DNA Plc - Climate Change 2018

C0. Introduction

C0.1

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

DNA Plc is a Finnish telecommunications group providing high-quality voice, data and TV services for communication, entertainment and working. DNA is Finland's largest cable operator and the leading pay TV provider in both cable and terrestrial networks. For DNA, the key area for growth in corporate business is the new way of working, independent of time and place, facilitated by smart terminal devices, diverse communications services and rapid connections. In 2017, DNA recorded net sales of EUR 886 million and an operating profit of EUR 124 million. DNA has more than 3.9 million subscriptions in its fixed and mobile communications networks. The Group also includes DNA Store, Finland's largest retail chain selling mobile phones. DNA shares are listed on Nasdaq Helsinki Ltd.

DNA operates only in Finland. The company has a strong local presence in some 80 locations, majority of which are DNA Stores. At the end of 2017, the company employed 1,601 people.

DNA has calculated its greenhouse gas emissions (Scope 1, 2 and 3) for several years now to identify the impact of its operations on climate change. According to the results, Scope 2 emissions account for approximately 5% of the total greenhouse gas emissions, and originate in production, i.e. the electricity consumption of DNA's radio network and transfer equipment as well as the maintenance of their equipment facilities. Most of DNA's greenhouse gas emissions (95%) are indirect resulting from Scope 3 categories.

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
Row 1	January 1 2017	December 31 2017	No	<Not Applicable>
Row 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 4	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

C0.3

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

Finland

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 consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.

Financial 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) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	

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 risk management policies Monitoring and overseeing progress against goals and targets for addressing climate-related issues	The Executive Committee of DNA and the Audit Committee discuss climate targets every 6 months. At the same time, executive management and the Board provide their views on achieving the set emissions reduction targets. The Board monitors the implementation of climate-related risk management and the CEO is responsible for the practical organisation of risk management.

C1.2

(C1.2) Below board-level, provide the highest-level management 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	Half-yearly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.

The CEO is responsible for climate-related issues in the Executive Committee and participates in monitoring climate targets and actions. These are discussed quarterly. The CEO has a key role in engaging with the Board as well as dealing with other senior managers (Vice President, Corporate Communications and the Sustainability Manager) in matters related to climate change. The CEO is also the final decision-maker related to climate issues.

C1.3

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

Yes

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.

Who is entitled to benefit from these incentives?

Environment/Sustainability manager

Types of incentives

Monetary reward

Activity incentivized

Emissions reduction target

Comment

The personal targets of the Sustainability Manager for 2017 included advancing the company's sustainability targets, including climate targets. A bonus was paid based on how the personal targets were achieved overall. DNA's climate targets are: • DNA will improve the energy efficiency of its radio network and reduce emissions from the radio network in proportion to annual data transfer volumes by 80% by 2020 from the level reported in 2014. • While the expansion of DNA's networks continues, the company aims to reduce its total emissions by 15% by 2020 from the level reported in 2014. Achieving these targets are reviewed every six months by the Executive Team and the Audit Committee.

C2. Risks and opportunities

C2.1

(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.

	From (years)	To (years)	Comment
Short-term	1	3	
Medium-term	3	7	
Long-term	7	10	

C2.2

(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

C2.2a

(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	The annual risk management plan is aligned with the annual plan of DNA's strategy process. DNA drafts a six-monthly risk report on the key risks and uncertainties and their management for DNA's Executive Team, Audit Committee and Board of Directors. In addition, thematic risk reports are drafted on needs basis. Climate-related risks are included in the risk map, and the Sustainability Manager is involved in identifying, assessing and rating them.

C2.2b

(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.

Risk assessment process on company level

The Board of Directors decides the objectives and principles of risk management and confirms the company's risk management policy. The Board monitors the implementation of risk management. The Board of Directors has established an Audit Committee. Its risk management duties are defined in the Audit Committee Charter, which is confirmed by the Board of Directors. The CEO is responsible for the practical organisation of risk management.

The annual risk management plan is aligned with the annual plan of DNA's strategy process. DNA drafts a six-monthly risk report on the key risks and uncertainties and their management for DNA's Executive Team, Audit Committee and Board of Directors. In addition, thematic risk reports are drafted on needs basis. Climate change related risks, including physical, societal and regulatory risks are included in the risk map. The Sustainability Manager is involved in identifying, assessing and rating them.

In the process, key risks are identified, assessed and rated by heads of business and support functions. Risks are quantified on a scale of 1-5 in terms of their impact, management methods and probability. Key risks are then monetised, after which they are prioritised by top management based on their value and criticality for DNA's business. Risks of high value and criticality are assessed as considerable risks.

A risk of substantive financial impact is one that has high value (based on risk monetisation) and is critical based on prioritisation by

the top management.

Physical risks include increased weather extremes potentially caused by climate change, e.g. increased frequency of storms or increased snow fall that may cause electricity supply disruptions on radio networks which may lead to service failure for our customers. Physical climate risks and their potential impact on DNA's network have been analysed in detail and mitigation has been implemented on the asset level.

Regulatory risks include e.g carbon taxes or cap and trade schemes that could potentially lead to increased energy prices.

Societal risks would include e.g. social unrest due to increased amount of climate refugees, drought, shortage of food or the like. DNA does not yet include societal climate risks among the top sustainability risks category, since the company operates in Finland, which is a very stable society.

DNA has analysed climate risks in terms of internal processes, opportunities (if any), mitigation, overall impact and communications. The impact is also assessed on a quantitative scale.

On the other hand, climate risk also means business potential for DNA. With e.g. DNA's IoT products and services, DNA's customers can optimise their own operations and reduce their own carbon footprint. IoT solutions can mean, for example, more efficient logistics, less waste, and more energy efficiency.

Risk assessment process on asset level

DNA’s risk assessment process identifies the asset level as network production sites, real estate facilities and own vehicles. Facility Specialists are responsible for risks related to physical assets including network sites and real estates. Administration Specialist is responsible for own vehicles. They are responsible for managing these risks and they report to the Administrative Director.

Physical climate risks and their potential impact on DNA's network have been analysed in detail and mitigation has been implemented on the asset level. The impact on network assets has been analysed by chain of events, possible impact on equipment (e.g. mobile network technology, TV service technology, service contracting such as maintenance and repair. In addition, the likelihood of such events and mitigations has been assessed.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Current regulation is taken into account in risk assessment. Currently, DNA does not identify climate related regulation in Finland.
Emerging regulation	Relevant, always included	DNA follows emerging regulation in terms of climate change. For DNA, regulatory risks include e.g carbon taxes or cap and trade schemes that could potentially lead to increased energy prices.
Technology	Relevant, always included	Technology risks are related to network technology. Increased demand for high quality internet connections means building capacity in the network and increased energy consumption. On the other hand, network technology becomes all the time more energy efficient and, thus, investing to newer technologies means using less energy per terabyte.
Legal	Relevant, always included	DNA has the required processes in place for assuring legal compliance. Currently there is no climate-related law in Finland that applies to DNA's business. All communication network providers in Finland are subject to the regulation and DNA considers the robustness of the network against weather extremities in its risk policy. DNA follows the regulation of the Finnish Communications Regulatory Authority in case of disorder in the network.
Market	Relevant, always included	DNA associates market risk to changing consumer behaviour. Sustainability and climate awareness are growing consumer trends, which means that companies need to improve their climate performance and communicate it to their customers. Not doing this would mean losing competitiveness in the market. In addition, market related climate risks could include societal risks, e.g. social unrest due to increased amount of climate refugees, drought, shortage of food or the like. DNA does not yet include societal climate risks among the top sustainability risks category, since the company operates in Finland, which is a very stable society.
Reputation	Relevant, always included	DNA associates reputation risk to changing consumer behaviour. Sustainability and climate awareness are growing consumer trends, which means that companies need to improve their climate performance and communicate it to their customers. Not doing this would mean losing competitiveness in the market. Based on the above, DNA is also concerned about its reputation among investors. As a listed company, climate performance needs to be on a good level in order to fare well in investors' climate related risk assessment.
Acute physical	Relevant, always included	Acute physical risks include damage to network caused by heavy storm or flooding. These risks are taken into account in network planning and construction, e.g. by avoiding areas that are vulnerable to flooding. We expect the potential acute risks brought climate change to realize in the longer term.
Chronic physical	Relevant, always included	For DNA, chronic physical risks include e.g. increased temperatures that may increase the need for cooling in data centres and equipment facilities. DNA constantly develops cooling systems in the data centres and equipment facilities in order to improve energy efficiency.
Upstream	Relevant, always included	Upstream risks are related to power supply. Increased weather extremes potentially caused by climate change, e.g. increased frequency of storms or increased snow fall may cause electricity supply disruptions on radio networks which may lead to service failure for our customers. Upstream climate risks and their potential impact on DNA's network have been analysed in detail and mitigation has been implemented on the asset level.
Downstream	Not relevant, explanation provided	DNA's own delivery chain consists of terminal device and hardware delivery to customers. We do not identify climate-related risks in our downstream supply chain.

C2.2d

(C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

The Board monitors the implementation of risk management and the CEO is responsible for the practical organisation of risk management.

The risk management process provides reports on risks and risk management methods to the DNA Executive Team, Audit Committee and Board of Directors. Operational plans for the management of significant risks are drafted based on risk management reports, and the Executive Team and Audit Committee monitor the implementation of these plans.

At DNA, risk management consists of identification and assessment of risks, development of risk management strategies, planning and implementation of risk management methods, monitoring of risk management results as well as continuous improvement of risk management competence.

DNA has analysed climate risks in terms of internal processes, opportunities (if any), mitigation, overall impact and communications. The impact is also assessed on a quantitative scale.

An example of applying risk process to physical climate risk: DNA has identified that climate change can potentially increase extreme weather conditions in Finland. Thus, DNA made a detailed assessment of physical climate risks and their impact on DNA's network. Different types of possible extreme weather types were identified and their typical impact on different parts of the network (e.g. masts, base stations, power supply, maintenance) were described. Then the probability and impact of the risks were assessed quantitatively and mitigation methods were outlined. Physical climate risks and their potential impact on DNA's network have been analysed in detail and mitigation has been implemented on the asset level e.g. on DNA's disorder processes.

An example of applying risk process to transition risk: DNA conducts consumer and customer studies on how climate matters are viewed. We identify a possible reputation risk if DNA's climate action is not viewed sufficient. The latest study was made in the beginning of 2017, and the results show that consumer do not yet identify the importance of climate action in terms of telecommunications business. Recycling was seen as the most important environmental matter. However, climate change consciousness is increasing all the time, which makes the reputation risk important to consider.

Climate related opportunities are identified also in the normal business processes. For example, the development of IoT (Internet of Things) offering is closely related to boosting more cost efficient, energy efficient and climate friendly business in Finland. DNA e.g. offers an IoT starter kit for B2B customers, which includes M2M (machine to machine) subscriptions, testing tools, control centre rights and development support. An example of how IoT solutions help tackle climate change is DNA's customer Navidium that optimises the fuel consumption of their ships by collecting and analysing data from IoT sensors.

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?
Supply chain

Risk type
Physical risk

Primary climate-related risk driver
Chronic: Changes in precipitation patterns and extreme variability in weather patterns

Type of financial impact driver
Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

Company- specific description
Other physical climate drivers for DNA include increased weather extremes potentially caused by climate change, e.g. increased frequency of storms or increased snow fall that may cause electricity supply disruptions on radio networks which may lead to service failure for our customers. At the end of 2017, DNA's 4G network reached over 99% of the population in mainland Finland, also in remote and sparsely populated areas in Northern and Eastern Finland.

Time horizon
Long-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Potential financial impact
150000

Explanation of financial impact
DNA has over 3.9 million mobile communications and fixed network customers who can be affected by climate related service disruptions. The financial implications are both direct and indirect depending on the magnitude and length of the disruption. A vast power disruption may significantly increase DNA's operational costs due to maintenance and service costs. The example of potential financial cost includes the logistics and use of back-up generators and repair of damaged network. The estimate assumes that there would be a few additional powerful storms per year and heavier than usual snow fall (frozen snow on power lines).

Management method
DNA has a good control over the weather related physical risks threatening its ICT infrastructure. Radio network and data centre facilities are monitored continuously and every site has its own risk management plan. All the sites have a battery back-up in case of an electricity disruption. The most important sites have solid backup generators. Other locations are equipped with mobile emergency power generators. Electricity supplies are at least duplicated in all the main equipment and drivers. DNA is also increasing its cooperation with local electricity suppliers for instance by sharing information and statistics with regards to difficult weather conditions. If facilities are located close to water, increased floods may pose a risk. In Finland, flooding occurs usually in the spring, which has already been taken into account in network and equipment facility location.

Cost of management
0

Comment
The cost of management has been estimated to zero because prepairing for network malfunctions is part of the normal preparedness plan for DNA.

Identifier
Risk 2

Where in the value chain does the risk driver occur?
Customer

Risk type
Transition risk

Primary climate-related risk driver
Reputation: Increased stakeholder concern or negative stakeholder feedback

Type of financial impact driver
Reputation: Reduced revenue from decreased demand for goods/services

Company- specific description
Relevant to DNA's B2B business: Even though the climate impact of telecommunications companies is not a significant topic in the public yet, climate matters are of reputational concern for DNA. NGOs and the media compare the climate friendliness of telecommunications companies and ICT companies every now and then. Especially DNA's B2B clients more and more frequently demand an explication for climate action in their tenders. Reducing CO2 emissions is an environmental priority for DNA. Therefore, DNA aims at increasing competitiveness, especially in the B2B business, by putting effort to climate action.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Potential financial impact
20000000

Explanation of financial impact
If DNA would lose major tenders partly due to climate matters and the company's net sales would decrease by up to 2%, this would mean a loss of almost 20 million euros, based on 2017 figures.

Management method
The risk can be managed by continuous emissions reduction measures by means of e.g. renewable energy, improving energy efficiency, offering emissions reducing connectivity products and services to DNA's clients (B2B) and communications with clients in order to gain reputational benefit. For DNA, this means e.g. investing in the Guarantees of Origin to cover the electricity directly purchased by the company. Guarantees of Origin help reduce DNA's Scope 2 emissions significantly.

Cost of management
45000

Comment
The cost of management depends on e.g. the price of Guarantees of Origin. In 2017, the cost for Guarantees of Origin for Nordic hydro power was about 0.50 €/MWh, which resulted to a green energy investment of about 45,000 euros on top of the normal energy cost. Investments in energy efficiency are typically profitable and are, hence. not considered as an expense.

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Customer

Risk type
Transition risk

Primary climate-related risk driver
Market: Changing customer behavior

Type of financial impact driver
Market: Reduced demand for goods and/or services due to shift in consumer preferences

Company- specific description
Relevant to DNA's B2C business: Even though the climate impact of telecommunications companies is not a significant topic in the public yet, there is a trend of consumers becoming more and more environmentally conscious. The demand for climate friendly products has not yet been directed to telecommunications companies, but the consumers may become more aware of the climate impact of telecommunications companies and may demand e.g. climate friendly subscriptions at some point. In addition, consumers may start to compare different industries with each other even more than before as communications and transport digitalises, and the energy use of those functions may become an issue for consumers.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Potential financial impact
14000000

Explanation of financial impact
If DNA's churn rate for mobile communications would increase by up to 5%, the company's net sales would decrease by approximately 14 million euros annually, based on 2017 figures.

Management method
The risk can be managed by continuous emissions reduction measures and ongoing communications to consumers. For DNA, this means e.g. investing in renewable energy in the form of Guarantees of Origin to cover the electricity directly purchased by the company. Guarantees of Origin help reduce DNA's Scope 2 emissions significantly. As DNA's own radio network is entirely covered by green electricity (Guarantees of Origin), DNA is already now able to offer low-carbon subscriptions to its customers.

Cost of management
45000

Comment
The cost of management depends on e.g. the price of Guarantees of Origin. In 2017, the cost for Guarantees of Origin for Nordic hydro power was about 0.50 €/MWh, which resulted to a green energy investment of about 45,000 euros on top of the normal energy cost.

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?
Customer

Opportunity type
Products and services

Primary climate-related opportunity driver
Development and/or expansion of low emission goods and services

Type of financial impact driver
Increased revenue through demand for lower emissions products and services

Company- specific description
DNA offers IoT products and services for a smart, low carbon society. There may be increased demand for DNA's connectivity products and services, especially IoT solutions, due to climate matters. IoT solutions may help companies to optimise business operations, thus reducing emissions. An example of how IoT solutions help tackle climate change is DNA's customer Navidium that optimises the fuel consumption of their ships by collecting and analysing data from IoT sensors. Moreover, DNA enables e.g. cleantech start-ups to receive visibility under DNA's well-known brand.

Time horizon
Short-term

Likelihood
About as likely as not

Magnitude of impact
Medium

Potential financial impact
44000000

Explanation of financial impact
If energy efficiency improving or emissions reducing IoT solutions for DNA’s clients would increase DNA’s net sales, for example, by 5%, this would mean about 44 million euros more in net sales, based on 2017 figures.

Strategy to realize opportunity
There are ongoing discussions with decision makers and B2B clients to create demand for connectivity and IoT solutions. In addition, cooperation with universities and research institutions increase awareness on IoT based low carbon society. Further investment to IoT product portfolio may be needed. IoT is an important development area in DNA’s B2B business.

Cost to realize opportunity
980000

Comment
The cost of developing the IoT portfolio is related to allocation of working time and resources. In 2017, DNA doubled its IoT development, the result of which was cooperation with Cisco Jasper in IoT connectivity. In this way, DNA is, for its part, enabling the development of a smart, low carbon society.

Identifier
Opp2

Where in the value chain does the opportunity occur?
Customer

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Type of financial impact driver
Reputational benefits resulting in increased demand for goods/services

Company- specific description
Relevant to DNA's B2B customers: Even though the climate impact of telecommunications companies is not a significant topic in the public yet, climate matters are an opportunity for DNA reputation-wise. NGOs and the media compare the climate friendliness of telecommunications companies and ICT companies every now and then. Also, DNA’s B2B clients more and more frequently demand an explication for climate action in their tenders. Even though climate action is usually not a decisive matter in tenders, there is an opportunity to gaining reputation as a climate friendly telecommunications company, as compared to competitors.

Time horizon
Medium-term

Likelihood
More likely than not

Magnitude of impact
Medium-low

Potential financial impact
20000000

Explanation of financial impact
If DNA would win major tenders partly due to a climate friendly reputation and the company’s net sales would increase by up to 2%, this would mean almost 20 million euros more in net sales, based on 2017 figures.

Strategy to realize opportunity
The opportunity can be managed by continuous emissions reduction measures by means of e.g. renewable energy, improving energy efficiency, offering emissions reducing connectivity products and services to DNA’s clients (B2B), and communications with clients in order to gain reputational benefit. For DNA, this means e.g. investing in the Guarantees of Origin to cover the electricity directly purchased by the company. Guarantees of Origin help reduce DNA’s Scope 2 emissions significantly.

Cost to realize opportunity
45000

Comment
The cost of management depends on e.g. the price of Guarantees of Origin. In 2017, the cost for Guarantees of Origin for Nordic hydro power was about 0.50 €/MWh, which resulted to a green energy investment of about 45,000 euros on top of the normal energy cost.

Identifier
Opp3

Where in the value chain does the opportunity occur?
Customer

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Type of financial impact driver
Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company- specific description
Relevant to DNA's B2C customers: Even though the climate impact of telecommunications companies is not a significant topic in the public yet, there is a trend of consumers becoming more and more environmentally conscious. The demand for climate friendly products has not yet been directed to telecommunications companies, but the consumers may become more aware of the climate impact of telecommunications companies and may demand e.g. climate friendly subscriptions at some point, which cleary is an opportunity if DNA succeeds in positively differentiating from competitors.

Time horizon
Medium-term

Likelihood
About as likely as not

Magnitude of impact
Medium-low

Potential financial impact
14000000

Explanation of financial impact
If DNA’s churn rate for mobile communications would decrease by up to 5%, the company’s net sales would increase by approximately 14 million euros annually, based on 2017 figures.

Strategy to realize opportunity
The opportunity can be managed by continuous emissions reduction measures and ongoing communications with consumers. For DNA, this means e.g. investing in renewable energy in the form of Guarantees of Origin to cover the electricity directly purchased by the company. Guarantees of Origin help reduce DNA’s Scope 2 emissions significantly. As DNA’s own radio network is entirely covered by green electricity (Guarantees of Origin), DNA is already now able to offer low-carbon subscriptions to its customers.

Cost to realize opportunity
45000

Comment
The cost of management depends on e.g. the price of Guarantees of Origin. In 2017, the cost for Guarantees of Origin for Nordic hydro power was about 0.50 €/MWh, which resulted to a green energy investment of about 45,000 euros on top of the normal energy cost.

C2.5

(C2.5) Describe where and how the identified risks and opportunities have impacted your business.

	Impact	Description
Products and services	Impacted	Both climate change mitigation and adaptation introduce opportunities for increased data transfer and are actively considered in sales strategy. Already now, DNA offers smart IoT solutions for energy efficiency, Climate change and smart solutions required by mitigation and adaptation present a large window of opportunity for DNA, which offers IoT solutions.
Supply chain and/or value chain	Impacted	DNA acknowledges the increasing risk of weather externalities as well as potential water level rises in its maintenance strategy. The magnitude of risk is relatively small.
Adaptation and mitigation activities	Impacted	To mitigate the risk of changing consumer preferences and to grasp the opportunities within, DNA purchases electricity Guarantees of Origin for electricity directly purchased by DNA. Risk of changing customer preferences is a substantial risk and opportunity for DNA's business as demand for green solutions increase, but at the same time consumers are becoming more environmentally aware.
Investment in R&D	Impacted	In the future more will be created from less resources, which requires revolutionary progress in the field of IoT. DNA is an important player in intelligent communication and actively considers risks and opportunities of climate change mitigation (energy efficiency, renewables) and adaptation (drought, extremities) and digital services within.
Operations	Impacted	DNA implemented 9 energy savings projects during the reporting year, with particular focus on heat recovery, new cooling technology, solar PV and office space optimization. These actions reduced Scope 2 emissions (location-based) by approximately 800 tons of CO2. The modernization of equipment is an essential element of network business and related risks and opportunities are substantial. Energy savings projects are in the core of operator business and these are often directed by monetary indicators (IRR and payback), but CO2 savings provide an important additional element into investment considerations.
Other, please specify	Please select	

C2.6

(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.

	Relevance	Description
Revenues	Not yet impacted	Climate related matters have not yet impacted DNA's revenues. The possible physical (e.g. extreme weather patterns) or transition risks (e.g. regulation) have not materialised in Finland yet. The likelihood of weather externalities is smaller in Finland than in other parts of the world and these risks may be addressed relatively well in DNA's maintenance strategy. The magnitude of impact is relatively small and is expected to occur in the long term (7-10 years). DNA is, however, well prepared for the impacts of climate change in terms of risk management and business opportunities.
Operating costs	Impacted	Climate action has increased DNA's operating costs slightly, which is mostly related to purchasing Guarantees of Origin for renewable energy. The overall energy cost has, thus, somewhat increased (45000€/a in 2017). Thus, the magnitude of impact still remains moderate.
Capital expenditures / capital allocation	Impacted	Efforts to increase energy efficiency of the network have increased capital expenditures of the network in the short term. In the long term however, investing to energy efficiency brings cost savings. For example, modernising the radio network with more energy efficient equipment cost approximately 6.5 million euros. The magnitude of impact is, thus, rather considerable.
Acquisitions and divestments	Not impacted	DNA has not identified climate related acquisition opportunities or divestment needs in Finland. In terms of possible acquisitions, DNA's strategy is to look for opportunities that complement our current business in the Finnish market.
Access to capital	Impacted	Loan providers typically conduct a corporate responsibility assessment as part of their due diligence process, especially institutions such as the European Investment Bank. DNA needs to show that there are no climate related risk for the loan provider. The magnitude of impact on access to capital is very moderate, in general climate-related matters are usually seen as hygiene factors, not decisive elements.
Assets	Not impacted	Climate related matters have not impacted DNA's assets because climate change has not yet impacted Finland significantly (e.g. physical and transition risks).
Liabilities	Not impacted	Climate related matters have not impacted DNA's liabilities because climate change has not yet impacted Finland significantly (e.g. physical and transition risks).
Other	Please select	

C3. Business Strategy

C3.1

(C3.1) Are climate-related issues integrated into your business strategy?

Yes

C3.1a

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

No, and we do not anticipate doing so in the next two years

C3.1c

(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.

DNA's strategy is updated continuously and reviewed annually with the Board of Directors. Based on a review of megatrends impacting the industry, especially the following climate-related aspects have been identified and have influenced DNA's strategy: energy efficiency, green consumerism, B2B customers' need for services that reduce their carbon footprint, e.g. remote working applications, and reputation management.

Energy efficiency

There is an ever increasing demand for high speed internet connections, which increases energy consumption for telecommunications companies. Therefore, DNA invests in energy efficient network technologies and renewable energy in order to minimise emissions.

A strong foothold on the Finnish mobile broadband market has been one of DNA's strategic cornerstones for the past few years. By investing heavily in network coverage and new base station technology, DNA has not only gained competitive advantage but also increased energy efficiency of the network.

As an example of an investment made as a result of considering climate-related issues, in early 2017 DNA completed a shared radio network with Telia in Northern and Eastern Finland, which was an energy efficient solution as the technology is shared. The shared network is a unique solution in Finland, and was a remarkable climate driven business decision for DNA. The shared network has been estimated to save emissions by some 3,300 tCO2e annually.[HH1] [MK2]

B2B customers' need for services that reduce their carbon footprint

Digitalisation revolutionises business and the society, which creates new opportunities for climate-friendly, smart solutions. With its products and services, DNA enables the growth of smart solutions for e.g. green cities and transport, which help optimise operations and reduce emissions.

In the long term strategy, DNA enables the building of a sustainable digital society that is as energy efficient as possible. DNA believes that reducing CO2 emissions will play an increasingly important role both for the company's B2C and B2B customers.

Green consumerism and reputation

Another example of a climate driven business decision is DNA's long-term commitment to using renewable energy. DNA is committed to covering direct purchases of energy by Guarantees of Origin, which promotes investments to renewable energy in Finland and in the Nordics. In this way, DNA can demonstrate to customers that its services are environmentally sound.

Remote working applications

One of DNA's strategic objectives is to be among Finland's most wanted workplaces. DNA achieved major success in a survey of private sector employees by the Great Place to Work Institute ranking 2nd in the Large Corporations-category. DNA is a forerunner in enabling remote work for the majority of its employees. Remote work decreases DNA's CO2 emissions from work related travel by some 40% annually when employees work remotely at home.

C3.1g

(C3.1g) Why does your organization not use climate-related scenario analysis to inform your business strategy?

DNA does not use climate-related scenario analyses in terms of climate change. However, the company stays informed about different scenarios and takes them into account when reviewing the company's climate targets as needed. Climate-related scenario analysis is not used to inform DNA's business strategy because our business strategy is more closely tied to consumer trend analyses.

C4. Targets and performance

C4.1

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

Both absolute and intensity targets

C4.1a

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

Target reference number

Abs 1

Scope

Scope 1+2 (market-based) +3 (upstream & downstream)

% emissions in Scope

100

% reduction from base year

15

Base year

2014

Start year

2014

Base year emissions covered by target (metric tons CO2e)

210000

Target year

2020

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

% achieved (emissions)

1

Target status

Underway

Please explain

DNA's absolute emissions target was set in 2015: While the expansion of DNA's networks continues, we aim to reduce our total emissions by 15% by 2020 (from the level reported in 2014). Achieving this target is behind schedule due to increased Scope 3 emissions, mostly from purchased goods and services and capital good (e.g. network construction, IT equipment purchases).

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number
Int 1

Scope
Scope 2 (market-based)

% emissions in Scope
78

% reduction from baseline year
80

Metric
Other, please specify (Metric tonnes of CO2 per TB (terabyte))

Base year
2014

Start year
2014

Normalized baseline year emissions covered by target (metric tons CO2e)
0.26

Target year
2020

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

% achieved (emissions)
92

Target status
Underway

Please explain
DNA's emissions intensity target was set in 2015: DNA will improve the energy efficiency of its radio network and reduce emissions from the radio network in proportion to annual data transfer volumes by 80% by 2020 from the level reported in 2014. The normalised base year emissions covered by target were 0.26 tCO2/TB. In 2017, radio network emissions in proportion to annual radio network data transfer volumes were 0.02 tCO2/TB (0.03). The decrease is due to the increased energy efficiency of the radio network as well as strong expansion of data transfer volumes. Emissions from the radio network in proportion to annual data transfer volumes have already decreased by more than 90% from 2014, which is well above target.

% change anticipated in absolute Scope 1+2 emissions
78

% change anticipated in absolute Scope 3 emissions
0

C4.2

(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.

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 projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	1	7.4
Implemented*	9	777.4
Not to be implemented	0	0

C4.3b

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

Activity type
Energy efficiency: Processes

Description of activity
Heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)
11.5

Scope
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
3400

Investment required (unit currency – as specified in CC0.4)
27000

Payback period
4 - 10 years

Estimated lifetime of the initiative
11-15 years

Comment

Activity type
Energy efficiency: Processes

Description of activity
Machine replacement

Estimated annual CO2e savings (metric tonnes CO2e)
9.9

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
3400

Investment required (unit currency – as specified in CC0.4)
100000

Payback period
4 - 10 years

Estimated lifetime of the initiative
11-15 years

Comment
Uninterruptible power supply (UPS) were changed to more energy-efficient equipment.

Activity type
Low-carbon energy installation

Description of activity
Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
1.1

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
380

Investment required (unit currency – as specified in CC0.4)
11900

Payback period
>25 years

Estimated lifetime of the initiative
21-30 years

Comment
DNA had a solar energy pilot that started in the end of 2016. Solar panels were fitted to a small base station unit. A small part of the electricity consumed by the unit was produced by solar energy, which helps reduce Scope 2 emissions.

Activity type
Energy efficiency: Processes

Description of activity
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
32

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
11000

Investment required (unit currency – as specified in CC0.4)
24000

Payback period
1-3 years

Estimated lifetime of the initiative
11-15 years

Comment
Logic control (AC / Cooling) 12 units have been installed in equipment facilities, where AC functions through in- and out blowers and cooling with a separate refrigeration unit.

Activity type
Energy efficiency: Processes

Description of activity
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
3.6

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
1250

Investment required (unit currency – as specified in CC0.4)
56000

Payback period
4 - 10 years

Estimated lifetime of the initiative
11-15 years

Comment
Free cooling was implemented in some of DNA’s data centres in 2017. Free cooling, as an option for traditional ways of cooling, is an energy efficient method and helps reduce Scope 2 emissions.

Activity type
Energy efficiency: Processes

Description of activity
Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)
69

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
23800

Investment required (unit currency – as specified in CC0.4)
300000

Payback period
4 - 10 years

Estimated lifetime of the initiative
16-20 years

Comment
Free cooling was implemented in some of DNA’s data centres in 2017. Free cooling, as an option for traditional ways of cooling, is

an energy efficient method and helps reduce Scope 2 emissions.

Activity type
Process emissions reductions

Description of activity
New equipment

Estimated annual CO2e savings (metric tonnes CO2e)
635

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
390000

Investment required (unit currency – as specified in CC0.4)
6500000

Payback period
16-20 years

Estimated lifetime of the initiative
6-10 years

Comment

Activity type
Other, please specify (Office space optimisation)

Description of activity
<Not Applicable>

Estimated annual CO2e savings (metric tonnes CO2e)
9.9

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
21000

Investment required (unit currency – as specified in CC0.4)
520000

Payback period
16-20 years

Estimated lifetime of the initiative
Ongoing

Comment
DNA moved into a new office space in the city of Oulu. The new office is more energy efficient and more compact in area, which reduces energy use and, thus, Scope 2 emissions, for the Oulu office space.

Activity type
Other, please specify (Office space optimisation)

Description of activity
<Not Applicable>

Estimated annual CO2e savings (metric tonnes CO2e)
5.4

Scope
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in CC0.4)
33000

Investment required (unit currency – as specified in CC0.4)
0

Payback period
<1 year

Estimated lifetime of the initiative
Ongoing

Comment
DNA moved into a new office space in the city of Kuopio. The new office is more energy efficient and more compact in area, which reduces energy use and, thus, Scope 2 emissions, for the Kuopio office space. The transfer did not cause material costs for DNA, because the owner of the property took care of refurbishing and decorating the new office space. The cost borne by the owner is included in DNA's rental agreement for the following three years. Therefore, it is challenging to estimate the investment and payback time for this project. The annual monetary savings figure estimates the savings in terms of energy cost. Energy is included in the rental agreement and, therefore, is an estimate in this case.

C4.3c

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

Method	Comment
Dedicated budget for other emissions reduction activities	DNA has a dedicated budget for purchasing renewable energy, i.e. Guarantees of Origin.
Financial optimization calculations	By investing in energy efficient technology DNA can also save in operational costs.
Employee engagement	In 2017, about 300 DNA employees participated in a sustainability training, the aim of which was to familiarise employees with DNA's sustainability targets, including climate targets. The purpose of the training was, among others, to raise awareness on how each employee can affect the achievement of climate targets in his/her everyday job. In 2016 and 2017 altogether, approximately 1,200 DNA employees have participated in such training.

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
DNA offers connectivity products and services, such as network connections and mobile devices, which enable mobile work for B2B customers. With these connectivity products and services, DNA's B2B customers have the possibility of decreasing their emissions from work related travel by working remotely. DNA sets an example to how remote work can decrease emissions. According to a study conducted by DNA, emissions from work-related travel can be cut by some 40% annually when employees work remotely at home for example.

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 (Survey on remote work)

% revenue from low carbon product(s) in the reporting year
25

Comment
Avoided emissions: DNA's B2B business accounted for approximately 25% of DNA's net sales in 2017. A significant proportion of DNA's B2B business has to do with mobile connections. Low-carbon products: DNA's connectivity products and services have been produced almost entirely by renewable energy.

Level of aggregation
Group of products

Description of product/Group of products
DNA offers subscriptions as well as mobile and broadband internet connections for its B2C customers. The products and services have been produced almost entirely by renewable energy.

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

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions
Other, please specify (Guarantees of Origin)

% revenue from low carbon product(s) in the reporting year
75

Comment
DNA's B2C business accounted for approximately 75% of DNA's net sales in 2017. The products and services have been produced almost entirely by renewable energy.

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 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
840

Comment

Scope 2 (location-based)

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)

Comment

Scope 2 (market-based)

Base year start
January 1 2014

Base year end
December 31 2014

Base year emissions (metric tons CO2e)
30100

Comment

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.
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?

Row 1

Gross global Scope 1 emissions (metric tons CO2e)
680

End-year of reporting period
<Not Applicable>

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?

Row 1

Scope 2, location-based
21100

Scope 2, market-based (if applicable)
14000

End-year of reporting period
<Not Applicable>

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?
No

C6.5

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

Purchased goods and services

Evaluation status
Relevant, calculated

Metric tonnes CO2e
131900

Emissions calculation methodology
Activity data is based on bookkeeping information about purchases categorised by purchase category. Activity data is collected in euros. Defra's purchase category specific emission factor €/CO2 is applied. Allocations are made following Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation

Capital goods

Evaluation status
Relevant, calculated

Metric tonnes CO2e
55900

Emissions calculation methodology
Activity data is based on bookkeeping information about purchases categorised by purchase category. Activity data is collected in euros. Defra's purchase category specific emission factor €/CO2 is applied. Allocations are made following Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation

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

Evaluation status
Relevant, calculated

Metric tonnes CO2e
3380

Emissions calculation methodology
Activity data is based on Scope 1 and 2 data. Emissions factors from the Ecoinvent database are used for calculating upstream fuel emissions. Calculation methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Explanation

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Metric tonnes CO2e
1780

Emissions calculation methodology
Activity data is based on distances of the main transportation routes and transport modes, and estimations about the transported amounts in tonnes. Transport mode specific emission factors are utilised. Calculation methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
10

Explanation

Waste generated in operations

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
108

Emissions calculation methodology
Activity data is based on the actual waste amounts per waste category. Waste category specific emission factors are utilised. Calculation methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
100

Explanation

Business travel

Evaluation status
Not relevant, calculated

Metric tonnes CO2e
590

Emissions calculation methodology
Includes emissions from business flights and cars. Flight emission data is received from travel agency. Car use activity data is based on kilometres driven with cars owned or leased by the personnel. Average Finnish car fleet emission factors are used for cars owned by personnel and for leased cars car specific emission factors are used. Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Percentage of emissions calculated using data obtained from suppliers or value chain partners
40

Explanation

Employee commuting

Evaluation status
Not evaluated

Metric tonnes CO2e

Emissions calculation methodology
Methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
Based on the emission calculation results from 2012, the share of employee commuting emissions from the total emissions is minor (0.1%) and, therefore, they have not been included in the calculation process in later years.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology
Methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
Rent for leased assets includes costs for energy and this is purchased by DNA and therefore included in Scope 2 calculations

Downstream transportation and distribution

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology
Methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
Based on the calculation results from previous years, the category emissions accounts for less than 1% of the total emissions, therefore the category results are not calculated anymore. Most of the transportation and distribution emissions come from upstream.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology
Methodology: Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
DNA's operations do not include any processing of the sold products.

Use of sold products

Evaluation status
Relevant, calculated

Metric tonnes CO2e
120

Emissions calculation methodology
Calculated partly (one product). The activity data is based on user amounts of the provided service and average energy consumption per user that is reported by the service provider. National residual mix emission factor is utilised. Greenhouse Gas Protocol Corporate Value

Percentage of emissions calculated using data obtained from suppliers or value chain partners
80

Explanation
Emissions from this category are calculated only regarding to one product.

End of life treatment of sold products

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology
Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
Based on literature, the end of life treatment represent a minor share of the lifecycle emissions of the sold products.

Downstream leased assets

Evaluation status
Relevant, not yet calculated

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Downstream leased assets include office space and network capacity that has been let out to e.g. other operators.

Franchises

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation
Not relevant for DNA (no franchises)

Investments

Evaluation status
Not relevant, explanation provided

Metric tonnes CO2e

Emissions calculation methodology
Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard

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

Explanation
Not relevant for DNA (company does not provide financial services)

Other (upstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO2e

Emissions calculation methodology

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

Explanation

C6.7

(C6.7) Are carbon dioxide emissions from biologically sequestered 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
0.000017

Metric numerator (Gross global combined Scope 1 and 2 emissions)
14680

Metric denominator
unit total revenue

Metric denominator: Unit total
886100000

Scope 2 figure used
Market-based

% change from previous year
21.4

Direction of change
Increased

Reason for change
The increase is mainly due to increased energy consumption in the rented part of the network, which is not covered by Guarantees of Origin (not controlled by DNA).

Intensity figure
0.03

Metric numerator (Gross global combined Scope 1 and 2 emissions)
14680

Metric denominator
Other, please specify (Data traffic in the radio network TB)

Metric denominator: Unit total
535362

Scope 2 figure used
Market-based

% change from previous year
25

Direction of change
Decreased

Reason for change
The decrease is mainly due to DNA's effort in improving the energy efficiency of the radio network. In addition, data volumes in DNA’s radio network increased by 55% in 2017.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?
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
Other, please specify (CH4, N2O and HFC)		Please select *Scope 1 emissions include CO2, CH4, N2O and HFC which have been taken into account as CO2 equivalent emissions (using CO2e emission factors). Breakdown is not available.*

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Finland	680

C7.3

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

Please select

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 in market-based approach (MWh)
Finland	21100	14000	115251	85164

C7.6

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

Please select

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?

Increased

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	0	No change	0	All of DNA's direct electricity purchases have been covered by Guarantees of Origin since 2016.
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	2290	Increased	18.5	The increase is mainly due to increased energy consumption in the rented part of the network, which is not covered by Guarantees of Origin (not controlled by DNA). Calculation: DNA's Scope 1 and 2 emissions in 2017: 14,680 tCO2 DNA's Scope 1 and 2 emissions in 2016: 12,390 tCO2 Increase from 2016: (14,680-12,390) / 12,390 x 100 = 18.5
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

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 undertakes this energy-related activity
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	No

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 MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	0	2223	2223
Consumption of purchased or acquired electricity	<Not Applicable>	85164	24549	109713
Consumption of purchased or acquired heat	<Not Applicable>	0	4267	4267
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	0	1271	1271
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Total energy consumption	<Not Applicable>	85164	30989	116153

C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of 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
LHV (lower heating value)

Total fuel MWh consumed by the organization
4

MWh fuel consumed for the self-generation of electricity
4

MWh fuel consumed for self-generation of heat
0

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

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

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

Fuels (excluding feedstocks)
Other, please specify (Light fuel oil)

Heating value
LHV (lower heating value)

Total fuel MWh consumed by the organization
898

MWh fuel consumed for the self-generation of electricity

MWh fuel consumed for self-generation of heat
898

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

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

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

C8.2d

(C8.2d) List the average emission factors of the fuels reported in C8.2c.

Diesel

Emission factor
3.24

Unit
kg CO2 per liter

Emission factor source
LCA inventory for heat production from diesel (Bionova 2016)

Comment
Diesel

Other

Emission factor
3.2

Unit
kg CO2 per liter

Emission factor source
LCA inventory for heat production from light fuel oil (Bionova 2016)

Comment
Light fuel oil

C8.2f

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

Basis for applying a low-carbon emission factor
Energy attribute certificates, Guarantees of Origin

Low-carbon technology type
Hydropower

MWh consumed associated with low-carbon electricity, heat, steam or cooling
85164

Emission factor (in units of metric tons CO2e per MWh)
0

Comment
DNA purchases Guarantees of Origin for renewable energy

C9. Additional metrics

C9.1

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

C10. Verification

C10.1

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

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

C10.1a

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

Scope
Scope 1

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
DNA_annual_report_2017.pdf

Page/ section reference
Page 58-59

Relevant standard
A1000AS

Proportion of reported emissions verified (%)
100

Scope
Scope 2 location-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
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Relevant standard
A1000AS

Proportion of reported emissions verified (%)
100

Scope
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
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Relevant standard
A1000AS

Proportion of reported emissions verified (%)
100

C10.1b

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

Scope
Scope 3- all relevant categories

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Attach the statement
DNA_annual_report_2017.pdf

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Relevant standard
AA1000AS

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?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C1. Governance	Progress against emissions reduction target	AA1000AS	All sustainability related data has been verified as part of DNA's Corporate Responsibility Report 2017. Data has been verified in accordance with AA1000AS.
C4. Targets and performance	Progress against emissions reduction target	AA1000AS	All sustainability related data has been verified as part of DNA's Corporate Responsibility Report 2017. Data has been verified in accordance with AA1000AS.
C5. Emissions performance	Emissions reduction activities	AA1000AS	All sustainability related data has been verified as part of DNA's Corporate Responsibility Report 2017. Data has been verified in accordance with AA1000AS.
C7. Emissions breakdown	Other, please specify (Scope 1, 2 and 3 emissions)	AA1000AS	All sustainability related data has been verified as part of DNA's Corporate Responsibility Report 2017. Data has been verified in accordance with AA1000AS.
C8. Energy	Other, please specify (Consumption of energy data)	AA1000AS	All sustainability related data has been verified as part of DNA's Corporate Responsibility Report 2017. Data has been verified in accordance with AA1000AS.

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?

No

C11.3

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

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

C12.1a

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

Type of engagement
Compliance & onboarding

Details of engagement
Included climate change in supplier selection / management mechanism

% of suppliers by number
28

% total procurement spend (direct and indirect)
46

% Scope 3 emissions as reported in C6.5
28

Rationale for the coverage of your engagement
DNA's Supplier Code of Conduct is included in all new procurement and logistics agreements. The percentage is rather low due to old agreements in the procurement database.

Impact of engagement, including measures of success
This amount of existing agreements included DNA's Supplier Code of Conduct in 2017. The Supplier Code of Conduct, as part of agreement with DNA, encourages suppliers to reduce the greenhouse gas emissions caused by their operations. In addition, DNA conducts an annual sustainability survey for the company's most important suppliers. Based on the results of the survey, DNA had some one-on-one sustainability discussions with important suppliers in 2017. The topics of the discussions varied from corporate responsibility management to environmental matters and climate action. DNA suggested some improvements to suppliers and gave the companies concrete examples on how to develop their corporate responsibility, e.g. CR and emissions reporting.

Comment

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

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
Energy efficiency	Support with minor exceptions	The Energy Performance of Buildings Directive (nZEB directive) requires all new buildings to be nearly zero-energy by the end of 2020. All new public buildings must be nearly zero-energy by 2018. DNA engages with decision-makers to raise awareness of how the reception of mobile phones could be improved in nearly zero-energy buildings. Dialogue in this matter improves the usability of nearly zero-energy buildings.	DNA engages with decision-makers to raise awareness on how the reception of mobile phones could be improved in nearly zero-energy buildings. DNA proposes that the reception of the mobile network has to be taken into account already when designing the buildings. DNA also offers solutions to improve reception in zero-energy buildings. Dialogue in this matter improves the usability of nearly zero-energy buildings.
Energy efficiency	Support with minor exceptions	DNA and Telia built a shared 4G network to remote and sparsely populated areas in Northern and Eastern Finland. The shared network was completed in early 2017, and it is a unique project with clear benefits in terms of cost-efficiency and energy-efficiency. The shared network has been estimated to save emissions by some 3,300 tCO2e annually. DNA discusses with decision-makers regarding the possibility to carry out such projects in the future too, if need arises.	DNA's position is to promote the possibility of building shared network infrastructure in the future too, if needed, in order to increase e.g. energy-efficiency and cost-efficiency in operations.
Other, please specify (CO2 emissions reduction, remote work)	Support	DNA has implemented a Genuine Method of Working for the company's own employees. This means that the majority of the employees can work remotely very freely and without a separate agreement with the supervisor. In engaging with decision makers and other stakeholders, DNA raises awareness on the benefits of remote work. DNA has conducted a study on the effects of the Genuine Method of Working on the company's CO2 emissions from work related travel. According to the results, emissions from work-related travel can be cut by some 40% annually when employees work remotely at home for example. This is an important finding in supporting climate friendly working methods in Finland.	Legislation regarding remote work or decreasing work related travel is not expected in the near future. However, DNA continuously raises awareness on the benefits of remote work, including reducing the emissions from work-related travel, when interacting with decision makers.

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

Finnish Federation for Communications and Teleinformatics FiCom

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

The communications and teleinformatics industry FiCom is in an important position to reduce emissions and increase energy efficiency in the society. The industry promotes e.g. remote work and virtual meetings as well as offers IoT solutions for smarter cities, transport and heavy industry, which help combatting climate change.

How have you, or are you attempting to, influence the position?

DNA supports FiCom's position regarding climate change.

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?

DNA's policy work is coordinated by the Head of Legal. Sustainability Manager closely cooperates with the Legal Department to ensure that DNA's policy engagement is consistent with the company's overall strategy. Sustainability Manager is DNA's initial point of contact when it comes to climate change related regulation.

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 voluntary sustainability report

Status
Complete

Attach the document
DNA_annual_report_2017.pdf

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

C14. 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.

C14.1

(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	CEO	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

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

Please confirm below

I have read and accept the applicable Terms