

C0. Introduction

C0.1

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

Cadence is a leader in electronic system design, building upon more than 30 years of computational software expertise. We apply our underlying Intelligent System Design™ strategy to deliver computational software, hardware and IP that turn design concepts into reality. Our customers include some of the world's most innovative companies that deliver extraordinary electronic products from chips to boards to systems for dynamic market applications.

We enable our customers to develop electronic products. Our products and services are designed to give our customers a competitive edge in their development of integrated circuits ("ICs"), systems-on-chip ("SoCs"), and increasingly sophisticated electronic devices and systems. Our products and services do this by optimizing performance, minimizing power consumption, shortening the time to bring our customers' products to market, improving engineering productivity and reducing their design, development and manufacturing costs.

Our electronic systems customers deliver entire devices, such as smartphones, laptop computers, gaming systems, automobiles and autonomous driving systems, servers, cloud data center infrastructure, artificial intelligence ("AI") systems, aerospace and defense, medical equipment and networking products. These systems companies internally develop, or externally purchase, the sub-components for their products, including printed circuit boards ("PCBs"), which interconnect all the hardware components, ICs, which are often referred to as computer chips, and software at various levels which runs on the hardware. Our semiconductor customers deliver ICs, which include subcategories such as processors, SoCs, AI, memory, analog and other types of chips.

We offer software, hardware, services and reusable IC design blocks, which are commonly referred to as intellectual property ("IP"). Our semiconductor customers use our offerings to design, configure, analyze and verify ICs. Additionally, customers license our IP, which accelerates their product development processes by providing pre-designed and verified circuit blocks for their ICs. Systems customers use our offerings to design, simulate, and verify the electrothermal and physical functionality of their ICs, PCBs, and systems products.

Our strategy, which we call Intelligent System Design, is to provide the computational software technologies necessary for our electronic system and semiconductor customers to develop products across a variety of vertical markets including consumer, hyperscale computing, mobile, 5G communications, automotive, aerospace and defense, industrial and healthcare. We address the challenges posed by the needs and trends of electronic systems companies as well as semiconductor companies delivering greater portions of these systems.

The development of electronic products, or their sub-components, is complex and requires many engineers using our solutions with specialized knowledge and skill. The rate of technical innovation in electronics is swift, long driven by a concept known as Moore's Law, which more than 50 years ago predicted that the complexity of ICs would double approximately every 24 months. In order to make our customers successful, our products must handle this exponential growth rate in complexity, without requiring a corresponding increase in our customers' costs. Historically, the industry that provided the tools used by IC engineers was referred to as Electronic Design Automation ("EDA"). Today, our offerings include and extend beyond EDA to enable computational software for Intelligent System Design across three layers—starting with IC and SoC design excellence, followed by system innovation, and then pervasive intelligence.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1 2021	December 31 2021	No	<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.

- Belgium
- Brazil
- Canada
- China
- Finland
- France
- Germany
- Hungary
- India
- Ireland
- Israel
- Italy
- Japan
- Malaysia
- Poland
- Republic of Korea
- Russian Federation
- Singapore
- Sweden
- Taiwan, China
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Viet Nam

C0.4

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

USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	US1273871087
Yes, a CUSIP number	127387108
Yes, a Ticker symbol	CDNS
Yes, a SEDOL code	BYZHHC4

C1. Governance

C1.1

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

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Board-level committee	Our Board, through its Corporate Governance and Nominating Committee oversees the Company's policies and practices regarding corporate social responsibility and sustainability programs, including climate-related, environmental, social and governance matters and initiatives, and reports to the Board on these programs. Our Board oversees risks related to the Company's corporate governance including climate-related issues. Further, the Corporate Governance and Nominating Committee regularly reviews the plans and progress of our environmental program, including climate-related risks and opportunities, and is informed on Cadence's carbon footprint breakdown and the strategy to achieve greenhouse gas emissions reduction targets by 2025, 2030, and 2040. In the reporting year, the Corporate Governance and Nominating Committee approved our net-zero and 2030 carbon reduction targets.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action	<Not Applicable>	Our Board through its Corporate Governance and Nominating Committee oversees our corporate social responsibility program and the progress of our environmental, social and governance issues, including climate-related risks and opportunities. The Corporate Governance and Nominating Committee formally reviews our environmental, social and governance efforts at every regular meeting, and oversees our policies and practices regarding our corporate social responsibility and sustainability program, including environmental/climate-related, social and governance matters and initiatives, and report at least annually on such program. In 2021, the Corporate Governance and Nominating Committee held three meetings.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	The criteria used to assess Board members competence on climate-related issues are based on the Corporate Governance and Nominating Committee's charter which requires consideration of a director nominee's integrity, experience, judgment, diversity of background, independence, financial literacy, and ability to commit sufficient time and attention to Board activities.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify (General Counsel & Secretary)	<Not Applicable>	Both assessing and managing climate-related risks and opportunities	<Not Applicable>	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

Our Sr. Vice President and Chief Legal Officer is the highest management-level position with responsibility for climate-related issues. Our Senior Group Director of Corporate Social Responsibility is responsible for assessing climate-related risks and opportunities and reports to the Associate General Counsel, who in turn reports to the Chief Legal Officer.

Our Chief Legal Officer is briefed regularly on our ESG program and initiative progress, reviews and accepts new proposals, and approves major actions. The Senior Group Director of Corporate Social Responsibility reports to the Board of Directors Corporate Governance and Nominating Committee on climate-related issues at least half-yearly.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	To further strengthen our ESG initiatives, we are focusing our top leaders on the company's impact on climate and sustainability as well as diversity, equity, and inclusion. To motivate leaders and create accountability their incentive plans will be aligned to their progress in these areas. We have a Cadence culture modifier that affects the bonus of the top 100 leaders at the company. 20 percent of their bonus is affected by how well they do in ESG metrics, including sustainability and climate to encourage our key leaders to put more focus on ESG going forward. Facilities managers and some members of their teams are also considered for incentives linked to the management of climate-related issues such as energy reduction and efficiency projects and behavior change.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Emissions reduction target	We have a Cadence culture modifier that affects the bonus of the top 100 leaders at the company. 20 percent of their bonus is affected by how well they do against specific ESG metrics to encourage our key leaders to put more focus on ESG going forward.
Facilities manager	Monetary reward	Energy reduction project Efficiency project	Facilities managers and some members of their teams are considered for monetary incentives based on achieving goals that relate to energy reduction and efficiency projects.
Facilities manager	Non-monetary reward	Energy reduction project Efficiency project	Facilities managers and some members of their teams are considered for non-monetary incentives based on achieving goals that relate to energy reduction and efficiency projects.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	We consider a short-term horizon for climate-related issues up to three years in the future.
Medium-term	3	5	We consider a medium-term horizon for climate-related issues between three and five years in the future.
Long-term	5	10	We consider a long-term horizon for climate-related issues between five and ten years in the future.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

Substantive financial or strategic impact on our business is defined based on the concept of materiality. An event or set of circumstances would be considered material (and therefore substantive) if the impact of the event would, in light of surrounding circumstances, make it probable that the judgement of a reasonable person in determining whether to buy or sell Cadence common stock would be changed or influenced by the event.

More specifically for the purposes of climate-related risks, we define substantive or strategic impact as any event that could have a material, adverse effect on our business including: our ability to deliver on our commitments to clients, our ability to operate our research and development activities which result in the development of new or improved existing products, our financial condition, results of operations, cash flows, and the trading price of our common stock.

Quantitative indicators may include whether or not the event or set of circumstances was substantive enough to be disclosed in our filings with the United States Securities and Exchange Commission.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Process(es) for identifying, assessing and responding to climate-related risks and opportunities in our direct operations are integrated into our multi-disciplinary company-wide risk management process. Potential risk and opportunity factors are identified by many groups within Cadence, including the cross-functional ESG Team. When potential climate-related risk and opportunity factors are identified, we assess the potential impact they may have on our operations and whether or not the identified risk may have the potential to impede our ability to develop new or improved existing products, deliver on our commitments to clients, or harm our reputation. Case study describing processes for identifying, assessing and responding to climate-related physical and transitional risks in our operations Situation: As part of our multi-disciplinary company-wide risk management processes, we consider climate-related risks. Increasingly, setting a net-zero GHG reduction target is considered part of being a good corporate citizen and essential to our commitment to sustainable innovation. Our process identified the lack of a net-zero GHG reduction target as a missed opportunity for innovation in how the company consumes energy and a potential reputational risk. Task: Our task then became to assess the potential impacts of not having a net-zero GHG reduction target, to look at opportunities for innovation and energy efficiencies and to determine how to respond appropriately. Actions: The Cadence multi-disciplinary ESG Team took a number of steps to determine the best course of action to formulate a net-zero GHG reduction strategy that would achieve a science-based GHG reduction target to the 1.5 degree Celsius trajectory. These actions included: understanding our current GHG footprint, conducting benchmarking including understanding commonly acceptable approaches, assessing our options for GHG reductions within our operations, and conducting financial analysis on reduction paths. Result: In 2021 we formally adopted a plan of action and publicly announced a net-zero reduction target by 2040 across our operations and an interim target to reduce Scope 1 and 2 greenhouse gas emissions for our owned and leased properties 50% by the year 2030 over the 2019 baseline.

Value chain stage(s) covered

Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Process(es) for identifying, assessing and responding to climate-related risks and opportunities downstream in our value chain are integrated into our multi-disciplinary company-wide risk management process. Downstream climate-related opportunity factors are identified by the marketing and account management teams that support our customers. When climate-related opportunities are identified, we assess the potential impact they may have on our revenues against the cost and benefits of addressing the opportunity in order to make decisions on how to respond. Downstream climate-related risks are identified and assessed by the cross-functional ESG Team at Cadence. Case study describing processes for identifying, assessing and responding to climate-related opportunities downstream with customers Situation: The first electric aircraft was created by simply replacing the piston engine system of a normal combustion engine aircraft by an electric propulsion unit. Although environmentally friendlier, this was not an optimal design as the energy density of even the most advanced batteries of today is still much lower than that of gasoline engines. Optimal energy use is crucial in an electric aircraft. One way to improve the energy balance of an electric aircraft is by using its propeller as an airborne wind turbine! The propeller recuperates the aerodynamic energy of a descending aircraft, which is then turned into electric energy and stored in the battery. Task: Pipistrel's is a world-leading designer and manufacturer of energy-efficient and affordable high-performance aircraft. Their objective was to improve the energy consumption of the Alpha Electro electric trainer aircraft through propulsion system optimization by using energy recuperation as a propeller design strategy. Action: Pipistrel, designed a propeller specifically adapted for exploiting in-flight power recuperation. Propeller design performance was verified through CFD simulations with Cadence Omnis (Omnis AutoGrid for the meshing and Omnis Turbo for the solving). A comparison was performed between CFD simulation results and flight test measurements of comparing the thrust and the propeller power coefficient showed the design predictions of Cadence's CFD simulation results and the flight test measurements of the propeller in good agreement. Result: The aircraft consumes 6% less energy during the climb. Net energy consumption during ascent/descent manoeuvres decreased by 19%. A 27% increase in the number of traffic pattern circuits was achieved. Due to the reduction of energy consumption, the aircraft can stay airborne longer and/or smaller battery packs may be installed for a specific flight time. The EA-002 is set to become the first European Aviation Safety Agency certified propeller with recuperation capability for electric propulsion.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process. Since we are headquartered in San Jose, California, we include state-wide regulations in our climate-related risk assessments.
Emerging regulation	Relevant, always included	Risks relating to current and emerging regulations are integrated into our multi-disciplinary company-wide risk management process. Given our status as a technology company with a global presence, we consider climate-related risks relating to emerging legislation in our risk assessments. Although regulations around carbon reductions are emerging throughout the world, our current focus is on the U.S. Securities and Exchange Commission's (SEC) proposal for The Enhancement and Standardization of Climate-Related Disclosures for Investors because we are listed on the Nasdaq and have a significant presence in the United States.
Technology	Relevant, always included	Technology risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations. If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers. As part of our risk assessments, we consider potential climate-related risks involving the data centers and digital infrastructure our business often relies on.
Legal	Relevant, always included	Legal risks are integrated into our multi-disciplinary company-wide risk management process. As part of our risk assessments, we consider potential exposure to legal risks of overstating the climate-related benefits of our energy optimization products and services; one such energy optimization product is Tensilica Vision DSP.
Market	Relevant, always included	Market risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations. If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers. Further, since our business is highly dependent on electricity, we consider climate-related market risks of gradual or sudden changes in electricity pricing and supply.
Reputation	Relevant, always included	Reputation risks are integrated into our multi-disciplinary company-wide risk management process. We consider climate-related reputational risks in our risk assessments, and proactively look for ways to reduce our carbon footprint and set targets in line with best practice. Additionally, we conduct benchmarking to ensure that our programs are in line with best practices to mitigate potential reputational risks.
Acute physical	Relevant, always included	Acute physical risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. In particular, we assess the risk of acute physical risk from seismic activity and wildfires and how these may affect our headquarters in San Jose, California as part of our climate-related risk assessments. In the reporting year, we also analysed the extent to which our offices are inherently vulnerable to flooding. If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations. If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.
Chronic physical	Relevant, always included	Chronic physical risks are integrated into our multi-disciplinary company-wide risk management process. Our offices in the United States and in other countries around the world may be adversely impacted by natural disasters, including fires, earthquakes, flooding and other climate change-related risks, or actions by utility providers, as well as other catastrophic events such as an actual or threatened public health emergency. In the reporting year, we focused our climate-related scenario analysis on physical risks related to water. Focal questions revolve around the extent to which our offices are inherently vulnerable to water stress, drought and flooding, currently, and in the future (2030, 2040). If a catastrophic event occurs at or near any of our offices, or utility providers or public health officials take certain actions (e.g., shut off power to our facilities or impose travel restrictions), our operations may be interrupted, which could adversely impact our business and results of operations. If a catastrophic event impacts a significant number of our customers, resulting in decreased demand for their and our products, or our ability to provide services and maintenance to our customers, our business and results of operations could be adversely impacted. For example, the continued spread of the corona virus and related public health measures could result in further disruptions to our operations and those of our customers.

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

No

C2.3b**(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

	Primary reason	Please explain
Row 1	Evaluation in process	We continue to assess and refine our evaluation processes of climate-related risks that would have the potential to have substantive financial or strategic impact on Cadence. In support of collective efforts to reduce carbon emissions globally, during the reporting year we achieved our greenhouse gas reduction target of 15% by 2025 over our 2019 baseline emissions early and set a new, target to reduce emissions 50% over the 2019 baseline by 2030 as well as a net-zero target for 2040. As we work towards our longer-term energy and GHG reduction targets, we are evaluating additional ways to reduce emissions, such as clean energy contracts with our utilities providers, renewable power purchase agreements, carbon offsets, renewable energy credits, operational efficiencies, and on-site solar installations.

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

Yes

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Cadence applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that enables our customers to turn design concepts into reality. Our products and services enable our customers to design products for tomorrow—today and help drive advancements in sustainability. Our customers, the world's most innovative companies delivering extraordinary electronic products from chips to boards to systems, use Cadence technology to design sustainable innovation that optimizes power, space and energy needs of end products for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare. Tools from across all business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development. Sectoral Example: Transportation We see opportunities in the area of sustainable transportation in the short-term. Cadence and our partners are paving the way for more sustainable transportation on the ground and in the air. At Cadence, our portfolio products enable our users to do more with less energy input. Our Computational Fluid Dynamics (CFD) software is one such offering that is evolving to meet the needs of the current green automotive initiatives i.e. increased drive range and stability of EVs. As the market for electric vehicles continues to grow, there is an increasing need to create an effective battery management system to monitor, manage and maintain high-performance batteries to power all aspects of the vehicle. Hybrid electric aviation is another area where our CDF software is being used to achieve reduced energy consumption. Cadence is well positioned to capture opportunities in the growing electric transportation market through our ultra-low power design flow. Products and services specifically related to this opportunity include Cadence's computational fluid dynamics (CFD) tools: the Omnis™ Open solvers and grid generator Omnis Hexpress.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

At this time, we are not disclosing the financial impact of these opportunities.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

The cost of activities related to this opportunity are absorbed into business-as-usual activities. We report the cost of realizing the opportunity as \$0, since we do not currently have a system in place to determine which revenue streams are associated with this specific opportunity. We expect to continue to invest in research and development for CFD solutions focused on transportation. Situation: The transportation sector must decarbonize rapidly to achieve the goals of the Paris Agreement. Task: To meet continued customer demand for more sustainable transportation innovations through advancements in Computational Fluid Dynamics (CFD). Action : Cadence applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that enables our customers to turn design concepts into reality and help drive advancements in sustainability. Our future performance depends on our ability to innovate, commercialize newly developed solutions and enhance and maintain our current products. We must continuously re-engineer our products to solve new or increased physics challenges that arise with each successive process node and address the increase in complexity that is introduced by the resulting much larger designs. We must also keep pace with our customers' technical developments, satisfy industry standards and meet our customers' increasingly demanding performance, productivity, quality and predictability requirements. Therefore, we expect to continue to invest in research and development for CDF solutions focused on transportation. Results: Cadence introduced 13 significant, innovative products in 2021, across all business groups. These new innovations will be key drivers of our future growth as our customers use these tools to create products with an impact on the world's carbon footprint. An example of sustainability-driven innovation is highlighted in our work with Pipistrel - a world-leading designer and manufacturer of small aircraft specializing in energy-efficient and affordable high-performance aircraft helping to enable the future market of hybrid- electric aviation. In the reporting year, Pipistrel designed and manufactured a distributed electric propulsion (DEP) mock- up with Cadence's computational fluid dynamics (CFD) tools: the Omnis™ Open solvers and grid generator Omnis Hexpress. The main benefits include shorter take off and landing, reduced energy consumption for increased flight ranges, and noise reduction.

Comment

N/A

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Other, please specify (Development of new products or services through R&D and innovation)

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Context: Cadence applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that enables our customers to turn design concepts into reality. Our products and services enable our customers to design products for tomorrow—today and help drive advancements in sustainability. Our customers, the world's most innovative companies delivering extraordinary electronic products from chips to boards to systems, use Cadence technology to design sustainable innovation that optimizes power, space and energy needs of end products for the most dynamic market applications, including consumer, hyperscale computing, 5G communications, automotive, mobile, aerospace, industrial, and healthcare. Tools from across all our business groups are used to create products with an impact on the world's carbon footprint. As global efforts to achieve the Paris Agreement targets accelerate, decarbonization-related innovations are expected across sectors. This may have a positive effect on our revenues resulting from increased demand for our products and services that our customers use to develop new products through research and development. Sectoral Example: Data centers - EDA We see opportunities in the area of sustainable data centers in the short-term. Cadence and our partners are paving the way for more sustainable data center design to meet rapidly growing compute and data demands at the edge and in the cloud. Electronic Design Automation (EDA), in combination with advances in semiconductor technology, holds the power consumption of electronics within acceptable levels while enabling significant performance increases. As a pivotal leader in electronic design, Cadence works with the leading processor providers to deliver the next generation of power and energy efficiency throughout the design flow. Products and services: By leveraging technology from GenusTM Synthesis Solution and InnovusTM Implementation System used in physical implementation, our customers are able to accurately predict power early in the design process using Joules RTL Power Solution and StratusTM High-Level Synthesis (HLS). Cadence's offerings can accurately predict power at several levels of abstraction. Using deep analysis of the function of a design, Joules RTL Power Solution can help identify activity which can be eliminated, producing designs with the bare minimum of power required to perform a given function.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Unknown

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

<Not Applicable>

Potential financial impact figure – minimum (currency)

<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact figure

At this time, we are not disclosing the financial impact of these opportunities.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

Costs related to this opportunity are absorbed into business-as-usual activities. We report the cost of realizing the opportunity as \$0, since we do not currently have a system in place to determine which revenue streams are associated with this opportunity. We expect to continue to invest in research and development for EDA solutions focused on data centers. Situation: Hyperscale compute, using high-performance connected processors, continually transforms our lives as more applications rely on this type of compute. At the heart of this hyperscale revolution are data centers. Between 2010 and 2018, data-center workloads increased 5.5x, internet traffic increased 10-fold, and storage capacity rose by 25x. The EDA industry has responded with an incredible focus on power and energy efficiency throughout the design process. The 5.5x growth in workloads has only resulted in a 6% rise in data center electricity consumption. Task: To meet continued customer demand for more sustainable data center design and to meet rapidly growing compute and data demands at the edge and in the cloud through advancements in Electronic Design Automation (EDA). Action : Cadence applies its underlying Intelligent System Design strategy to deliver software, hardware, and IP that enables our customers to turn design concepts into reality and help drive advancements in sustainability. Our future performance depends on our ability to innovate, commercialize newly developed solutions, enhance and maintain our current products. We continuously re-engineer products to solve new physics challenges that arise with each successive process node and address the increase in complexity that is introduced by the resulting much larger designs. We must also keep pace with our customers' technical developments, satisfy industry standards and meet our customers' increasingly performance, productivity, quality and predictability requirements. Results: Cadence introduced 13 significant, innovative products in 2021, across all business groups. These new innovations will be key drivers of our future growth as our customers use these tools to create products with an impact on the world's carbon footprint. Arm Research used the Cadence full digital implementation and verification flows to perform a physical and thermal design study using the Arm Neoverse N1 processor IP. Stacking the logic and cache chips greatly reduced wire length, which reduced Dhrystone power by 28% and maximum power by 16%.

Comment

N/A

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

No

Mechanism by which feedback is collected from shareholders on your transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

We currently publish details on our transition plan and emissions reduction targets in our annual Sustainability Report, our 10-K and in our Proxy Statement and encourage feedback from all relevant stakeholders. As our stockholders play an important role in governance, Cadence maintains a robust stockholder engagement program to better understand your viewpoints on topics such as sustainable business practices, board composition and refreshment, our COVID-19 response and experience, climate change, culture, diversity, equity and inclusion and executive compensation. Our stockholders also have the opportunity to communicate their views at Cadence's annual meeting or by writing to us at the address provided in the section of this proxy statement entitled "Communication with Directors."

Frequency of feedback collection

More frequently than annually

Attach any relevant documents which detail your transition plan (optional)

2021 Sustainability Report, 2021 10-K and 2022 Proxy

Cadence 2021 Sustainability Report.pdf

Cadence Design Systems proxy-statement-2022.pdf

Cadence Design Systems 2021 10K.pdf

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Physical climate scenarios	RCP 4.5	Company-wide	<Not Applicable>
Physical climate scenarios	RCP 8.5	Company-wide	<Not Applicable>

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions
In the reporting year, we focused our climate-related scenario analysis on physical risks related to water. Focal questions revolve around the extent to which our offices are inherently vulnerable to water stress, drought and flooding, currently, and in the future (2030, 2040). Water stress is when not enough water of sufficient quality is available to meet demand.

Results of the climate-related scenario analysis with respect to the focal questions
CURRENT REGIONAL RESULTS Water stress and drought Currently, neither of our owned locations are in areas experiencing water stress. However, 10 of our leased office locations, in 6 countries are located in areas experiencing extremely high-water stress, namely: • One leased location in the US • Three leased offices in India • One leased office in APAC • Five leased offices in EMEA Our owned office in Noida, India as well as four of our leased offices in India are located in areas currently experiencing high drought risk (0.8-1.0). Flood risk Our two owned offices - our headquarters in San Jose, CA and our Noida office – are located in areas that have inherently high riverine flood risk (6 in 1,000 to 1 in 100) as well as 3 additional leased offices in India, 3 offices in APAC, as well as our 3 offices in EMEA. One of our leased offices in China is located in an area where the risk of coastal flooding is inherently extremely high, more than 2 in 1,000 FUTURE REGIONAL RESULTS 2030 - Extremely high-water stress (>80%) 16 of our office locations, in 9 countries are located in area that will have more than an 80% chance of extremely high water stress in 2030. Our two owned offices - our headquarters in San Jose, CA and our Noida office – are located in areas that have inherently, extremely high risk of future water stress in 2030, as well as 3 additional leased sites in India 3 leased sites in the US, 4 leased sites in APAC and 4 leased sites in EMEA 2040 - Extremely high-water stress (>80%) 17 of our office locations, in 9 countries are located in area that will have more than an 80% chance of water stress in 2040. Our two owned offices - our headquarters in San Jose, CA and our Noida office – are located in areas that have inherently, extremely high risk of future water stress in 2040, as well as 3 additional leased sites in India, 3 leased sites in the US, 3 leased sites in APAC and 6 leased sites in EMEA. In the reporting period, we were not able to accurately assess drought and flood risk in the future.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Our Intelligent System Design strategy enables customers to design innovative electronic products. One essential driver for the electronics industry is the desire to develop products that reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. We understand these pressures & continue to innovate & provide technology to achieve the ideal combination of low power with high performance. Our short to mid-term strategy for products & services has been influenced by this demand. Case study Situation: Design teams need to identify design areas where they have to account for possible spikes or drops in voltage & fix those areas, so they are optimized & more power aware. Task: Identify places in the design that can be optimized for lower power consumption while not impacting performance. Tackle the most advanced timing requirements including dynamic power reduction. Action: The Tempus Power Integrity Solution was created from an integration of the Cadence Tempus Timing Signoff Solution & the Voltus IC Power Integrity Solution. Results: Tempus Power Integrity Solution gives customers the ability to significantly lower IR drop (voltage drop) design margins without sacrificing signoff quality, improving PPA. Early use cases demonstrated the Tempus Power Integrity Solution correctly identified IR drop errors & improved the maximum frequency in silicon by up to 10%. Our previously launched Celsius™ Thermal Solver enables customers to mitigate thermal issues from chip to package to printed circuit board all the way through to system enclosures. Cadence offers this holistic view of customer products at a complete system level. This view gives opportunity to identify "hot spots" in a design & enables product differentiation opportunities. Cadence products are constantly evolving to help customers improve design optimization. Cadence offers Cloud services, which gives access to more processing power for faster turnaround times. A secondary benefit is the reduced need for customers to buy, power, & maintain specialized hardware. We provide an as needed model versus an on-premises, always-on high power consumption usage model. This reduces the number of servers customers need to purchase, power, & maintain for peak design use.
Supply chain and/or value chain	Yes	Because scope 3 emissions make up the majority of our carbon footprint, our short-term strategy around supplier engagement has been influenced. Situation: To identify and assess risks and opportunities within our value chain we need to calculate our Scope 3 emissions with more accuracy. Task: Improve data quality and timeliness of our supplier's Scope 1 and 2 emissions data. Action: In 2021, we launched a supplier questionnaire that focuses on sustainability issues, including climate change and emissions. Results: Establishing this baseline data will allow us to identify and assess risks and opportunities within our value chain in the short- and medium-term.
Investment in R&D	Yes	Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products. One essential driver for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. We understand these pressures & continue to innovate & provide technology to achieve the ideal combination of low power with high performance in smaller form factors. Our short to mid-term strategy including acquisition & R&D investment has been influenced by this demand. Case Study: Vision DSP Product Situation: Today's applications processors are not equipped to handle the complex embedded imaging and vision digital signal processing functions needed in the mobile handsets, drone, automotive, robotics, surveillance, and augmented reality (AR) / virtual reality (VR) markets. Task: Create a much-needed breakthrough in terms of energy efficiency and performance that enables applications never before possible in a programmable device. Action: Vision DSPs provide the perfect balance of power and performance. From applications targeted for mobile handsets and surveillance cameras to advanced AI in Autonomous Vehicles, Drones, and Robotics. The Tensilica Vision DSP family also offers outstanding performance while running AI. By choosing the right DSP, customers can maintain the functionality needed for their computer vision design without sacrificing performance or power. Results: Tensilica Vision P6 DSP provides customers like Kneron with up to 2X faster performance for computer vision and neural network processing compared to its prior-generation SoC, while delivering the power efficiency crucial for edge AI. Offering up to 3.8X more power efficiency than CPUs alone and 1024 giga-operations (GOPs) of processing power, the Tensilica Vision P6 DSP serves as a powerful offload engine, efficiently processing vision and AI workloads to meet the demands for accurate detection and identification of objects. Tensilica Vision P6 DSP enabled Toshiba to execute complex algorithms for accurate detection and identification of a wide range of objects while consuming very low power, which is crucial for today's automotive applications.
Operations	Yes	In the reporting year, we achieved our greenhouse gas reduction target of 15% by 2025 over our 2019 baseline emissions early and set a new, target to reduce emissions 50% over the 2019 baseline by 2030 as well as a net-zero target for 2040. Setting these targets influences our medium-term operations strategy. All of our office remodels and expansions now utilize energy efficient technologies. In 2021, we made were able to shift a significant portion of our electricity use in Bangalore to renewable sources. As we migrate to more collocated data centers, we will look for air-cooled data centers that can run on 100% renewable power if the local climate allows for outdoor air cooling. When we lease offices, energy efficiency is a key factor in our decision to lease. As we work to achieve our medium and long-term and science-based energy and GHG reduction targets, we are evaluating additional ways to reduce emissions, such as clean energy contracts with our utilities providers, renewable power purchase agreements, carbon offsets, renewable energy credits, on-site solar installations, operational efficiencies, and flexible working arrangements. Case Study Situation: Global pandemic Task: To support the health and well-being of our employees, customers, partners and communities during the COVID-19 pandemic. Action: The vast majority of our employees worked from home during 2021, resulting in less energy consumption in Cadence offices and less emissions from daily commuting. Result: While this was in response to the specific risks of the pandemic, we are evaluating the impacts and possibilities of maintaining a more flexible work environment after the pandemic subsides. More flexible working arrangements may contribute to reduced emissions in the future.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Capital expenditures Assets	During 2021, climate-related risks and opportunities influenced our financial planning in terms of revenues, direct costs, and capital expenditures. We undertook technology upgrades and retrofits at our on-premises data centers and office space to reduce energy consumption, increase redundancy, and improve sustainability. We have also converted all lighting at Cadence's owned facilities to LED fixtures. Further, planning for our new carbon reduction target of 50% by 2030 over the 2019 baseline, and net-zero target by 2040 influenced our financial planning in the short- and medium-term as illustrated by the following case study. Situation: As we narrowed in on the carbon reduction target we believed was right for us, we needed to determine the best strategy to achieve it including how to fund the desired initiatives and capital expenditures over the medium-term, multi-year plan. Task: Determine actions, costs, and benefits of various emissions reduction options that aligned with our business and stakeholder engagement strategy and goals, as well as to make carbon reduction initiatives a key part of capital allocation decisions. Action: Evaluate emissions reduction methods for additionality and value add, then create the budget plan for initiatives spanning 2021-2030 to realize our first target. Result: Funded strategy to achieve carbon reduction targets and set 2021 action plan in motion.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

No, but we plan to in the next two years

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Year target was set

2020

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

<Not Applicable>

Base year

2019

Base year Scope 1 emissions covered by target (metric tons CO2e)

6314

Base year Scope 2 emissions covered by target (metric tons CO2e)

26363

Base year Scope 3 emissions covered by target (metric tons CO2e)

<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)

32677

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year
2025

Targeted reduction from base year (%)
15

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
27775.45

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
6281

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
16072

Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
22353

% of target achieved relative to base year [auto-calculated]
210.627250563597

Target status in reporting year
Achieved

Is this a science-based target?
No, but we anticipate setting one in the next 2 years

Target ambition
<Not Applicable>

Please explain target coverage and identify any exclusions
The goal covers Scope 1 and 2 emissions for all of our owned and leased properties with no exclusions. We are pleased to announce we achieved our greenhouse gas reduction target of 15% by 2025 over our 2019 baseline emissions in 2021, four years early. The goal covers Scope 1 and 2 emissions for all of our owned and leased properties and is informed by the Science Based Targets Initiative and the 2 degree Celsius scenario.

Plan for achieving target, and progress made to the end of the reporting year
<Not Applicable>

List the emissions reduction initiatives which contributed most to achieving this target
Increased use of renewable energy is the primary driver for our 24% year-over-year decrease in combined Scope 1 and 2 emissions. Overall energy use decreased 7% compared to 2020 due to emissions reduction initiatives listed in question 4.3b.

Target reference number
Abs 2

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2019

Base year Scope 1 emissions covered by target (metric tons CO2e)
6314

Base year Scope 2 emissions covered by target (metric tons CO2e)
26363

Base year Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
32677

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year

2030

Targeted reduction from base year (%)

50

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

16338.5

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

6281

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

16072

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

22353

% of target achieved relative to base year [auto-calculated]

63.1881751690792

Target status in reporting year

New

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next two years

Target ambition

1.5°C aligned

Please explain target coverage and identify any exclusions

The goal covers Scope 1 and 2 emissions for all of our owned and leased properties with no exclusions.

Plan for achieving target, and progress made to the end of the reporting year

For all actions under consideration to achieve our 2030 target, strong preference will be given to those providing additionality. We are pursuing and evaluating 100% renewable electricity and energy optimization projects. We reduced our Scope 1+2 emissions by 32% from the 2019 baseline. Increased use of renewable energy is the primary driver for our 24% year-over-year decrease in combined Scope 1 and 2 emissions. Overall energy use decreased 7% compared to 2020 due to emissions reduction initiatives listed in question 4.3b.

List the emissions reduction initiatives which contributed most to achieving this target

<Not Applicable>

C4.2**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Net-zero target(s)

No other climate-related targets

C4.2c**(C4.2c) Provide details of your net-zero target(s).****Target reference number**

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Abs2

Target year for achieving net zero

2040

Is this a science-based target?

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science Based Targets initiative in the next 2 years

Please explain target coverage and identify any exclusions

The goal covers Scope 1 and 2 emissions for all of our owned and leased properties with no exclusions.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)

We have reduction milestones in place for 2025 (15% over baseline), 2030 (50% over baseline), and 2040 (net-zero). Since 2019, we have reduced Scope 1+2 emissions by 32%. Our 2030 and net-zero target will be primarily measured and achieved power-consumption efficiency and procuring clean energy. For all actions under consideration, strong preference will be given to those providing additionality. We are pursuing and evaluating 100% renewable electricity and energy optimization projects.

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	1	1200
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type	
Low-carbon energy consumption	Low-carbon electricity mix
Estimated annual CO2e savings (metric tonnes CO2e)	
1200	
Scope(s) or Scope 3 category(ies) where emissions savings occur	
Scope 2 (market-based)	
Voluntary/Mandatory	
Voluntary	
Annual monetary savings (unit currency – as specified in C0.4)	
0	
Investment required (unit currency – as specified in C0.4)	
4500	
Payback period	
No payback	
Estimated lifetime of the initiative	
<1 year	
Comment	
RECs purchase in Bangalore	

C4.3c

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

Method	Comment
Dedicated budget for energy efficiency	We use a dedicated budget for energy efficiency to drive investment in emissions reduction activities.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify (Power optimization of the design)

Type of product(s) or service(s)

Other	Other, please specify (Power optimization of the design)
-------	--

Description of product(s) or service(s)

Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products. One of the essential drivers for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. We understand these pressures and continue to innovate and provide technology to achieve the ideal combination of low power with high performance in smaller form factors. The Cadence® Tensilica® Vision digital signal processor (DSP) family offers a breakthrough in terms of energy efficiency and performance. By choosing the right DSP, customers can maintain the functionality needed for their computer vision design without sacrificing performance or power. In 2021, we announced the Cadence® Tensilica® HiFi 1 digital signal processor (DSP), the smallest and lowest power member of the HiFi DSP family, developed for battery- constrained applications, such as mobile, hearables, wearables, laptop, automotive, and the internet of things (IoT). Tensilica HiFi 1 DSP is a processor for a greener world, to serve a wide variety of energy-saving applications in markets ranging from consumer to automotive, industrial, and medical. It has pushed the boundaries of the ultra-low-energy DSP segment, presenting a compact footprint while retaining significant performance for traditional DSP workloads.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

<Not Applicable>

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

<Not Applicable>

Functional unit used

<Not Applicable>

Reference product/service or baseline scenario used

<Not Applicable>

Life cycle stage(s) covered for the reference product/service or baseline scenario

<Not Applicable>

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

<Not Applicable>

Explain your calculation of avoided emissions, including any assumptions

<Not Applicable>

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

0

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

Yes, an acquisition

Name of organization(s) acquired, divested from, or merged with

Numeca International

Details of structural change(s), including completion dates

The acquisition of Numeca International was completed on February 24, 2021. The addition of NUMECA's technologies and talent supports the Cadence® Intelligent System Design™ strategy and broadens its system analysis portfolio with computational fluid dynamics (CFD) solutions. These products will contribute to the best-in-class Cadence system analysis solutions for integrated circuits (ICs), electronic subsystems and full system designs.

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in methodology	This year we introduced several improvements to the calculation methodologies for Scope 3 emissions. For 41% of 2021 spend, we employed the hybrid method using actual data from our key suppliers to calculate our emissions for the related goods and services. For the remaining 59% of spend, we employed an input/output calculator to calculate related emissions. Additional improvement to our calculation methodology included separately reporting emissions from Downstream Transportation and Distribution, and Upstream Leased Assets, which account for 7% and 1% of our 2021 Scope 3 emissions respectively. Previously, emissions from these categories were reported as part of Purchased Goods and Services. We also added emissions from Waste Generated in our Operations which account for less than 0.1% of Scope 3 emissions.

C5.1c

(C5.1c) Have your organization's base year emissions been recalculated as result of the changes or errors reported in C5.1a and C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold
Row 1	No, because the impact does not meet our significance threshold	The base year recalculation policy for emissions is currently based on a 5% significance threshold. The base year emissions are recalculated if errors are found that would result in significant changes to total Scope-specific emissions for the base year, or structural changes occur due to events such as acquisitions or divestitures that similarly impact base year emissions above the significance threshold. Organic changes to emissions, such as the opening and closure of sites because of growth or contraction, rather than acquisition or divestment, are not considered for recalculations. Opportunities for base year recalculation are identified and evaluated during both the annual emissions inventory data collection and calculation process, as well as the 3rd-party limited assurance verification process that is conducted following the completion of each annual emissions inventory.

C5.2

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

Scope 1

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

6314

Comment

Our base year (2019) scope 1 emissions were 6,314 metric tons of CO2e.

Scope 2 (location-based)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

31796

Comment

Our base year (2019) scope 2 (location-based) emissions were 31,796 metric tons of CO2e.

Scope 2 (market-based)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

26363

Comment

Our base year (2019) scope 2 (market-based) emissions were 26,363 metric tons of CO2e.

Scope 3 category 1: Purchased goods and services

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

220647

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 purchased goods and services emissions were 220,647 metric tons of CO2e.

Scope 3 category 2: Capital goods

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

55502

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Capital goods emissions were 55,502 metric tons of CO2e.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

1088

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Fuel-and-energy-related activities (not included in Scope 1 or 2) emissions were 1,088 metric tons of CO2e.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 5: Waste generated in operations

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 6: Business travel

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

23578

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 (Business travel) emissions were 23,578 metric tons of CO2e.

Scope 3 category 7: Employee commuting

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

12750

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Employee commuting emissions were 12,750 metric tons of CO2e.

Scope 3 category 8: Upstream leased assets

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

1194

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Our 2019 scope 3 Downstream transportation and distribution emissions were 1,194 metric tons of CO2e.

Scope 3 category 10: Processing of sold products

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 11: Use of sold products

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 13: Downstream leased assets

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 14: Franchises

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3 category 15: Investments

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3: Other (upstream)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

Scope 3: Other (downstream)

Base year start

January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e)

0

Comment

We are reporting 2019 emissions for scope 3 as a base year although we have not set a target for scope 3 yet. We may select a different base year for our future scope 3 target. Scope 3 emissions for this category were not calculated in 2019.

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
6281

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Scope 1 emissions in the 2021 reporting year were 6,281 metric tons of CO2e.

C6.2

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

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment
We are reporting both location-based and a market-based Scope 2 figures.

C6.3

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

Reporting year

Scope 2, location-based
23750

Scope 2, market-based (if applicable)
16072

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
Scope 2 (location-based) emissions in the 2021 reporting year were 23,750 metric tons of CO2e. Scope 2 (market-based) emissions in the 2021 reporting year were 16,072 metric tons of CO2e.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

83693

Emissions calculation methodology

Hybrid method

Spend-based method

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

41

Please explain

The emissions estimate reported for Purchased Goods and Services is based on spend that is accounted for as goods and services in the general ledger. For key vendors the hybrid method is used to calculate emissions, whereas the average spend-based method is used for the balance of spend. Those emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

45005

Emissions calculation methodology

Hybrid method

Average spend-based method

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

41

Please explain

Emissions reported for Capital Goods are based on the purchase of Real Estate-related services, construction, R&D-related manufacturing, vehicles, computer hardware and software that are accounted for as capital goods in the general ledger. For key vendors the hybrid method is used to calculate emissions, whereas the average spend-based method is used for the balance of spend. Those emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

675

Emissions calculation methodology

Average data method

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

100

Please explain

Within the U.S., T&D losses are calculated using % loss information from EPA's eGrid for Carbon Footprinting Electricity Purchases in Greenhouse Gas Emission Inventories, July 2012. We use energy purchase activity data as the basis for calculating emissions in this category. Upstream emissions from purchased electricity within the US are quantified using activity data and emission factors calculated.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

The emissions associated with the upstream transportation and distribution goods and services are included in Scope 3 figure reported in the 'Purchased Goods and Services' category. Transportation of purchased goods is included in the purchase price and not billed separately. The spend on upstream transportation and distribution is included in the spend figure used to estimate Scope 3 emissions from purchased goods and services. The relevant data for upstream transportation and distribution is not available, therefore we are not able to report separately on this category. Further, these emissions are already accounted for elsewhere in this inventory, so they are deemed not relevant to be reported here as a separate category. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

Waste generated in operations

Evaluation status

Not relevant, calculated

Emissions in reporting year (metric tons CO2e)

7

Emissions calculation methodology

Waste-type-specific method

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

100

Please explain

Because calculated emissions from this category are relatively low this category is deemed to be not relevant. As a software and IT company the impact of the other categories like purchased goods and services is much more significant. Emissions were calculated using recycling data compiled regionally focusing mainly on e-waste recycling. The volume of recycled materials by material in either kg or tons is multiplied by emissions factors from DEFRA.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

2175

Emissions calculation methodology

Spend-based method

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

0

Please explain

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. The emissions estimate reported here is based on spend that is posted for airfare, ground transportation and hotel stay in the internal general ledger system as well as logged for reimbursements by employees.

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

3219

Emissions calculation methodology

Average data method

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

0

Please explain

Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator. Due to COVID-19, the calculations were updated to represent 25% of typical commuting in a pre-pandemic year. The emissions for employee commuting are estimated on the range of number of employees of the company. Emissions for remote work are accounted for on an annual basis, using a custom model that estimates remote work-related emissions from electricity and fuels used for heating, cooling, lighting, and computer equipment. Assumptions around the number of employees working remotely and estimated hours worked are set based on our remote work policies.

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1211

Emissions calculation methodology

Average data method

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

0

Please explain

Emissions reported here are based on spend data related to vehicle leases, petrol used in leased vehicles, and other miscellaneous equipment leases in the internal general ledger system. Emissions were calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

9633

Emissions calculation methodology

Spend-based method

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

0

Please explain

Emissions reported here are based on spend data related to shipping of sold products in the internal general ledger system. The total spend is broken out for air and land transport where 95% is air and 5%. Emissions are calculated using the environmentally extended input/output (EEIO) methodology with the Quantis Scope 3 Evaluator.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems enables customers to design electronic products by offering software, hardware, services and reusable IC design blocks, which are commonly referred to as intellectual property ("IP"). These products are not intermediate products and hence not relevant. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

Use of sold products

Evaluation status

Relevant, not yet calculated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Since, Cadence Design Systems enables customers to design electronic products by offering software, hardware, services and reusable IC design blocks, we believe that the use of sold products is a relevant category. Currently we do not have comprehensive information to calculate the emissions from this category, but we plan to in the future.

End of life treatment of sold products

Evaluation status

Not evaluated

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Full data is not available for end of life treatment of sold products. Therefore, this category has not yet been evaluated.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems does not have any downstream leased assets. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

Franchises

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems does not have any franchises. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

Investments

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems, Inc. does not have investments. Therefore, emissions for this category are estimated at zero (0) and this category is deemed to be not relevant.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems does not have other Scope 3 emissions. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

Please explain

Cadence Design Systems does not have other Scope 3 emissions. Therefore, emissions from this category are estimated at zero (0) and this category is deemed to be not relevant.

C6.7

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

No

C6.10

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

Intensity figure	0.000007481
Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)	22353
Metric denominator	unit total revenue
Metric denominator: Unit total	2988000000
Scope 2 figure used	Market-based
% change from previous year	31.4
Direction of change	Decreased
Reason for change	We reduced our energy use and Scope 1 and 2 emissions per unit dollar revenue by 31.4% compared to 2020. Overall, our Scope 1 and 2 emissions decreased by 23.6% from 2020 to 2021 due in part to the COVID-19 pandemic and due to emissions reduction initiatives listed in CDP C4.3b. Further, unit total revenue increased by 11.5% during the reporting period. This equates to 7.48 tons of CO2e/Million \$ or Revenue as reported in our 2021 CSR Report. Emissions intensity in metric tons CO2e per unit currency total revenue: Intensity = 22,353 (metric tons CO2e)/2,988,000,000 (US\$)= 0.000007481

C7. Emissions breakdowns

C7.1

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

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	609.71	IPCC Fifth Assessment Report (AR5 – 100 year)
CH4	0.4	IPCC Fifth Assessment Report (AR5 – 100 year)
N2O	0.51	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	5671.36	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Americas	2437.02
Asia Pacific (or JAPA)	3096.24
Eastern Europe, Middle East, and Africa (EEMEA)	747.73

C7.3

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

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Stationary combustion (Natural gas)	478.09
Stationary combustion (Diesel)	128.73
Stationary combustion (Propane)	2.79
Fugitive Refrigerants	5671.36

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Americas	12215.72	5622.05
Asia Pacific (or JAPA)	9491.17	8531.72
Eastern Europe, Middle East, and Africa (EEMEA)	2.043	1.917

C7.6

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

By activity

C7.6c

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

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Purchased electricity	23750	16072

C7.9

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

Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	1727.76	Decreased	7.73	kWh consumed from renewable sources (Bangalore REC purchase 1,200MWh, Richmond Colo RECs, 2,408MWh, San Jose Onsite solar consumption 302 MWh), multiplied by the Mkt-based emission factors used the specific site (San Jose) or region (SRVC, India)
Other emissions reduction activities	0	No change	0	No change identified
Divestment	0	No change	0	No change identified
Acquisitions	224.82	Increased	1.01	Emissions associated with acquired sites in Belgium, Sweden, and Fort Worth, TX. Sources of emissions include estimated refrigerant and electricity consumption.
Mergers	0	No change	0	No change identified
Change in output	0	No change	0	No change identified
Change in methodology	0	No change	0	No change identified
Change in boundary	121.76	Decreased	0.54	4 complete office closures (Bellevue, El Segundo, Coventry, Mequon), two new sites (non-acquisition -Cork, Seoul). Calculation is the difference in total site emissions 2021-2020
Change in physical operating conditions	56.57	Decreased	0.25	No gas consumed at Noida facility due to COVID. Occupancy reduced at Belo Horizonte site. Calculation to generate total is 2020 minus 2021 emissions (excl Belo Horizonte gas, Other category)
Unidentified	5060.55	Decreased	23.19	Remaining change in emissions year to year
Other	250.85	Decreased	1.12	Improved information on which sites consume natural gas. Natural gas consumption estimates removed for 30 sites. 2020-2021 emissions for natural gas.

C7.9b

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

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

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

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	3163.12	3163.12
Consumption of purchased or acquired electricity	<Not Applicable>	4440.05	63504.71	67944.76
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	302.17	<Not Applicable>	302.17
Total energy consumption	<Not Applicable>	4742.22	66667.83	71410.05

C8.2b

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

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

C8.2c

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

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

N/A

Oil

Heating value

HHV

Total fuel MWh consumed by the organization

511.53

MWh fuel consumed for self-generation of electricity

511.53

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

Diesel for owned -onsite gen in Noida and Bangalore = 47,576L

Gas

Heating value

HHV

Total fuel MWh consumed by the organization

2651.6

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

2651.6

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Comment

2,638.6 MWh from NG, 12.988 MWH from LPG (EPA EF Hub gal/btu HHV used)

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

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

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

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

Comment
N/A

Total fuel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
3163.12

MWh fuel consumed for self-generation of electricity
511.53

MWh fuel consumed for self-generation of heat
2651.6

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

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

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

Comment
Natural gas and propane are used for self-generation of heat and diesel is used for self generation of electricity.

C8.2d

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	813.7	813.7	302.17	302.17
Heat	2651.6	2651.6	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

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

Sourcing method

Unbundled energy attribute certificates (EACs) purchase

Energy carrier

Electricity

Low-carbon technology type

Solar

Country/area of low-carbon energy consumption

India

Tracking instrument used

TIGR

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

1200

Country/area of origin (generation) of the low-carbon energy or energy attribute

India

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2021

Comment

In 2021 1,200 TGIR RECs were purchased for our site in Bangalore, India.

Sourcing method

Other, please specify (Unbundled EACs purchased by Landlord)

Energy carrier

Electricity

Low-carbon technology type

Renewable energy mix, please specify (German electricity mix)

Country/area of low-carbon energy consumption

Germany

Tracking instrument used

GO

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

832.38

Country/area of origin (generation) of the low-carbon energy or energy attribute

Germany

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2021

Comment

RECs purchased for our COLO in Germany.

Sourcing method

Other, please specify (Unbundled EACs purchased by Landlord)

Energy carrier

Electricity

Low-carbon technology type

Wind

Country/area of low-carbon energy consumption

United States of America

Tracking instrument used

US-REC

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

2407.67

Country/area of origin (generation) of the low-carbon energy or energy attribute

United States of America

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

2018

Comment

RECs purchased for COLOs in the USA

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Belgium

Consumption of electricity (MWh)

254.87

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

254.87

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Brazil

Consumption of electricity (MWh)

97.08

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

97.08

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Canada

Consumption of electricity (MWh)

327.58

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

327.58

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

China

Consumption of electricity (MWh)

2268.68

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

2268.68

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Finland

Consumption of electricity (MWh)

67.31

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

67.31

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

France

Consumption of electricity (MWh)

424.73

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

424.73

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Germany

Consumption of electricity (MWh)

992.89

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

992.89

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Hungary

Consumption of electricity (MWh)

9.05

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

9.05

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

India

Consumption of electricity (MWh)

8916.05

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

8916.05

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Ireland

Consumption of electricity (MWh)

125.88

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

125.88

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Israel

Consumption of electricity (MWh)

1486.38

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1486.38

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Italy

Consumption of electricity (MWh)

177.96

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

177.96

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Japan

Consumption of electricity (MWh)

773.39

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

773.39

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Malaysia

Consumption of electricity (MWh)

11.03

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

11.03

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Poland

Consumption of electricity (MWh)

526.13

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

526.13

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Republic of Korea

Consumption of electricity (MWh)

156.03

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

156.03

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Russian Federation

Consumption of electricity (MWh)

405.91

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

405.91

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Singapore

Consumption of electricity (MWh)

44.03

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

44.03

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Sweden

Consumption of electricity (MWh)

271.92

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

271.92

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Taiwan, China

Consumption of electricity (MWh)

1122.82

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

1122.82

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

United Kingdom of Great Britain and Northern Ireland

Consumption of electricity (MWh)

508.54

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

508.54

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

United States of America

Consumption of electricity (MWh)

49278.65

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

49278.65

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

Country/area

Viet Nam

Consumption of electricity (MWh)

0

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

0

Is this consumption excluded from your RE100 commitment?

<Not Applicable>

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Cadence Design Systems 2021 GHG Verification Opinion_FINAL.pdf

Page/ section reference

p.1-3

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Cadence Design Systems 2021 GHG Verification Opinion_FINAL.pdf

Page/ section reference

p. 1-3

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 2 approach

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Cadence Design Systems 2021 GHG Verification Opinion_FINAL.pdf

Page/ section reference

p. 1-3

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

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

Scope 3 category

Scope 3: Purchased goods and services

Scope 3: Capital goods

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Scope 3: Upstream leased assets

Scope 3: Downstream transportation and distribution

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Cadence Design Systems 2021 GHG Verification Opinion_FINAL.pdf

Page/section reference

p. 1-3

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

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

C11. Carbon pricing

C11.1

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

No, and we do not anticipate being regulated in the next three years

C11.2

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

Yes

C11.2a

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

Credit origination or credit purchase

Credit purchase

Project type

Forests

Project identification

In 2021, we invested in the Rainier Gateway Project to support the protection of the forests surrounding Mount Rainier in Washington State, home to many species, including nine that are listed as threatened or of concern to state and federal agencies. Managed by the Nisqually tribe (Nisqually Land Trust), sustainable forest management techniques are applied throughout the area to support watershed conservation, salmon recovery efforts, as well as to provide local employment opportunities. This project also helps maintain consolidated ownership of the land by those native to it. Our investment in the Rainier Gateway Project offsets our Scope 1 emissions for 2021 and our estimated Scope 1 emissions for 2022.

Verified to which standard

Other, please specify (Climate Reduction Tonnes issued by the Climate Action Reserve; Verified Carbon Units by the Verified Carbon Standard; Emission Reduction Tons by American Carbon Registry, or Gold Standard Voluntary Emission Reductions by The Gold Standard.)

Number of credits (metric tonnes CO2e)

12000

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

12000

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

C12.1a

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

Type of engagement
Information collection (understanding supplier behavior)

Details of engagement
Collect climate change and carbon information at least annually from suppliers

% of suppliers by number
4

% total procurement spend (direct and indirect)
80

% of supplier-related Scope 3 emissions as reported in C6.5
70

Rationale for the coverage of your engagement
In 2021, we launched a supplier questionnaire that focuses on sustainability issues, including climate change and emissions, and collected responses to this survey for active suppliers that make up 80% of procurement spend. The primary rationale for focusing on active suppliers that represent 80% of our supplier spend is that while engaging with this number of suppliers is manageable, the subset accounts for approximately 70% of our scope 3 emissions. Establishing this baseline data allows us to identify and assess risks and opportunities within our value chain.

Impact of engagement, including measures of success
Our primary measure of success is reduced scope 3 emissions. Threshold for success is any reduction vis-a-vis the previous year's scope 3 emissions. Further, improved data quality and timeliness of our supplier's Scope 1 and 2 emissions data is a secondary measure of success, that allows us to calculate our Scope 3 emissions more accurately. In line with our efforts to deepen supplier engagement around ESG issues, we have developed a Scope 3 emissions calculation methodology that uses actual emissions data from our key suppliers. The operational impact of our climate-related supplier engagement strategy of collecting carbon information annually from suppliers, is that our Scope 3 emissions decreased in the 2021 year, due to improved data quality. The new methodology to produced reductions in Scope 3 emissions from purchased goods and services and capital goods categories because it takes into account the work that our valued suppliers are doing to reduce their own carbon footprints. We will continue to estimate Scope 1 and 2 emissions from suppliers that do not report actual data.

Comment
N/A

C12.1b

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

Type of engagement & Details of engagement

Education/information sharing	Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services
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% of customers by number
100

% of customer - related Scope 3 emissions as reported in C6.5
0

Please explain the rationale for selecting this group of customers and scope of engagement
Scope: We market energy optimization products, such as Computational Fluid Dynamics (CFD), Tensilica HiFi DSP, Conformal Low Power, Innovus Implementation, Tempus Timing Signoff, Joules RTL Power Solution, Genus Synthesis Solution, Palladium Dynamic Power Analysis, and Voltus Power Integrity Solution. During the reporting year we ran webinars, available to all Cadence customers, that included information around optimized power consumption to help our customers design the lowest power end products. Examples: Power and Energy Optimization Using Tensilica IP- where we described common challenges and solutions in creating an efficient and accelerated flow that will meet technical requirements for accurately measuring the power, the energy and system performance while making essential design trade-offs to meet aggressive time-to-market schedule. Cadence Cerebrus - How to Improve Your Chip Design Performance and Productivity Using Machine Learning (Korea)- where we highlighted the critical technologies behind the new Cadence® Cerebrus™, Intelligent Chip Explorer and the RTL-to-signoff implementation flow to show how they can help you achieve up to 10X productivity 20% PPA improvements for implementation. Higher Performance and Longer Life for Turbomachinery Through Retrofitting Optimization - Aging equipment represents a serious challenge for engineers, often requiring retrofitting of entire rows or overhauling of the entire assembly. CFD simulation can optimize this process, extending rotating machinery life and increasing performance. FINE™/Marine for CFD Simulation of Propulsion- where participants learned how you can accurately predict propulsion and get precise speed and power calculations for ship design using FINE™ / Marine, including options for modelling the propulsion, from a simple resistance calculation all the way to the complete modelling of a full propeller or waterjet. The rationale for providing access to our webinars to all Cadence customers is that the majority of gains in low power occur in the early stages of design—in the architecture and microarchitecture levels. Being able to make effective decisions at those stages requires a combination of data and technology to accurately predict how they will translate into the final product, which traditionally has not been possible. We want to educate our customers about these possibilities.

Impact of engagement, including measures of success
One of the essential drivers for the electronics industry is the desire to develop products that continuously reduce power consumption while increasing performance. Awareness of power usage, performance, and area (PPA) in electronic design is critical. This is one of the reasons that we run these webinars. The impact of this engagement is that Cadence's Intelligent System Design strategy enables our customers to design innovative and differentiated electronic products while optimizing performance and power. The measures of success of our engagement include continued innovation providing technology to achieve the ideal combination of low power with high performance in smaller form factors.

C12.1d

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

It is important to Cadence and to our employees and external stakeholders that we do our part to combat climate change and reduce our environmental footprint. Our key stakeholder groups include but are not limited to: current and former Cadence employees; customers; suppliers and vendors; societies and communities in which we operate; trade associations; government and regulatory agencies; and investors.

Investors are an important part of our value chain. In 2021, over 680 investors with assets of US \$130 trillion signed CDP's disclosure request. We are submitting a full CDP climate change questionnaire response as our primary method of engagement with investors. Other methods of climate-related engagement with investors include participation in other surveys such as the ISS E&S Disclosure QualityScore, institution-to-institution meetings, and written correspondence. We also provided investors with our 2021 Sustainability Report which includes details on our climate-related strategy and carbon footprint.

Situation: Institutional investors are seeking to understand companies' responses to environmental sustainability and climate change, looking for corporations to not only focus on reducing their carbon footprint but to also set targets to reduce carbon emissions aligned with the Science-Based Target Initiative and the 1.5°C scenario. One example of investor communication on this topic is BlackRock CEO Larry Fink's letter to CEOs early in 2021 with a call to action.

Task: To satisfy the request of our stakeholders and investors, we partnered with an external consulting team to assess our today state, calculate the emissions reduction needed over a 2019 baseline to align with a science-based target, and develop an emissions reduction strategy that supported our requirements as well as enabling Cadence to set an emissions reduction target for 2030 and a net-zero by 2040 target through investment.

Action: Various types of carbon reduction targets were considered, and our decision opted for a net-zero and science-based target, set to a medium-term window of 2030, focused on Scope 1 and Scope 2 emissions to reach this initial goal. The resulting plan includes options of clean energy contracts with our utility providers, renewable power purchase agreements, carbon offsets, bundled renewable energy credits and on-site solar installations.

Result: New carbon reduction targets were established in 2021, namely to reduce emissions 50% by 2030 over the 2019 baseline for Scope 1 and Scope 2 emissions and net-zero by 2040.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

No

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

<Not Applicable>

Attach commitment or position statement(s)

<Not Applicable>

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

The cross-functional ESG Team at Cadence takes into account a variety of stakeholder perspectives on climate related issues, including our customers, employees, investors, and experts from the scientific community. We use this feedback to drive environmental sustainability projects, develop climate-related KPIs, and improve efficiency in our operations, as well as in our engagements with stakeholders.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Important but not an immediate priority

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

As an organization focused on delivery of software, hardware and IP under our Intelligent System Design™ strategy, we do not engage with policy makers on climate-related issues. At this time, our engagement in the public sector is limited to our membership of trade associations, a full list of which can be found on our company website: https://www.cadence.com/en_US/home/alliances/industry-memberships.html

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports

Status

Complete

Attach the document

Cadence Design Systems 2021 10K.pdf

Page/Section reference

Page 8: Corporate Responsibility (PDF page 10) Page 18: Business and Operational Risks (PDF page 20)

Content elements

Governance
Risks & opportunities
Emission targets

Comment

The Corporate Responsibility section of our 2021 year end 10-K states: We believe that, in general, the best and brightest talent is inclined to build a career with a responsible organization that positively impacts society. Among our efforts to be that type of organization, we recognize that climate change is one of the greatest challenges of our time, and we are committed to doing our part to contribute to the health of the planet by actively investing in initiatives to reduce our environmental footprint. Through these initiatives, we plan to reduce our scope 1 and scope 2 greenhouse gas emissions 25% by 2025, over our 2019 baseline. We encourage you to review our 2020 Sustainability Report (located at www.cadence.com), and our 2021 Sustainability Report when released, for more information on all of our Environmental, Social and Governance ("ESG") initiatives.

Publication

In voluntary sustainability report

Status

Complete

Attach the document

Cadence 2021 Sustainability Report.pdf

Page/Section reference

Page 3: Letter from our CEO (PDF page 3) Page 10, 13: Progress on our 2021 Environmental, Social and Governance Strategies (PDF p. 10, 13) Page 25-33: Environmental Sustainability (PDF pages 25-33) Page 40: Board governance of CSR Program (PDF page 40) Page 67: Risk Management (PDF page 67)

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

We are proud to share with you our sustainability report for 2021, which highlights the progress we made in our environmental, social, and governance efforts. This report shows the work that we are doing in six key areas that impact our business—innovation, workforce development, data privacy and security, environmental sustainability, governance, and supply chain management.

Publication

In voluntary communications

Status

Complete

Attach the document

Screenshots from Cadence CSR Microsite.pdf

Page/Section reference

p. 1-5

Content elements

Governance
Strategy
Emission targets

Comment

Our CSR microsite highlights the progress we made in our environmental, social, and governance efforts. This microsite shows the work that we are doing in six key areas that impact our business—innovation, workforce development, data privacy and security, environmental sustainability, governance, and supply chain management. Regarding climate change the microsite covers our governance, strategy and emissions targets.

Publication

In mainstream reports

Status

Complete

Attach the document

Cadence Design Systems proxy-statement-2022.pdf

Page/Section reference

Cadence Design Systems, Inc. 2022 Proxy Statement.pdf Page 1-2: Corporate Social Responsibility and Human Capital Management (PDF page 3-4) Page 2: Focus on Corporate Governance and Stockholder Engagement (PDF page 4) Page 5: Environmental Sustainability (PDF page 7) Page 7: Supply Chain Management (PDF page 9)

Content elements

Governance
Strategy
Emissions figures

Emission targets

Comment

Climate change continues to be one of the greatest challenges of our time, and Cadence is committed to enhancing our actions to combat climate change and taking steps to lessen the environmental impact of our facilities and business operations. We have made strong progress to date and have exceeded our 2025 target in 2021. As technology innovators, Cadence aims to contribute to the sustainability of our planet by advancing technologies that enable the design of high-performance systems which optimize power, space and energy needs. Focus on Corporate Governance and Stockholder Engagement As our stockholders play an important role in governance, Cadence maintains a robust stockholder engagement program to better understand your viewpoints on topics such as sustainable business practices, board composition and refreshment, our COVID-19 response and experience, climate change, culture, diversity, equity and inclusion and executive compensation. Our stockholders also have the opportunity to communicate their views at Cadence’s annual meeting or by writing to us at the address provided in the section of this proxy statement entitled “Communication with Directors.” Environmental Sustainability We reduced Scope 1 and 2 emissions by 32% in 2021 over 2019 baseline achieving our 2025 target early. In line with the ambitious science-based global warming goals of the Paris Agreement, we are targeting to reduce Scope 1 and Scope 2 greenhouse gas emissions 50% by 2030 over our 2019 baseline. Additionally, through innovation and targeted investment, we anticipate reaching net zero emissions across our operations by 2040.

Publication

In voluntary communications

Status

Complete

Attach the document

cdns-2021-cdp-climate-change-report.pdf

Page/Section reference

Cadence Climate Change Report pages 1-30

Content elements

- Governance
- Strategy
- Risks & opportunities
- Emissions figures
- Emission targets
- Other metrics

Comment

In addition to making our 2021 CDP Climate Change Response public through the CDP website, we made this disclosure available on our Cadence website in 2021.

Publication

Other, please specify (Fortune Media Best Places to Work Video Interview with Cadence CEO)

Status

Complete

Attach the document

Fortune Media Video with Anirudh Devgan.pdf

Page/Section reference

p. 1

Content elements

- Strategy
- Other metrics

Comment

Cadence CEO speaks on why the company is a Great Place to Work.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	No, but we plan to have both within the next two years	<Not Applicable>	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	No, and we do not plan to do so within the next 2 years	<Not Applicable>	<Not Applicable>

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?	Portfolio
Row 1	No, and we do not plan to assess biodiversity-related impacts within the next two years	<Not Applicable>

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness Livelihood, economic & other incentives

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No	Please select

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	Cadence 2021 Sustainability Report Cadence 2021 Sustainability Report.pdf

C16. Signoff

C-FI

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

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Senior Vice President and Chief Legal Officer	Other C-Suite Officer