

The Planet

The long-term goal of Castellum's environmental and climate efforts is to achieve net-zero carbon emissions by 2030 at the latest. Preventing global warming based on its own operations is one of the company's key issues.

Castellum's commitment

Castellum will responsibly and efficiently reduce resource use and carbon emissions that cause global warming.

Efficient energy use

Castellum works continually to reduce its energy use. Its efforts focus on both optimising operations and investing in energy-efficient and renewable technologies. 94 energy efficiency projects were carried out during the year with a total investment of MSEK 86.

Energy use is continually monitored and analysed. Measures are taken and given priority based on the greatest potential for efficiency enhancements. Expansion is under way for Castellum's own portal for web-based property monitoring, to check values for operations, alarms, elevators and entries. This results in savings of both energy and time, and creates customer benefits in the form of better services through preventive measures. At present, 361 (385) properties representing 2,559,000 (2,851,000) square metres are connected to the portal. The decrease in the number of connected properties during the year is due to sales of properties.

In 2021, the normalised energy consumption for heating and property electricity in the like-for-like portfolio remained unchanged - meaning a change of 0% (-12). The major savings of 12% that were seen in the preceding year were driven in part by the pandemic. Despite some people returning to their workplaces in 2021, Castellum has been able to keep its energy use down as a result of active routine efforts and continued focus on efficiency enhancement measures. In 2021, absolute normalised energy use in the total asset portfolio increase by 6% (decrease: 8) per square metre. The increase is due primarily to portfolio shift and acquisitions in Finland during the year, as well as a colder year compared with 2020 resulting in increased heating consumption. From a long-term perspective, however, total energy use has decreased by a total of 34% (37) per square metre since 2007.

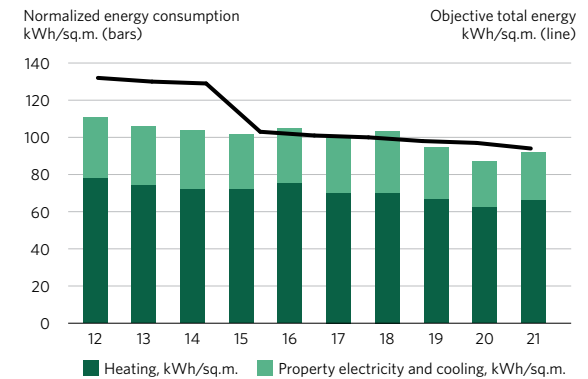
Castellum's actual use of heating, non-degree day corrected, corresponded to 65 kWh (50) per square metre and can be compared with the industry average of 112 kWh (117) per square metre (the Swedish Energy Agency's reference value for heating premises). This means that Castellum's buildings are 42% (57) more energy efficient than the Swedish average for these premises. In all, normalised heating use in the like-for-like portfolio increased 2% (decrease: 13) in 2021, while use of property electricity and cooling decreased 4% (7).

95% (95) of the total energy use is fossil-free. Since 2001, we purchase only renewable electricity in the Group, and in many of our locations we also purchase renewable district heating where possible.

Approximately 15% (13) of Castellum's customers are responsible for their own heating and 23% (23) for electricity on the property.

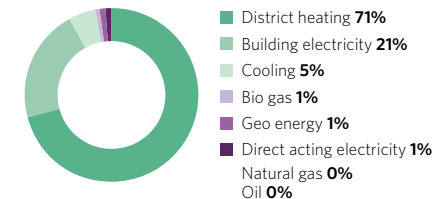
Since 2020, all our vehicles have been non-fossil fuel powered. This means that all service cars, carpool vehicles and company cars used by Castellum are either electric or run on biofuel.

TARGET AND OUTCOME, ENERGY CONSUMPTION PER SQ. M.



The actual change in the like-for-like portfolio was 0%, degree-day adjusted. Castellum began systematically measuring energy consumption and heating in 2007, which is why it is utilised as a comparison year.

DISTRIBUTION OF TOTAL ENERGY CONSUMPTION, 2021



Reduced carbon emissions

Of Castellum’s carbon emissions, 6% are indirect and direct emissions generated in Scopes 1 and 2 in the form of the use of oil, natural gas, and fuel for the operation’s vehicles, refrigerant leakage, and the use of electricity and heating that Castellum is responsible for. The remaining 94% of Castellum’s carbon emissions is indirect emissions (generated in Scope 3) in the form of materials, construction processes, business travel, work commutes, transportation, waste, customers’ electricity consumption and other energy-related emissions not covered under Scopes 1 and 2. To reduce emissions, work is under way to phase out fossil fuels. Currently, 3 oil furnaces (4) are still in operation.

Looking at Castellum’s total GHG emissions (Scopes 1, 2 and 3), which can be found on page 179, however, it is clear that the majority (94%) of Castellum’s total emissions pertain to indirect emissions (Scope 3), meaning emissions that occur elsewhere but attributable to our operations. The largest part of the Scope 3 emissions originates from use of materials and the construction process in new construction and conversions. To tackle these emissions, Castellum has adopted a road map for project development with goals concerning how to reduce emissions in project development every year so as to have net-zero carbon emissions by 2030. Other major items in Scope 3 are other energy-related emissions that are not covered under Scopes 1 and 2, our customers’ waste in our properties, and customers’ use of electricity. Castellum is reviewing the possibilities going forward of offering our customers more tools and forms of collaboration in order to reduce indirect emissions in Scope 3 and reach our goal of climate-neutral operations throughout the value chain by 2030. Producing concrete measures to reduce indirect emissions is the construction and property industry’s greatest challenge, and something we plan to increase our focus on going forward in order to attain climate neutrality.

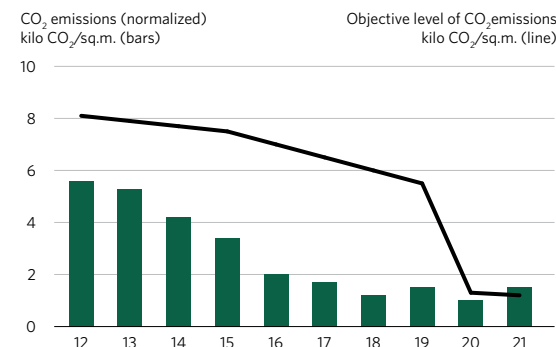
Increased share of renewable energy sources

Fifteen large solar cells (13) were built in 2021. A total of 7,310 kW (6,181) of solar cells have been installed on Castellum’s properties, equivalent to a total of approximately 51,170 square metres (43,267) of solar cells, an increase of 18% compared with 2020. Castellum’s solar cells generated 4,637 MWh in 2021, corresponding to approximately 7% of Castellum’s total annual electricity needs for 2021. Castellum’s use of district heating means that its carbon emissions are dependent on the fuel mix used by the district heating facilities. At present, Castellum purchases from 32 (29) district-heating facilities, which represent 94% (93) of the Group’s total emissions under Scopes 1 and 2. Castellum is in dialogue with the district heating suppliers with the highest carbon emissions per kWh in order to influence these suppliers to reduce emissions. The transition to green district heating with renewable fuels is ongoing and currently amounts to 47% (48) of our district heating suppliers.

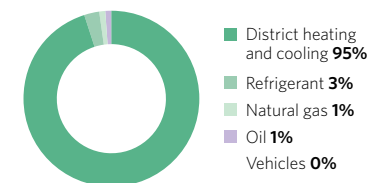
55 solar cells were installed on Castellum’s properties.

In 2021, direct and indirect energy-related carbon emissions in Scope 1 and 2 increased by 54% (34) per square metre; since 2007 they have decreased by 77% (85) per square metre. The increase for the year is attributable primarily to acquisitions in Finland during the year where the energy mix contains more fossil energy, which impacts the Group’s total emissions per square metre. If we exclude Finland, emissions are on par with the target for 2021 (i.e. under 1.2 kg per square metre). Efforts are under way to review possibilities of sourcing more renewable energy in Finland.

CARBON EMISSIONS, PROPERTY MANAGEMENT (SCOPE 1 & 2, MARKET BASED)



DISTRIBUTION OF CARBON EMISSIONS (SCOPE 1 & 2)



The Planet

General principles

Castellum limits its reporting to the properties where we have operational control in accordance with the principles of the Greenhouse Gas protocol. Operational control was selected since it provides Castellum with the best conditions for reporting the statistics and data that Castellum can directly influence. Properties where the customer is responsible for agreements regarding energy and water deliveries and waste removal are thus excluded. Nor does Castellum own measurement data in cases where the customer is responsible for the agreement, and it is therefore difficult to report that type of data.

Scope of the disclosures

Castellum works actively to gain access to the relevant data for properties it owns and manages. Having access to measurement data is important for Castellum, as it creates conditions for proper, efficient technical management in our buildings. At present, Castellum has excellent access to measurement data for nearly its entire portfolio. The size of the share of properties included in the respective indicators is shown next to the respective key metrics. Note that the share of potential objects to report under absolute figures for the respective years includes objects sold during the year in question, excluding land. Castellum does not, however, have access to all of the measurement data for all its properties. Measurement data of waste is primarily lacking due to the fact that several waste management contractors cannot provide complete data. Measurement data is also missing for energy and water. This is due to changes in the portfolio from purchases and sales of properties as well as development properties, which makes access to the relevant data more difficult. Castellum works continually on improving access to the relevant statistics. In total, Castellum owned 554 (642) properties at the end of 2021. Kungsliden, which was acquired in late 2021, has not been included in the company's sustainability reporting or sustainability key metrics. It will be included in 2022.

No estimates

No sustainability disclosures have been estimated; unless otherwise indicated, all measurement data and all disclosures reported have been measured and assured.

Normalisation

Castellum calculates key intensity metrics through division by the total floor area of the buildings; this is the most widely accepted method in Sweden for comparing energy use and resource consumption. Castellum uses Swedish Meteorological and Hydrological Institute (SMHI) degree days to normalise energy for heating. Energy for cooling is not currently normalised.

Segment reporting (by property type and geography)

Castellum reports sustainability disclosures separated into the following building types: offices, logistics, retail, public buildings and light industry. Castellum's own offices are reported separately on page 181. Since Castellum owns properties primarily in Sweden and a very small share in Denmark and Finland, reporting the statistics by geographical division is not relevant.

The Planet **energy**

Energy consumption

Castellum reports energy we purchase and tenants' own electricity consumption. Reporting of the energy purchased by Castellum is based on actual metered consumption. The same applies for tenants' electricity consumption.

Energy produced (GRI 302-1)

	Absolute energy (MWh)		
	2021	2020	% change
Electricity produced from own solar panel installations	4,637	1,580	193%
Production of own solar electricity, used on-site	1,946	1,512	29%
Production of own solar electricity, sold	2,691	68	3,857%
Scope of the disclosures on own solar electricity produced	46/46	31/31	

Energy consumption (GRI 302-1, 302-3, Elec-Abs, Fuels-Abs, DH&C-Abs, Energy-Int)

Energy source	Absolute energy use (MWh)			Renewable share		
	2021	2020	2019	2021	2020	2019
Building electricity	61,587	70,357	76,895	100%	100%	100%
Electricity, geothermal and cooling	1,532	1,586	1,316	100%	100%	100%
Electricity, direct	1,485	1,155	522	100%	100%	100%
1. Total electricity consumption (Elec-Abs)	64,604	73,098	78,733	100%	100%	100%
Biogas	1,735	1,723	2,714	100%	100%	100%
<i>Total consumption of renewable fuels</i>	<i>1,735</i>	<i>1,723</i>	<i>2,714</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>
Natural gas	219	312	223	0%	0%	0%
Oil	252	1	86	0%	0%	0%
<i>Total consumption of non-renewable fuels</i>	<i>471</i>	<i>313</i>	<i>309</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>
2. Total fuels purchased by landlord (Fuels-Abs)	2,206	2,036	3,023	79%	85%	90%
District heating	208,499	189,382	218,716	93%	94%	95%
District cooling	16,022	14,903	15,767	100%	95%	99%
3. Total consumption of district heating and cooling (DH&C-Abs)	224,521	204,285	234,483	93%	94%	95%
Total energy consumption (1+2+3)	291,331	279,419	316,239	95%	95%	96%
Total energy consumption (normalised)	294,111	326,287	340,645	—	—	—
Energy intensity, buildings (Energy-Int)	91	75	88	—	—	—
Energy intensity, buildings (normalised)	92	87	95	—	—	—

Absolute emissions are indicated in metric tons of CO₂eq, and intensity in kg per square metre. To convert from kWh to gigajoules (GJ), use a conversion factor of 3.6.

Energy consumption outside the organisation (GRI 302-2)

	2021	2020	% change
Electricity (MWh)	38,130	42,852	-11%
Scope of the disclosures on tenants' energy	150/554	192/642	

The Planet energy, cont.

Energy consumption (delivered by property owner) divided by property type, comparison (Elec-LfL, DH&C-LfL, Fuels-LfL, Energy-Int)

	Measurement unit	Offices			Logistics			Retail		
		2021	2020	% change	2021	2020	% change	2021	2020	% change
Total electricity consumption (Elec-LfL)	MWh	31,943	33,692	-5%	7,039	7,106	-1%	4,061	3,990	2%
<i>Scope of the disclosures on electricity consumption</i>	m ²	173/195	173/195		72/98	72/98		37/57	37/57	
Total district heating and cooling (DH&C-LfL)	MWh	107,664	90,639	19%	28,119	23,092	22%	14,078	11,371	24%
<i>Scope of the disclosures on district heating and district cooling</i>	m ²	172/172	172/172		75/76	75/76		39/39	39/39	
Total fuels (Fuels-LfL)	MWh	843	815	3%	676	563	20%	—	—	
<i>Scope of the disclosures on fuel</i>	m ²	4/4	4/4		5/5	5/5		0/0	0/0	
Total energy consumption	MWh	140,450	125,146	12%	35,834	30,761	16%	18,139	15,361	18%
Energy consumption (degree-day corrected)	MWh	142,019	142,657	0%	36,030	35,892	0%	18,308	17,692	3%
Energy intensity, buildings (Energy-Int)	kWh/m ² /yr	102	91	12%	59	51	16%	90	76	18%
Energy intensity, buildings (degree-day corrected)	kWh/m ² /yr	103	104	-1%	59	59	0%	91	88	3%

cont.	Measurement unit	Public sector properties			Light industry			Castellum total		
		2021	2020	% change	2021	2020	% change	2021	2020	% change
Total electricity consumption (Elec-LfL)	MWh	13,175	13,138	0%	1,988	1,974	1%	58,206	59,900	-3%
<i>Scope of the disclosures on electricity consumption</i>	m ²	57/67	57/67		21/30	21/30		360/447	360/447	
Total district heating and cooling (DH&C-LfL)	MWh	39,292	33,090	19%	7,800	6,682	17%	196,953	164,874	19%
<i>Scope of the disclosures on district heating and district cooling</i>	m ²	57/57	57/57		23/23	23/23		366/367	366/367	
Total fuels (Fuels-LfL)	MWh	—	—		234	97	141%	1,753	1,475	19%
<i>Scope of the disclosures on fuel</i>	m ²	0/0	0/0		1/1	1/1		10/10	10/10	
Total energy consumption	MWh	52,467	46,228	13%	10,022	8,753	14%	256,911	226,249	14%
Energy consumption (degree-day corrected)	MWh	52,872	52,775	0%	10,079	10,181	-1%	259,308	259,196	0%
Energy intensity, buildings (Energy-Int)	kWh/m ² /yr	94	83	13%	105	92	14%	91	80	14%
Energy intensity, buildings (degree-day corrected)	kWh/m ² /yr	94	94	0%	105	106	-1%	91	91	0%

Scope of the reporting	2021	2020	2019
Properties covered by disclosures on electricity consumption	395/554	482/642	444/473
Properties covered by disclosures on district heating and district cooling	401/414	486/501	479/508
Properties covered by disclosures on fuels	13/13	16/16	15/15

Castellum's agenda for the sustainable city

Key metrics – sustainability	2021	2020	2019	2018	2017	Targets
Resource efficiency						
Total energy use, kWh/sq. m., year	91 ¹⁾	75	88	97	94	
Total energy use, degree-day corrected, kWh/sq. m., year	92 ²⁾	87	95	103	100	Max 89 kWh/sq. m. in 2021, and 80 kWh/sq. m. in 2025 (22% reduction 2025 cf. with 2015)
1. of which actual heating	65	50	60	64	64	
2. of which degree-day corrected heating	66	62	67	70	70	
3. of which electricity and cooling	26	25	28	33	30	
Energy savings per year in the like-for-like portfolio, rolling 12 months, % (degree-day corrected)	0%	-12%	-8%	3%	-6%	-2.5% energy savings/year in the like-for-like portfolio
Energy savings per year in the like-for-like portfolio, rolling 12 months, % (actual energy use)	+13%	-11%	-9%	3%	-7%	
Total water use, m ³ /sq. m., year	0.2	0.3	0.3	0.3	0.3	
Water savings per year in the like-for-like portfolio, rolling 12 months, %	-6%	-13%	-3%	-1%	-4%	1% water conservation/year in the like-for-like portfolio
Fossil-free						
Share of non-fossil energy	95%	95%	96%	95%	95%	100% fossil-free energy by 2030
Fossil fuel-free vehicles, %	100%	100%	86%	62%	34%	100% fossil fuel-free vehicles
No. of charging posts for electric vehicles	674	—	—	—	—	New measurement point, 2021
No. of large solar panels installed	46	39	26	22	16	100 solar cell installations by 2025
Road map to climate neutrality by 2030						
Property management – CO ₂ emissions in kg/sq. m., year (market-based) ³⁾	1.5	1.0	1.5	1.2	1.7	1.2 kg/sq. m. 2021 and 0 kg/sq. m. 2030
of which Scope 1	0.1	0.1	0.1	0.2	0.3	
of which Scope 2 (market-based)	1.4	0.9	1.4	1.0	1.4	
of which Scope 2 (location-based)	4.3	4.1	8.8	11.3	11	
Project Development – Reduced emissions in project development portfolio (Scope 3), %	-15%	—	—	—	—	New target from 2021. 15% reduction in CO ₂ emissions per sq. m. in new production of offices
Sustainability certification						
Sustainability certification, % of sq. m.	48%	39%	36%	33%	29%	50% certified area by 2025
Sustainability certification, number of properties	206	202	164	141	129	
Sustainability certification, % of rental income	61%	52%	47%	43%	39%	
Sustainability certification, % of property value	63%	55%	51%	48%	43%	
ESG benchmarks						
GRESB points (0-100)	95	91	92	92	95	Global Sector Leader 2021, GRESB, received 15 October 2021
DJSI points (0-100)	80	81	79	73	72	Only Nordic property company included in DJSI
CDP mark (A to D-)	A-	A	A-	B	A-	CDP: Highest marks of all Nordic property companies.
Social key metrics						
Sick leave, % (long-term and short-term)	2.9%	2.2%	2.9%	3.8%	2.0%	Max 2% short-term and 3% long-term sick leave
Equality, % women and men	43%/57%	40%/60%	39%/61%	42%/58%	38%/62%	Between 40–60%
Diversity, international background, %	9%	8%	6%	6%	No measurement	20% 2025
Apprentices, % of employees	4%	2%	5%	6%	4%	4% per year

Castellum will be one of the most sustainable property companies in Europe. The company's sustainability agenda, "The sustainable city," is divided into four areas of focus: The Planet, Future-proofing, Well-being and Social responsibility. These areas of focus ensure that operations are conducted responsibly, creating long-term solutions from an economic, ecological and social perspective. Kungsleden, which was acquired in late 2021, has not been included in the company's sustainability reporting or sustainability key metrics. It will be included in 2022.

1. The increase in total energy consumption compared with 2020 is due primarily to the portfolio shift and acquisitions in Finland that took place in 2021, and a colder year compared with 2020 resulting in increased heating.

2. The small increase in the degree-day corrected consumption is due primarily to the portfolio shift and acquisitions in Finland that took place in 2021. Castellum's actual enhancements to energy efficiency in the like-for-like portfolio can be seen further down in the table and totals 0% savings per square metre, rolling 12 months.

3. This list includes all CO₂ emissions from property management (i.e. scopes 1 and 2). Detailed information on Castellum's CO₂ emissions and complete Scope 3 emissions outside of property management can be found on page 179. Total energy consumption is the sum of 1 and 3. Total normalised energy use is the sum of 2 and 3.