Welcome to your CDP Climate Change Questionnaire 2020

C0. Introduction

C0.1

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

Arcadis is the leading global Design & Consultancy firm for natural and built assets. Established in 1888, we have applied our deep market sector insights, and collective Design, Consultancy, Engineering, Project and Management solutions for our clients to deliver exceptional and sustainable outcomes.

At the end of the 2019, we had 27,875 employees, offices in over 30 countries and generated €3.47 billion in revenues. Arcadis is globally headquartered in Amsterdam, the Netherlands with a worldwide network anchored by leading positions in Europe, North America, Latin America, the Middle East, Asia and Australia-Pacific.

Through this network, we support our clients on a truly global basis, and our clients benefit from our strong local presence and our long-term service record on their behalf is rooted in a deep-seated understanding of local market conditions alongside global expertise on a variety of subject matters.
Our client base is diverse, ranging from public and private sector organizations to regulated institutions. We leverage our deep understanding of sustainability to deliver groundbreaking projects and solutions that create value for our clients and make positive contributions to the environment and society. Arcadis offers full lifecycle solutions for clients in most of the major markets including business advisory and consulting, architectural design, remediation, design and engineering, and program/project/cost management. Arcadis differentiates itself from competitors through key market sector insights, by deepening our market sector capabilities and by developing long-term client relationships and addressing our client's multi-faceted needs.

In terms of corporate governance, climate related issues at Arcadis in 2019 were managed by a dedicated sustainability supervisory board member ('DSSBM'). The DSSBM was appointed to lead our sustainability focus and establish a Sustainability Committee ('SusCo'), which was formally established in May 2020.

The SusCo is a committee of the Arcadis Supervisory Board. It consists of three members of the Supervisory Board, including the Chief Executive Officer ('CEO') and the Executive Leadership Team member responsible for Sustainability ('ELTS'). Key figures within Arcadis who were already essential for our 2019 corporate sustainability program.
The primary task of the SusCo, and before that the DSSBM, is to assist and advise the Supervisory Board in the area of sustainability. For the purpose hereof, sustainability is defined as the various Environmental, Social, and Governance topics that demonstrate or measure the

Company's commitment to improving quality of life. The SusCo assists the Supervisory Board by preparing the plenary discussion and decision-making by the Supervisory Board on major items within the SusCo's scope of work. The Global Director of Sustainability ('GDS') attends the quarterly meetings as a permanent guest of the SusCo and reports directly to the CEO and ELTS.

This report is completed on behalf of the Arcadis Group of Companies including Arcadis' architectural business, CallisonRTKL. Where responses are given on behalf of specific entities/ countries/ Segments/ Regions rather than globally, this is indicated in the specific response.

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, 2019	December 31, 2019	Yes	3 years

C0.3

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

Australia
Bahrain
Belgium
Brazil
Canada
Chile
China
China, Hong Kong Special Administrative Region
China, Macao Special Administrative Region
Czechia
France
Germany
India
Ireland
Italy
Malaysia
Netherlands
Oman
Peru
Philippines
Poland
Puerto Rico
Qatar

Romania
Saudi Arabia
Singapore
Slovakia
Spain
Switzerland
Thailand
Turkey
United Arab Emirates
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.

EUR

C0.5

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

Operational control

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	There are two relevant board-level committees that are involved with sustainability including climate-related issues. 1. Supervisory Board Sustainability Committee

	In 2019, regular discussions on sustainability took place in the Supervisory Board, there was one dedicated member in the Supervisory Board responsible for sustainability. The Supervisory Board assessed how sustainability-related discussions could be further institutionalized at board level and started with the preparatory work for a creation of a new Supervisory Board sub-committee, the Sustainability Committee (SusCo), which was formally established in May 2020. The SusCo meets on at least a quarterly basis and is comprised of three Supervisory Board members. The ELTS and the GSD are permanent guests and may be asked to contribute to the strategy, reporting and other approaches discussed in SusCo meetings. The SusCo advises the Supervisory Board in the area of ESG. Their responsibilities include oversight of the sustainability approach/Arcadis culture. For example, the long-term renumeration for the executive leadership that is linked to sustainability/climate-related performance via our Sustainalytics ESG score. 2. Audit and Risk Committee A separate sub-committee of the Supervisory Board, the Arcadis Audit and Risk Committee (AARC) has oversight on risk management and is comprised of three or more Supervisory Board members. Internal management and control is undertaken by the Chief Risk Officer and supporting team, with assistance from the Executive Board, to determine risks and opportunities. Arcadis uses an Enterprise Risk Management (ERM) system, the Arcadis Risk and Control (ARC) Framework, to identify 15 key risks and opportunities that are categorized in three categories: Strategic, Operational and Compliance to ensure that risks and opportunities are well-captured and addressed in our business. Executive Board ensures that the ERM and ARC framework work well through yearly review and ELT members take ownership of specific identified key risks/opportunities to target mitigation and successful pursuit of Arcadis' three pillar strategy. On a quarterly basis, the key risks are reported to the Audit and Risk Committee.
Chief Executive Officer (CEO)	Sustainability, including climate-related issues, is an integral part of our business strategy, client offerings, and indirect operations. It is at the core of what Arcadis does. Oversight of climate-related issues and decision-making for our strategy are owned by our ELT. Our CEO leads the ELT/Executive Board and has ultimate global ownership for the company's performance including any sustainability matters and integration of these issues. The CEO receives frequent updates about the progress of integrating sustainability into everything that we do, both from the ELT member responsible for sustainability and the GSD. The CEO is also engaged in decision making matters as appropriate. An example of the CEO's influence and engagement is seen via our refreshed Sustainability Strategy- the CEO was part of a decision to implement an enterprise-wide Environmental Management System (EMS) in 2019 to better structure our sustainability program, drive continuous improvement and bring quality of data to a higher level.
Other C-Suite Officer	Sustainability, including climate-related issues, is an integral part of our business strategy, client offerings, and indirect operations. Oversight of climate-related issues and decision-making for our strategy are owned

	by our ELT. While our CEO has ultimate global responsibility for the business in including sustainability matters, our ELTS (also member of the ELT and a C-suite officer) has sustainability in his portfolio and is responsible for ensuring progress aligned to our corporate ambition. Arcadis recently updated its Sustainability Strategy, which is under the ownership of the ELTS and ELT. Climate issue related decisions, including initiatives such as purchases of carbon offsets for our CO2e emissions (Scope 1, 2 & 3 - business travel) are being undertaken at a global level. The ELT, CEO and ELTS also have decided in 2019 to implement an enterprise-wide EMS to better structure our sustainability program, drive continuous improvement and bring quality of data to a higher level. The ELTS receives frequent updates about the progress oversight of the SLT from our GSD, participates and is invited to in the SusCo quarterly meetings, and provides support and guidance to the GSD. The GSD also chairs an additional Sustainability Steering Committee that consists of 4 members of the ELT including the ELTS. The GSD uses this Committee to seek executive feedback regarding developing policies, programs, and progress.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Executive Board and ELT, with the supervision of the Supervisory Board, has overall responsibility for the Arcadis' business strategy, risk management and control systems and has full accountability for strategic risks, including climate-related issues. The Executive Board, Audit & Risk Committee and the Supervisory Board review the identified strategic, operational and compliance risks, including trends annually. In 2019 the Supervisory Board met on a regular basis (and since 2020, the SusCo meets at minimum on a quarterly basis) to ensure that sustainability and climate-related issues are well-integrated into the company's performance and emerging issues. The ELTS, Global Sustainability Director and the Sustainability Leadership Team work together to identify, assess, and integrate sustainability issues into periodic ELT and Executive Board meetings. A couple examples of those risks are: failure to measure and manage our environmental impact and

		not being able to be at the cutting edge of designing appropriate and effective sustainable solutions. Our ARC framework is updated on a yearly basis and approved by the Executive Board and supported by ELT members. Members of the ELT own specific risk(s) to oversee risk mitigation in line with our risk appetite and integrate the three pillars from Arcadis' Strategy: People & Culture, Innovation & Growth and Focus & Performance. For example, in 2019 the board decided that due to increased demands for non-financial reporting from regulators and our clients, that we would implement a global EMS. The Audit and Risk Committee reports annually to the Supervisory Board and reviews key risks on a quarterly basis with the Executive Board and ELT.

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other C-Suite Officer, please specify Executive Leadership Team member responsible for Sustainability	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly
Sustainability committee	Both assessing and managing climate-related risks and opportunities	As important matters arise
Other, please specify Sustainability Steering Committee	Assessing climate-related risks and opportunities	More frequently than quarterly

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).

Globally, we are governed by the Executive Board and the ELT, which is overseen by a Supervisory Board with members who are independent from Arcadis. We consider the Executive and Supervisory Boards, along with the ELT to be our Board of Directors, as the entire composition overseeing the governance and compliance of our company's area of operations. In terms of climate-related issues, our governance and management structure ensures that Arcadis has layers of oversight and day-to-day responsibility.

Oversight:

Chief Executive Officer
In 2019, the Executive Board included the global CEO and CFO. The ELT includes the CEO and CFO, members with responsibility for regions where we operate, as well as members of the global C-suite and other key leadership positions, including the ELTS. The global CEO is an ELT and Executive Board member and has overall ownership of the company's performance and driving sustainability, including, climate-related issues. The CEO's ownership of sustainability is necessary since it is part of the core offerings to clients and integrated into Arcadis' way of work.

Other C-suite officer, Group Executive for Innovation and Transformation
Responsibility of the execution of supporting strategies and policies are undertaken on a day-to-day basis by the Global Executive for Innovation and Transformation, who is also the ELT member responsible for sustainability (ELTS). This role deals with both innovation and transformation, not only does our company need to respond rapidly to the shifting needs of our clients, but our own operations can be fine-tuned and made more efficient through sustainability and ensuring climate-related issues are well addressed.

Supervisory Board Sustainability Committee (SusCo)
Supervisory Board (in 2019) Sustainability Committee (as of 2020)
Formally established in 2020 following the appointment of the dedicated sustainability supervisory board member in 2019, the primary function of the SusCo is to assist and advise the SB in the area of sustainability. The SusCo focuses on:

- the sustainability approach and culture of the Company,
- sustainability as a fiduciary duty,
- the linkage between the Company strategy and sustainability,
- the appropriate framework for non-financial reporting on sustainability,
- the enhancement of sustainability in the Company's organization,
- external positioning and the further development positioning as a sustainable business in the market through thought leadership and otherwise,
- and getting the related recognition, the impact for clients of the Company through provision of services, opportunities and risks in the area of sustainability, the relationship with other 'related topics' such as Governance and Integrity, and other sustainability items/elements as determined from time to time.

Prior to the Susco these tasks were appointed to the dedicated sustainability supervisory board member (2019).

Day-to-day:

Sustainability Director
The Global Sustainability Director (GSD) reports to the ELTS. Responsibilities include the development of supporting strategies, interaction with other global and regional leaders,

reporting & monitoring, and leading a global team of sustainability professionals that are focused on making sustainability core to everything that we do. Currently the GSD is leading the development of our refreshed corporate sustainability strategy. The Sustainability Strategy is refreshed on a three-year basis, with a new strategy being pursued in 2020 to replace the 2017. This work is owned by the SLT, which consists of representation from all the regions, the three sustainability program pillar leads, some support roles and the GSD, with the GSD reporting directly to the ELTS and the ELT.

Sustainability Leadership Team: The SLT meets more frequently than monthly and has the overall day-to-day responsibility of sustainability/climate-related issues and the Sustainability Strategy. The Sustainability Strategy is refreshed on a three-year basis, with a new strategy being pursued in 2020 to replace the 2017. This work is owned by the SLT and the GSD, with the GSD reporting directly to the ELTS and the ELT. The team works to create necessary policies and direct the implementation and integration of these programs. The SLT is also responsible for global relationships with non-governmental organizations (NGOs), trade associations, and other network groups.
In addition, we are also in the process of assessing our risks and opportunities posed by climate change based on the work of the Task Force of Climate Change Related Disclosure (TCFD).

Sustainability Steering Committee
The GSD also chairs the Sustainability Steering Committee that consists of 4 members of the ELT including the ELTS. The GSD uses this Committee to seek executive feedback regarding developing policies, programs, and progress. This Committee meets quarterly at a minimum, however more frequent meetings are held as needed.

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	

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 inventivized	Comment
Board/Executive board	Monetary reward	Company performance against a climate-related	In 2019, Arcadis made sustainability a component of its executive remuneration by making it one of the 3 performance criteria for the long-term incentive remuneration for our EB and ELT members. The sustainability target will be

		sustainability index	measured by reference to the score applied to Arcadis by Sustainalytics. The score is used to derive a company's exposures and performance, including climate-related issues such as energy, GHG performance/targets, assessment of event risks (e.g. acute physical events), amongst others. Score improvement also allows Arcadis to receive favorable interest rates from some financial institutions. The monetary incentive is applied to all members of our EB and ELT. The Supervisory Board is responsible for setting the threshold, target, and maximum for the Sustainalytics score each year for a three-year period.
Chief Executive Officer (CEO)	Monetary reward	Company performance against a climate-related sustainability index	In 2019, Arcadis made sustainability a component of its executive remuneration by making it one of the 3 performance criteria for the long-term incentive remuneration for our EB and ELT members. The sustainability target will be measured by reference to the score applied to Arcadis by Sustainalytics. The score is used to derive a company's exposures and performance, including climate-related issues such as energy, GHG performance/targets, assessment of event risks (e.g. acute physical events), amongst others. Score improvement also allows Arcadis to receive favorable interest rates from some financial institutions. The monetary incentive is applied to all members of our EB and ELT. The Supervisory Board is responsible for setting the threshold, target, and maximum for the Sustainalytics score each year for a three-year period.
Chief Financial Officer (CFO)	Monetary reward	Company performance against a climate-related sustainability index	In 2019, Arcadis made sustainability a component of its executive remuneration by making it one of the 3 performance criteria for the long-term incentive remuneration for our EB and ELT members. The sustainability target will be measured by reference to the score applied to Arcadis by Sustainalytics. The score is used to derive a company's exposures and performance, including climate-related issues such as energy, GHG performance/targets, assessment of event risks (e.g. acute physical events), amongst others. Score improvement also allows Arcadis to receive favorable interest rates from some financial institutions. The monetary incentive is applied to all members of our EB and ELT. The Supervisory

			Board is responsible for setting the threshold, target, and maximum for the Sustainalytics score each year for a three-year period.

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	
Medium-term	3	10	
Long-term	10	20	

C2.1b

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

Each year the Executive Board performs a review of Arcadis' risk universe and the risk and control framework and makes adjustments as conditions change. Following this review, the Arcadis Risk & Control Framework (the ARC Framework) is updated and communicated to the wider leadership team. The ARC Framework identifies fifteen key risks, divided into three risk categories – Strategic, Operational and Compliance. It includes the business controls which are supported by policies, standards, procedures and guidelines, all of which target risk mitigation in accordance with Arcadis' risk appetite and the successful pursuit of the three pillars from Arcadis' 2018-2020 strategy: People & Culture, Innovation & Growth and Focus & Performance. ARC Framework is the cornerstone of Arcadis' risk management approach and supports Arcadis in embedding a more risk conscious way of working in all layers of the organization.

Arcadis' risk rating criteria appetite evolves over time reflecting developments in society, legislation, geopolitics, the client landscape and changes within Arcadis.

C2.2

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

RESPONSE 1

Value chain stage(s) covered

Direct operations

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 (7k characters)

Due to our business structure and limited owned assets, our climate-related operational exposures are somewhat reduced, however, we still consider climate-related risks and opportunities in our ERM process. Direct operations that may be impacted by climate-related risks include operational efficiency, our efficiency of profit earned as a function of operational costs, and compliance with regional and local legislation; but also extends to our ability to generate revenue (e.g. client solutions). A crucial area for Arcadis is addressing sustainability in the services provided to our clients and how we manage our risk in the procurement of services and goods. We are in the process of further assessing our risks and opportunities posed by climate change based on the work of the Task Force of Climate Change Related Disclosure (TCFD). The experience gained through this can then also be applied to work for clients

In addition, Arcadis has two integrated processes to determine short/medium/long-term risks and opportunities:

(1) Risk Management Committee – Arcadis has a Risk Management Committee chaired by the CFO advises the ELT and Executive Board on strategic, operational and global risk matters in the context of Arcadis' risk appetite.

Furthermore, Arcadis' Executive Board is responsible for Enterprise Risk Management, maintaining a comprehensive system of risk management and internal control, and for regularly reviewing its effectiveness. Each year the Executive Board performs a review of Arcadis' risk universe and the risk and control framework and makes adjustments as conditions change. Following this review, the Arcadis Risk & Control Framework (the ARC Framework) is updated and communicated to the wider leadership team. In 2019, it was decided by the Executive Board that sustainability risks (included climate-related risks) would formally be incorporated in the ARC Framework.

Members of the ELT own specific risk(s) to oversee risk mitigation in line with our risk appetite and integrate the three pillars from Arcadis' strategy: People & Culture, Innovation & Growth and Focus & Performance. ELT members are responsible for determining risk appetite and setting policies and procedures needed for appropriate redress of risk/opportunities. Climate-related Risk for our direct operations is the responsibility of our Executive Leadership Team member responsible for Sustainability. The ELTS is responsible for the Sustainability risk category, which includes all aspects of Sustainability risk, including the design of effective sustainable client solutions, winning work with clients, and effective performance on energy efficiency and GHG reduction targets via the global Sustainability Strategy.

The Audit and Risk Committee is comprised of four members of the Supervisory Board and reviews and oversees the key risks identified as they pertain to Arcadis' Strategy, Operations and Compliance categories,

(2) Dedicated Sustainability Supervisory Board Member ('DSSBM')/ Sustainability Committee (SusCo) – Arcadis also has a dedicated DSSBM who was appointed to lead our sustainability focus and establish a Sustainability Committee ('SusCo'), which was formally established in May 2020.
In 2019 the DSSBM was responsible (and from May 2020 the SusCo, comprised of three members of the Supervisory Board, CEO, ELTS, and GSD) to oversee the high-level performance of Arcadis' sustainability including climate-related risks. Our global sustainability leadership team, SLT, works to establish and implement the Sustainability Strategy, related policies, reporting, internal communications, and other day-to-day responsibilities, including specific climate-related risks. In 2019, we further integrated the risk identification process through regional and local implementation of Environmental Management Systems, and our overall global risk management process. As stated in previous sections, the SusCo was developed in 2019 and formal established in 2020.

Sustainability Steering Committee – Arcadis' Sustainability Steering Committee consists of four ELT members including the ELTS, our GSD chairs this committee. The GSD uses this committee as a sounding board to seek executive feedback regarding developing policies, programs, and progress, which includes the potential response to climate relates risks and opportunities. For example, when we started to design the new outlines for our sustainability strategy (established in 2020), the GSD used this platform to test ideas and gather feedback. This Committee meets quarterly at a minimum, however more frequent meetings are held as needed.

Arcadis' Sustainability Strategy is refreshed on a three-year basis, with a new strategy being pursued in 2020 to replace the 2017 strategy. The SLT, led by our GSD, works to create and implement necessary policies and direct the implementation of related programs

Risks defined by the SLT will be reviewed in cooperation with the applicable functional area leaders e.g. client solutions, finance, or procurement.

Transitional Risks
Part of the risk management process is built into our global EMS program, which has already been implemented in certain countries and regions. For example, in 2019, Arcadis embarked on a mission to implement a global EMS. The EMS ensures that any identified risks or opportunities from a sustainability or climate-related viewpoint are tracked and monitored, such as energy and GHG footprints which, in the transition to a low-carbon economy, must be brought to specific levels. While Arcadis has been steadily reducing its GHG footprint and energy consumption

throughout the years (for example 48.8% reductions since 2010 in the Netherlands), the EMS will allow us to better structure our sustainability program and drive continuous improvement.

Physical Risks & Opportunity
Physical risks are also assessed for our direct operations, but due to the limited amount of owned assets, as an inherent characteristic of our business, our direct operational impact of assets is limited. A significant number of our clients rely on Arcadis' expertise to deploy solutions for physical risks they may face, thereby impacting our revenue; if we are able to leverage our expertise well, this can be viewed as an opportunity. "Sustainability Risk" is highlighted as one of the key risks in our ARC framework and guides to develop cost efficient, sustainable, and effective solutions. Water-related services, including our resilience work - that directly addresses anticipated physical risks - constituted 12% of our net revenues in 2019.

RESPONSE 2

Value chain stage(s) covered

Upstream

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

Due to our business structure and limited owned assets, our climate-related operational exposures are somewhat reduced, however, we still consider climate-related risks and opportunities in our ERM process. For our upstream risks, we consider our third-party engagements with suppliers, agents, sub-contractors, joint-venture partners, ecosystem partners, etc. A crucial area for Arcadis is addressing sustainability in the services provided to our clients and how we manage our risk in the procurement of services and goods. We are in the process of further assessing our risks and opportunities posed by climate change based on the work of the Task Force of Climate Change Related Disclosure (TCFD). The experience gained through this can then also be applied to work for clients. In addition, Arcadis has two integrated processes to determine short/medium/long-term risks and opportunities:

(1) Risk Management Committee – Arcadis has a Risk Management Committee chaired by the CFO advises the ELT and Executive Board on strategic, operational and global risk matters in the context of Arcadis' risk appetite.

Furthermore, Arcadis' Executive Board is responsible for Enterprise Risk Management, maintaining a comprehensive system of risk management and internal control, and for regularly reviewing its effectiveness. Each year the Executive Board performs a review of Arcadis' risk universe and the risk and control framework and makes adjustments as conditions change. Following this review, the ARC Framework is updated and communicated to the wider leadership team. In 2019, it was decided by the Executive Board that sustainability risks (included climate-related risks) would formally be incorporated in the ARC Framework.

Members of the ELT own specific risk(s) to oversee risk mitigation in line with our risk appetite and integrate the three pillars from Arcadis' strategy: People & Culture, Innovation & Growth and Focus & Performance. ELT members are responsible for determining risk appetite and setting policies and procedures needed for appropriate redress of risk/opportunities. Climate-related Risk for our direct operations is the responsibility of our Executive Leadership Team member responsible for Sustainability. The ELTS is responsible for the Sustainability risk category, which includes all aspects of Sustainability risk, including the design of effective sustainable client solutions, winning work with clients, and effective performance on energy efficiency and GHG reduction targets via the global Sustainability Strategy.

The Audit and Risk Committee is comprised of four members of the Supervisory Board and reviews and oversees the key risks identified as they pertain to Arcadis' Strategy, Operations and Compliance categories,

(2) Dedicated Sustainability Supervisory Board Member ('DSSBM')/ Sustainability Committee (SusCo) – Arcadis also has a dedicated DSSBM who was appointed to lead our sustainability focus and establish a Sustainability Committee ('SusCo'), which was formally established in May 2020.
In 2019 the DSSBM was responsible to oversee the high-level performance of Arcadis' sustainability including climate-related risks. Our global SLT works to establish and implement the Sustainability Strategy, related policies, reporting, internal communications, and other day-to-day responsibilities, including specific climate-related risks. In 2019, we further integrated the risk identification process through regional and local implementation of Environmental Management Systems, and our overall global risk management process. As stated in previous sections, the SusCo was developed in 2019 and formal established in 2020.

Sustainability Steering Committee – Arcadis' Sustainability Steering Committee consists of four ELT members including the ELTS, our GSD chairs this committee. The GSD uses this committee as a sounding board to seek executive feedback regarding developing policies, programs, and progress, which includes the potential response to climate relates risks and opportunities. For example, when we started to design the new outlines for our sustainability strategy (established in 2020), the GSD used this platform to test ideas and gather feedback. This Committee meets quarterly at a minimum, however more frequent meetings are held as needed.

Arcadis' Sustainability Strategy is refreshed on a three-year basis, with a new strategy being pursued in 2020 to replace the 2017 strategy. The SLT, led by our GSD, works to create and implement necessary policies and direct the implementation of related programs.

Risks defined by the SLT will be reviewed in cooperation with the applicable functional area leaders e.g. client solutions, finance, or procurement.

Transitional Risks
Inadequate performance by third parties can negatively impact financial performance, disrupt business operations and result in reputational damage. Arcadis strives to appoint third parties that are financially stable, and which align with Arcadis' business principles and core values. Client and market awareness of the potential risks of poor third-party management and the impact it could have on projects is increasing, therefore clients are looking in more detail at the measures and controls that Arcadis has in place regarding this risk.
Arcadis' third-party due diligence initiative, focused on a more consistent global approach, which included a new set of principle on engaging or collaborating with third parties, was further developed, and driven to completion. The updated principles have an increased focus on assessing the compliance of third parties with standards similar to our General Business Principles. Consistency of global principles will be facilitated through our Oracle Cloud Platform which is currently being rolled out globally.
For example, Arcadis supported a major city in Belgium on their 2050 carbon neutrality ambitions. To help support our client, we had to find the right providers for the project and conduct due diligence on their own operations. Arcadis identified several major tech companies and specific start-ups that would help support creating a series of spatial concepts and future proof/optimize the systems.

Physical Risks & Opportunity
Physical risks are also assessed for our upstream business activities but limited due to the nature of our business. However, a significant number of our clients rely on Arcadis' and its partners' expertise to deploy solutions for physical risks they may face, thereby impacting our revenues; we currently view this as an opportunity if we are able to leverage our expertise well. "Client and opportunity risk" is highlighted as one of the 15 key risks in our Operational Risk category and encourages the company to develop cost efficient, sustainable and effective solutions. Water-related services, including our resilience work – that directly addresses anticipated physical risks - constituted 12% of our net revenues in 2019.

RESPONSE 3

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

Due to our business structure and limited owned assets, our climate-related operational exposures are somewhat reduced, however, we still consider climate-related risks and opportunities in our ERM process. For our downstream risks we consider this to be mostly our client work and results of the projects. A crucial area for Arcadis is addressing sustainability in the services provided to our clients and how we manage our risk in the procurement of services and goods. We are in the process of further assessing our risks and opportunities posed by climate change based on the work of the Task Force of Climate Change Related Disclosure (TCFD). The experience gained through this can then also be applied to work for clients. In addition, Arcadis has two integrated processes to determine short/medium/long-term risks and opportunities:

(1) Risk Management Committee – Arcadis has a Risk Management Committee chaired by the CFO advises the ELT and Executive Board on strategic, operational and global risk matters in the context of Arcadis' risk appetite.

Furthermore, Arcadis' Executive Board is responsible for Enterprise Risk Management, maintaining a comprehensive system of risk management and internal control, and for regularly reviewing its effectiveness. Each year the Executive Board performs a review of Arcadis' risk universe and the risk and control framework and makes adjustments as conditions change. Following this review, the ARC Framework is updated and communicated to the wider leadership team. In 2019, it was decided by the Executive Board that sustainability risks (included climate-related risks) would formally be incorporated in the ARC Framework.

Members of the ELT own specific risk(s) to oversee risk mitigation in line with our risk appetite and integrate the three pillars from Arcadis' strategy: People & Culture, Innovation & Growth and Focus & Performance. ELT members are responsible for determining risk appetite and setting policies and procedures needed for appropriate redress of risk/opportunities. Climate-related Risk for our direct operations is the responsibility of our Executive Leadership Team member responsible for Sustainability. The ELTS is responsible for the Sustainability risk category, which includes all aspects of Sustainability risk, including the design of effective sustainable client solutions, winning work with clients, and effective performance on energy efficiency and GHG reduction targets via the global Sustainability Strategy.

The Audit and Risk Committee is comprised of four members of the Supervisory Board and reviews and oversees the key risks identified as they pertain to Arcadis' Strategy, Operations and Compliance categories,

(2) Dedicated Sustainability Supervisory Board Member (‘DSSBM’)/ Sustainability Committee (SusCo) – Arcadis also has a dedicated DSSBM who was appointed to lead our sustainability focus and establish a Sustainability Committee (‘SusCo’), which was formally established in May 2020.
In 2019 the DSSBM was responsible to oversee the high-level performance of Arcadis’ sustainability including climate-related risks. Our global SLT works to establish and implement the Sustainability Strategy, related policies, reporting, internal communications, and other day-to-day responsibilities, including specific climate-related risks. In 2019, we further integrated the risk identification process through regional and local implementation of Environmental Management Systems, and our overall global risk management process. As stated in previous sections, the SusCo was developed in 2019 and formal established in 2020.

Sustainability Steering Committee – Arcadis’ Sustainability Steering Committee consists of four ELT members including the ELTS, our GSD chairs this committee. The GSD uses this committee as a sounding board to seek executive feedback regarding developing policies, programs, and progress, which includes the potential response to climate relates risks and opportunities. For example, when we started to design the new outlines for our sustainability strategy (established in 2020), the GSD used this platform to test ideas and gather feedback. This Committee meets quarterly at a minimum, however more frequent meetings are held as needed.

Arcadis’ Sustainability Strategy is refreshed on a three-year basis, with a new strategy being pursued in 2020 to replace the 2017 strategy. The SLT, led by our GSD, works to create and implement necessary policies and direct the implementation of related programs.

Risks defined by the SLT will be reviewed in cooperation with the applicable functional area leaders e.g. client solutions, finance, or procurement.

Transitional Risks & Opportunities
Our clients seek to work with companies that share the same values as them. Corporate reputation can extend past the direct operations of a single company into its partners, subcontractors, and suppliers. Transitional risks from our downstream business operations include requests from our clients to report to CDP, performance on other ESG metrics, and the presence of ESG reporting and targets, specially energy and GHG targets which are strongly climate-related issues.
In addition, Arcadis also sees our abilities and services offerings to improve our client’s performance in their actions to transition to a low-carbon economy. We have supported numerous projects on GHG footprint, transition to electric vehicles (EV), establishment of Science-based Targets Initiative (SBTi) approved targets, climate action plans and development of EMS and GHG accounting methodologies. For example, in 2019 we supported Unilever in uniting their R&D departments in a new, state of the art, innovation center in the Netherlands. The building is BREEAM Outstanding certified and energy neutral due to the compact design, high level insulation and 1,500 solar panels. The interior is designed from a circularity perspective with a strong focus on well-being of the end users.

Physical Risks & Opportunity
We help our clients address physical risks such as flooding and are also assessed for our downstream business activities but limited due to the nature of our business. That being said, a significant number of our clients rely on Arcadis’ and its partners’ expertise to deploy solutions for physical risks they may face, thereby impacting our revenues; we currently view this as an opportunity if we are able to leverage our expertise well. “Client and opportunity risk” is highlighted as one of the

15 key risks in our Operational Risk category and encourages the company to develop cost efficient, sustainable and effective solutions. Water-related services, including our resilience work – that directly addresses anticipated physical risks such as increased flooding incidents - constituted 12% of our net revenues in 2019.

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	Based on our Enterprise Risk Management process, we deem this risk type relevant to Arcadis. Arcadis is subject to regulations in the geographies it operates, with many existing and emerging regulation including climate-related issues such as energy and GHG reporting. As an example, the UK government requires compliance with non-financial reporting such as GHG, energy and other environmental topics through the SECR 2019 regulations. Arcadis reports this on a yearly basis and faces penalties and fines, like any other (publicly traded) company, with non-compliance to these governments where applicable, thereby cumulative regulations may have significant impacts on our costs. Arcadis monitor such landscapes at the regional and global levels to ensure compliance with current regulations.
Emerging regulation	Relevant, always included	Based on our Enterprise Risk Management process, we deem Emerging regulation relevant to Arcadis and it is included in our annual risk assessment. Arcadis is subject to regulations in the geographies it operates, with many existing and emerging regulations including climate-related issues such as energy and GHG reporting, or regulations that includes carbon tax or cap-and-trade which are inconsistently implemented across the globe, for example, some states/regions of the US have cap-and-trade programs although this is not pursued at the federal level. If this were to be pursued at the federal level, this may or may not impact our operational costs as we have over 120 offices across the US. Europe has existing carbon tax programs and if, for example, our entire global operations were subject to a carbon tax of €15 per ton carbon, using our 2019 Scope 1 & 2 (23,907 TCO2e), we would have an additional cost of €358,605. Although it may not be a direct cost, such emerging regulations may increase utility cost or commercial real estate leasing cost. As such, we monitor the horizon for such emerging regulatory risks and regional and global levels.

Technology	Relevant, always included	Technology and innovation are considered a relevant risk for Arcadis based on our Enterprise Risk Management process and is included in our annual risk assessment. If we are unable to develop the right cutting edge solutions for our clients, we risk losing clients and projects. Our clients come to us for solutions in the climate-related area, both in terms of transitional and physical risks. We work to deploy effective, practicable solutions which require an evolving technological scene. Further, Arcadis has been embarking on a digitization journey that allows our company to act as a single entity leveraging expertise from around the world and also using technology to drive forward efficiencies for our clients. For example, with the support of the Lovinklaan Foundation, Expedition DNA, an online program, enables all Arcadians to act upon digital client opportunities in an effective manner. It also facilitates the company to staff teams effectively when it comes to projects that require an innovative mindset and digital capabilities.
Legal	Not relevant, explanation provided	Based on our Enterprise Risk Management process, we deem this risk type it not relevant to Arcadis regarding climate related risks. As Arcadis is primarily a design and engineering company material legal risks are related to M&A or non-compliance with contracts of joint venture performance. As a service provider, it is unlikely Arcadis will face litigation due to climate-related risks and opportunities.
Market	Relevant, always included	Based on our Enterprise Risk Management process, we deem this risk type relevant to Arcadis and it is included in our annual risk assessment. Arcadis continues to operate in a competitive market that is exposed to economic cycles, geopolitical shifts, societal and legislative change and the consolidation of both competitors and client supplier bases. In 2019, geopolitical events impacted global investment flows. Another concern is the decline in forecasted economic growth through 2021. This means if we see a large portion of our clients struggle with climate adaptation, but we fail to update our services accordingly we may eventually lose them to competitors. If we foresee the growth for this type of services, we can prepare our company by hiring the right workforce and build on our relationships with our clients. For example, we have projects creating more sustainable futures for aviation. SkyNRG is building the first European dedicated sustainable aviation fuel production plant and requires permits to be able to start construction on its selected site. Arcadis is already a client for SkyNRG as we participate in the KLM Corporate Biofuel program which uses their products. This showed the client that we share their vision and values. The client has asked Arcadis for assistance in acquiring the permit for the construction of their facility.
Reputation	Relevant, always included	Based on our Enterprise Risk Management process, we deem this risk type relevant to Arcadis and it is included in our annual risk assessment. Reputational damage has a significant impact given the

		types of services we offer to the market. In 2019, with the launch of our renewed key client program, we decided to increase the focus on our top 250 clients, who generate~ 50% of our revenue and 60% of our profit. With this refined focus comes a need to continue to meet the multifaceted needs and requirements of our multinational key clients which includes accounting for our climate-related issues and external reporting practices in order to maintain our reputation as a company that has a purpose of "improving quality of life". For example, we have projects creating more sustainable futures for aviation. SkyNRG is building the first European dedicated sustainable aviation fuel production plant and requires permits to be able to start construction on its selected site. Arcadis is already a client for SkyNRG as we participate in the KLM Corporate Biofuel program which uses their products. This showed the client that we share their vision and values. The client has asked Arcadis for assistance in acquiring the permit for the construction of their facility.
Acute physical	Relevant, always included	Based on our Enterprise Risk Management process, we deem this risk type relevant to Arcadis and they are included in our annual risk assessment as part of H&S. Extreme changes in temperature, wildfires but also pandemics (e.g. COVID-19) are becoming more normal with impacts being felt across the world. These events potentially affect safety of our employees and access to our offices and project locations as well as the costs associated with our operations (e.g. energy spends). We note that due to the structuring of our or leases or business operations, these risks may not directly impact Arcadis' operations as significantly as other businesses, however, they do impact our clients and the solutions we offer to our clients. Acute physical risks may be addressed through Arcadis' design and consultancy, sustainability, energy, and asset management services. Arcadis offers solutions related to asset management and optimization, in particular, we have energy services to reduce costs and energy consumption, that takes into account climate-related risks such as increased number of heating degree days (HDD) and cooling degree days (CDD). HDD and CDD have caused increase in Scope 1 emissions and fuel costs for a number of our global clients.
Chronic physical	Relevant, always included	Based on our Enterprise Risk Management process, we deem this risk type relevant to Arcadis. Chronic physical risks are considered relevant for Arcadis and are included in our annual risk assessment. Events such as rising sea levels and chronic heat waves might in the medium-long term affect accessibility of offices and project locations. These risks may not directly impact Arcadis' operations, however, they impact our clients and the solutions we offer to our clients. Addressing chronic physical risks such as flooding and sea level rise (SLR) is undertaken through our Water business line where we help many clients address their chronic physical risks. For example, a

		manufactory company which runs a production facility within the Guanajuato region of Mexico, an area with considerable water stress. In line with this companies commitment to reduce water use across its operations by 15% by 2020, they needed innovative solutions to conserve water at this facility, making it more sustainable and less vulnerable to the chronic stress of water scarcity in the vicinity. Arcadis conducted an audit to understand exactly how water was being used and developed designs for reducing water use. We optimized and upgraded the on-site wastewater treatment plant with new technology. As a result, the facility now uses around 900,000 liters less water each day – more than 329 million liters saved yearly. This effort has already enhanced this facility's resilience and improved quality of life for the community.

C2.3

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

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Increased direct costs

Company-specific description

Failure to measure and manage our environmental impact is one of the risks we face. Many of our clients are prioritizing sustainability issues and seek to work with companies that share the same values as them. Arcadis aims to measure its environmental impact from direct operations in compliance with the ISO 14001 standard. Currently we are working on combining all our various regional and country management systems into one global system with a consistent baseline for all regions and countries to work from. These actions will help reduce potential errors and simplify our improvement process. Ultimately, this will improve the output of our impact measurement and will potentially affect other programs (like SBTi-approved targets) and reports (like our Annual Integrated Report). Not having an effective and well controlled system could potentially lead to reporting inaccurate data which might affect our ability to obtain the ISO 14001 certification if we don't act in accordance with our system. Having a certified ISO 14001 system in place is often a requirement to be able to work for key clients. Losing the certification will affect the amount of work which we are qualified to bid for.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Operating EBITA (Earnings before interest, taxes, and amortization) approx. €200m. Assume 2.5% reduction

Cost of response to risk

0

Description of response and explanation of cost calculation

We expect that addressing this risk once our global EMS is fully functional (in 2021) will be a negligible cost. We also rely on our experts with extensive EMS/sustainability experience to facilitate this work.

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Technology
Substitution of existing products and services with lower emission options

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

Failure to offer up-to-date and relevant sustainability solutions to the market is a risk to our business. However, this risk is controlled. Arcadis embodies the mantra “improving quality of life” and reflects this in the communities where we and our clients operate. We continue to put this mantra at the heart of everything we do, having sustainability (including climate-related issues), built into the client solutions we offer. The provision of sustainable solutions provides many opportunities for Arcadis to address our clients’ climate-related risk into the market brings several challenges and is a major climate-related risk for Arcadis. Fully mitigating this risk requires considering several factors including regulatory requirements, specific client requirements, technical challenges, scarcity of people with relevant skill sets which can influence our performance with respect to our clients. For example, there is a risk that Arcadis is not at the cutting edge of designing appropriate and effective sustainable solutions such as climate-related risks that our clients face. In addition, there is the risk that solutions are developed but fail in their actual delivery to clients compared to the promised outcomes. Arcadis is well-established as a leader in resilience, but this service is very competitive, and we must continuously evaluate if our services, technology, and expertise fit increasing demands on climate-related solutions. As client requirements evolve in relation to sustainability requirements and aspirations, there is a risk that clients select sustainable solutions from our competitors. This could be for a number of reasons including brand awareness in this market, strength of solution design, and pricing.

Through our research Arcadis recognizes that the market is expanding rapidly on climate related issues and we may lose out on such opportunities. According to Verdantix: “The US market for EHS services will grow from $15.7 billion in 2020 to $20.7 billion in 2024 […]. The forecasted compound annual growth rate of 5.6% will be driven by increasing public focus on climate change, investor interest in ESG ratings, and growing vendor investment in digital technologies.”

Arcadis has partnered with Verdantix to address this risk particularly on EHS and digital technologies. In 2019, Arcadis was recognized as a leading provider of digital EHS services by Verdantix.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Environmental Business Line Revenue €800m. Assume 10% reduction. EBITA (Earnings before interest, taxes, and amortization) margin 10%.

Cost of response to risk

0

Description of response and explanation of cost calculation

Arcadis has a clearly defined program for developing innovative sustainable solutions for clients, aligned to the UN SDGs (Sustainable Development Goals). We look to hire solutions leaders or acquisitions that support our client's anticipated needs, which is often mixed into Arcadis' core strategy (meaning additional climate-related costs are negligible) and develop deep relationships with key clients to pursue such keystone projects. This includes the clear identification of future market needs and trends in products and services. The program is directed by, and aligned across, appropriate senior leadership at Global and Regional levels.

Processes are being embedded to ensure that our sustainable services are marketed strongly to both our existing and potential client base. These processes include targets set within the business planning phase, account planning for our Top 200 clients, and triggers to include sustainable services, such as climate change mitigation and adaptation integration, at the tender/bid phase.

Comment

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

If we fail to meet our climate-related targets, this could impact our reputation and our ability to win new work. However, this risk is well-controlled. Arcadis embodies the mantra “improving quality of life” and reflects this in the communities where we and our clients operate. We continue to put this mantra at the heart of everything we do, having sustainability (including climate-related issues), built into the client solutions we offer. The impact of missed targets for our direct operations is a risk that may result in increased operational costs for the company (e.g. increased electricity rates), additional costs for loans of which payment will go up if we do not perform well on ESG metrics and we see the major financial risk with this as reputational in nature and may result in us losing future business. Currently, various regions and operating entities are developing and delivering against climate-related targets. If we miss a target, this affects our reputation as we are not able to deliver on the promise we made to our stakeholders (incl. communities). We have pledged to go carbon neutral by 2020. How our targets and actions can affect selections our clients make was demonstrated in a 2019 project where we helped facilitate sustainable futures for aviation. As an example case study, our client, SkyNRG, has asked Arcadis for assistance in acquiring their permit for the first European construction of a dedicated sustainable aviation fuel production plant. Our commitment to carbon neutrality as well as the fact we were participating in the KLM Corporate Biofuel program showed the client that we shared their vision and values and helped win this project. Through the KLM Corporate Biofuel program, we were actually already a client of SkyNRG.

Time horizon

Short-term

Likelihood

Unlikely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Operating EBITA (Earnings before interest, taxes, and amortization) approx.. €200m. Assume 2.5% reduction

Cost of response to risk

0

Description of response and explanation of cost calculation

We expect that addressing this risk once our global EMS is fully functional will be a negligible cost of 0. We also rely on our experts with extensive EMS/sustainability experience to facilitate this work.

Comment

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 and/or expansion of low emission goods and services

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Arcadis embodies the mantra “improving quality of life” and reflects this in the communities where we and our clients operate. We continue to put this mantra at the heart of everything we do, having sustainability (including climate-related issues), built into the client solutions we offer. As such, Arcadis has the potential opportunity to meet or exceed client expectations regarding our environmental reputation, which may positively enhance our ability to win work. Arcadis has established a sustainability program with associated KPIs and targets and supported by our cutting-edge offerings and expertise. For example, Arcadis aims to be a carbon neutral company by 2020, through emissions reductions and offsets, and in 2019 decided to evaluate the potential pursuit of a SBTi-approved target. These values align with an increasing number of investors, clients, and members of the community, who seek to invest and work with like-minded companies. The enhanced competitive position to reflect the shifting consumer preference will result in increased revenues, which, based on the total revenue in 2019, is estimated to be maximum of 25% of the total gross revenue (€3.47 billion). Our ability to win through our own environmental performance was demonstrated in a 2019 project where we helped facilitate sustainable futures for aviation. SkyNRG is building the first European dedicated sustainable aviation fuel production plant and required permits to be able to start construction on its selected site. Arcadis itself is already a client for SkyNRG as we participate in the KLM Corporate Biofuel program which uses their products. This commitment, as well as our commitment to carbon neutrality, showed the client that we shared their vision and values. The client has asked Arcadis for assistance in acquiring the permit for the construction of their facility.

Time horizon

Short-term

Likelihood

Virtually certain

Magnitude of impact

Medium high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

0

Potential financial impact figure – maximum (currency)

868,000,000

Explanation of financial impact figure

It is challenging to determine the exact numbers related to increased revenues from new and emerging markets/technologies. We have already experienced and won opportunities related to supporting the transition to a low-carbon economy and do expect this to grow over time as demand increases. However, if Arcadis' work for a climate-related transition and physical risk project increases, we see our revenues for these increases likewise. We have estimated a range that is estimated to be maximum of 25% of the total gross revenue in 2019 (€3.47 billion), €868 million.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

At this moment, our strategy to realize this opportunity is to leverage existing talent and leverage existing client relationships to win these projects, for which the cost is negligible. For our efficiency means, we are also strategic in ensuring that we integrate high-efficiency upgrades into needed upgrades, renovations, regular maintenance (e.g. lease signing), again indicating the cost is included in existing programs.

Comment

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced indirect (operating) costs

Company-specific description

Arcadis embodies the mantra “improving quality of life” and reflects this in the communities where we and our clients operate. We continue to put this mantra at the heart of everything we do, having sustainability (including climate-related issues), built into the client solutions we offer. Arcadis currently has 20 certified EMS programs running locally to help regions and countries manage their environmental footprint, In 2019, we decided to further this effort and create a globally consistent EMS program that will allow us to better management of data and measurement of our environmental impact. The EMS brings us to a higher level on the areas and programs will give us the highest impact, whilst remaining cost effective. The EMS also allows us the ability to pilot specific projects, and subsequently scale-up and track progress of new initiatives. The ripple effect of potential solutions is expected to be significant when we look at challenges from a higher level and at an enterprise-wide solution.

For example, we have recently explored the potential to update an existing tool which will allow us to determine the environmental impact (including CO2-emissions) of our remediation projects. Arcadis performs many environmental remediation projects annually so being able to quickly pinpoint which solution presents the least environmental impact can potentially make a big difference. After we have piloted this project and the tool is finalized, this solution will be added to the EMS as one of the potential measures our teams can use to reduce our Scope 3 emissions. The data provided to the EMS team will contain examples, potential impact per project and access to the tool.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

5,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Operating EBITA (Earnings before interest, taxes, and amortization) €200m. Assume 2.5% increase.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

We expect that addressing this risk once our global EMS is fully functional will be a negligible cost of 0. We also rely on our internal experts with extensive EMS/sustainability experience to facilitate this work.

Comment

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new Markets

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Arcadis embodies the mantra "improving quality of life" and reflects this in the communities where we and our clients operate. We continue to put this mantra at the heart of everything we do, having sustainability (including climate-related issues), built

into the client solutions we offer. Based on our experience and monitoring of the markets in which we operate, we expect that there will be significant changes to environmental regulations/standards that will impact Arcadis' clients and the services we provide for them. For example, we are seeing increased non-financial reporting (NFR) requirements in Europe and other parts of the world. We have been involved in the conversations with regulators regarding climate-related regulation, such as resilience, energy efficiency, etc. This can also include country-specific and global regulations, including climate change, air quality, carbon tax, cap & trade, emissions reporting, energy taxation. The opportunity for Arcadis to win client work by providing high quality advice due to our strong understanding of national and regional laws in these areas is significant.
With the increased realization that climate change issues are already costing and will cost society in the near future, more people decide to follow sustainability related education. Therefore, the pool of people with expertise in sustainability related topics is growing. If we have the right reputation in this regard and are an employer of choice, we have the potential to expand rapidly in these services as the market for these services grow.
One of the examples where we invest in sourcing great new sustainable talent is our participation to the University of Utrecht's Sustainable Career Events for over five years now.

Time horizon
Mid-term

Likelihood
About as likely as not

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes a single figure

Potential financial impact figure (currency)
5,600,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure
Environmental Business Line Revenue €800m. Assume 7% increase. EBITA (Earnings before interest, taxes, and amortization) margin 10%

Cost to realize opportunity
0

Strategy to realize opportunity and explanation of cost calculation

At this moment, our strategy to realize this opportunity is to leverage existing talent and leverage existing client relationships to win these projects, for which the cost is negligible. For our efficiency means, we are also strategic in ensuring that we integrate high-efficiency upgrades into needed upgrades, renovations, regular maintenance (e.g. lease signing), again indicating the cost is included in existing programs.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning?

Yes

C3.1a

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

Yes, qualitative and quantitative

C3.1b

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

Climate-related scenarios and models applied	Details
2DS	As part of the Arcadis enterprise risk management system, climate related risks are identified by both the Corporate Risk Team (CRT) and the SLT, and managed by the ELTS/CEO, GSD, and the SLT. Enterprise-wide risk is assessed through the ARC Framework where we have identified key risks across strategic, operational and compliance categories. To monitor and manage, we currently have over 20 ISO14001 certified EMS across Arcadis operations and will expand this globally. These existing systems run on an OpCo level but are communicated to local and global management in the Management Review. For our scenario analysis, we used elements from the 2DS data input (trends, historic performance, modeling) on Scope 1+2 (location-based) and Scope 3 data where it is available and reliable (e.g. business travel, regional employee commuting numbers); Arcadis also utilizes additional data input which we record in our current environmental data reporting system (aforementioned certified EMS and our work to implement this at a global level), our Scope 1 and 2 energy

	consumption and trends across our regions. Assumptions, in line with others in our industry, for on economic growth, consumer behavioral shifts, technological advancements, and potential regulations that may impact us were also used to inform our scenarios. Arcadis looks at mid (3-10 years) long-term (10+) potential impacts with respect to these assumptions. We set a goal for carbon neutrality by 2020 but still examine long-term periods (10+ years) for our reduction targets and goals to better align with our prescribed time horizons, as well as align better with the assumptions of low-carbon transition impacts. Based on an examination of our Scope 3 footprints, business travel remains the most significant footprint of the company and is often executed on behalf of our client work; we will examine in our strategy refresh for potential reduction opportunities which may include alternative transportation modes and methodology changes to account for selection of greener aviation companies. In terms of our Scope 1+2 absolute performance (100% of emissions for location-based), we examined the IPCC AR5 RCP2.6 scenario and compared it against our own performance. IPCC states that the minimum reduction requirement is 49% reduction by 2050 from a baseline of 2010, or a 1.23% year-on-year reduction. Based on an analysis of our own Scope 1+2 performance, we seek a yearly reduction of 4,2% for our Scope 1+2 emissions. In 2019, we decided to examine how a SBTi-approved target would work within our company with the evaluation currently in process. Through our 2D scenarios and influences from other parts of the organization have resulted in a dedication to improve on the quality of our global carbon footprint and reducing our impact which is something we have been working on for a couple of years. For example, in 2015 we have performed a scope 3 analysis in the Netherlands to determine our material emissions and their effects. This analysis is used to this day to guide our actions and reduce our impact. In 2019 we focused on our downstream scope 3 emissions and investigated in one of our current projects if recycling copper in overhead train lines indeed reduces the total CO_2 emissions. Based on this investigation we were able to conclude it is actually the case. In 2020 we will focus on further quantifying this initiative and expand this to other projects who use overhead train lines.

C3.1d

(C3.1d) 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	Based on analyses we have done for our ERM and EMS, we have concluded one of the biggest impacts we have as a company is in the solutions we deliver. Therefore, we are committed to make a difference and reduce environmental impacts, including climate-related impacts.

		As a design and engineering company with a focus on sustainability, climate adaptation, sustainability advisory, climate mitigation, health & safety, biodiversity, and compliance are six of the services we deliver that are the most heavily influenced by climate-related risks and opportunities. Large portions of the aforementioned services are centered around climate change and the associated risks (e.g. resilience which addresses climate adaptation focusses on reducing the risks of flooding and water scarcity, while the remaining solutions ensures that strategic advantages are captured and leveraged). Strategies for all our services/solutions are revised annually, the time horizon that is considered is both short and long term. Short term is captured in an action plan based on what we will be targeting the coming year. On the longer term, Arcadis plans, for example, how we need to develop our services to be able maintain market share. A great example of that is the addition of climate adaptation to our services a couple of years ago, as well as a shift in how we offer our solutions e.g. what materials we use in our designs (based on our impact on the environment).
Supply chain and/or value chain	Yes	Based on analyses we have done for our ERM and EMS, we have concluded that Arcadis has risks related to supply and value chain. The experience and implementation of EMS varies per OpCo with some of the OpCos with >10 years of experience, others certified in 2019. To ensure better consistency, Arcadis is currently developing a global baseline for an enterprise-wide EMS and will be relayed back into addressing risks and opportunities for supply chain and our overall value chain, such as our business travel related footprint which is for Scope 3 emissions. Arcadis currently assesses the Scope 3 footprint including impact in the value chain in which we operate and where we can reduce it and make a difference. Our most significant impacts are selected, and they will be added to the action plan to reduce climate-related risks and impacts (for example we are assessing the viability of a SBTi-approved Scope 3 target and what that target should be). This will follow the time horizon of the EMS (3-5 years based on local OpCo strategy time horizon). The climate related risks are part of this analysis since we are looking at our environmental impacts in the value chain. An example case study:.in Arcadis the Netherlands the results of the analysis showed we have a big impact in the way we design railroads. Therefore, we conducted a study to see how we

		could minimize this impact. Results of this study show how we can minimize our impacts and the strategic decision has been made this will be the new “normal” in our services. The impacts of this part of our organization our now structurally lower than they used to be.
Investment in R&D	No	Arcadis is not a company that produces products in the traditional sense, and we act as a brain trust for our clients, producing necessary design documents, documents and reports, presentations, and analysis. Therefore, R&D is considered not relevant for our company. Although we do use new technologies to supplement our work. Therefore, Arcadis has made significant investment in teams, business development, digital and innovation to drive innovation in the services we deliver.
Operations	Yes	Using Arcadis’ RMF and EMS, we have concluded that Arcadis has risks related to our operations, Based on the analyses we have done to determine the environmental impact of our operations we currently focus on our energy consumption (related to scope 1, 2 and 3-business travel). Since we are not a production facility and we mainly own or rent office space this is our most significant impact. We have set targets to minimize climate-related risks such as our plan to be carbon neutral by 2020. We report on these emissions annually in a variety of means, from CDP to Sustainalytics, and our Annual Report. Strategic decisions that have been and are being made to minimize these impacts is e.g. visible in the selection of new office spaces. For example, our flexible working arrangements has allowed us to maximize the occupancy and minimize the associated area and energy consumption through our Activity Based Work (ABW) program that introduced an open floor system and hot-desking for major offices. Arcadis also has a flexible working program introduced in most of our OpCos. Electrical cars have also added to the company owned cars of Arcadis and we look for ways to support people using public transportation. An example case study: in 2019 we also invested in biofuels for our flights which led to significantly reduced flight emissions. The time horizon is mid-term (e.g. 3-5 years), as there are emerging technologies we may need to latch on to when available at cost effective rates., and these measures will follow the EMS.

C3.1e

(C3.1e) 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	Acquisitions and divestments Assets	In 2019 we acquired Over Morgen in the Netherlands. Over Morgen was targeted to acquire based on the sustainable services they deliver of which energy transition and climate adaptation are just two examples. These services are an asset to our already existing services and an area in which we wish to expand.

C3.1f

(C3.1f) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

No additional comments to what has already been disclosed.

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

2012

Target coverage

Country/region

Scope(s) (or Scope 3 category)

Scope 1+2 (market-based)

Base year

2010

Covered emissions in base year (metric tons CO2e)
8,348

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
21

Target year
2020

Targeted reduction from base year (%)
30

Covered emissions in target year (metric tons CO2e) [auto-calculated]
5,843.6

Covered emissions in reporting year (metric tons CO2e)
2,905

% of target achieved [auto-calculated]
217.3374860246

Target status in reporting year
Achieved

Is this a science-based target?
Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

Please explain (including target coverage)
The Abs 1 target is set for our operations in the Netherlands. In 2015, the Netherlands achieved its 2012-2015 emissions reduction goals previously set and updated its goals to 2020 to reflect a longer term vision of continuous improvement (30% reduction compared against its 2010 baseline year for Scope 1 and 2 market based emissions). We consider this target as a science-based target as the operations has a yearly 2.72% reduction in Scope 1 and 2 (market-based emissions) which is more ambitious than the well-below 2D target for the absolute contraction for SBTi (2.5% yearly reduction). In 2016, Arcadis began assessing whether these rigorous goals aligned with science-based targets which is anticipated to continue into 2019.

To date, the Netherlands achieved its goal, -48.8% reduction compared against its 2010 baseline year. The number 48,8% is taking into account an increase of 12,1% in scope 3 emissions due to measures that have been taken. E.g. one of the measures taken is promoting working from home. This results in an increase of the electricity usage at home, which falls under Arcadis' scope 3 emissions. This means that even though there is a Netto reduction in scope 2, there is still an increase in scope 3 emissions (12,1%). These effects have been taken into account when calculating the overall reduction.

Target reference number
Abs 2

Year target was set
2019

Target coverage
Company-wide

Scope(s) (or Scope 3 category)
Scope 1+2 (location-based) +3 (upstream & downstream)

Base year
2008

Covered emissions in base year (metric tons CO2e)
88,931

Covered emissions in base year as % of total base year emissions in selected Scope(s) (or Scope 3 category)
100

Target year
2030

Targeted reduction from base year (%)
100

Covered emissions in target year (metric tons CO2e) [auto-calculated]
0

Covered emissions in reporting year (metric tons CO2e)
4,724

% of target achieved [auto-calculated]
94.6880165522

Target status in reporting year
Underway

Is this a science-based target?
No, but we are reporting another target that is science-based

Please explain (including target coverage)
In 2019, Arcadis set a zero-carbon goal by 2030. We have achieved this through purchase of high-quality carbon offset from the Netherlands and Singapore in 2019. In our CY, 2020 we will purchase offset for our entire operations.
We note that our main priority is to achieve reductions through energy efficiency, but remaining scope will be offset. Finally, we note that we are in the middle of working on a SBTi-approved target(s) for our Scope 1, 2 and potentially 3 emissions.

C4.2

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

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2014

Target coverage

Country/region

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Renewable fuel consumption

Percentage of total fuel consumption that is from renewable sources

Target denominator (intensity targets only)

Base year

2014

Figure or percentage in base year

42

Target year

2020

Figure or percentage in target year

100

Figure or percentage in reporting year

96.5

% of target achieved [auto-calculated]

93.9655172414

Target status in reporting year

Underway

Is this target part of an emissions target?

Abs1 and Abs2

Is this target part of an overarching initiative?

Other, please specify

Arcadis' Global 2030 Zero Carbon Initiative

Please explain (including target coverage)

Arcadis has set targets to purchase specific percentages of power from renewable sources. In recent years some European countries such as the Netherlands have been purchasing renewable energy. Green Power, as it is known in the Netherlands, provides power from wind energy with the Dutch environmental quality label for sustainable products and services (SMK). In 2014 this was approximately 42% of the total amount of electricity purchased. For 2020 the ambition is to consume 100% Green Power (with quality label) of which a portion will be self-generated.

In 2018, Arcadis Netherlands consumed 96.5% green electricity of which 6% was self-generated. The remaining 3.5% electricity is renewable (purchased by building management), however, it is considered "grey" by Dutch standards as it is not sourced from the Netherlands.

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	1	0
To be implemented*	11	61,231
Implementation commenced*	0	0
Implemented*	4	885
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

Transportation
Company fleet vehicle efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

270

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

165,000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

3-5 years

Comment

Arcadis owns a number of vehicles, approx. every 5 years these cars will be replaced. We aim to use this natural moment to exchange these cars for a more environmentally friendly model. Partly this goal is achieved by educating our employees on how they can reduce as much as possible, in addition we have added more environmentally friendly models to the list employees can select their cars from. In total this reduces approx. 8 tCO2e/ year.
Sharpening the existing requirements in order to apply for a company owned car (from a minimum of 15,000 km/ year to 17,500 hm/ year) has reduced our emissions with an additional 140 tCO2e/ year.
In addition, we have made electric cars available through the selection system (in 2015) and adjusted some of our guidelines. Due to the high investment of electric cars they were initially excluded based on price. Since they are on the selection menu, we reduce our footprint by approx. 91 tCO2e.
We also have cars available that can be used by the whole company. Therefore, reducing the need to either buy your own private car or take your car to the office because you have an appointment you can only reach by car. This reduces approx. 33,5 tCO2e/ year.

There was no material investment necessary for these measures because selecting a more environmentally friendly version of a car does not mean higher investment. All arcadians receive a budget they can spend on the car. The budget with an electrical car is higher because we can pay less tax.

Initiative category & Initiative type

Low-carbon energy consumption

Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)

265

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

0

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

0

Payback period

<1 year

Estimated lifetime of the initiative

6-10 years

Comment

In 2019 Arcadis has purchased green electricity in a number of locations (Belgium, France, Netherlands and Brazil), this specific target was set in the Netherlands and saved approx. 265 tCO2e in 2019 opposed to the regular grey electricity.
Currently 90,3% of the electricity purchased in the Netherlands is certified green electricity.

Initiative category & Initiative type

Low-carbon energy generation

Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)

0

Scope(s)

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

5,800

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

30,000

Payback period

4-10 years

Estimated lifetime of the initiative

11-15 years

Comment

In 2018 Solar panels were placed on the roof of one of our offices (we have solar panels on more office roofs, those measures have already been accounted for in prior submissions). We were able to generate 26.590 kWh in 2019 through these panels. The Estimated annual CO2e savings is estimated to be 0 because if we would not have solar panels, we would purchase green electricity, which has the same conversion factor for CO2e. In case we would not purchase green electricity the reduction in CO2e emissions would have been ~17 tCO2e/ year.

Initiative category & Initiative type

Transportation

Business travel policy

Estimated annual CO2e savings (metric tonnes CO2e)

350

Scope(s)

Scope 3

Voluntary/Mandatory

Voluntary

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

0

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

50,000

Payback period

No payback

Estimated lifetime of the initiative

3-5 years

Comment

The travel policy regarding business flights has been changed, travel below 700 km that can be done by train will be booked as train travel by default. The reduction in CO2e emissions caused by this measure is estimated to be ~110 tCO2e.
In addition Arcadis has invested in a biofuel program with KLM (through SkyNRG). In 2019 we bought 102,6 tons of biofuel, this equals a reduction of ~240 tCO2e.

C4.3c

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

Method	Comment
Internal incentives/recognition programs	
Employee engagement	
Dedicated budget for energy efficiency	
Compliance with regulatory requirements/standards	
Dedicated budget for other emissions reduction activities	

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Group of products

Description of product/Group of products

Arcadis provides a variety of engineering and design services for our clients to help them “improve quality of life”. We have worked to solve some of the biggest issues facing our world, such as sustainability, urbanization, and climate change. Often the solutions enable our clients' GHG emissions to be reduced or address the physical risks associated with climate-related issues and ensure they meet regulatory requirements. Experts in our Water Business Line focus on providing the most energy-efficient systems to our clients, with savings often documented as a comparison to Business as Usual scenarios. An example of this was with our work with a manufactory company on a production facility in the Guanajuato region of Mexico, an area with considerable water stress. In line with the company’s commitment to reduce water use across its operations by 15% by 2020, the company needed innovative solutions to conserve water, making the vicinity more sustainable and less vulnerable to the chronic stress of water scarcity.

Arcadis conducted an audit to understand how water was being used and developed designs that optimized and upgraded the on-site wastewater treatment plant with new technology through our Water Kaizen program. As a result, the facility now uses around 329 million liters less water annually. This effort has enhanced this facility's resilience and improved quality of life for the community.
In our Environment Business Line, we assist clients in developing climate strategies and inventories for quantifying and addressing emission sources. In many cases, this involves switching to cleaner sources of energy and improving the efficiency of industrial processes.
In our Buildings Business Line, we provide our clients with energy efficiency expertise and Sustainable Design of Buildings in recognition of LEED and other sustainable design concepts. Providing renewable energy expertise and design services has helped clients move to more sustainable energy sources for their processes.
At present, Arcadis quantifies avoided emissions as warranted by specific projects. We note that our services do not necessarily fit the CDP taxonomy for low-carbon products and services as these are geared toward single-type services or financial offerings. Arcadis does not produce any physical goods, although our work may be applied to making our clients' products more sustainable.

Are these low-carbon product(s) or do they enable avoided emissions?

Low-carbon product and avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Arcadis does not provide the services that are applicable to the taxonomy, project or methodology used to classify products, some of these projects and services may conform with standards listed by CDP.

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

10

Comment

Revenue from low carbon products in the reporting year is estimated to be less than 10%.

C5. Emissions methodology

C5.1

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

Scope 1

Base year start

January 1, 2008

Base year end

December 31, 2008

Base year emissions (metric tons CO2e)

20,158

Comment

Arcadis captures its impacts from all operations, or OpCos, using on the GHG Protocol Corporate Standard and ISO 14064. Relevant calculations such as GWP use AR5 are used to determine the CO2e.
This is applicable to Abs 2 target.

Scope 2 (location-based)

Base year start

January 1, 2008

Base year end

December 31, 2008

Base year emissions (metric tons CO2e)

33,419

Comment

Arcadis captures its impacts from all operations, or OpCos, using on the GHG Protocol Corporate Standard and ISO 14064. To develop the Scope 2 location based CO2e footprint, we used the prevailing regional emissions factors from national governments (e.g. US EPA), or in the absence, IEA. In CY2008, we did not have access to any supplier specific emissions factors, residual mix numbers which is why the Scope 2 location and market-based numbers are the same.
This is applicable to Abs 2 target.

Scope 2 (market-based)

Base year start

January 1, 2008

Base year end

December 31, 2008

Base year emissions (metric tons CO2e)

33,419

Comment

Arcadis captures its impacts from all operations, or OpCos, using on the GHG Protocol Corporate Standard and ISO 14064. To develop the Scope 2 market based CO2e footprint, we used the prevailing regional emissions factors from national governments (e.g. US EPA), or in the absence, IEA. In CY2008, we did not have access to any supplier specific emissions factors, residual mix numbers which is why the Scope 2 location and market-based numbers are the same.
This is applicable to Abs 2 target.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

ISO 14064-1

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

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)

10,583

Start date

January 1, 2019

End date

December 31, 2019

Comment

Arcadis updated our reporting systems we have changed our Natural gas consumption reporting from reporting these emissions under scope 3 to reporting these emissions under scope 1, which was mis-classified. Natural gas consumption, compared to our total calculated CO2 emissions, accounts for less than 2%. It accounts ~10% of our scope 1 emissions.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

11,090

Start date

January 1, 2018

End date

December 31, 2018

Comment

Past year 2

Gross global Scope 1 emissions (metric tons CO2e)
12,164

Start date
January 1, 2017

End date
December 31, 2017

Comment

Past year 3

Gross global Scope 1 emissions (metric tons CO2e)
13,478

Start date
January 1, 2016

End date
December 31, 2016

Comment

C6.2

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

Row 1

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

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

Comment

C6.3

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

Reporting year

Scope 2, location-based
14,901

Scope 2, market-based (if applicable)

13,324

Start date

January 1, 2019

End date

December 31, 2019

Comment

Past year 1

Scope 2, location-based

22,819

Scope 2, market-based (if applicable)

21,388

Start date

January 1, 2018

End date

December 31, 2018

Comment

Past year 2

Scope 2, location-based

22,435

Scope 2, market-based (if applicable)

21,004

Start date

January 1, 2017

End date

December 31, 2017

Comment

Past year 3

Scope 2, location-based

21,653

Scope 2, market-based (if applicable)

20,929

Start date

January 1, 2016

End date

December 31, 2016

Comment

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?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

Emissions from portions of Viet Nam (business travel) and Slovakia (electricity) and completely, Italy, Peru, Turkey and Switzerland

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

We do not consider this relevant as it is less than 1% of our total estimated footprint. We are missing leased vehicles information for Viet Nam and also lack quality data for Italy, Peru, Turkey and Switzerland, however, the entirety of this accounts for less than 1% of our total estimated footprint.

Source

CH4 and N2O vehicle emission in select countries

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions excluded

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions excluded

Explain why this source is excluded

We do not consider this relevant as leased vehicle CH4 and N2O emissions are estimated to be less than 1% of the total emissions.

Source

Miscellaneous office equipment (refrigerators and fire extinguishers)

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

No emissions from this source

Relevance of market-based Scope 2 emissions from this source (if applicable)

No emissions excluded

Explain why this source is excluded

We do not consider this relevant as this is less than 1% of our emissions. Emissions from office equipment (CO2e and HFCs) are estimated to be less than 1% of the total emissions.

Source

Steam and cooling from select offices

Relevance of Scope 1 emissions from this source

No emissions excluded

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

We all of our steam and cooling data is reported in Scope 1 or 2 emissions. Inquiries indicated that all our offices utilize electricity, natural gas, and/or fuel oil for heating and cooling.

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
Not relevant, explanation provided

Please explain
In 2015, we have performed a materiality of our entire value chain scope 3 sources for our Dutch OpCo. Examples of a few upstream emissions that were analyzed are: purchases of goods and services, capital goods, upstream transportation, and distribution, downstream we analyzed usage of our sold product (reports), end-of-life of sold products, investments, etc.
Based on that analysis, our supplier purchases are material to Arcadis but the usage is limited. Our main purchase for goods and service is that of office paper. The usage of paper is considered immaterial as it was calculated to be less than 1% emission of our total footprint.
Arcadis' other OpCos have similar usage patterns, and therefore the results of this analyses can be extrapolated to other regions of Arcadis as the type of service we deliver is very similar.

Capital goods

Evaluation status
Not relevant, explanation provided

Please explain
In 2015, we have performed a materiality of our entire value chain scope 3 sources for our Dutch OpCo. The purchase of capital goods for Arcadis Netherlands, and other regions is negligible as we often lease our office space.
Based on that analysis our capital goods were considered immaterial. The results of this analyses can be extrapolated to other regions of Arcadis as the type of service we deliver is very similar.

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
80

Emissions calculation methodology
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) and WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
60

Please explain

Some leased buildings use additional fuel oil for heating. Associated emissions have been included in Scope 3.

Upstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Arcadis is a company that provides design and consultancy services rather than products. As such, our upstream transportation and distribution Scope 3 is considered not relevant and would account for 0-1% of total emissions.

Waste generated in operations

Evaluation status

Not relevant, explanation provided

Please explain

Arcadis is a company that provides design and consultancy services rather than products. Analysis of our operational waste profile indicated that our main waste produced is paper. We track our paper usage in most of our regions and previously calculated the percentage, by region, of this Scope 3. In each of the regions it was less than 1% of our total regional emissions. As such, our waste generated in operations Scope 3 is considered not relevant and would account for 0-1% of total emissions.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO2e

36,045

Emissions calculation methodology

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) and WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

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

80

Please explain

Arcadis includes emissions associated with business travel from rental cars, reimbursed personal vehicles, air travel, and the use of public transportation in its Scope 3 emission calculations.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO2e

8,000

Emissions calculation methodology

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition) and WBCSD Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

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

10

Please explain

Arcadis considers employee-commuting related Scope 3 emissions relevant. We have estimated a portion of our employee reported data available (provided). We see there is room for improvement and are looking into means to report this information globally. Part of these measures are being incorporated into our global EMS that will help collect more specific and consistent data on commuter travel.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Arcadis does not have any upstream leased assets, therefore this scope 3 source is not relevant to our operations.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Arcadis is a company that provides design and consultancy services rather than products. As such, our downstream transportation and distribution Scope 3 is considered not relevant and would account for 0-1% of total emissions.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Arcadis is a company that provides design and consultancy services rather than products (including intermediary products). As such, our processing of sold products Scope 3 is considered not relevant and would account for 0-1% of total emissions.

Use of sold products

Evaluation status
Not relevant, explanation provided

Please explain
Arcadis is a company that provides design and consultancy services rather than products. As such, our use of products sold Scope 3 is considered not relevant and would account for 0-1% of total emissions.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Please explain
Arcadis is a company that provides design and consultancy services rather than products. As such, our end-of-life treatment of sold products Scope 3 is considered not relevant and would account for 0-1% of total emissions.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Please explain
Arcadis does not own any assets and therefore does not have any downstream leased assets, therefore this scope 3 source is not relevant to our operations.

Franchises

Evaluation status
Not relevant, explanation provided

Please explain
All subsidiary companies (e.g. Calliston RTKL) are reported within our Scope 1 and 2 emissions, we do not have any franchises.

Investments

Evaluation status
Not relevant, explanation provided

Please explain
Arcadis does not have an investment portfolio. This scope 3 source is not relevant.

Other (upstream)

Evaluation status
Not relevant, explanation provided

Please explain
All emissions considered in our scope 3 analyses have been reported.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

All emissions considered in our scope 3 analyses have been reported.

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

0.000006885

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

23,907

Metric denominator

unit total revenue

Metric denominator: Unit total

3,473,000,000

Scope 2 figure used

Market-based

% change from previous year

25

Direction of change

Decreased

Reason for change

Some of the decrease is caused by improved measurement of our data reporting systems, but much of it is due to several measures to reduce our Scope 1& 2 emissions (in total ~540 tCO2e), such as:

- Instituted more stringent requirements in order to apply for a company-owned car has reduced our emissions with an additional 140 tCO2e/year from our Scope 1 footprint.

-Exchanging company-owned vehicles for more environmentally-friendly models (e.g. fuel efficiency standards). We use behavioral change drive employee awareness/education on how they can reduce as much as possible and adding more environmentally friendly models to the list employees can select their cars from. In total this measure reduces approx. 8 tCO2e/ year from our Scope 1 footprint.
- Electric cars available through the company owned selection system since 2015, but due to the high investment of electric cars they were initially excluded based on price. Having electric cars available reduced our footprint by approx. 91 tCO2e in 2019.
- Providing low-carbon company owned cars for use by all employees. Therefore, reducing the need to either buy a private car or take your car to the office because you have a follow-up appointment you can only reach by car. By offering this car we reduce approx. 33,5 tCO2e/ year.
- The purchase of green electricity saved approx. 265 tCO2e in 2019 opposed to the regular grey electricity.

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	10,533	IPCC Second Assessment Report (SAR - 100 year)
CH4	12	IPCC Second Assessment Report (SAR - 100 year)
N2O	38	IPCC Second Assessment Report (SAR - 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)
Australia	0
Belgium	1.527
Bahrain	0

Brazil	239
Chile	0
China	57
China, Hong Kong Special Administrative Region	0
China, Macao Special Administrative Region	0
Czechia	110
France	200
Germany	191
India	47
Malaysia	6
Netherlands	2,774
Oman	21
Philippines	5
Poland	180
Qatar	35
Romania	1
Singapore	0
Slovakia	40
Spain	26
Saudi Arabia	40
Thailand	1
United Arab Emirates	142
United Kingdom of Great Britain and Northern Ireland	282
United States of America [1]	4.655
Viet Nam	3

[1] Includes data from Canada and Puerto Rico

C7.3

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

By business division

By activity

C7.3a

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

Business division	Scope 1 emissions (metric ton CO2e)
Asia	118
Australia	0
Europe	5,332
Latin America	239
Middle East	238
North America (incl Canada and Puerto Rico)	4.655
CRTKL	0

C7.3c

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

Activity	Scope 1 emissions (metric tons CO2e)
Leased vehicle travel for business purposes (incl. incidental car hire)	9,446
Leased vehicle travel for office commuting and personal reasons	53
Natural gas consumption	1,083

C7.5

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

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Australia	454	454		
Belgium	16	16		
Bahrain	38	38		
Brazil	356	356		
Chile	309	309		
China	519	519		
China, Hong Kong Special Administrative Region	270	270		

China, Macao Special Administrative Region	22	22		
Czechia	27	27		
France	6	6		
Germany	35	35		
India	554	554		
Malaysia	297	297		
Netherlands	1,739	162		1,577
Oman	11	11		
Philippines	734	734		
Poland	90	90		
Qatar	261	261		
Romania	80	80		
Singapore	82	82		
Slovakia	0	0		
Spain	24	24		
Saudi Arabia	25	25		
Thailand	39	39		
United Arab Emirates	102	102		
United Kingdom of Great Britain and Northern Ireland	766	766		
United States of America	6.109	6.109		
Viet Nam	25	25		

C7.6

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

By business division
By activity

C7.6a

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

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Asia	3,542	3,542
Australia	454	454
Europe	2,784	1,207
Latin America	665	665
Middle East	437	437
North America (incl Canada and Puerto Rico)	6.109	6,109
CallisonRTKL, this data is not disclosed in one of the specific countries as CRTKL is located across all the different regions	1.909	1,909

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)
Electricity consumption	14,867	13,290
Purchased and generated heat	34	34

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	265	Decreased	3	To calculate the effect of the purchase of green electricity we have used the following assumptions/ measured data: CO2e emission factor consumption normal electricity: 649 gCO2e/ kWh CO2e emission factor consumption green

				electricity: 0 gCO2e/ kWh Purchase of green electricity in 2019: 2,228,325 kWh Reduction 2019: (649-0)*2,228,325/1,000,000 = -1,446.2 tCO2e Calculated reduction 2018: -1,179.9 tCO2e Reduction: -1,179.9-1,446.2 = -266.3 tCO2e
Other emissions reduction activities	270	Decreased	3	Several measures have led to a decrease of our emissions. We have: - Arcadis owns a number of vehicles, approx. every 5 years these cars will be replaced. We use this natural moment to exchange these cars for a more env. friendly model. Partly this goal is achieved by educating our employees on how they can reduce as much as possible, in addition we have added more env. friendly models to the list employees can select their cars from. In order to calculate the effect, we have used the following assumptions: Emission per liter in 2019: 3.049,33 gCO2e/ liter Emission per liter in 2018: 3.115,64 gCO2e/ liter Improved: 3.049,33-3.115,64 = -66,3 gCO2e/ liter Assumption, 75% of reduction can be calculated to measure: -66,3*75% = -49,73 gCO2e/ liter Used liters in 2019: 847.611 liter Reduction: 847.611*-49,73 = -42,15 tCO2e/ 5 (cars will be deducted in 5 years) = 8,43 tCO2e - Sharpening the excisting requirements in order to apply for a company owned car (from a minimum of 15,000 km/ year to 17,500 hm/ year).

				In order to calculate the effect, we have used the following assumptions: Percentage of lease cars per FTE in 2018: 35.49% FTE in 2019: 1,954 Amount leasecars would percentage be the same in 2019: 693.45 Actual leasecars 2019: 655 Reduced leasecars due to measure: 693.45-655 = 38.45 Assumption, 75% of reduction can be calculated to measure: 38.45 * 75% = 28.84 leasecars less because of measure. Emission per leasecar in 2019: 4.85 tCO2e/ year Reduction: 28.84*4.85 = -139,91 tCO2e - In addition, we have made electric cars available for employees. Due to the high investment of electric cars they were initially excluded based on price. In order to calculate the effect we have used the following assumptions: Driven km/ electrical car: 853.386 km (measured) Difference in CO2e emission electric versus “normal” -107 gCO2e/km (based on own car consumption) Reduction: -107*853.386/1.000.000 = -91 tCO2e - We also have low carbon cars available that can be used by the whole company. In order to calculate the effect, we have used the following assumptions: Consumption 2019: 11,401.46 liters Km’s driven 2019: 271,463.33 km Average usage low carbon car: 0,042 l/km - 95 gCO2e/km Average usage standard car: 0,07 l/km – 220 gCO2e/ km Reduction: 271,463.33 * (220- 95)/ 1,000,000 = 33.93 tCO2e

Divestment				
Acquisitions				
Mergers				
Change in output	3,340	Decreased		In 2019 Arcadis has spent a lot of effort increasing the quality of our measured data. This has resulted in better insight and quality of our data. Where we used to make assumptions based on worst case scenario's we now have measured data. We have estimated this has led to a further decrease of ~10% of our total emissions in 2019. 33,406.2 * 10% = 3,340 tCO2.
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified	4,800	Decreased		Due to all the changes in measurement we were not able to identify this portion of the decrease. This is approx. 12% of the total decrease shown opposed to 2018. There is a whole bunch of "influence" factors that could have caused this decline, to name a few: - climate change, we have noticed that due to the heating of the earth winters in some parts of the globe are no longer as cold. this leads to less consumption used for heating. - we have been investing in greener (e.g. in France) buildings for some of our locations. Even though we were unable to specifically quantify these measures they have an effect on our overall emissions. - in some cases the simple act of changing CO2e conversion factors has had an effect. Arcadis uses a baseline of max. 10%

				unidentified changes compared to the previous reporting year. This is also captured in our EMS. Next year we will set 2019 as the new, global, baseline. There will be a system in place to make sure our unidentified change in emissions will stay below 10%.
Other				

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	Yes
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	Yes
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)	Unable to confirm heating value	0	37,657.76	37,657.76
Consumption of purchased or acquired electricity		3,625.77	22,965.76	26,591.53
Consumption of purchased or acquired heat		70.39	599.52	669.91
Consumption of purchased or acquired cooling		83.99	0	83.99
Consumption of self-generated non-fuel renewable energy		152.27	0	152.27
Total energy consumption		3,932.42	61,223.04	65,155.46

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	No
Consumption of fuel for the generation of heat	No
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.

Fuels (excluding feedstocks)
Diesel

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
26,469.4

Emission factor
3,230

Unit
metric tCO2e per liter

Emissions factor source
The emission factor we use to calculate CO2e/ fte for the consumption of ethylene is location based. The mentioned Emission factor is used in our Dutch operations.

Comment

Fuels (excluding feedstocks)
Petrol

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
7,036.82

Emission factor
2,740

Unit
metric tons CO2e per liter

Emissions factor source
The emission factor we use to calculate CO2e/ fte for the consumption of ethylene is location based. The mentioned Emission factor is used in our Dutch operations.

Comment

Fuels (excluding feedstocks)
Liquefied Petroleum Gas (LPG)

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
0.26

Emission factor
1,806

Unit
metric tons CO2e per liter

Emissions factor source
The emission factor we use to calculate CO2e/ fte for the consumption of ethylene is location based. The mentioned Emission factor is used in our Dutch operations.

Comment

Fuels (excluding feedstocks)
Ethylene

Heating value
Unable to confirm heating value

Total fuel MWh consumed by the organization
714.66

Emission factor
1,083

Unit
metric tons CO2e per liter

Emissions factor source
The emission factor we use to calculate CO2e/ fte for the consumption of ethylene is location based. The mentioned Emission factor is used in our Brazil operations.

Comment

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	152.27	152.27	152.27	152.27
Heat	324	324	324	324
Steam	0	0	0	0
Cooling	437	437	437	437

C8.2e

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

Sourcing method

Unbundled energy attribute certificates, Guarantees of Origin

Low-carbon technology type

Wind

Country/region of consumption of low-carbon electricity, heat, steam or cooling

Netherlands

MWh consumed accounted for at a zero emission factor

2,429.58

Comment

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	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

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

Energy efficiency: households

Project identification

Our Dutch operations has been offsetting total Scope 1, 2 and 3 (business travel) emissions since 2015. Besides having an aggressive reduction target to minimize their impact on the environment via efficiency measures and stakeholder engagement means, the remaining CO2e emissions are offset by investing in a Gold Standard certified cookstoves project from FairClimateFund.

Annually, the Dutch operations invests in ~7,000 cookstoves, which helps 3,500 families on the countryside of India. Cookstoves are designed to replace the open fires that use wood (thus contributing to CO2e emissions, particular matter generation and other air quality problems) and they allow families to cook their dinners in a cleaner, more efficient way. Besides the advantages in saving energy the project also supports local employment since these ovens are fabricated and serviced locally. The program documents the offsets from this transition.

The above mentioned is one of the projects we have invested in in 2019. We have additional carbon offset programs in other countries, such as. Belgium (energy efficient ovens) and Singapore (forest protection). Currently, these offset programs are all initiated locally. As of 2020, Arcadis will run a global offsetting program and offset our global emissions using a diverse portfolio of six projects from all around the globe to meet our carbon neutrality target.

Verified to which standard

Gold Standard

Number of credits (metric tonnes CO2e)

4,697

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

4,697

Credits cancelled

Yes

Purpose, e.g. compliance

Voluntary Offsetting

C11.3

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

Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Change internal behavior
Drive energy efficiency
Supplier engagement

GHG Scope

Scope 1
Scope 2
Scope 3

Application

Arcadis has an internal carbon price to help drive energy efficiency and change management, even our static price of €13 has been helpful in forward-thinking strategies. This program is primarily used as an internal planning tool to decision-making at the regional or project-level. For example, our emissions related to Scope 3 business travel is generally our most substantial carbon contribution, such flights may be subject to carbon pricing and taxation/cap-and-trade, particularly in Europe where such legislation is already in place. This price may be reflected in our related business costs, the use of the internal carbon price has helped us justify programs such as use of sustainable bio-fuels for air travel where it exists, e.g. our Dutch operations and HQ use KLM a member of SkyNRG. We anticipate these forward-thinking companies to be more resistant to price volatility and shocks. Arcadis will roll out such programs where they are available and make sense from a cost perspective.

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

13

Variance of price(s) used

Static for planning purposes at this time

Type of internal carbon price

Shadow price
Offsets

Impact & implication

Arcadis has an internal carbon price to help drive energy efficiency and change management. This program is primarily used as an internal planning tool to decision-making at the regional or project-level. For example, our emissions related to Scope 3 business travel is generally our most substantial carbon contribution, such flights may be subject to carbon pricing and taxation/cap-and-trade, particularly in Europe where such legislation is already in place. This price may be reflected in our related business costs, the use of the internal carbon price has helped us justify transitional programs such as use of sustainable bio-fuels for air travel where it exists, e.g. our Dutch operations use KLM a member of SkyNRG. We anticipate these forward-thinking companies to be more resistant to price volatility and shocks. Arcadis will roll out such programs where they are available and make sense from a cost perspective.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

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

10

% total procurement spend (direct and indirect)

5

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

65

Rationale for the coverage of your engagement

Arcadis' engagement with suppliers is prioritized based on our largest emitting activities, particularly with respect to our entire emissions footprint. With respect to our Scope 3 footprint and overall carbon footprint, one of our largest sources of emissions is business travel-related (75% of our total reported CO2 footprint, including scope 3 emissions). By far the biggest portion, approx. half, of this is caused by our business flights.

Although the number suppliers is relatively low, the impact is high and as a result we collect information to determine the contribution of supplier-related emissions. Data is collected regularly and Arcadis processes this information on at least an annual basis for our yearly reporting efforts. As a case study, we collect information from our travel service providers (e.g. Concur) for our business-related travel, which makes up 75% of our total GHG footprint. We have also used our information collection help win projects through engagement campaigns.

Impact of engagement, including measures of success

As Arcadis has improved its data collection process, we will also make strides in reducing our supplier-related emissions. Business-related travel does represent a large portion of our entire value chain GHG emissions, and as a company focused on "improving quality of life" and dedicated to sustainability, we are taking strides in reducing our impacts here, namely through obtaining data, but changing our purchasing options (and regional policies, where possible) with respect to Scope 3 emissions.

Our Dutch operations and headquarters in Amsterdam have, since 2017, been investing in purchasing sustainable aviation fuel from available KLM flights. [in total we purchased 102,6 megaton biofuel in 2019, realizing a reduction of 242 tCO2e on our footprint]. By making this investment we stimulate the development of this relatively new type of low carbon aviation fuel. SkyNRG needs these investments in order to further expand their production and the development of (new) techniques. Arcadis sees this as a growing trend for the airlines industry (for example Delta and JetBlue have both announced intentions to shift toward biofuels in 2020 prior to the coronavirus pandemic; the timeline may be impacted but we do expect that we will have preferred airlines) and is expected to leverage these technologies and companies when then become available in other countries and regions as a means to reduce our Scope 3 – business travel footprint.

Arcadis measures success for these impacts through the reduction in our own Scope 3 footprint, and as part of our global EMS deployment are considering an approved-SBTi target, which will need to include Scope 3 target(s), as it is over 40% of our overall GHG footprint. We are currently evaluating the long- and short-term target, however we have examples where we deem success.

Comment

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

100

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

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

Our clients/customers are essential to our operations and throughout our work on projects with them, we pursue our passion for “improving quality of life”. Outreach to our existing and potential new customers- particularly on our climate-related services offerings- is a key part of our growth strategy. Arcadis embraces sustainability in our operations as well as our products & services. We support clients in understanding and addressing their climate-related physical risks; for example, we help them establish strategies for achieving climate-related targets, provide GHG inventory assistance and develop climate action plans. As this is one of our core services offerings, we create several marketing campaigns each year to highlight some these services and exemplary projects. These campaigns are public and involve social media exposure and coverage in conference circuits. As a result, we believe this to have a 100% exposure to customers. An example of a relevant campaign we executed in 2019 was our Business Case for Resilience white paper which deals with physical risks for climate-related issues that our clients may face. Using the definition from 100 Resilient Cities (100RC) we demonstrated how our clients can make the case for resilience, providing case studies from the public (e.g. New Orleans post-Hurricane Katrina) and private sectors (e.g. addressing water usage in a water scarce region of Mexico).

Impact of engagement, including measures of success

This engagement helps us demonstrate our thought leadership capabilities to win new work and new clients. While we could see substantial Scope 3 downstream impacts from these projects, there is no clear methodology for documenting both the carbon saved and produced from our projects. The closest proxy would be the discussions around quantifying carbon in investor portfolios, but there was no clear consensus on methodology at the time of writing. As such, we will continue to monitor this space, although discussions on project measurements have been on-going for a number of years.

We have two means through which we may measure success. The first is through the project itself and the methodology of determining success will vary from project to project. For example, Arcadis, in our work with a manufactory company in a water-scarce area of Mexico, expects a savings of 329 million liters of water on an annual basis. The second is more specific in terms of the impact of the engagement. Arcadis measures campaign success through a variety of digital interactions: social media interactions (e.g. mentions, re-posts, comments, etc.), download of reports, page views and time spent on campaign pages).

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers
Trade associations
Funding research organizations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution

Adaptation or resilience	Support	Arcadis works directly with local, state, and national governments providing design and consultancy expertise as it relates to climate adaption resiliency. Work and guidance provided by Arcadis contributes to the development of sound policy as it relates to climate change and other environmental issues. We may provide insight into solutions and better analysis that needs to be undertaken to achieve maximum mid- and long-term impacts. As a case study, in the Netherlands Arcadis has supported a Governmental Agency for over 20 years with collecting non-financial (energy related) consumption data in several different sector (schools, industry, wastewater treatment plants, etc.). For this program we have developed standardized measure calculation sheets, to calculate short and mid- term impact. This has helped many companies make substantiated decisions on what reduction measures to invest in.	Arcadis supports sound climate change adaptation policies that reflect social, environmental, and economic conditions of the area. As experts, we may also provide technical expertise for policy-makers on adaption and resilience to ensure mitigating the impacts of climate-related risks for their communities.

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

World Business Council for Sustainable Development (WBCSD)

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association’s position

WBCSD is proactive on business' role and impact on climate change and are involved with getting companies committed to reducing environmental impacts. The organization is involved in a number of key processes and dialogues around the world, particularly the United Nations Framework Convention on Climate Change (UNFCCC). The WBCSD has been present at the annual Convention of Parties (COP) since 1995 and has a leading business role at COP15 in Copenhagen in 2009. Climate change can only be resolved through cooperation that includes all elements of society, in particular between governments and business. A new global climate agreement will be essential to establishing the right framework conditions that will deliver long-term, large scale greenhouse gas (GHG) reductions. WBCSD's recommendations are based on the view that it is essential that a new international agreement on climate change is agreed in 2010 to provide a framework for climate legislation and action that offers clarity, predictability and a level-playing field for business. This should include:

• A global target (cap) on emissions by 2050 and pathways to get there;
• Developed country commitments to deep emissions reductions and emissions reduction plans for developing countries;
• Establishing a framework that provides strong incentives for the development and deployment of the clean technologies that will be necessary to enable the world to move towards a low carbon economy;
• Policy measures to promote technology innovation and diffusion;
• A framework to help accelerate clean technology diffusion in developing countries;
• A signal that the carbon markets will continue beyond 2012, and that a global carbon market with a price on carbon will be established;
• Adaptation funding
• Support for reducing emissions for deforestation and forest degradation - REDD.
WBCSD believes tackling climate change requires an integrated approach that addresses the issues of competitiveness and economic sustainability, energy security, the environment and development, as well as adaptive capacity for inevitable climate impacts.

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

In 2014, Arcadis joined the WBSCD. Together with its members, the council applies its respected thought leadership and effective advocacy to generate constructive solutions and take shared action. The council is made up of 192 global firms and acts as the voice of business in several bodies (e.g. UN Climate Summit, Sustainability Development Goals). Arcadis was formally admitted into the WBCSD on the 9th of April 2014. Since then it has become actively involved in the following workstreams: Water Cluster, Zero Emission Cities Sector Project, Ecosystem & Landscape Management Cluster, and Redefining Value Cross Cutting Project / Natural Capital Protocol. In November 2014, our then global CEO participated in the WBSCD Council Meeting in Atlanta, in the United States, where WBSCD members focused on Redefining Value (moving from financial to natural and social capital) and 'Business Setting the Pace'. In 2015, Arcadis joined global world leaders at the COP in Paris, where our global CEO joined a panel discussion Chaired by UN-Habitat on 'The City We Need'. The purpose of the event was to engage the private sector on cities and climate change. During the event, business and city leaders alike expressed their commitment to solving urban sustainability challenges in advance of the forthcoming United Nations Conference of Housing and Sustainable Urban Development (Habitat III).

In 2017 Peter Oosterveer was appointed as CEO and Chairman of the Arcadis Executive Board, and took over responsibilities at WBCSD and had joined several council meetings in 2018 and 2019. In 2019, we expanded our position with Peter joining the Executive Committee of WBCSD.

C12.3d

(C12.3d) Do you publicly disclose a list of all research organizations that you fund?

No

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Arcadis is a company that is concerned with "improving quality of life" and sustainability is integrated into our core values and pillars, and services offerings. We also have a robust risk and opportunity identification and management system that also extends to our business offerings and clients via the Arcadis Way. When engaging with organizations, research organizations, and policy makers, Arcadis reflects on its Business Control Framework to ensure our activities and outreach are consistent with our Mission, Vision, Values, and overall strategy, including that of climate change. This Framework is used globally by all our OpCos.

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

Arcadis Integrated Annual Report 2019.pdf

Page/Section reference

Governance: throughout the document (specific chapter starts pg. 136)
Strategy: throughout the document (specific chapter starts pg. 31)
Risks & opportunities: throughout the document (specific chapter risk management

starts pg. 147)
Emission figures: Chapter Performance & developments, Innovation & Growth (pg. 63) and specifically pg. 76
Other metrics: throughout the document (for example SkyNRG, pg. 29)

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment

Publication

In voluntary communications

Status

Complete

Attach the document

Page/Section reference

Our commitment to sustainability is documented on our website (https://www.arcadis.com/en/global/pages/sustainability/).

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Other metrics

Comment

C15. 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.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1		

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

With climate change accelerating, sustainability is recognized as one of today's most critical global issues. Organizations have realized the importance of supporting activities to benefit the world's environmental, economic, and social well-being in a balanced way rather than contributing to one at the expense of the others. Companies that track sustainable performance as a core business process are not only having a positive effect on the world, but also tend to face positive results against their bottom line and longevity.

Arcadis is a global leader in design & consultancy. Our passion is to "improve quality of life" and we are recognized as a leader for our capabilities creating exceptional and sustainable outcomes for our clients in natural and built asset environments. We support our clients solve some of the biggest issues facing our world – such as sustainability, urbanization, asset productivity, resource scarcity, and climate change. We do that by delivering comprehensive solutions that create social, environmental, and economic value for our clients and the communities in which we live and work. Arcadis sees potential climate-related impacts through two means, 1) the work and projects we execute on behalf of our clients.
and 2) our internal operational and sustainability programs.

Some of our clients are interested in their own environmental impact in the value chain. To this end and to credibly demonstrate our progress for interested clients, Arcadis quantifies and discloses the impacts its business-related activities have on carbon footprint. We continue to refine our inventory and gain robust perspectives on how our actions impact our other supply chain members, amongst which our clients. Through innovation and collaboration, we seek to identify opportunities to reduce our emissions with clients that are mutually beneficial to Arcadis, our clients, and our impact on society and the environment.

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	3,473,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	NL	0006237562

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Bank of America

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0.26

Uncertainty (±%)

10

Major sources of emissions

Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member

Bank of America

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0.33

Uncertainty (±%)

10

Major sources of emissions

Electricity consumption and cold and heating for our buildings.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made assumptions based on average usage from other (comparable) parts of our business. For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

Requesting member

California Department of General Services (DGS)

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

16.88

Uncertainty (±%)

10

Major sources of emissions

Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member

California Department of General Services (DGS)

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

21.69

Uncertainty (±%)

10

Major sources of emissions

Electricity consumption and cold and heating for our buildings.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include

sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made assumptions based on average usage from other (comparable) parts of our business. For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

Requesting member

Itaú Unibanco Holding S.A.

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1.48

Uncertainty (±%)

10

Major sources of emissions

Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is

used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member
Itaú Unibanco Holding S.A.

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
1.9

Uncertainty (±%)
10

Major sources of emissions
Electricity consumption and cold and heating for our buildings.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made

assumptions based on average usage from other (comparable) parts of our business.
For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

Requesting member
Johnson & Johnson

Scope of emissions
Scope 1

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
45.98

Uncertainty (±%)
10

Major sources of emissions
Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made
Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same

country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member

Johnson & Johnson

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

59.08

Uncertainty (±%)

10

Major sources of emissions

Electricity consumption and cold and heating for our buildings.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made assumptions based on average usage from other (comparable) parts of our business. For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received

measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

Requesting member

National Grid PLC

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0.004

Uncertainty (±%)

10

Major sources of emissions

Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received

measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member

National Grid PLC

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

0.005

Uncertainty (±%)

10

Major sources of emissions

Electricity consumption and cold and heating for our buildings.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made assumptions based on average usage from other (comparable) parts of our business. For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

Requesting member

SSE

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

11.5

Uncertainty (±%)

10

Major sources of emissions

Travel by company owned vehicles and consumption of natural gas for heating our buildings and tap water.

Verified

No

Allocation method

Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the Greenhouse Gas Protocol Corporate Standard using the operational control approach. Our Scope 1 emissions include all sources over which we have operational control.
Scope 1 includes the emissions of our company-owned vehicles and natural gas that is used for heating our buildings. In the offices, we do not have available measured data available of our operations (e.g. we are part of multi-tenanted buildings), we have made assumptions based on average usage from other parts of our business. For example, if we lack quality natural gas data used for heating in Spain, we do not rely on data from the Netherlands due to different climates; instead we rely on other offices in the same country, neighboring country information like Italy or country average data to estimate consumption in combination with the local degree days, HDD and CDD to normalize information for the area.
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been below our 10% uncertainty threshold.

Requesting member

SSE

Scope of emissions
Scope 2

Allocation level
Company wide

Allocation level detail

Emissions in metric tonnes of CO2e
14.77

Uncertainty (±%)
10

Major sources of emissions
Electricity consumption and cold and heating for our buildings.

Verified
No

Allocation method
Allocation based on the market value of products purchased

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

Arcadis reports its emissions at a corporate level according the GHG Protocol Corporate Standard using the operational control approach. Our Scope 2 emissions include sources over which we have operational control.
Scope 2 includes the emissions of our electricity consumption and purchased or generated cold and heat.
In instances where we lack, quality measured data available we have made assumptions based on average usage from other (comparable) parts of our business. For example if we lack electricity consumption in one of our offices in Belgium, we will look at the consumption per FTE in one of the other offices in the country using roughly the same appliances (laptops, screens, etc.).
Based on previous experiences with these assumptions, where we have received measured data in a later stage, the assumptions have always been well below our 10% uncertainty threshold.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

Emission allocations are based on Arcadis' 2019 year for carbon footprint and revenue data. This information is publicly available in the 2019 Annual Report and on the Arcadis website.

Recently, we have been working on developing our global EMS, preparing for setting an SBTi-approved target and simultaneously improving the quality of our global carbon data. The data we are reporting in this submission is ~4% lower than reported in January in our Annual report. This is mostly caused by receiving better quality, measured data instead of worse-case scenarios.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Managing the different emission factors of diverse and numerous geographies makes calculating total footprint difficult	Gathering data from 30+ countries all over the world presents a challenge. One of those challenges is finding a data library and conversion methodology that allocates all emission factors for all of our regions and countries in the same way. Each region is currently responsible for conversions and calculations. With setting up a Global EMS Standard we see greater reliability in our data and consistency between regions and years. In case, we are unable to find a library and or methodology that covers the globe, Arcadis will be looking for libraries and methodologies that complement each other and use the same basic calculation models, or rely on local best practice that meets minimum requirements.
Customer base is too large and diverse to accurately track emissions to the customer level	We provide our clients with Design and Consultancy services all over the world. One request for a client might involve colleagues from multiple offices within a country or even from multiple different countries. In addition, we have a large, global group of colleagues working in more supporting roles like HR, PAs, client development, marketing and communications, the development of new services and solutions, etc. It is virtually impossible to determine for each and every one of our clients the percentage of these services they have consumed with their request (we have global, regional and local account leads but they may request different projects and engage with different teams). Arcadis bases its new and evolving services by monitoring trends and researching new market segments in a highly competitive industry. Without these services there is a fair chance we will be unable to fulfil emerging and competitive requests from clients. In order to gather more specific data we could implement a system were also supporting roles register their spend hours on specific clients. However, we still envision difficulties in obtaining quality, measured data and this effort would likely take an unreasonably large resource pool to fulfil this specific request.
Other, please specify Scope 3 life cycle emission data	

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

Arcadis strongly believes it is at the forefront of GHG reporting and environmental stewardship. As a leader in the industry, Arcadis works to develop new ways to track, report and reduce GHG emissions. Internally, Arcadis recognizes the need to develop a more robust system for managing data from its 400+ offices and 27,875 employees. While the current system of reporting is able to aggregate emissions at the regional level, Arcadis would like to improve the granularity of its approach to get a better understanding of how individual activities, service offerings and projects affect the footprints of our clients.

In 2014, Arcadis identified two material issues that we continued to focus on in 2019:
1) Environmental reporting – To include additional quantitative data, and topics like operational eco-efficiency, climate strategy, water scarcity.
2) EMS – Arcadis already has a centralized database for environmental data in some of our largest markets, such as the United States and the Netherlands capturing our carbon footprint, paper use and solid waste data. We are in the process of creating a centralized data collection system (including methodology) for the whole of Arcadis. One of the challenges we would like to capture in this EMS is the consistency of a data library and the conversion methodology we can apply consistently across the globe.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

Requesting member

Bank of America

Group type of project

Change to supplier operations

Type of project

Other, please specify

Increased resource efficiency in supplier operations

Emissions targeted

Actions that would reduce our own supply chain emissions (our own scope 3)

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback
1-3 years

Details of proposal

Arcadis will continue to work with Bank of America to ensure compliance with all federal, state, and local sustainability regulations. Through this work, Arcadis hopes to collaborate with Bank of America to identify emissions reduction opportunities for their suppliers or other vendors beyond compliance with regulations. These emissions reductions may result from resource efficiency (energy, water, and waste) in Bank of America's supply chain. While some of these activities would not directly lower the Bank's emissions, they may reduce emissions from suppliers or other vendors and help drive sustainability commitments within their supply chain and beyond their direct suppliers, thus resulting in an overall global reduction in GHG emissions.

Requesting member
Itaú Unibanco Holding S.A.

Group type of project
Reduce Logistics Emissions

Type of project
Other, please specify
Use of technology to reduce travel emissions

Emissions targeted
Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized
0-1 year

Estimated lifetime CO2e savings

Estimated payback
0-1 year

Details of proposal

Digital transformation on field: Arcadis has a dedicated team specialized in Digital Transformation whose mission it is to bring the most innovative tools on the market to our solutions, e.g. digital data collection using apps and/ or tablets. This approach is particularly beneficial for Itaú because it reduces data handling/processing time and that data does not need re-processing from paper maps. Arcadis also sees a reduction in human-related errors in data management, as well as costs and time efficiency. Having all maps and survey forms on the tablets allows teams to be dynamic and responsive across the whole scheme, as well on different surveys types where appropriate. Another digital option is to use drones and (Unmanned Aerial Vehicle) UAVs to reduce field personnel, and their emissions for example caused by using a vehicle, in the collection of geo-localized data and topographic measurements, adding agility and reducing the cost of data capture. We can also reduce our transportation emissions by using technologies such as Virtual Reality (VR) for field activities with the possibility of online interface with the specialists remotely, and this also allows us to relay project outcomes to our client in an effective manner.

Requesting member

Johnson & Johnson

Group type of project

Relationship sustainability assessment

Type of project

Assessing products or services life cycle footprint to identify efficiencies

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

1-3 years

Estimated lifetime CO2e savings

Estimated payback

1-3 years

Details of proposal

Arcadis will continue to work with Johnson & Johnson (J&J) to ensure compliance with all federal, state, and local sustainability regulations and identify operational efficiencies that could result in energy reductions. Through this work Arcadis hopes to collaborate with J&J in identifying areas where performance can be improved beyond compliance while generating reductions in operational emissions. These emissions reductions may result from reductions in waste generation, increased recycling, and improved building energy and water efficiency. While some of these activities would not directly lower the J&J's or Arcadis' emissions, they may reduce emissions from suppliers or other vendors and help drive sustainability commitments within their supply chain and beyond their direct suppliers, thus resulting in an overall global reduction in GHG emissions.

These reduction initiatives include WTP/pumping optimization, focus on efficiency as we support design on new buildings and on and improving efficiency during our engagement on existing buildings/equipment, and/or water conservation. While some of these activities may not lower J&J's emissions, they may reduce emissions from suppliers or other vendors, thus resulting in an overall global reduction in GHG emissions.

Requesting member

National Grid PLC

Group type of project

Reduce Logistics Emissions

Type of project

Other, please specify

Use of technology to reduce travel emissions

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

Estimated payback

0-1 year

Details of proposal

Arcadis continues to work in close partnership with National Grid to improve sustainability through effective implementation of our projects. Microsoft Teams is our communication platform for connecting the client with the project team and we share information visually which reduces the need for face-to-face meetings therefore reducing carbon emissions for National Grid. We also utilize interactive GIS platforms to facilitate remote workshops with multiple attendees where feasible. We use the Coupa system to upload invoices online and submit all documentation electronically to reduce paper consumption. In the UK, we are at the forefront of implementing Biodiversity Net Gain (BNG) and proactively identify opportunities to deliver the minimum requirements across the projects we have been commissioned. In addition, we hold regular workshops with National Grid management which provides a platform to share best practice as we continually strive to driving effective and sustainable solutions through project delivery including appropriate net zero carbon solutions.

Requesting member

SSE

Group type of project

Change to provision of goods and services

Type of project

Other, please specify

nfrastructure extension to support renewable generation and connection of the mainland grid

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

3-5 years

Estimated lifetime CO2e savings

20,610

Estimated payback

Other, please specify

No data is available for an equivalent SF6 gas GIS switchboard for this project to evaluate the financial payback.

Details of proposal

We support Scottish Hydro Electric Transmission PLC's ambition to reduce the carbon footprint in new substations through the application of the SF6 elimination policy where practical in new substations. SF6 global warming potential is approximately 22,900 times that of CO2. While in some instances, it is not possible to eliminate SF6 from switchgear, we have actively supported the application of 'Clean Air' Gas Insulated Switchgear (GIS) technology in the Shetland 132kV AC substation plans for construction commencing this year.

Using typical GIS gas volumes, a switchboard of the required configuration would require filling with circa 900kg of SF6 gas. The selection of the 'Clean Air' technology has meant that a saving of this circa 900kg of SF6 with respect to purchase of equivalent SF6 GIS. Based upon the IEC standard specified maximum leakage rate of 0.5% per annum, using the typical value of 900kg of SF6, this saves up to a further 4.5kg of SF6 per annum, equating to a saving of up to circa 180kg over the 40 - year lifetime of the equipment.

We will continue to actively formulate new concepts and ways for Arcadis and Scottish Hydro Electric Transmission plc's to partner, improving our living environment and collective sustainability impacts. For example, we support the asset replacement projects for life extension of hydro-electric generation facilities and construction of new assets for connection of new renewable generation.

Requesting member

SSE

Group type of project

Reduce Logistics Emissions

Type of project

Other, please specify

Electronic submittals and communication

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

3

Estimated payback

0-1 year

Details of proposal

Arcadis continues to work with Scottish Hydro Electric Transmission plc to improve sustainability. This includes utilization of the Tradex, Oracle, Emptoris and Sharepoint systems to electronically manage purchase orders, tender, invoicing and project documentation. We are increasing utilization of electronic communication platforms such as Skype for Business and Microsoft Teams to improve communications across offices, allowing us to provide a best team approach while minimizing travel and offering cost savings. To the extent possible, we will also utilize public transportation and continue to lease energy efficient buildings. Throughout the year, we will continue to actively formulate new concepts and ways for Arcadis and Scottish Hydro Electric Transmission plc to partner, improving our living environment and collective sustainability impacts.

Requesting member

Johnson & Johnson

Group type of project

Reduce Logistics Emissions

Type of project

Other, please specify

Electronic submittals and communication

Emissions targeted

Actions that would reduce both our own and our customers' emissions

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

Estimated payback

0-1 year

Details of proposal

Arcadis continues to work with Johnson & Johnson (J&J) to improve sustainability. This includes electronic submission of submit invoices (via Ariba and others), electronic response to requests for qualifications and proposals (Poet, …) and utilization of electronic communication platforms such as Teams to improve communications across offices allowing us to provide a best team approach while minimizing travel and offering cost savings. To the extent possible, we will also utilize public transportation and continue to lease energy efficient buildings. Throughout the year, we will continue to actively formulate new concepts and ways for Arcadis and J&J to partner, improving our living environment and collective sustainability impacts.

Requesting member

Johnson & Johnson

Group type of project

Change to provision of goods and services

Type of project

Other, please specify

Green remediation

Emissions targeted

Actions to reduce customers' operational emissions (customer scope 1 & 2)

Estimated timeframe for carbon reductions to be realized

0-1 year

Estimated lifetime CO2e savings

Estimated payback

0-1 year

Details of proposal

One of our greatest impacts to Johnson & Johnson's (J&J's) carbon footprint is realized in our project work and the incorporation of sustainable strategies in our remediation and investigation projects. We routinely incorporate the Triple Bottom Line, as outlined by the Sustainable Remediation Forum (SURF), into our remediation evaluations and feasibility studies for assessment of the combined financial, environmental, and social impacts of remedial strategies.

Arcadis values partnering with J&J in developing and implementing sustainable solutions to J&J's environmental liabilities. Examples of solutions developed by J&J and Arcadis that incorporate sustainability include:

• Development of site-specific risk based remedial goals limiting cost, time, and

resources, while being protective of human health and the environment.
• Implementation of in-situ strategies, including:
- Enhanced reductive dichlorination remedies that enhances natural biochemical processes and the destruction of contaminants of concern.
- Transitioning from pumping and treating to in-situ strategies, reducing ex-situ wastewater and treatment related O&M cost.
• Implementation of monitored natural attenuation while being protective of human health and the environment.
• Transitioning to no-purge groundwater sampling methods reducing investigation derived waste (IDW)generation and sampling cost.
• Transitioning to all digital data gathering and tracking platforms that promotes real-time QA/QC protocols and tracking of samples and field data.

In instances where the less sustainable practice of soil excavation has been the most pragmatic or protective remedial solution, the design has included reducing the volume of material to be excavated and disposed in landfills and increasing the re-use of site soil.

Arcadis has developed technologies and practices that in the future can further support J&J's sustainable goals. Examples include the patented Thermal In-situ Sustainable Remediation (TISRTM) technology. TISRTM utilizes solar panels to heat groundwater and thereby generate temperature enhance biotic and/or abiotic degradation. TISR is effective for a range of contaminants and is associated with a modest capital and O&M cost compared to conventional remediation strategies. Furthermore, approximately 50% of the infra-structure can be re-used at other remediation sites or for other purposes.

We will continue to actively formulate new concepts and ways for Arcadis and J&J to partner, improving our living environment and collective sustainability impacts. We are committed to continuing our journey with J&J and partnering on developing innovative and sustainable solutions to new and existing challenges.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC3.1

(SC3.1) Do you want to enroll in the 2020-2021 CDP Action Exchange initiative?

No

SC3.2

(SC3.2) Is your company a participating supplier in CDP's 2019-2020 Action Exchange initiative?

No

SC4.1

(SC4.1) Are you providing product level data for your organization’s goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response		Public

Please confirm below

I have read and accept the applicable Terms