation
- Deep technical knowledge and process insights
- Commitment to invest in technology development
- Partnership with leading universities and institutes worldwide
- Efficient innovation process with active use of prototypes and pilots in operation
- Close interaction between R&D and market to secure market-driven innovation
- Acknowledged as the leading innovator in casthouse technology solutions



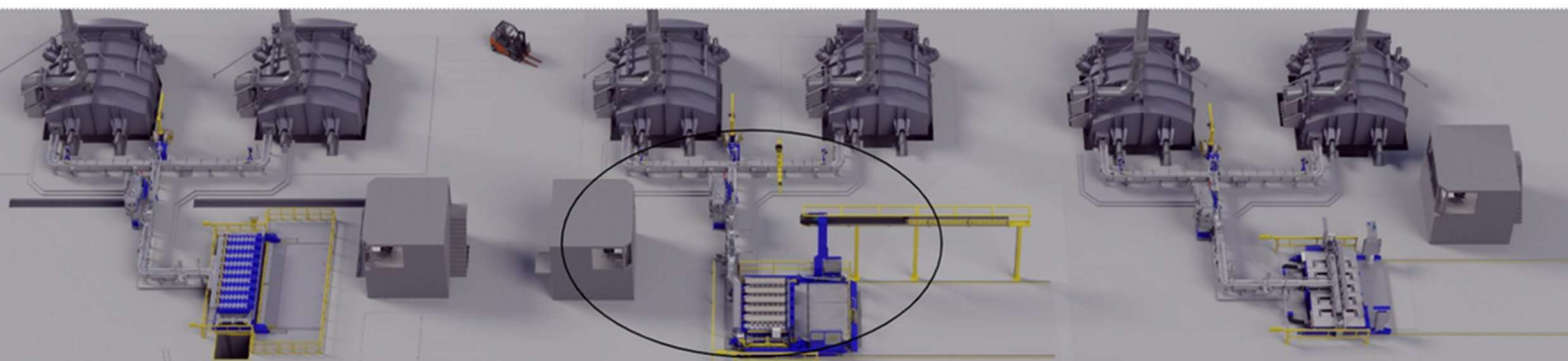
Delivering next generation DC casting lines

- End-to-end casting line solutions
- Fully automated casting lines (hands-off casting)
- Fail safe design of all technologies
- “No-personnel-in-hazard-zones” through safety add-on solutions
- Single equipment deliveries
- Customized solutions and deliveries
- Casthouse modifications
- Service and support solutions

Strengthening our customer’s competitive advantage and increasing casthouse safety levels

Hycast core technologies and offerings

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<u>Casting Systems</u>	<u>Inline Melt Treatment</u>	<u>Launder System</u>	<u>Casting Control System</u>	<u>Crucible Fluxing</u>
<ul style="list-style-type: none"> • Hycast CMV – Casting Machine Vertical • Hycast Billet Casting Technology (GC/LPC) • Hycast Rolling Slab Casting Technology (FM/AFM) 	<ul style="list-style-type: none"> • Siphon Inert Reactor (I-60 SIR / I-25 SIR) • Drain free degassing and inclusion removal technology 	<ul style="list-style-type: none"> • Customized metal transfer launders • Integrated pre-heating system • Automated dams and metal level sensors • Grain refiner rod feeder 	<ul style="list-style-type: none"> • Fully automated casting lines • Fail safe design of all technologies • Remote access support 	<ul style="list-style-type: none"> • Removal of alkali metals • Treatment of metal in crucible • Eliminate the need for Chlorine in furnace/laundry

Spares and Service

Hycast Knowledge and Competence

Materiality at Hycast

Understanding Hycast impact in a two-way interaction with society and environment

Hycast has conducted its first materiality assessment 2023 to identify where Hycast has the greatest impact on society and environment, as well as identifying topics that have the greatest potential to influence our business success. The materiality assessment is based on GRI-3 (2021) Materiality Standard and the principle of double materiality.

Hycast has involved a third party to conduct desk research and questioners involving our key stakeholders. Feedback from our key stakeholders together with benchmarking against comparable businesses, internal workshops and involvement in industry clusters for trend insights have led to Hycast materiality assessment.

The material topics present our best judgment of the most significant impacts that Hycast has on the economy, environment, and people through our activities and business relationships.

5.1 Hycast stakeholders

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5.2 Hycast material assessment

Understanding the importance of key topics is essential for driving our sustainability efforts. Through our material assessment, we evaluate and prioritize issues based on their significance to our stakeholders and their impact on our business. The following levels of importance have been defined to guide our focus and strategic actions.

Game Changer Casthouse Solutions

Level of importance defined by boxes, but not weighted within each box

- Environmental aspects
- Social aspects
- Governance aspects

Important

- Greenhouse Gas Emissions from our facilities (Scope 1-2)
- Local workforce and wage

More important

- Circularity
- Leadership development
- Transparency
- Greenhouse Gas Emissions from our value chain (Scope 1-3)
- Diversity, inclusion and belonging
- Product quality and longevity
- Attraction and retention
- Education and skills development

Most important

- Cybersecurity
- GGE* in use phase
- Business ethics and corruption
- Technology innovation
- Local community value creation
- Responsible supply chain
- Workers' health and safety
- Sustainability governance structure and involvement

*Greenhouse gas emission

Material topics grouped to define 4 focus areas

To streamline our sustainability efforts, material topics have been carefully analyzed and grouped into four key focus areas. These focus areas represent the core priorities that align with our strategic goals and stakeholder expectations, ensuring a targeted and effective approach to sustainable development.



**Operational
reliability and
safety**

**Low impact
manufacturing
and use-phase**

**Attractive
work place**

**Local
community
value creation**









5.4 Hycast and the UN Sustainable development goals

Hycast supports the UN Sustainable Developmental Goals

Hycast supports the UN Sustainable Development Goals (SDGs). The following goals are defined as most relevant for Hycast:



Incorporating SDGs in relation to Materiality Assessment

UN SDG	Definition/mission	Focus Area	Hycast's Contribution & Actions
4 QUALITY EDUCATION 	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Local community value creation Attractive Workplace	<ul style="list-style-type: none"> • Offer suitable training and education for all our employees • Cooperation with educational institutions and cross-industrial clusters • Offer internships, school practice etc. • Sponsoring in our region who's strengthening both our values and the Hycast brand. • Hydro's common process for people performance and development includes appraisal dialogue, individual development plan and follow-up, as well as talent planning and succession management.
5 GENDER EQUALITY 	Achieve gender <u>equality</u> and empower all women and girls	Attractive Workplace	<ul style="list-style-type: none"> • Comply with Hydro's Diversity, Belonging and Inclusion policies • Establish a roadmap for more gender equality at management level
8 DECENT WORK AND ECONOMIC GROWTH 	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Enabling sustainability in the value chain Attractive Workplace	<ul style="list-style-type: none"> • Workers' rights within Hydro shall be secured through Hydro's global directives and local legislation as well as through cooperation with unions and other employee representatives. • In the supply chain, we work in addition to secure responsible sourcing and procurement. Throughout our activities, we contribute to economic activities and growth by directly creating value for our suppliers, customers and the region we are part of.
UN SDG	Definition/mission	Focus Area	Hycast's Contribution & Actions
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Technology for low-impact use-phase	<ul style="list-style-type: none"> • Sustainability perspective throughout the entire value chain, from technology development to remote service of customers • Developed technology to eliminate personnel in hazard zones (e.g., fully automated casting line, drain free degasser) • No use of chlorine in Hycast technologies • Hycast Low Pressure Casting (LPC) technology where e.g., HyForge is directly a spin-off from
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	Ensure sustainable consumption and production patterns	Enabling sustainability in the value chain	<ul style="list-style-type: none"> • Building knowledge and facts with customers and other stakeholders regarding the environmental impacts of our processes and products. • Perform life-cycle assessments (LCAs) for all major products groups to identify improvement potentials (incl. production patterns)
13 CLIMATE ACTION 	Take urgent action to combat climate change and its impacts	Enabling sustainability in the value chain	<ul style="list-style-type: none"> • Complete carbon accounting for Hycast value chain including Operating Climate Emissions • 100 % chlorine free equipment • Deliver on environmental goals according to ISO14001:2015

5.5 Operational reliability and safety



- Identify operational challenges and work structured together with customers to improve/solve. Document performance improvements.
- Register HSE related incidents from customers and make changes if needed
- All technology supplied shall be according to machine safety directives and legislation.

5.6 Low impact manufacturing and use-phase

Manufacturing

- Move from spend-based data to actual data on Global Warming Potential (GWP)
- Require suppliers to provide actual GWP based on information of the production of materials and components.
- Key areas for reduction:
 - Fossil free steel
 - Carbon neutral transport
 - Carbon neutral travel
 - Moving to 100% renewable energy

Use-phase.

- Get real data on use-phase from customers.

Part of our mission: «Through competent and motivated employees...»

Conduct Competence Development Actions Based on GAP Analyses:

- Use GAP analyses to identify competency gaps.
- Implement targeted development actions accordingly.
- Create a comprehensive plan for developing competencies.
- Align it with organizational goals.

Team and Company Improvement Initiatives from Hydro Monitor Survey:

- Leverage insights from Hydro Monitor
- Develop and execute relevant improvement actions across teams.

Well-Being Initiatives:

- Continue planning and implementing well-being activities at both team and company levels.
- Reference to Global procedure GP-03-04-03

Diversity & Inclusion Training for Management:

- Establish training programs for management on Diversity & Inclusion.
- Collaborate with relevant resources within Hydro.

ISO45001 – Certification process in strategy period

- Ensure occupational health and safety by following ISO45001 standards.



5.8 Local community value creation

Continue sponsorships in local/regional culture and sport activities, focusing youth.

Participation in local/regional boards, e.g. Business Associations, Business Clusters etc.

High degree of local/regional suppliers, counting of + 200 MNOK in yearly purchased goods & services.

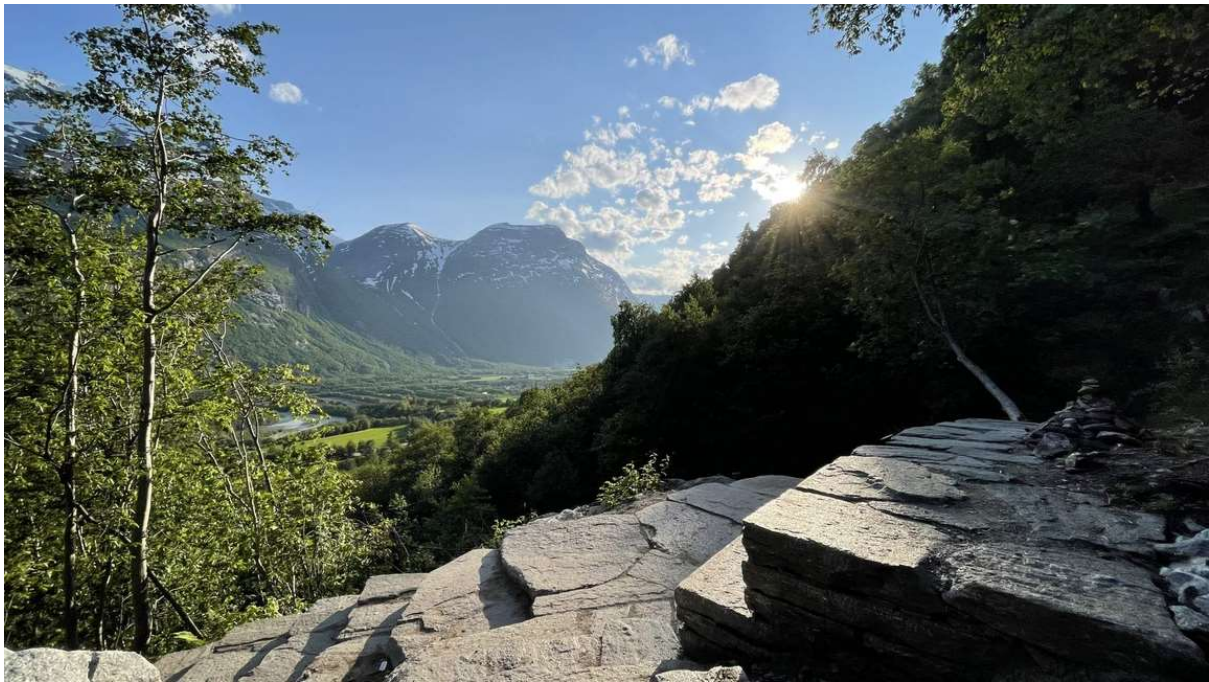
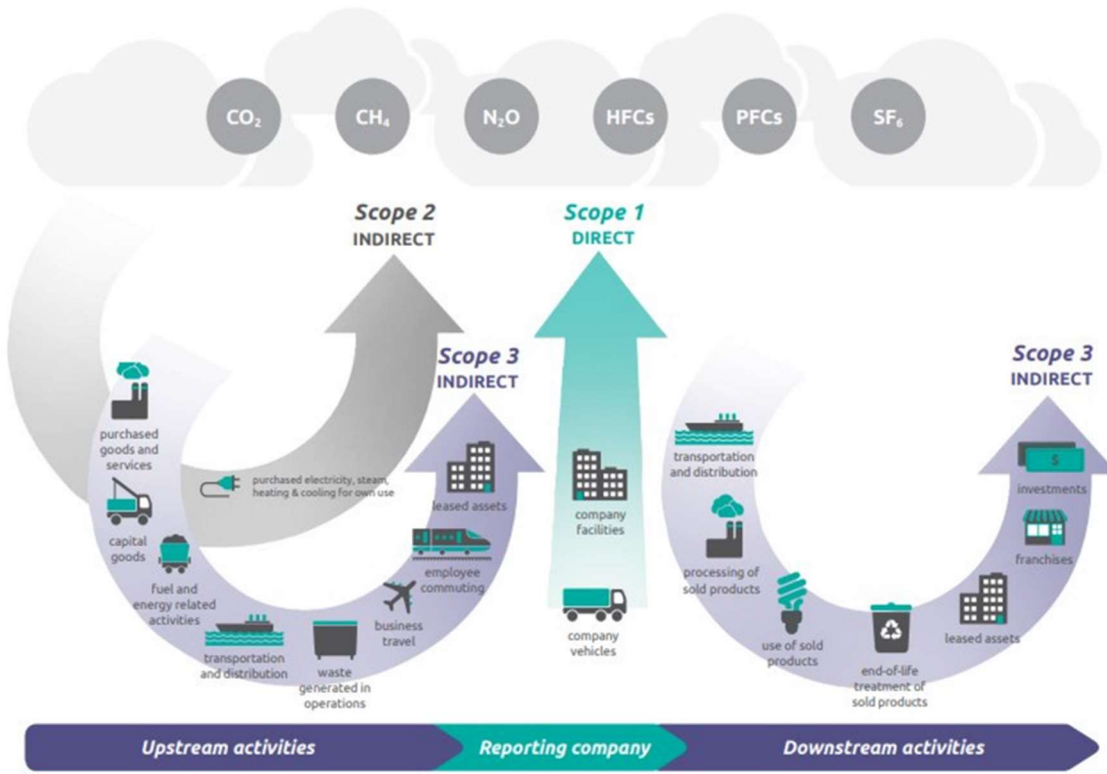


Foto: Sigrun Rødset



Assumptions



Picture source: EPA. Environmental Production Agency, US.

For scope 1:

Here we have used data for actual fuel consumed and data from freight suppliers.

For scope 2:

Data from energy supplier and carbon factors from NVE.

For Scope 3:

Here we have applied a spend-based approach for purchased goods and services.

For Business travel we have used data from the travel agency. For downstream transport we have used data from freight suppliers.

The use-phase and end-of life is not included in the carbon accounting

6.1 Carbon accounting

Scope 3 is ~93% of total (purchased goods and services ~72%)

Below is the carbon accounting for Hycast, last three years divided by scope. From Variable.

Scope	Subcategory	No sub-category ▾			2021	2022	2023	Total tCO ₂ e
Scope 1	Stationary Combustion				0.06	0.06	0.06	0.30
	Transport				1.40	1.46	1.67	9.72
Scope 1 total								10.02
Scope 2	Electricity				183.05	332.92	456.78	1,484.00
	District Heating				0.19	0.11	0.35	0.83
Scope 2 total								1,484.83
Scope 3	Purchased goods and services				2,708.11	4,892.00	4,587.78	16,695.41
	Waste generated in operations				16.81	18.25	19.21	89.90
	Business travel				140.12	152.01	1,165.75	2,310.12
	Downstream transportation and distribution distribution				5.80	81.31	141.20	324.12
Scope 3 total								19,419.56
Uncategorized								
Total					3,055.54	5,478.14	6,372.79	20,914.41

6.2 Category split (2021-2023)

Materials are ~80% of total

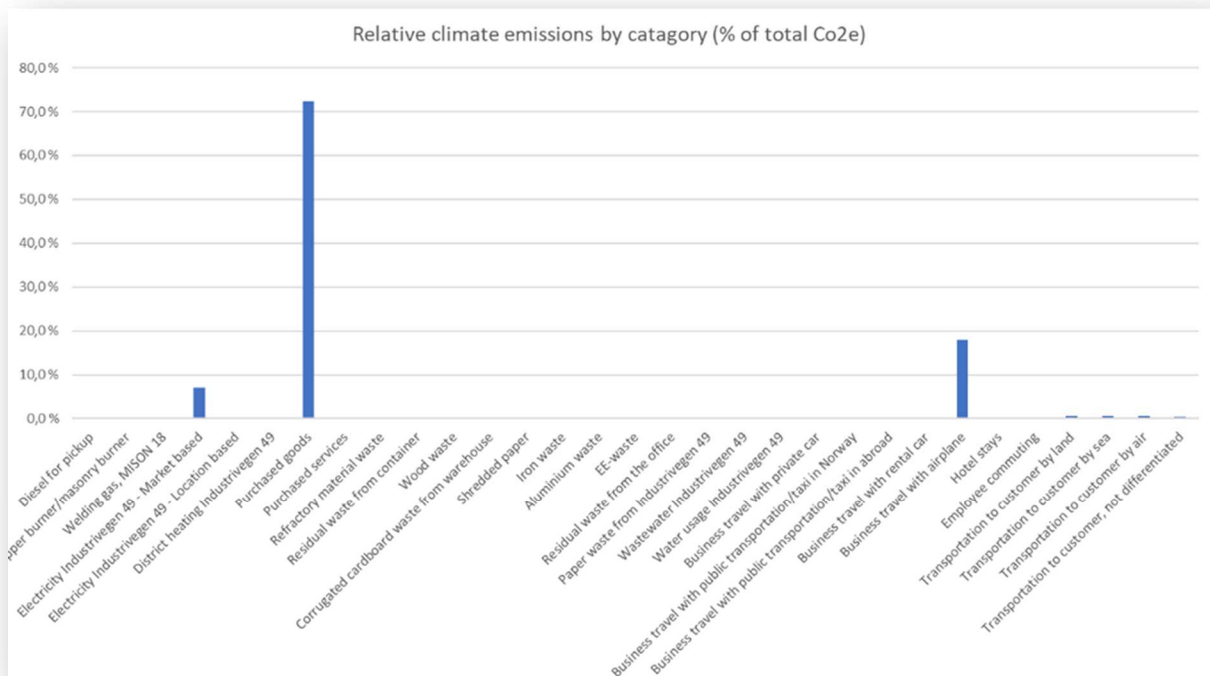
Carbon footprint for Hycast, sum of 2021-23 divided by main category. From Variable.



6.3 Climate emissions by category

Purchased goods are 72 % of total.

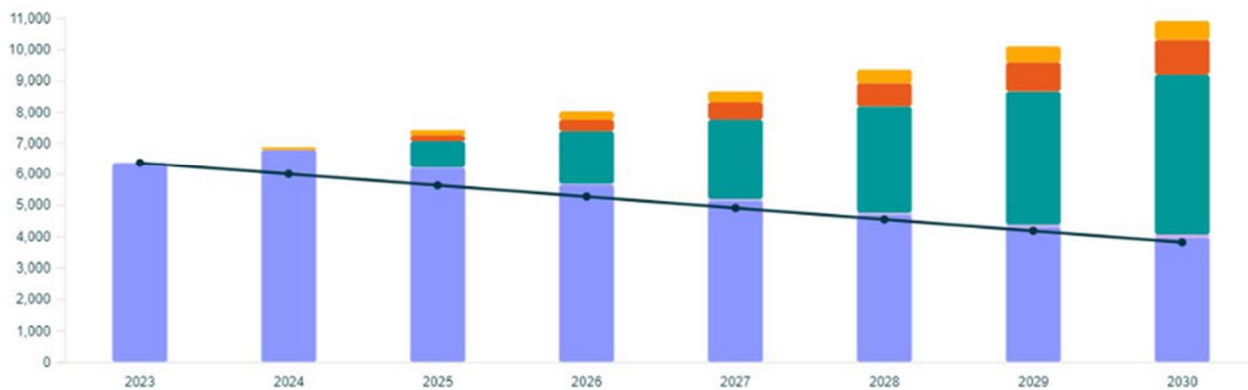
Carbon footprint for Hycast, from 2023 divided by sub-category. The main three subcategories are Purchased goods (72 %), Business travel with airplane (18 %) and Electricity (7 %).



6.4 De-carbonization plan

Need focus on green sourcing and travel.

Hycast has an ambition of 40 % reduction of total climate emissions within 2030, compared to 2023 values. Below are the main actions for carbon reductions given.



Action ^	Emission source	Org	Assigned to	Start year	Completion year	Reduction (tCO ₂ e)
Buy only renewable energy				2024	2030	600
Carbon neutral travel				2025	2030	1,300
Fossil free steel			AB	2025	2030	6,000
Transfer to carbon neutral transport				2025	2030	100