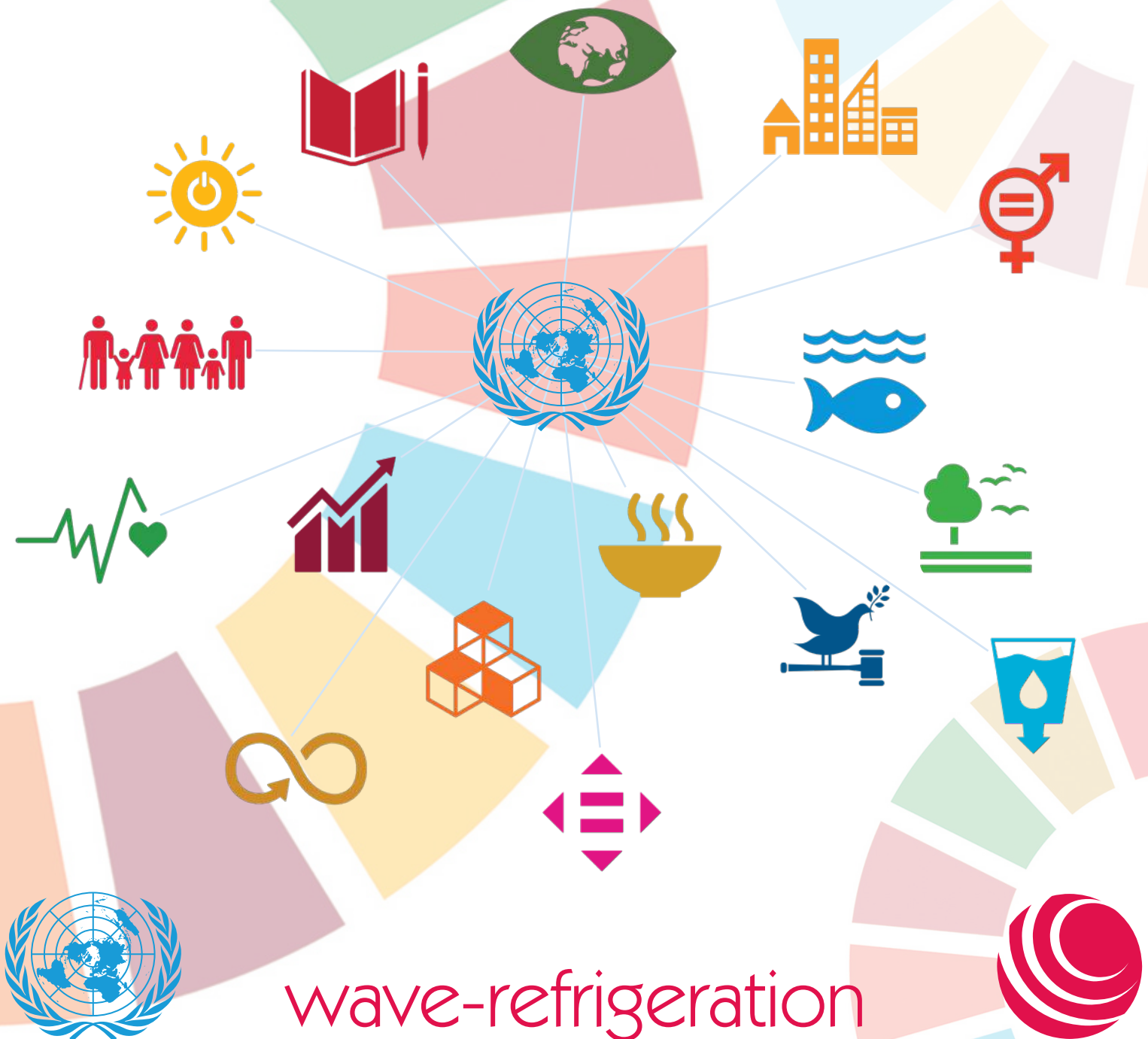


Sustainable Development Goals

Q4 - 2019



wave-refrigeration

CONTENTS



WAVE LAUNCH BUSINESS SDG'S

WE ARE EXTREMELY PROUD TO INTRODUCE OUR OWN 17 SUSTAINABLE DEVELOPMENT GOALS (SDGS) TO THE REFRIGERATION, WIDER ENGINEERING AND LOCAL COMMUNITIES

SDGs are a collection of 17 global goals set by the United Nations General Assembly. Wave have committed to achieve the advancement of their own goals aligned to this initiative. Our award-winning Project Consultant, Ellie Clare, is taking the lead on this business crucial initiative, and all of the team at Wave will play their part. For each initiative, two or more of our team have taken a lead. We will monitor our advancement and report back on attaining our targets to both industry and local communities in the UK and India on a regular basis.

Our SDGs have been carefully considered and complement our industry leading culture that is based on organisational development / training, equality, diversity, and supporting our local communities.

Our SDGs also reflect our company vision: "Wave promote sustainable engineering practices that protect our natural environment for present and future generations".

Some of our SDGs are very personal. This is because we are small business (albeit with a demonstratable global presence) that prides itself on maintaining a close family ethos. We are 100% confident in attaining our goals, and over time replacing those that have been achieved with new ones.

As a company that provides refrigeration engineering, with close links to local communities, we strongly believe in practising what we preach. We hope that our connections, industry peers and local community will back our goals and monitor the progress that we make. We must all play our part in supporting the United Nations SDGs if we are to achieve a sustainable future.

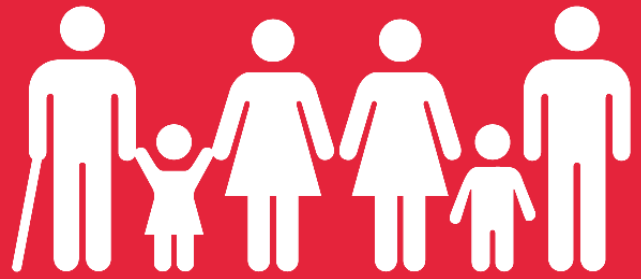
Our official launch on 31st October 2019 was supported by the Keighley Cougars RLFC, and we were delighted to share our aspirations and vision with former New Zealand International and Rugby League Legend Jake Webster, pictured with Ellie Clare, Joanne & James Bailey and daughter Lucy who has recently learned about the damage caused by plastic in our seas and oceans.



wave-refrigeration



1 NO POVERTY



WHAT WE DO:

In 2019, Wave entered a partnership with FareShare to provide our refrigeration consultancy services. FareShare redistribute surplus food to charities that turn it into meals for those in need. This has contributed towards 36.7 million meals across 21 centres across the United Kingdom, saving the charity sector £28.7 million.



FareShare

fighting hunger, tackling food waste



HOW WE DO IT:

Wave are providing refrigeration consultancy services at no cost to FareShare to ensure that they receive value engineered, energy efficient and compliant cold stores where surplus food is stored prior to distribution.

Wave have completed two projects for Fare Share to a very high standard.

"WE BELIEVE THAT NO GOOD FOOD SHOULD GO TO WASTE"

FareShare 2019

Our endeavours with Fareshare have seen us make the final at the RAC Cooling Awards in September 2019, and we have also been shortlisted for the 2020 ACR & Heat Pump Awards 2020

Initiative Leads



Ellie Clare



James Bailey



wave-refrigeration



2 ZERO HUNGER



WHAT WE DO:

As a proud supporter of the charity FareShare, we have worked alongside TJ Refrigeration and HBCL Cold Stores to deliver new, high quality and best value chilled and frozen food cold rooms, replacing inefficient former rooms at Beeston, Leeds and Speke, Liverpool.

The solutions provided ensure that donated chilled and frozen foods can be effectively stored and distributed to local charities to reduce food poverty whilst also saving energy!



HOW WE DO IT:

Our talented Ellie Clare, co-author of Wave's 2019 Corporate Social Responsibility report, managed the project on behalf of Wave. A big thankyou goes out to TJ Refrigeration and HBCL Cold Stores for their efforts and recognising the importance of supporting charity and CSR.



"WE BELIEVE THAT NO GOOD FOOD SHOULD GO TO WASTE"

FareShare 2019

Initiative Leads



Ellie Clare



James Bailey



wave-refrigeration



3 GOOD HEALTH & WELLBEING



WHAT WE DO:

The team at Wave are extremely proud to promote the health and wellbeing benefits of sport within our local communities.

HOW WE DO IT:

Wave were proud to be the official match day sponsor of Keighley Cougars v West Wales on the 14th July 2019. This game was also Rugby League's first pride game and festival. Sponsoring the match demonstrated Wave's community spirit of inclusion and promoting sport. We are delighted to play our part in breaking down barriers and supporting our local Rugby League team!



We are also proud to be sponsoring Jordan Williams of South Leicester RFC for the 2019/20 season. Best of luck to both Jordan and South Leicester.

Furthermore, James Bailey is proud to support Good Health and Wellbeing through his son playing for the Wharfedale RUFC Under 15s team.



Our very own employee, Jack Brockbank, also plays for local football team Silsden White Star AFC.



Initiative Leads



Jack Brockbank



Gary Ernest



wave-refrigeration



4 QUALITY EDUCATION



EMBEDDED INTO WAVE'S DNA

WHAT WE DO:

Progression in learning and education is embedded into Wave's DNA. We thrive through constantly improving and evolving in our industry. Here at Wave, we like to promote lifelong learning opportunities for all employees to expand their knowledge.

HOW WE DO IT:

We have provided the following training to our team:

- TM44 Air Conditioning Inspection Qualification
- Prince2 Project Management Qualification
- ILM (Institute of Leadership Management) Level 3 Qualification
- ILM (Institute of Leadership and Management) Level 5 Qualification
- C&G F-Gas Handling Qualifications
- REVIT MEP Qualifications
- Professional Engineer Registration
- IOSH Health and Safety Qualification
- NEBOSH Health and Safety Qualification
- P901 and P903 Specialist Water Treatment Management Qualifications
- C&G Level 2 – Customer Service (Incorporating World Host Accreditation)
- 18th Edition Electrical Standards Qualification
- Train the Trainer Course
- Effective use of Social Media in Business Course
- Search Engine Optimisation Course

Through providing opportunities to young people, bringing them into the business, and having over 200-years combined refrigeration and building services experience, we are able to pass on our knowledge and experience to potential future consultants. This involves elements of mentoring and teaching through in-house training and onsite visits.

Initiative Leads



Becky Barr



Nabil Cook



Ross Muir



wave-refrigeration



5 GENDER EQUALITY



WHAT WE DO & HOW WE DO IT: GENDER, AGE, SEXUALITY, RACE & ETHNICITY, MENTAL HEALTH, FAITH & DISABILITY

GENDER:

- Wave are strong supporters for Women in Engineering
- Development Opportunities are available to all colleagues
- We are proud to highlight the benefits that diversity can bring

AGE:

- We appreciate the experience that age can bring to our team
- Our philosophy is to recruit young people to nurture in all areas of our business, with the experienced members being available to assist in the development and pass on their knowledge attained in the industry; be that technical, project or business related.



SEXUALITY:

- As with gender equality, we ensure that there are no barriers regarding sexual orientation. We demonstrated this in 2019 through sponsoring Rugby Leagues first pride game and festival.

RACE AND ETHNICITY:

- We are a diverse company in many ways. In 2019, it has been a pleasure to work directly with our colleagues from Wave India. Gokul Divakaran has been working with the UK team at our office in Cross Hills since September for a three-month placement. We will continue to visit our team in India where three visits were made in 2018, whilst also welcoming Akhil Dev and Gokul Divakaran to our UK operation on an annual basis.

MENTAL HEALTH:

- Whilst we all enjoy some office banter, there are times where we should all be mindful of other colleagues' workload. We remain vigilant of each other's wellbeing, and if anyone needs or appears to need any help, we always extend the offer of support.

FAITH:

- Being a diverse company, our colleagues have different faiths. We are supportive of and respect all faiths and religious beliefs.

DISABILITY:

- Disability can be both visual and/or hidden. We respect and support anyone who experiences any form of disability, and as such have provided company expensed services to support our employees.

Initiative Leads



Gary Ernest



Nabil Cook



6 CLEAN WATER & SANITATION



WHAT WE DO: CONSTRUCTING WATER WELLS IN JALANIDHI, KERALA

Our aim is to help provide clean water and proper sanitation to residents of Kerala's rural villages. Clean water and proper sanitation are a necessity to everyone, and this is why we will endeavour to help more people obtain reliable and maintained sources and supplies in 2020.

Wave are partnering with a government initiative called Jalanidhi which promotes surface-water based drinking water schemes in the Indian State of Kerala's rural villages.

The scheme deals with the construction of household water wells for households who have previously not been able to afford it.



HOW WE DO IT:

We will provide financial support and will be taking part directly in the construction of these household water wells.

Wave's India office is moving to Trivandrum in the State of Kerala and this will allow us to have a direct involvement in this project. Beyond this project, Wave will also be looking to participate in further schemes under this initiative; collecting and purifying rainwater, and the recharging of wells.

JALANIDHI AIMS TO COVER OVER 3 MILLION BENEFICIARIES BY 2019

Kerala Rural Water Supply And Sanitation Agency



Initiative Leads



Akhil Dev



Gokul Divakaran



Mark Williams



wave-refrigeration



7

AFFORDABLE & CLEAN ENERGY



REDUCING ELECTRICITY CONSUMPTION

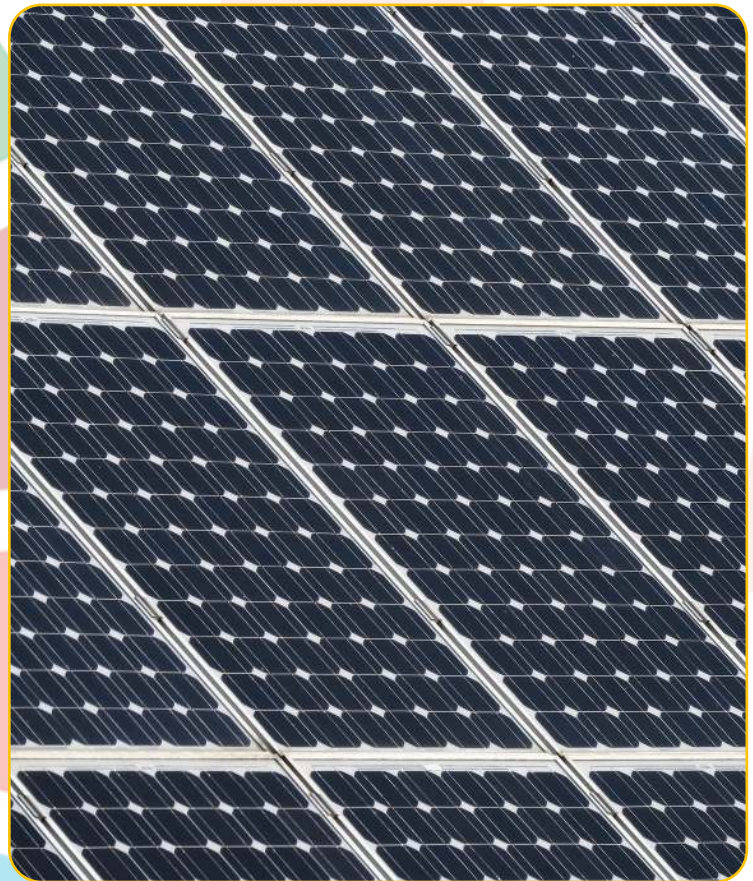
To reduce, if not eliminate, our emissions associated with office electricity consumption, we have investigated upgrading our office electricity supply to a part or full renewable energy tariff. This would put the onus onto the electricity supplier to guarantee the stated renewable proportion by investing in and expanding their stock of renewable sources such as solar and wind energy.

The associated electricity emissions rates of a range of potential renewable supply options were to be compared with that of the current supply, and potential emissions reductions weighed up against any associated increases in electricity costs to ensure that fiscal sustainability could also be maintained.

During this investigation, it was discovered that it may not be possible for Wave to change tariff or supplier before 2022 due to contractual obligations, even if the upgraded tariff was with our existing supplier.

On this basis, Wave are now investigating the purchase and installation of solar panels as a "point of use" renewable electricity source. This would be likely to incur a significant initial expenditure and an extended return on investment, which would need to be thoroughly considered. On the other hand, it could represent a forward-thinking investment into the future of the company and the planet.

We will keep you updated in 2020 on our progress going forward.



Initiative Leads



Nabil Cook



Paul Morris



8 DECENT WORK & ECONOMIC GROWTH



WHAT WE DO: LOOKING AFTER OUR COLLEAGUES

At Wave, we believe in looking after our colleagues. A happy well-supported work force is key to achieving the high standards that we provide across the industry.

HOW WE DO IT: LOOKING AFTER OUR COLLEAGUES

Salaries and benefits at Wave are ahead of the market average and up-to-date training and mentoring is provided for all employees.

We don't stop there. We take our responsibility to support our SDGs very seriously, and we are extremely proud to employ colleagues in India, providing a salary that exceeds the market average and typical expectations, with private health care also included.

We have also participated in UK-India exchange visits where all colleagues benefit from experiencing different ways of working and cultures.

COMMUNITY SPIRIT AND SUPPORT:

We believe in supporting the local area and are proud sponsors of the Keighley Cougars and a local men's mental health support group – Talk & Thrive.

Our team works across the UK, but we believe in supporting the local area: 30% of our employees are from the local Keighley area.

SUMMARY:

We believe that the success of our business is due to repeatable, ethical and responsible growth, taking current and future communities into account.



All employees have access to this initiative



Initiative Leads



Mark Williams



Sam Cameron



wave-refrigeration



9

INDUSTRY, INNOVATION & INFRASTRUCTURE



WHAT WE DO & HOW WE DO IT: LOW GWP, LOW ENERGY, LOWEST EMISSIONS

In a concentrated effort to protect our natural environment, ASDA and stakeholders CBES, City FM, Chemours & Business Edge, Daikin (Hubbard Products), Emerson, Wave and industry leading Health & Safety consultants Lockton have collaborated to deliver the world's first direct expansion HFO system in retail refrigeration.

Enjoying a significant GWP reduction, the system operates on Chemours XL40 (R454A) and provides cooling to display cases at ASDA's Trafford Park store. The system benefits from a reduced refrigerant charge through the use of a micro-channel condenser, and furthermore XL40 is delivering energy savings against ASDA's energy efficient fleet on a per kW capacity basis. The resulting impact of reduced GWP, refrigerant charge, and energy improvements results in an enviable and industry leading system Total Environmental Warming Impact (TEWI).



The team's endeavours were recognised at this year's RAC Cooling Awards as winners in the Environmental Collaboration of the Year category. ASDA's efforts ensure that compliance to legislation is achieved and are helping to support design standards for the Refrigeration Industry. A 500+ page technical compendium will be made available to the wider RAC industry to help set an HFO design standard. This compendium explains and demonstrates risk mitigation techniques to ensure that these next generation refrigerants can be deployed safely and effectively.



Initiative Leads



Nabil Cook



James Bailey



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10 REDUCED INEQUALITIES



WHAT WE DO & HOW WE DO IT: ENCOURAGING THE NEXT GENERATION

Wave do not differentiate between gender identities. In what is still a male-dominated profession, one of the company's strategic goals is to promote Women in Engineering. Wave has a demonstrable track record of reducing inequality in the workplace through promoting the next generation of engineers and refrigeration industry professionals.

ELLIE CLARE:

Within 2 years of working at Wave, Ellie has progressed from trainee Business Administrator to Project Consultant managing covering her own region for the company. Her accolades are below:

- Winner of the Keighley & Airedale Young Professional of the Year 2019
- Affiliate member of the Institute of Refrigeration
- Obtained Prince2 Project Management Qualification
- Currently Studying ILM (Institute of Leadership Management) Level 3



SAM CAMERON:

We are exceptionally proud of our young Technical Consultant Sam and what he has achieved:

- Obtaining a C&G qualification in F-Gas handling
- Managing his own technical projects, evaluations and report writing to the highest of standards
- 2019 RAC Cooling Awards - National Student of the Year Finalist 2019



Initiative Leads



Ellie Clare



Sam Cameron



wave-refrigeration



11

SUSTAINABLE CITIES & COMMUNITIES



WHAT WE DO & HOW WE DO IT: COLLABORATION

James Bailey was privileged to present at the 2nd Clean Cooling Congress hosted by the Department of Business, Energy and Industrial Strategy, and the World Bank Group in collaboration with the University of Birmingham on Wednesday 24th April 2019. James presented to over 150 expert delegates on the importance of effective maintenance in refrigeration. An output of this critically important congress is to effectively provide a first-of-its-kind, multi-sectoral Roadmap with co-ordinated time-bound actions to provide cooling for all those that need it whilst meeting our climate change targets across the globe.



INDIA VISIT

Two of our UK team will be visiting India in a proposed collaborative visit in February 2020 to participate in workshops in New Deli, Chandigarh and Hyderabad to develop the concept of UK-India Centre for Excellence in Post-Harvest Management and Clean Cold Chain.

We will be there to help, manage, advise and develop post-harvest technologies, build climate adaptive farming practises, establish a clean cold chain, deliver better post-harvest management as well as pack houses to take produce direct to market.



Initiative Leads



James Bailey



Akhil Dev



Gokul Divakaran



wave-refrigeration



12 RESPONSIBLE CONSUMPTION & PRODUCTION



WHAT WE DO & HOW WE DO IT: RESPONSIBLE RECYCLING AND CONSUMPTION

In 2019 we have:

- Recycled printer cartridges, paper and cardboard waste, and carefully disposed of consumables and old electrical equipment
- Installed LED lighting in our office to reduce our carbon footprint and electrical consumption

Wave will consume c. 700 kWh less energy in lighting demand per year following the installation of LED lighting. This not only saves money but will also reduce carbon emissions through reduced electrical load!



WHY WE DO IT: PLAYING OUR PART IN ELIMINATING WASTE

GLOBAL FACTS!

- 1.3 billion tonnes of food is wasted every year, while almost 2 billion people go hungry or undernourished
- The food sector accounts for around 22% of total greenhouse gas emissions, largely from the conversion of forests into farmland
- Only 3% of the world's water is fresh (drinkable), and humans are using it faster than nature can replenish it. If people everywhere switched to energy efficient light bulbs, the world would save US\$120 billion annually. One-fifth of the world's final energy consumption in 2013 was from renewable sources



Initiative Leads



Nick Antill



Jack Brockbank



Sam Cameron



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13 CLIMATE ACTION



CURRENT SITUATION

Business Travel:

The majority of business travel is done by car, with the business covering around 170,000 miles per year. We are offsetting this with the partnership and help of the Woodland Trust through the planting of trees. The CO2 emissions that are released into the atmosphere are absorbed and stored by the trees that are planted as they grow.

A small amount of travel is also done by plane which has been factored into our carbon footprint calculations. Air travel is discouraged wherever possible, and is only used when completely necessary. Where possible, remote working, video conferencing and the use of remotely accessed data are preferred to travel; this reduces mileage and fuel consumption.

Electricity Consumption:

The lighting in the office at Wave was previously fluorescent Lighting. In November 2019, we converted all lighting to LED to help the climate and reduce the consumption of electricity.

Office Supplies:

All printing is double sided and FSC certified recycled paper is used. Around 1000 sheets are used per month: this equates to around 12,000 sheets per year. According to Good Energy (2018), this would equate to carbon emissions of around 0.72 MTCO2e.

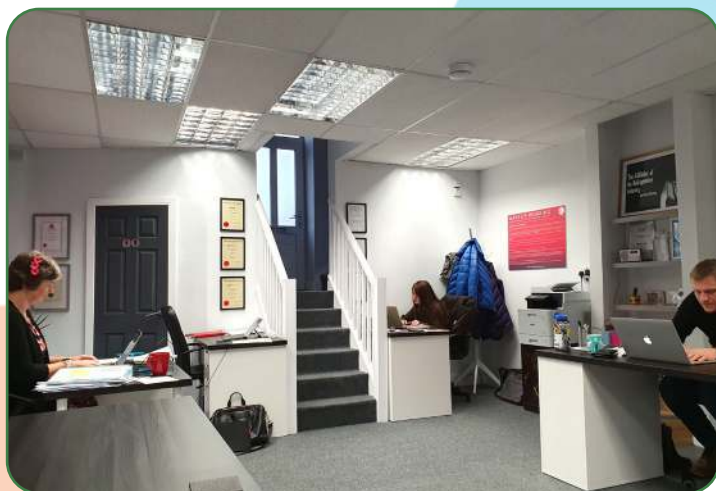
THE FUTURE

Electricity Consumption:

Passive infrared sensors (PIRs) will be deployed for office lighting in 2020 along with the installation of an energy efficient air source reversible heat pump to serve the heating and air conditioning requirements in the office.

Office Supplies:

Office based employees have targeted a 50% reduction in the amount of printing in 2020 compared to 2019 levels.



Initiative Leads



Sam Cameron



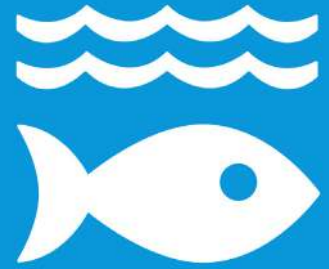
Ellie Clare



wave-refrigeration



14 LIFE BELOW WATER



BEACH CLEAN UP

Where: Blackpool
When: Saturday 23rd November 2019
Wave Participants: Sam, Ellie, James, Gokul, Paul
Waste found on the beach by the team:

- Glass Bottles
- Plastic bottles and caps
- Fragments of Polystyrene packaging and cups
- Fishing tackle
- Small pieces of broken plastic
- Cigarette butts
- Face wipes (mashed up with seaweed)
- Plastic pots
- Unidentifiable clothing



Initiative Leads



Paul Morris



Gokul Divakaran



wave-refrigeration



15 LIFE ON LAND



WHAT WE DO & HOW WE DO IT: HELPING THE ENVIRONMENT

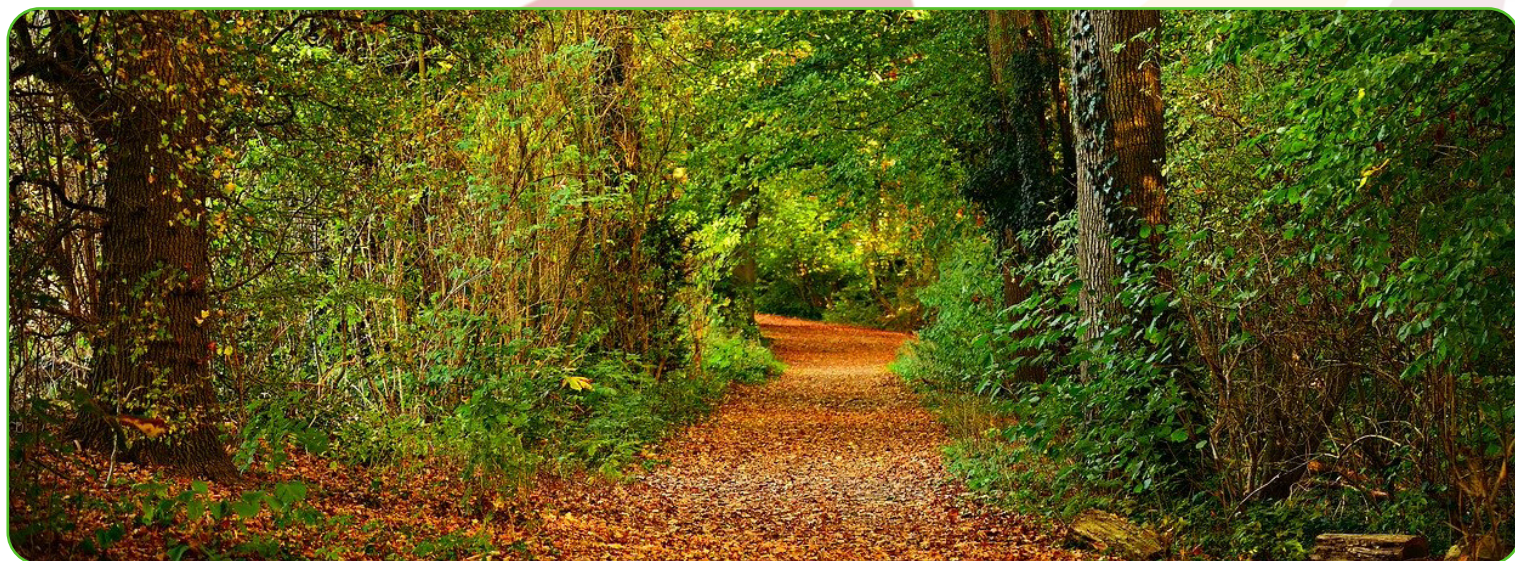
The majority of our business travel is done by car, with the business covering around 170,000 miles per year, producing a collective amount of 38 tonnes of CO₂e. Investing in the Woodland Carbon project will mitigate the impact of Wave's business activity on our environment as part of the carbon management programme.

By funding the planting of new native woodland such as oak and beech trees via our Woodland Carbon project, we can make sure that our CO₂ emissions are absorbed from the atmosphere and stored by the trees as they grow. Woodland Trust plants on average 25m² of woodland at our project sites for each tonne of CO₂ emitted.

With calculated emissions of 38 tonnes carbon equivalent per annum, we will be responsible for the planting of around 170 trees per annum.



WOODLAND
TRUST



Initiative Leads



James Bailey



Mark Williams



wave-refrigeration



16 PEACE, JUSTICE & STRONG INSTITUTION



WHAT WE DO & HOW WE DO IT: SUPPORTING PEACE & JUSTICE

Wave are proud to support John Bailey and partners Jimmy and Andy in their endeavours in raising awareness in abuse and mental health in men.

John and partners are running a successful 'Talk and Thrive' group locally for men who suffer with mental health and/or have been victims of abuse. The work that they carry out has gained in popularity locally (with help from a number of interviews on BBC Look North and Heart FM).

Due to this they have decided to set a charitable target to reach £3,500 and this will be used in a fantastic initiative to take the homeless of the streets in Leeds, treat them to a meal and a night off the streets. Gifts will also be provided to them – clothing, sleeping bags etc. Part of the fund raising is through busking in Leeds – John is quite a talented musician and singer!

Wave are supporting John and team financially, and also through our Simon Wood (web & app developer) to create a website and with the help of our accountant who is providing advice and guidance in establishing a not-for-profit organisation.



Initiative Leads



Beck Barr



Simon Wood



James Bailey



wave-refrigeration



17

PARTNERSHIPS FOR THE GOALS



WHAT WE DO & HOW WE DO IT: SUPPORTING PEACE & JUSTICE



Wave are financially supporting the Keighley Cougars in the procurement of 20,000 re-usable plastic pint cups to eliminate the use of single use plastic cups. We are also donating our unused laptops to the Keighley Cougars to help classroom teaching of local school children.



Wave will be offsetting our carbon emissions through supporting Woodland Trust in planting trees. In 2020, Wave will be a carbon neutral operation. By the Carbon emissions that we create, the CO2 emissions will be absorbed from our atmosphere and stored by the trees that have been planted as they grow.



WOODLAND
TRUST



Wave are supporting a local men's mental health organisation whose aim is to spread the word, support local men and allow the expansion of their group: Talk & Thrive incorporating Empowering Survivors. Wave are supporting the group financially and through website development to increase awareness and visibility of the group.

Following the sad passing of Ian Ramsey earlier in the year, Wave have partnered with his daughter Estelle Ramsay through continuing the development and ongoing use of Ian's unique refrigeration design software; Micro-pipe and Micro-Calc. This will ensure that the RACHP industry continues to have access to this indispensable software. This will also ensure his legacy lives on through accurate and energy efficient refrigeration pipework design.



Throughout 2020 we will keep updating our SDGs and will replace those achieved with new goals and targets. This will ensure that we continue to play our part in an environmentally sustainable future!

Initiative Leads



Ross Muir



Nick Antill



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