



K L A P P I R

Smart Software Solutions for the Environment

Sustainability Report 2018

We wish to do sustainable business and bring long-term value to our customers

Distribution:

- Environmental Agency Iceland “Green accounting”
- Company Register of Iceland
- United Nations Global Compact (UNGC)
- Nasdaq ESG reporting portal provided by Klappir
- Klappir Stakeholders
- Klappir Annual Meeting

Table of contents

Reporting method	03
About Klappir	04
Our business model	05
Key figures	07
Our sustainability strategy	08
Sustainability governance	09
Stakeholder engagement	08
Environmental impact	10
Social impact	11
Product highlights	14
Materiality assessment	17
Sustainability progress 2018	19

Appendixes:

1. ESG Statement 2018

Reporting method

Our approach to sustainability is based on the environmental, social and governance issues that are material to our business

This report contains an overview of the company’s approach to various aspects of sustainability, as well as key measurements and an assessment of our progress toward our goals.

Critical focus areas are identified; related projects, scope and initiatives are addressed.

The report, and especially the Sustainability Statement, includes data to demonstrate the progress Klappir has made in addressing sustainability.

This report covers the operation in Iceland only. Other companies in the group will be covered in the 2019 report.

GRI: 102-12; 102-47; 103-1; 103-2; 103-3

We use the following reporting frameworks in an integrated fashion to identify and report on material issues

UN Global Compact In October 2017 Klappir became a participant in the UN Global Compact corporate responsibility initiative. The company has thereby declared that it will, along with other companies, home and abroad, work against pollution, improve governance skills and protect human rights. Klappir aims to incorporate the Global Compact Principles into its strategies, policies and procedures.

Greenhouse Gas Protocol This GHG Protocol contains methodologies on how to prepare and present environmental information. It establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions.

Nasdaq ESG guidelines: These contains voluntary guidelines for environmental, social and corporate governance (ESG) disclosure to support companies listed on these exchanges. The guidelines were published in March 2017. They build on United Nations Sustainable Stock Exchanges (SSE) initiatives.

The Global Reporting Initiative (GRI) Content Index is referred to in the report and in the statement.

We do not attempt to formally use any one of the systems provided by UN Global Compact (GC), Nasdaq (N), or Global Reporting Initiative (GRI). Instead we have a standardized methodology that enables the use of all definitions in the context of a single report and attached statement. We deliver our reports and statements as follows:

To Nasdaq and to UN Global Compact, we deliver the Sustainability Statement with relevant inventory accounting and this sustainability report built on the statement. The Sustainability Statement is generated by our Klappir Core software.

 Environmental (E)	 Social (S)	 Corporate Governance (G)
E1. Direct & Indirect GhG Emissions	S1. CEO Pay Ratio	G1 Board -Separation of Powers
E2. carbon Intensity	S2. Gender Pay Ratio	G2. Board -Transparent Practices
E3. Direct & Indirect Energy Consumption	S3. Employee Turnover Ratio	G3. Incentivized Pay
E4. Energy Intensity	S4. Gender Diversity	G4. Fair Labor Practices
E5. Primary Energy Source	S5. Temporary Worker Ratio	G5. Supplier Code of Conduct
E6. Renewable Energy Intensity	S6. Non-Discrimination Policy	G6. Ethics Code of Conduct
E7. Water Management	S7. Injury Rate	G7. Bribery/ Anti-Corruption Code
E8. Waste Management	S8. Global Health Policy	G8. Tax Transparency
E9. Environmental Policy	S9. Child & Forced Labor Policy	G9. Sustainability Report
E10. Environmental Impacts	S10. Human Rights Policy	G10. Other Framework Disclosures
	S11. Human Rights Violations	G11. External Validation Assurance
	S12. Board - Diversity	

The ESG basic metrics used in our ESG Statement (Ref. Nasdaq)



Letter from the CEO

We at Klappir care for our environment and are committed to building software solutions and providing services that enable communities, businesses and regions to carry out transparent and reliable environmental accounting in a cost-efficient way and thereby increase efficiency, ensure legal compliance and reduce operating cost.

Our software solutions enable our clients to reduce their environmental footprints, guide processes of legal compliance, increase environmental transparency and do environmental accounting in a transparent and robust way. Our software solutions also enable authorities to monitor environmental progress. They also simplify the process of submitting data to authorities in a digital and standardized format.

We aim to bring together skills and know-how, companies, international corporations, individual users, local authorities, national governments and other stakeholders to help us to develop and implement our software solutions.

In an environment of close cooperation with our customers, we have the capability to provide our robust methodologies and cost-effective software solutions to society as a whole. This makes Klappir a trustworthy partner in a world that is moving toward sustainability.

Iceland is committed to the UN's goals of sustainable development and the objectives of Paris 2015 with the goal of cutting emission by 40%. See *Iceland's Climate Action Plan for 2018-2030*¹.

Reducing greenhouse gas emissions by 40% from 1990 levels in only 12 years is an uphill journey for a community that bases most of its income on harnessing natural resources, heavy industries and tourism.

The first steps were taken in November 2015 when 104 companies signed the Reykjavík Agreement, committing themselves to the Paris objectives. These companies will contribute to *Iceland's Climate Action Plan*, and many of them are customers of Klappir.

We are convinced that Klappir's products, services and NGO activities will offer great support for Island's Climate Action Plan for 2018-2030.



Dr. Jon Agust Thorsteinsson
Klappir CEO

About Klappir Green Solutions hf.

Klappir's software and services enable the company's clients to improve their sustainability, guide processes of legal compliance, increase environmental transparency and create standardized and transparent sustainability accounting in a robust way.

Klappir (*Klappir Green Solutions hf*²) is a company listed on Nasdaq, First North Iceland. The company has its headquarters in Iceland and branches in the United Kingdom and Lithuania.

Klappir has more than 200 customers using its products and services, including businesses, municipalities and public sector organizations.

Klappir software products and services together with methodologies and strong client relationships underpin the company's on-going quest to reduce our impact on the environment.

Klappir software and services are focused on the following sectors:

1. Maritime (on-sea transport and harbours)
2. Fishing (fishing and processing)
3. Aviation (airlines, airports and services)
4. Manufacturing (food, beverages and general)
5. Waste services (collection and disposal)
6. Utility services (energy and water)
7. Retail (stores, warehouses and transport)
8. Financial services (banks, insurance, investors)
9. Real estate and building contractors
10. Government, cities and the public sector

Klappir invests in sustainability through the products, services and methodologies it develops and provides to its clients.

Sustainability is supported by Klappir products in following three fields

COMPLIANCE

Our Comply products stands for compliance with environmental legislation and regulations, both locally and internationally.

EFFICIENCY

Our Advance and efficiency products stand for improved energy efficiency, waste efficiency, water efficiency and paper use efficiency.

ENGAGEMENT

Our Engage products stand for information sharing and transparency toward stakeholders. These products deliver the Environmental Statement and the Sustainability Statement.

1. <https://www.government.is/library/Files/Icelands%20new%20Climate%20Action%20Plan%20for%202018%202030.pdf>
2. <https://klappir.com/>

Our business model

Increased environmental awareness is an economical fact. Companies will both respond to existing environmental rules and regulations and also anticipate what is coming up on the legislative agenda and make themselves able to comply as fast and efficiently as possible.

Monitor and interconnect environmental activities in a global accounting system will be a part of an enterprise-wide strategy to keep ahead of law and regulations, minimise risk and improve sustainability.

The push of law and regulations in the coming years together with companies own initiatives is likely to enlarge exponentially the market for environmental services. The companies will expect proven and cost efficient software solutions and service that provide high value to their businesses.

Market drivers

Before Klappir launched its software suit, environmental accounting is mostly being carried out by manually collecting data and without universally recognized methodology.

Companies yearly environmental accounting reports to authorities are most of the time based on manually collected data from different sources which is both time consuming and limited in accuracy and transparency. Cost-efficient and comprehensive software tools to support legislative compliancy, transparency and environmental accounting are needed on all levels, all over the world.

Consequently, in the years to come there will be a growing demand from cities, regions, investors and civil society for efficient software solution to reduce manual workload related to environmental accounting, analytical processing, environmental predictions and goal settings.

By implementing our environmental software solution, companies, cities and regions gets efficient communication platform where their reported environmental accounts will contribute to national accounting system with a full transparency.

By using our software solutions, both the companies, regions and public prediction of future environmental accounting will be based on solid foundation and standardized and known methodology. Data and information will be streamed between parties in a trusted and time efficient way.

Market position

By offering comprehensive implementation methodology and robust software solution for environmental accounting, transparency, compliancy to environmental regulations and analytical processing to all industries and all levels of government – brings Klappir in unique position on the market.

The total and universal nature of our software and services gives Klappir a unique marketing position. Any company anywhere is a potential client – any governmental party on any level is also a potential client.

A strong position on the home market will further support the speed in uptake of the technology.

Marketing and sales strategy

The transformation toward stricter environmental law and regulations is evident in today's business environment. This means that individuals, leaders of industries and communities will engage in a process of increasing sustainable activities. Even organizations with excellent environmental record must be pushed for change if it hopes to stay ahead.

The core of our business strategy is networking through partnership (global & regional) and co-operation through key-customers value chain.

The marketing and sales path is the customer's value chain. The key-customers will push on their suppliers to provide solid information on their environmental accounting – the easiest way for the suppliers is to use the Klappir software to provide the relevant sustainability information to their customer.

Our clients will also provide environmental information to their customer by using the Klappir software. Our clients and their customers will have at any given time solid information on their own overall environmental accounting and will be able to report accurately to all relevant stakeholders at any given time.

In other words, Klappir is reaching out to new clients through existing network and building new ones.

Growth potential and synergies

With a direct relation to the Paris 2015 agreement a significant market growth in the area is expected.

Software sale framed in by solid and proven methodology to businesses, cities, regions and civil society through partnership network have the potential to grow according to implementation of new law and regulations linked to the Paris agreement and operational improvements received by the users of the Klappir software.

The ability of Klappir to maintain, develop and communicate benefits of provided services and software will be one of the key's to the commercial success.

One important factor is the speed in which Klappir can successfully address the issue of new partners and new geographical markets. The speed of this development will naturally be greatly dependent on the Klappir access to growth capital.

Our business model

Klappir Green Solutions hf. is a listed company and the group includes the following companies:

- Klappir Green Solutions hf, corporate ID no. 630914-1080
- Datadrive ehf, corporate ID no. 490615-2100 - (100%).
- Klappir International UK (100%)
- Klappir Lithuania (52% owned by Klappir International).

Ownership structure

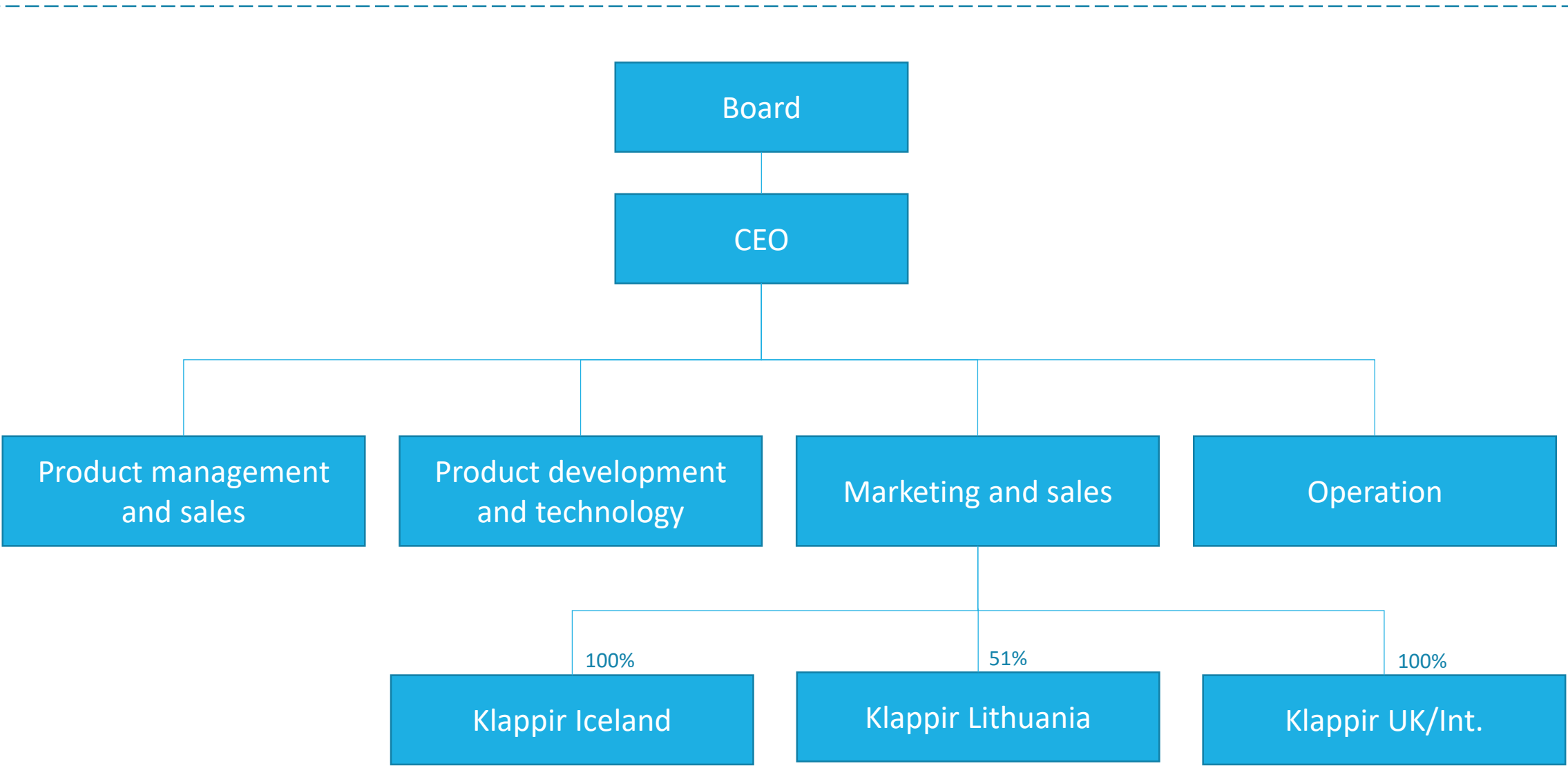
Shareholders on 31 December 2018 were more than 300. Two classes of shares have been issued: series A and B. In a vote at a general meeting, A shares carry one vote while B shares have no vote. A shares and B shares carry equal rights to dividends from the assets and earnings of the company. A shares are not listed.

We are expanding our business through an international network of strategic partners at both regional and global-industrial levels. We group our partners into “**Regional Partners**” and “**Global Partners**” (see business workflow).

To support both regional and international partners, we have a team of specialists with extensive knowledge of our software and how to optimize its usage for the sectors we serve. They also have broad knowledge of legal issues related to environmental law and energy efficiency as well as the utilisation and structured sharing of knowledge.

Product development and production is a separate unit with a team of specialists focusing on enhancement and further development of our product portfolio.

Our business units and partners



Klappir’s business partners

- **Chartco Ltd.** is an industrial global partner with its head office in the UK. It sells and supports our maritime software (eLogBooks) to the international market.
- **Brimborg ehf.** is an Icelandic partner selling our Klappir Datadrive solutions to the Icelandic market.
- **Sýni ehf.** Sýni Research Service offers consultancy and services to food and animal feed companies. Also sampling and measurements of sewerage and exhaust along with consultancy in co-operation with Verkís.
- **Efla ehf.** is a consulting company focused on supporting customers using Klappir’s software. They do not sell or promote the software.
- **Ábyrgar lausnir ehf.** is a consulting company specialised in sustainability consulting and responsible investments.



Sustainability

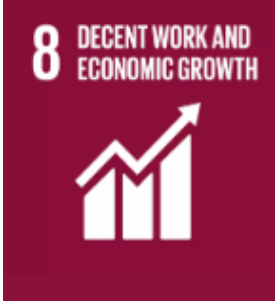
Sustainable Development Goals



GRI: 102-1; 102-2; 102-4; 102-5; 102-6; 102-7; G4-2



Gender Equality: 25% of our employees are women. We will strive to improve the gender ratio in the next three years to 40% .



Decent Work and Economic Growth: We want to create the conditions that allow our employees to have quality jobs that stimulate the economy while not harming the environment.



Climate Action: Our impact from emission is limited but our real positive impact comes from our products and services.



Industry, Innovation and Infrastructure: Our software is supporting our clients in improving their sustainability. Our positive impact on climate is mainly based on our software products.



Peace, Justice and Strong Infrastructure: We deliver software to institutions to improve their ability to get solid overview over sectors compliance to environmental law.



Partnership for Goals: By increasing number of clients we reach out to more people. Especially we are listed company with 328 shareholders we want to work with on the sustainable developments goals.

Innovation (SDG 9)

The main focus in 2018 was on enhancing existing products and developing new products. Product portfolio was increased and the products already developed were integrated with the Klappir Core ecoplatform.

The main focus was on combining the three software products KGS, Datadrive and Ark to one enterprise solution.

In 2018 our innovation was supported by the Icelandic Technology Development Fund.



All our directors are dependent as they are shareholders of the company. See corporate governance on www.klappir.com

For sustainable figures: See attached ESG statement.
For financials: See attached financial report.



Our sustainability strategy

We manage our business by integrating environmental, social, governance (ESG) and economic considerations into our operations, products and services.

As a technology company with a relatively small operational footprint, some of our most significant impact comes from our products and services as well as the methodology provided by our software.

We focus on developing new products and services, spreading new ideas and leading collaborative efforts with our customers, businesses, universities and civil partners to develop a sustainable future.

We invite different businesses, NGOs and governmental authorities to our open platform where they can provide their services.

Product strategy

Our product strategy is to develop software solutions, services and methodologies which enable our customers to build a sustainable future by ensuring legal compliance, increased energy efficiency and minimal waste of resources.

Key activities

Develop and deliver sustainable products for our clients: We work constantly on expanding the space of high-quality inventory accounting and analytics.

Improve our clients use of environmental and social governance (ESG) data: We provide software to collect data and perform analyses. We work closely with our customers to enhance their user experience. We aim to provide our customers with solid support and assistance while working with our software.

Lead standardisation and transparency: We actively use the leading sustainability reporting frameworks to enhance the quality and compatibility of sustainability-related information.

Increase the use of reliable data: As assets are the source of environmental load, we actively develop software and IoT solutions to collect data from individual assets (ships, vehicles, aircraft and buildings). We strive to collect the data directly from each asset to ensure high quality of the data for analytics and accounting.

Keep data safe: We invest in the safety of data and the security of our software.

Operational strategy

We want to grow our business in a sustainable way and decouple our growth from our environmental impact. This is one of the main reasons we are expanding our business through an international network of strategic regional and global-industrial partners.

Key activities

Reduce our emissions: We are focused on reducing our Scope 1 and Scope 2 emissions by 40% in 2030 from our base year 2015 and decoupling Scope 3 emissions (business travel and commuting) from our growth from a 2015 baseline.

Keep our renewable energy use at 100%: Today we use only renewable energy for electricity, heating and service cars (EV).

Reduce our waste, plastic and paper use: We measure all waste generated by our operation and try to minimize generation of waste. We also strive to minimize landfill waste, plastic and paper use.

Locate ourselves in energy-efficient buildings and in buildings with the potential to control waste: We will strive to locate ourselves in buildings that are energy efficient and where waste management is easy.

Measure relationships between environmental and economic performance: We will not grow our business at the cost of the nature.

“See our environmental policy on our website”.

People strategy

We engage our employees in addressing social and environmental issues that are relevant for the businesses and communities in which we work. We also engage in and encourage open and organized discussions concerning environmental issues among the employees of the companies and organizations we serve.

We aim to give our employees the opportunity to increase their skills both in terms of the job itself and in terms of expanding their knowledge of environmental issues in general.

During recruitment, Klappir seeks to attract enthusiasts in data management and environmental management for software development and marketing/service.

Key activities

Employees: Klappir invests in the development of talent and offers fair terms to its employees along with benefits which improve employees' well-being and health and strengthen their family life.

Education and life-long learning: Klappir encourages knowledge creation and offers employees retraining through the internet or otherwise.

“See our family, health and human rights policy on our website”.

Sustainability governance

We engage with our stakeholders to drive our sustainability effort onwards

Klappir complies with all relevant rules and regulations, Icelandic legislation (Law no. 2/1995 on corporations), the company’s articles of association and the board’s rules of procedure.

As a listed company, we communicate with our shareholders and other stakeholders in an open and honest manner regarding the operation.

We provide investors, analysts and other stakeholders with timely and accurate information.

Klappir’s rules of procedure for the boards are published on our website.

Supply chain

An evaluation of suppliers will take place in early 2019. A suppliers’ code of conduct will follow later that year.

Stakeholder engagement

We aim to create long-term value for our communities, customers, employees, partners and shareholders. We do so by:

- developing innovative sustainability software solutions
- doing business in a financially, environmentally and socially responsible way
- anticipating, adapting to and creating new business opportunities from changes in our business environment
- supporting capacity building of our society, customers, employees, shareholders and partners
- providing cost-efficient and reliable environmental software to businesses, regions and cities that simplifies environmental accounting;
- providing software that brings transparency to environmental accounting throughout the entire supply chain and to society as a whole;
- delivering and supporting environmental eco-systems for the wider community.

Stakeholders engagement examples:

	Channels	Example
Customers	Meetings and service network	Our product development is order-based. We evaluate value to customers through pilot projects.
Employees	Meetings and internal network	We try to have regular meetings with employees to discuss sustainability topics, our products and how we can improve the user experience of our customers.
Suppliers	Our Supplier Code of Conduct; (see Supply Chain)	In 2019, we will introduce regular meetings with our suppliers. These meetings will focus on their overall sustainability impact.
Communities, regions and public stakeholders	Regular meetings	We support our community in improving their sustainability. We deliver to them our software and services. We work continuously to create opportunities for discussions on environmental improvement.
Nongovernmental Organizations (NGOs)	Regular meetings	Our main activities are listed under “Social impact”.
Shareholders	Annual meetings and irregular meetings	We provide shareholders with the Sustainability Report and Sustainability Statement.



Environmental impact

As a technology company with a relatively small environmental footprint, some of our most significant impact comes from our products and services as well as the methodology provided through our software and customer relationships.

We give our customers the critical ability to continuously follow and improve their environmental performance in a cost efficient way.

Together with our customers, we are building solid and reliable infrastructures for sustainability.

Our focus is on developing new products and services, spreading new ideas and leading collaborative efforts with businesses, universities, the elementary and primary school system, authorities and civil partners to develop sustainable future.

Impact from operation

Our own performance in numbers is presented in our Sustainability Statement with relevant inventory accounting as separate attachment.

Scope 1 and Scope 2 emissions

Our Scope 1 emissions include those coming from use of fossil fuel consumed by vehicles used while providing our services. We mostly use an EV service car to keep our Scope 1 emissions to a minimum. Our Scope 2 emissions come from the use of electricity and hot water for heating has not changed since our reference year 2015.

Scope 3 emissions (supply chain and distribution)

Our Scope 3 emissions include those from our supply chain and emissions related to our business trips and commuting.

Waste

Our office is located in an older building in the center of Reykjavik, where it is difficult to pursue effective waste management. This limits our capability to track the waste through waste pick up. However we focus on limiting waste which we consciously categorize, weigh and register before it is removed from our office space. Thus we have an excellent overview of our waste throughout the year.

Energy

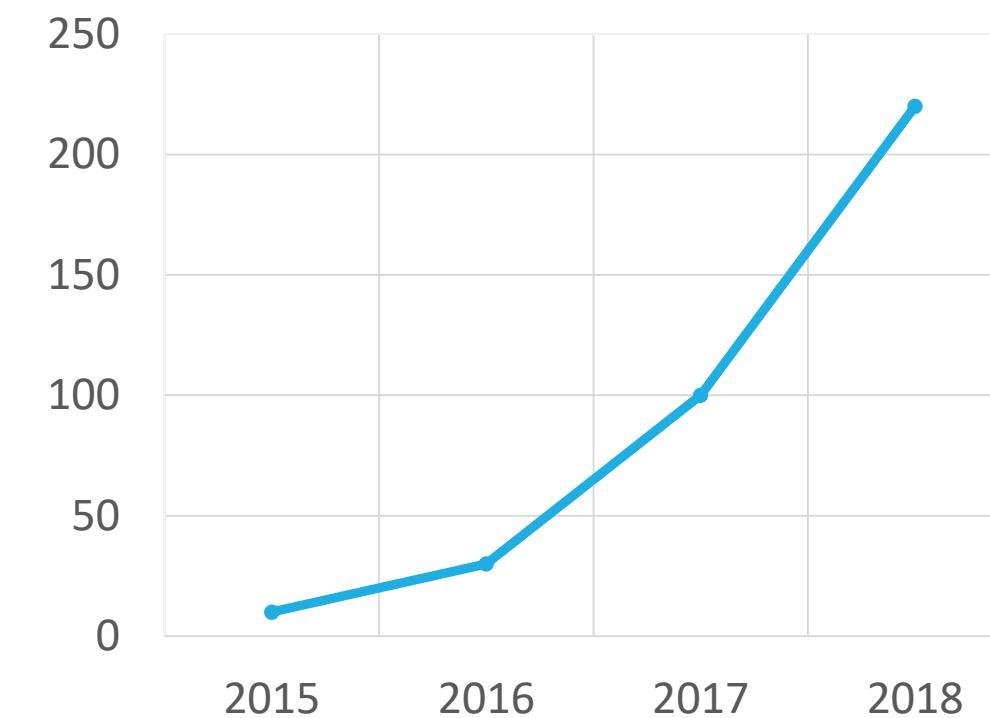
We buy our electricity and hot water through our landlord. They are both 100% renewable (*the hot water is geothermal water*).

The fuel we use is limited as we use an EV car as much as possible.

Impact on communities

Our mission is to make reliable environmental compliance, inventory accounting and reporting affordable for all businesses and communities.

Today, we have more than 200 users (companies, regions, governmental agencies and municipalities). In 2015, our customer base was less than 10 customers (see chart below).



The software uptake in Iceland (number of customers)

This wide spread uptake of our software and service in Iceland shows increased awareness and focus on climate topics in Iceland.

We work continuously on improving our software so that we can cover more data sources, extend data collection capacity, enhance the dashboard and keep user interaction simple.

Using our software, users can create their Environmental and Sustainability Statements in a standardized and transparent way.

Our software product is an integrated solution that provides cloud-based data collection, performance and analytics for

- compliance with environmental laws and regulations;
- real-time monitoring of the environmental impact of the business, identifying how non-financial factors influence the footprint of the value chain;
- optimization of the environmental sustainability of the whole value chain of businesses and regions, enabling them to reduce emissions and waste;
- automatic validation and reporting of environmental sustainability to stakeholders in a fully transparent way as required by new governance and social legislations – an automatic process which avoids manual mistakes, enabling trustworthy inventory accounting and providing constant actionable information on performance;
- provision of key performance information to the responsible leaders and authorities in a transparent, reliable and efficient manner, aligned with the Paris Agreement (COP 21).

Social impact

We love to bring key environmental, social, governance and economic components to the level of general know-how and understanding for each and everyone and for all generations. These components need to act in co-ordination toward sustainable development into the future.

Our main impact is based on our state-of-the-art software solutions, our services and our unique methodology, which together connect businesses, regions and authorities in a system similar to a single unified eco-system.

No one can solve sustainability challenges alone. Therefore we are proud of connecting people, their businesses and authorities into a single force, focused on improving their sustainability and our community through reliable data provided by our software.

We bring people together through software, services, methodologies and our NGO activities

The software products developed and provided by Klappir are interconnected through our Klappir Core-Platform which directs and shares the analytical information with selected stakeholders and partners.

In 2018, we served more than 200 customers – a number which is expected to grow in the coming years both locally and internationally.

We established offices in the UK and Lithuania, signed a global partnership agreement with ChartCo, a leading global software provider to the maritime industry and established an office in Lithuania together with Hof in Iceland.

We are co-operating with The **Environmental Agency of Iceland**, the **Icelandic Transport Authorities** and the **Coast Guard of Iceland** on developing software to support businesses in sharing legal information on a digital format. This we do to improve the efficiency of sharing and controlling that information.

We are one of the proud founders of **HAFIÐ – The Icelandic Centre of Excellence for Sustainable Use and Conservation of the Ocean**. Our CEO is the Chair of HAFIÐ.

Klappir contributes to local communities and NGOs and helps fuel their work. Our NGO activity is focused on supporting Iceland's Climate Action Plan (ICAP)¹

Klappir is a member of **Festa, the Icelandic Centre for Corporate Social Responsibility**³. It is a membership-based not-for-profit association which allows any organization in Iceland to become a member. We signed the Festa and the City of Reykjavík declaration committing 104 Icelandic companies to the objectives of the Paris Agreement. (ICAP: B12 to B17)

We support **Landvernd** in their initiative to improve children's understanding of sustainability. To do this, Landvernd works with the schools and communities around Iceland. (ICAP: D26)

We work with **Kolviður**² to enlarge their customer network through our platform. They are now able to sell tree-planting directly to our customers through our platform. (ICAP: C18)

We work with **Votlendissjóður** (e. wetland recovery fund) and are one of the founding member. They will be able to sell their services through our platform. (ICAP: C20)

1. <https://www.government.is/library/Files/Iceland%20new%20Climate%20Action%20Plan%20for%202018%202030.pdf>

2. <http://kolvidur.is/the-kolvidur-fund/>

3. <https://festasamfelagsabyrgd.is/english/>

We participate in discussions about climate topics when asked, and we participated in the TV program *Kveikur* which focused on **public education on climate change**. (ICAP: D27)

We have already standardized our method of making “**Green accounting**” with our software and methodology, (ICAP: D31) and we can now deliver data to the Environmental Agency.

Auðlindatorgið (Resources Forum) owned by the Environmental Agency of Iceland is now installed on our Klappir Core Platform, and we provide necessary software to support it.

We made a web portal for **Nasdaq Iceland** to collect ESG data provided through our software.

In 29 November 2018, Klappir received an award from Festa and the City of Reykjavík for its innovative environmental approach.



Employees

Our clear and transparent ethical standards serve as the foundation for our work culture and create an environment in which our employees can do their best work.

- We are a strong team of three generations which combines a modern approach with solid experience of business success.
- We are building a substantial knowledge base with software, finance, engineering, policy, law and computing.
- We are entrepreneurs who have extensive experience and know-how in the environmental and technology sector.



Policies, related to employees

Human rights and labour practices

Klappir respects human rights and freedom of association in accordance with Icelandic legislation and supports people's pursuit of physical and psychological health, fair treatment, acceptable and favourable working conditions and equal rights.

We support the fight against all discrimination, violence against women, children and old people and we will fight against degrading and inhuman treatment of people everywhere.

Klappir has not violated human rights and does not know of any violations in its value chain. The company expects general respect for human rights in its value chain and will react appropriately if any violation is discovered.

No children work directly or indirectly for Klappir. If the company becomes aware of the possibility that forced labour can be found in its value chain, then it will look closely into any such occurrences.

Equal opportunity and diversity

According to Icelandic law, Klappir is not obliged to make an equality plan because the company has fewer than 25 employees. Nevertheless the company has established in accordance with Act no. 10/2008 on Equal Status and Equal Rights of Women and Men, including comparable wages for the same or equally valuable jobs, so that no gender related pay-gaps exist within the company. We strive to hire women as well as men in all positions in the company, and we look for ways to reach out to women IT professionals. Salaries of females and males in the company, in comparable jobs, are equal. At Klappir, we have had employees with reduced working capacity and we will, according to our Human Rights Policy, continue to offer jobs to disabled people.

Health and safety at Klappir

Klappir complies with Icelandic legislation in Act 46/1980 on working conditions, hygiene and safety in the workplace. We have a comprehensive health policy with a health care plan as laid down in the act.

This policy will be introduced to the employees in the spring of 2019 and published on the company's website.

Work-related illnesses and injuries are registered, including inflammation, headaches, back injuries or stress-related diseases. Two employees were registered sick due to stress in 2018.

The company respects family perspectives and offers support for employees' family lives. We have written a family policy which will be presented and published in early 2019.

Klappir complies with legislation (Law no. 95/2000 on birth and parental leave/vacation), which is incorporated in both the health and family policies.

Anti-Corruption

Klappir complies with Icelandic financial legislation (Act 19/1940) and with international standards on bribery and corruption.

Klappir has zero tolerance for corrupt activities and has begun incorporating formal policies into the company's code of conduct related to anti-bribery and anti-corruption expectations for company employees and representatives.

Furthermore, an evaluation of suppliers will take place in early 2019; a suppliers' code of conduct will follow in 2019. The company is aware of the importance of responsible and ethical procurement and is writing its procurement policy.

These policies will be implemented during 2019 along with various related procedures. They will be published on Klappir's website.

Remuneration

Klappir's Remuneration Policy is based on a long-term vision of healthy operation regarding salaries and other payments to employees, members of the board, directors, compliance officers and accountants. The company's goal is an annual revision of remuneration.

75%  25%

High percentage of men in Klappir

Klappir strives to recruit women as well as men in every available job within the company, however considerably fewer job applications are received from women compared with men, especially for IT positions. This is a matter of concern for us and we will continue the work on finding ways to attract the attention of women and to encourage them to apply for jobs.

Product highlights

Klappir gives its customers a critical edge by giving them software tools and services to improve their environmental performance.

Together with our customers, we are building up a solid and reliable infrastructure for sustainability in regions where companies and the regional governments work together to improve the overall sustainability of the region.

We understand that no company can solve sustainability challenges alone, therefore we support our customers through cooperation, problem solving and sharing ideas.

Our software and services are built to create collective wisdom and a common and uniform understanding of sustainability.

We have unique experience in working with clients on environmental challenges. Our methodology is robust and has proven to be effective and successful. We understand both the problems that arise when developing sustainable processes and the requirements made by public authorities, which makes us a valuable partner.

Our services enable our clients to form processes for minimizing their environmental footprint. This involves methodologies for monitoring emissions and waste to create baselines for future measurements based on a sound knowledge of existing and upcoming environmental legislation and regulations that clients need to comply with.

Klappir Core

Our Klappir Core solution is a software platform that collects and processes environmental data. The data warehouse is part of Klappir Core. Klappir Core has the following software components:

Environmental Dashboard: The Dashboard gives an overall view of the environmental metrics. Emissions are divided into Scopes 1, 2 and 3 according to the Greenhouse Gas Protocol. Other environmental metrics (waste, energy, water, paper etc.) are presented as monthly use or as timestamped transactions.

Asset Framework: The Asset Framework maintains a complete overview of the assets which deliver emissions, waste, use energy etc. The software makes it possible to link together meters measuring environmental load with the asset itself. The Asset Manager (APP) is built into the framework.

Data Framework: The Data Framework manages all data collection from each asset and from the supply chain. It includes data analytics functions an both automatic and manual data collection functionality.

User Framework: The User Framework manages user access to different levels of the software. Users within a company have different levels of access to applications and software modules.

File Cabinet: The File Cabinet stores and distributes documents between stakeholders. All documents created by Klappir software can be stored in the File Cabinet. The main functionality of the File Cabinet is to share documents between stakeholders and throughout the supply chain.

Report Editor: The Report Editor keeps track of of reports and management plans. As example it includes the Environmental and ESG statements as well as MRV and SEEMP management plans and the ISO 14001 framework.

App Store: The App store is where users can buy and enable new applications the work on the Klappir Core platform.

Market Place: The Market Place is for applications that are specially developed to sell services and products, including sales of fossil fuels, electricity, tree planting, etc. Companies can promote and sell their services on the Klappir Marketplace.

*Each of our products is delivered in different versions that are not fully described in this report. The versions are most often **Standard – Plus – Premium**. These versions includes different features and are therefore priced differently.*

Klappir Software Apps

General for all sectors

Klappir Environmental Manager: This App activates the Klappir Core features and creates a complete Environmental Management System. The main interface to the environmental manager is the Environmental Dashboard.

Klappir Asset Manager: This App activates the Assets Framework in Klappir Core. By that the software gives open access to the assets and possibility to group assets and link them to responsible departments.

Klappir Data Manager: This App activates the Data Framework in Klappir Core. By that the user get access to a number of data providers in their value chain. The users also get access to tools to add manual data into the software. Both automatic data collection and manual is quality controlled by the App.

Klappir User Manager: This App activates the user management system.

Klappir Report Manager: This App activates the Report Editor. The Report Manager has number of standardized reports like MRV, ESG.

Klappir System Manager: This app provides a framework for ISO 14001 documents. It creates a standardized structure for the documents and simplifies ISO 14001 work.

Maritime and Fishing sector

Klappir ShipComply

Includes a number of software tools to support ship compliance with legislation such as IMO MARPOL and EU-MRV. This solution includes eRecordBooks for MARPOL Annex I –VI, analytical tools for data quality and a reporting tool. Additional modules include voyage reporting and environmental management plans.

Klappir ShipMaster

Includes tools to optimize a ship's operation in relation to energy and emissions. The software is built to improve the ship's energy efficiency.

Klappir ShipEfficiency

Software for on-board logging of operational data, including DailyLog and VoyageLog as well as Voyage Reports

Klappir ShipInspector

Software to follow and analyse the data logged in Klappir eRecod books.

Klappir MRV

An app that includes the framework for EU-MRV documentation for ships with documents which can be aligned to different types of ships.

Klappir DCS.

An app that includes a framework for SEEMP plans and procedures. The included templates can be aligned to different types of ships. The app also includes reports for the IMO.

Klappir PortMaster

Software to create a communications link between ship and port and port to Environmental Agency and Coast Guard. Information generated by Klappir eRecord books and SafeSeanet is transmitted from ship to shore.

Klappir Eimskip Carbon Calculator

Is software to calculate CO2 emissions from seaborne transport.

Klappir ShipBunker

Software to order bunkers for ships. It is directly linked to the MARPOL Annex I software and ensures a transparent and reliable order process with control of quality, amount and price. It also includes balance and control functions between MARPOL Annex I and the order.

Aviation sector

Klappir Environmental Manager This app activates all the Klappir Core features as described and creates a complete Environmental Management System for Aviation.

Klappir Icelandair Carbon Calculator

Software to calculate the CO2 emissions for aviation (people and transport).

Automotive sector

Klappir Datadrive

(vehicle fleet management)

Includes products for fleet management of land-based vehicles (cars, trucks and other mobile devices). The main functionality of Klappir Datadrive lies in improving fleet performance, tracking fuel usage, driving range and other important operational functions such as off-road tracking, information on weather on roads and services on the vehicle.

Klappir IoT-Vehicle

A meter to install in a vehicle to collect operational data. In addition, companies can buy and implement additional software and hardware to send data over WiFi. Collected data is streamed automatically to Klappir Datadrive.

Waste sector

Klappir Toolbox

(work order management)

A toolbox for truck workload management with a module for collective use of fleet cars.

Klappir IoT Waste

Software App to connect IoT weight system. The software keeps track of the weighting of waste into garbage bins (sorted and unsorted).

Targets and action plan 2015 to 2021

Our base year is 2015. We lined up our environmental goals for 2015 to 2030. We also set up a short-term goal for 2015 to 2021.

Impact goals	Actions	2015 baseline	2021 target %	Progress to target
Own carbon reduction/FTEe				
Reduce our Scope 1 emission	Use only EV cars for own use, such as services.		100 %	We have already reached 80% of this target. We use gasoline/diesel cars only when driving out of Reykjavik, otherwise we use EV cars.
Reduce our Scope 2 emissions	Use 100% LED lights in our office space and reduce the use of hot water for heating.		20%	This will be carried out in 2020.
Reduce our Scope 3 emissions	Try to keep our business travel to a minimum and invest in video-meeting equipment. Our employees use EV and hybrid cars, a car pool and buses as much as possible.		10%	We will invest in carbon offset projects to offset Scope 3 emissions.
Reduce generation of waste and get better space for waste.	Change the way we provide food, which will reduce plastic and food waste. This will mostly be carried out in 2020.		20%	We will work with our landlord to change the space for waste to improve transparency of collections.
Impact by own products and services				
Strengthen regional and global activity	Expand our operation both on a regional level (regional partners) and on an international level (international partners).	5 projects	75%	We have established offices in Lithuania and the UK and finalised a partnership agreement with ChartCo.
Further expand and strengthen our software product portfolio	Further strengthen our software product portfolio and services.	5 projects	50%	We have acquired Ark Technology and Datadrive, which brings us products to optimise vehicle fleet management along with compliance software for ships.
Extend our software with IoT solutions	Increase our ability to connect to IoT sensors and extend our software and services.	4 projects	75%	We have already connected to IoT system on waste, electricity and WiFi.
Engagement				
Work with NGOs and governmental agencies to expand the eco-platform	Work with the Icelandic Coast Guard, Environmental Agency and the Port Authorities. Also establish solid cooperation with NGOs providing Carbon Offset (planting trees and wetland). Expand our support of Hafið.	10 projects	30%	This is work in progress. We enjoy excellent cooperation with governmental agencies, the Coast Guard, Kolviður and Votlendissjóð. Our cooperation with Faxaflóahafnir is also very good.
Be a voice on sustainability and support capacity building	Participate in public discussions on climate and provide excellent knowledge on the topic.	2 projects	40%	We participate in public discussions and in supporting capacity building when needed.

Klappir materiality assessment

Our approach to sustainability is focussed on what environmental, social and governance issues are material to our business.

Our materiality assessment identifies and describes areas of our impact. This information shapes our sustainability strategy and helps us to prioritise our activity. In this sustainability assessment, we focus on our sustainability impact through our products and our work with our customers, the community and strategic partners.

We use the following reporting frameworks to identify and report on material issues:

- Nasdaq ESG framework
- Greenhouse Gas Protocol
- UN Global Compact
- The Global Reporting Initiative (GRI)

(see also Reporting method on page 3)

We do not attempt to formally use one of the systems provided by UN Global Compact (UNGC), Nasdaq (N), or Global Reporting Initiative (GRI). Instead we have a standardized methodology that enables us to use all definitions in the context of a single report and attached statement. We deliver our reports and statements as follows:

To Nasdaq and UN Global Compact we deliver the Sustainability Statement with relevant inventory accounting and the Sustainability Report built on the statement. The Sustainability Statement is generated by our Klappir Core software.

Impact issues	ESG (topic)	GHG (topic)	UNGC (topic)	GRI (topic)
High-impact issues <i>Issues that are likely to impact our company and our employees due to business, environmental and/or social behaviour.</i>				
Competitive behaviour / professional / ethics	*		*	*
Employee well-being / development				
Economic / financial				*
Customer welfare				
Product quality / R&D / data privacy				*
Customer service and support				
Energy	*	*	*	*
Public stakeholders and strategic partners				
Medium-impact issues <i>Issues that may not impact our company directly but may impact our strategic partners.</i>				
Marketing and communication	*			
Supply chain management				
Employee rights	*			
Emissions	*	*		
Low-impact issues <i>Issues that may not have significant direct impact on our company or strategic partners.</i>				
Water consumption	*	*	*	*
Diversion of waste	*	*	*	*

Risk analyses and opportunities

The United Nations has for decades been leading an international consensual program by setting goals for sustainable development and combatting climate change. By doing so, it provides a necessary framework for all communities – large and small – to take individual actions. Every year the Convention of Parties (COP) is held with participation of 195 countries.

In COP 21 in Paris 2015, all the participants signed to the Paris Agreement committed to holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

The 195 participants will continue to develop ways to live up to their commitments, such as gathering and sharing information on greenhouse gas emissions, national policies and optimal practices. COP 22 was held in Marrakech in Morocco in the autumn 2016 with special focus on environmental accounting and transparency.

And the world is changing accordingly with governments, international organizations and NGOs realizing the severity of problems directly related to increased pollution and climate change. This has resulted in several initiatives from all parties. In view of that, new laws and regulations are being pushed through which aim to drive down emissions and waste.

This is clear for instance in oceanic services, where port authorities and the shipping industry in general are operating with new environmental regulations. The IMO (International Maritime Organization) has set the first ever world and sector-wide limits on emissions, and the EU implemented Measure, Report and Validate (MRV) legislation for shipping in 2017 along with preparation for MRV legislation covering the fuel consumption and CO₂ emissions of heavy duty vehicles.

The EU Emission Trading Scheme (EU ETS) has an annual procedure of monitoring, reporting and verification (MRV) which, together with all the associated processes, is known as the ETS compliance cycle. Industrial installations and aircraft operators covered by the EU ETS are required to have an approved monitoring plan for monitoring and reporting annual emissions. This plan is also part of the permit to operate required for industrial installations. Every year, operators must submit an emissions report.

The Clean Air Act of the US environmental protection agency (EPA), which implements MRV regulations on industry in the US, will likely be expanded to include ports, and transportation infrastructure.

The current and future trend is towards monitoring and verifying emissions as it is essential to understand the situation at all times in order to take effective action.

http://ec.europa.eu/clima/policies/transport/shipping/index_en.htm;
http://ec.europa.eu/clima/consultations/articles/0031_en.htm
http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm

Risks (2° Celsius scenario)		Potential results
Transition	> Policy and legal	Our products and services are partly dependent on the policy and implementation of environmental legislation. It is expected that policy changes may happen at a different times across different geographical areas. Our focus over the next 3-5 years is on Europe and therefore we do not anticipate meaningful negative impact.
	> Technology	Our business uses more that 98% renewable energy and our global activity runs through geographically located partners, therefore we are able to minimize our business trips. Increased costs of business trips will have minimum negative impact on our operation.
	> Market	Our clients core from different business and public sectors. Businesses which relay on fossil fuels will meet new challenges that can change their business environment. We expect this will increase those companies’ costs, but at the same time their sharpen their focus on improved sustainability.
	> Reputation	Even in the absence of policies to promote a low-carbon economy, Klappir will continue to develop and promote its software solutions. Many of the policies and legislation needed for promotion of our solutions are already in place or will be implemented in the near future.
Physical	> Acute	Businesses may experience losses in productivity or working days due to severe weather events. Businesses harvesting natural resources may experience losses due to changes in sea levels or temperatures and acidification of the sea. Our services are focused on 10 major sectors (see page 4).
	> Chronic	The majority of businesses are not in areas that are stressed by extreme temperatures or lack of water. Changes in sea level and weather patterns and acidification of the sea can have an impact on our operation.

Opportunities	Timeline	Potential results
Products and services	0-5 years	Our clients operates assets such as ships, trucks and cars, offices, warehouses and aircraft. Our products and services are developed to help users of our software to minimise the environmental impact of their assets.
Markets	0-5 years	More markets will need powerful tools to be able to make transparent and solid environmental accounting at low cost. As markets in the transport sector and industries harvesting natural recourses become more volatile, the need for sustainability high-quality transparent data will probably increase. At the same time, the need for information on sustainable performance will also probably increase.

Sustainability progress 2018

Our sustainability progress in numbers is presented in our attached Sustainability Statement.

The report refers to content about our business, environmental and social issues that have a direct and significant impact on our company, employees, stakeholders and business partners. It also includes issues that we have a unique opportunity to influence. These issues are identified in our materiality assessment, which we conducted in 2018.

To see our sustainability progress, see financial statement and our ESG statement. Here are our main results in 2018:

Financial impact

Based on the success of our products and solutions Klappir continue to grow.

Investment in sustainability: We invest all our income in further enhancing our environmental software and develop new products. We also invest in our company sustainability by increasing use of renewables instead of fossil fuel and buy carbon neutralization through Kolviður.

Environmental impact

From 2015 (our base year) our emissions have been reduced compared to 2015 (See our ESG Statement).

Our main KPI is our carbon intensity per full time employee (FTEe). We count all people working in the company influencing our emissions.

Waste

Klappir is located in a building in the center of Reykjavik. This means we are not able to track the waste from our bins. Therefore we are not able to count how much waste is recycled.

Business travel

In 2018 we have few business trips out of Iceland. Majority of the trips are linked to the partnership contract with ChartCo and establishing Klappir Lithuania. Locally we only use EV cars within the city of Reykjavik. Outside Reykjavik we use Hybrid (EV/gasoline) car, methane or diesel.

Energy (fuel, power and heat)

Our share of renewable energy is 97%.

Paper management

Our total amount of printed paper was in 2017 from 36.822 in the year 2017 to 13.391 pages. This decline in printing is because we stopped producing printed manuals for ships. All manuals are now digital.

Social impact

Our social impact continue to grow, mainly due to fast increase in users of our software. In 2018, we started to introduce our maritime software (the MARPOL package) toward international maritime companies together with our strategic maritime partner ChartCo.

We also started to distribute our environmental software for retail businesses in Lithuania. Our first customer was IKEA. To further follow up on the market we established a regional company in Lithuania together with Hof in Iceland.

We will continue our work in Iceland with all the different stakeholders (see Social Impact on page 10) we are already working with to improve the environmental digital infrastructure in Iceland.

Sustainable governance

In 2018, continued our work with our stakeholders and will continue into the future.

We will continue developing our policies and align our policies toward the growth of the company. We are listed on Nasdaq and we work within their framework regarding disclosure of information and communication with shareholders.

Global awareness

Sustainability will not be viewed as a painful "cost of doing business", instead companies will build bridges between their sustainability processes and operational improvements. Increased environmental awareness is an economical fact. Businesses will both respond to existing environmental rules and regulations and also anticipate what is coming up on the legislative agenda and make themselves able to comply as fast and efficiently as possible.

"Harvard Business Review"



KLAPPÍR

Austurstræti 17
101 Reykjavík, Ísland
Phone: + 354 519 3800
service@klappir.com
www.klappir.com