# ENVIRONMENTAL SUSTAINABILITY IN SCOTTISH FOOTBALL



NOTHING MATTERS MORE

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## WELCOME

#### ENVIRONMENTAL SUSTAINABILITY IN SCOTTISH FOOTBALL

With the growing climate crisis there is a need to implement measures to ensure sustainability throughout society. Often at the heart of the local community, there is a huge opportunity for Scottish football clubs to lead the way in reducing the impact we have on the environment. Not only at home in the community but also abroad, setting an example internationally for other clubs to follow.

### SUSTAINABLE DEVELOPMENT IS ABOUT **DEVELOPING OUR ECONOMY AND SOCIETY** IN A WAY THAT IMPROVES OUR LIVES

In 2016 FIFA became the first international sports organisation to join a UN climate change initiative reflecting the role football can play in leading the way to a more healthy environment. As a result we have created this guide to help clubs consider their impact, showcase the journey other clubs have undertaken and ultimately strive to create sustainable organisations that work with their communities to achieve the best possible results.

#### WHAT IS SUSTAINABILITY?

Broadly speaking sustainability is about making things last. It is about making sure the systems being used are able to continue being used as long as possible. Sustainable development is about developing our economy and society in a way that improves our lives, recognising the Earth's physical limits and capacities.

While other reports by the Scottish FA (Community Asset Transfer etc.) have been a guide to how clubs can make themselves more financially sustainable, this guide will aim to point clubs in the direction of being more environmentally sustainable. The best way to achieve a more sustainable way of doing things is to avoid waste and use a limited amount of resources for a longer period of time.

Imagine if your house had only a limited supply of energy, water and food; you would want to make sure few resources are wasted e.g. lights are not left on when nobody is in the room, and water is used only when needed and re-used when possible. There are a huge number of ways in which these changes can be made that are innovative, efficient and often cost saving. Football clubs can lead the way in making these changes by inspiring people to make changes both at home and in the community.

#### **OUR PARTNERS / SPONSORS**

Zero Waste Scotland is delighted to be working in partnership with the Scottish FA. Together we can lead and support football clubs across the country and help them make a significant positive contribution to addressing climate change in Scotland.

Scotland, and much of the world, has declared a climate emergency - but we can all make a difference to improve our environment. Football clubs are at the heart of communities and can play a vital role in demonstrating a more sustainable way of life that can protect Scotland's natural assets, helping to safeguard the environment and the nation's valuable reputation as a clean and attractive place to live and work.

As Scotland's circular economy expert, part of our role is to support communities, businesses and public bodies to reduce carbon emissions from all aspects of their operations including reducing energy, water, food waste, and material use. Through doing this we help drive down operational costs and improve environmental performance.

Scotland is already recognised as a world-leader in the circular economy and the transition to low-carbon energy at home and in the workplace, but we need to do more. With our guidance, onsite support and expert advice, football clubs across Scotland can lead the way to deliver positive environmental change for Scotland. We welcome this opportunity to work with the Scottish FA and clubs across Scotland wholeheartedly.

lain Gulland Chief Executive Officer, Zero Waste Scotland



# **sport**scotland



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# CHAPTER 01/ WHY BE SUSTAINABLE?



### WHY BE SUSTAINABLE?

There are three good reasons why your club might want to consider making changes to reduce your impact on the environment and be more sustainable.





#### **FINANCIAL**

Clubs can make cost savings in cutting down the amount of resources they consume each year. Areas such as waste management and energy bills can be cut dramatically and reduction in these areas can be profitable to clubs. Solar panels can save on energy costs year on year, even acting as a profitable investment for the club's future. Through effective waste prevention and recycling, the amount of waste sent to landfill can be cut drastically and a number of legal requirements are in place requiring separation and separate collection of recyclable materials such as cans, paper, card, plastics and food waste.



#### SOCIAL

Efforts to reduce environmental impacts in the club can and should include the community. Running events such as 'On your bike' can promote sustainable travel whilst bringing the community together and promoting healthier activities. Sourcing food locally can help local suppliers and businesses. Generating renewable energy can sometimes benefit the local area as well with excess energy supplying local homes, truly making your club the hub for the local community.



#### **ENVIRONMENTAL**

Finally, of course making your club more sustainable benefits the planet, which benefits us all. By reducing our impact on the environment and even making a positive difference will not only improve the health of the environment but the local community too.

Ultimately, making your club sustainable means making your club last. We want your club, at whatever level, to be here for the long term as the hub of the community. More than any other aspect of club development, this is not about how big your stadium is or how vast your grounds are, the smallest club can have the most positive impact on the environment and in this way it can have the biggest impact on the community too.

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# CHAPTER 02/ GUIDING PRINCIPLES



### **GUIDING PRINCIPLES**

#### **OUR GUIDELINES**

While this guide will direct clubs to some of the key areas where they can reduce their impact on the environment, it will not be able to cover the full range of existing activities and practices that are already out there. This is because approaches to saving energy and cutting waste can be innovative and will vary from club to club. However, making environmentally sustainable changes to the way things are done is simple when you follow some guiding principles.

#### "

### APPROACHES TO SAVING ENERGY CAN Be innovative and vary to suit each Individual club

#### **CIRCULAR ECONOMY**

The circular economy is an economy that aims to reduce waste completely by design of products and businesses. As opposed to a linear economy which adopts a 'take, make, dispose' line of production, the circular economy aims to link up the start of a product or service's life cycle with its end, encouraging regeneration of products by design. Following the rule of the three R's and asking questions throughout the line of production can help achieve these aims.



#### **THE THREE R'S**

In this way, community football clubs, as social enterprises, might think of their clubs as businesses that can be based on a circular economy approach. This might start with looking at what resources are being consumed the most, while observing the three **R's; reduce, re-use and recycle.** Whatever is going on at the club and with all new decisions that are going to be made, whether it is in the office or looking after the pitch, you might ask yourself the following:







#### **RE-USE** IF NOT THEN COULD YOU RE-USE THE SAME RESOURCES? GREY WATER TO USE FOR PITCH IRRIGATION.



#### **RECYCLE** If Not, then whether or not that resource can be recycled. Plastics, glass, paper, food waste.

Later in the document you can see some examples from clubs in Scotland and around Europe who are already taking steps in achieving this type of approach.

### UNDERSTANDING SUSTAINABILITY

Our ecological footprints, tell us how much of an impact we are making on the environment. At face value football does not seem to be too damaging a sector for the environment, however, upon closer inspection, the industry has a larger ecological footprint than you might think. Fans travel miles each match day leaving a trail of carbon emissions in their wake to watch their favourite football teams. They consume food and drink and produce a large amount of waste on site.

Football matches are often floodlit which requires large amounts of energy. However, this is just a fraction of the picture as football clubs do not just exist for the 90 minute match; pitches require large amounts of water and resources to maintain playing quality and club facilities use energy all week long.

### THE INDUSTRY HAS A LARGER Ecological footprint than you Might think

The more people with a reduced ecological footprint, the more powerful the results will be. Two of the most important ways that clubs can affect the behaviour of the players, fans and club members alike is to promote transparency and environmental education at all levels. Transparency means letting people in the community know exactly what you are doing to make changes and how it is making a difference.

Letting fans know the amount of renewable energy that has been used during a match day or the amount of money saved by using solar panels is an effective way of doing this. Avoid the counterproductive approach of telling people what they should or should not do. Being open and transparent lets people know what they could be doing and how it might be in their own interest over a period of time. This kind of information relies on keeping track of our ecological footprint. Educational programmes about the concept of our ecological footprints can inform people of the value of what changes are being made. It also inspires younger people to take an interest in the environment and make them want to look after it in the future. Whether these educational programmes are included in training sessions or community outreach programmes, the message can be powerful coming from the local football club.



#### **CHECKLIST**:

Here is a checklist of areas in which your club can make a positive impact on the environment around you.

#### HAVE YOU CONSIDERED...

- An environmental policy statement on your website?
- Ways of reducing your energy consumption in the club?
- Sustainable travel schemes?
- Cycling?
- Car sharing?
- Any recycling schemes in your club?
- E.g. waste or kit and equipment recycling?
- Any environmental education programmes?

If you haven't considered these areas before, or if you don't know how your club can go about making these changes, the following sections of this guide will demonstrate ways in which you can do so in a manner that is affordable and effective.

While the Scottish FA may signpost to specific organisations and resources, we cannot endorse any one organisation in particular.

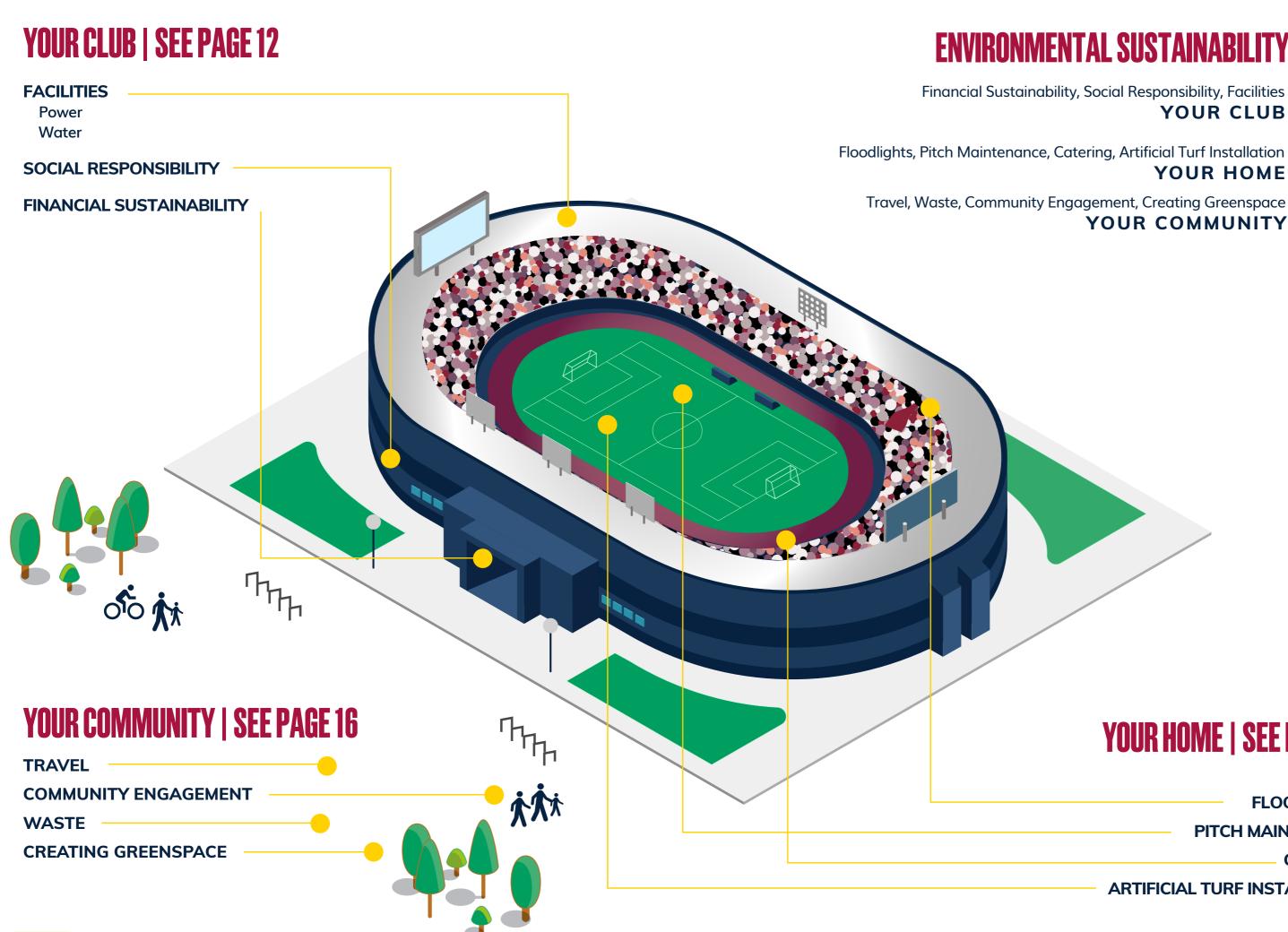












## **ENVIRONMENTAL SUSTAINABILITY IN...**

Financial Sustainability, Social Responsibility, Facilities **YOUR CLUB** 

### Floodlights, Pitch Maintenance, Catering, Artificial Turf Installation YOUR HOME

YOUR COMMUNITY

# **YOUR HOME | SEE PAGE 14**

**FLOODLIGHTS PITCH MAINTENANCE** CATERING ARTIFICIAL TURF INSTALLATION

### **YOUR CLUB**

Environmental sustainability at a football club requires an integrated plan that incorporates the financial development as well as the social development of a football club.

This can help form the values of a community. In this way, improvements in environmental sustainability around club facilities can lead as an example in the community.

#### **FINANCIAL SUSTAINABILITY**

Being an environmentally sustainable club, starts with ensuring long term prospects in all areas of the club. Three important areas to focus on are financial sustainability, social sustainability and environmental sustainability. It is no good throwing all of your club's money in to environmentally friendly resources if they cannot be paid for or if they are going to cause the club to not succeed socially or financially, all three dimensions must go hand in hand.

However at the same time, if approaches in environmental sustainability are effectively delivered, this should improve your financial and social sustainability too. At the end of this guide is a list of funding sources which may help kick start some of these ecological improvements to your club. For further resources that might help your club set up in this way, refer to other Scottish FA reports (Community Asset Transfer, Support Directory, Legal structures for your club etc.) The rest of this guide demonstrates that reducing your ecological footprint saves you money and can act as profitable investment for your club's future.

#### SOCIAL RESPONSIBILITY AND VALUES

Social Responsibility refers to the three dimensions above of social, economic and environmental responsibilities. Football is unique in its ability to communicate a message to a variety of people who hold their local club as an important factor in their livelihood. The values of your club therefore can also help create a likeminded community around you.

Strong messages of club values and social responsibility can be communicated through social media platforms and club websites including an environmental policy statement. However these messages can also be communicated around facilities and stadiums too. Consideration of club sponsors to see whether they fit with the club's message is also important.

FOOTBALL IS UNIQUE IN ITS ABILITY TO COMMUNICATE A MESSAGE TO A VAST RANGE OF PEOPLE

#### **FACILITIES**

Calculating your club's total energy consumption and working out where this energy is being used most is one of the best places to start when trying to make energy savings. To do this, a free Scottish Government funded energy audit can be arranged through Zero Waste Scotland and their Resource Efficiency programme. They will provide a friendly specialist to carry out a site visit and on average they identify energy cost savings of up to 24% for organisations they support. They can also arrange for funding support to implement the improvement measures identified.

Simply contact HelpforClubs@zerowastescotland.org.uk

#### POWER

**Solar energy** is one of the main sources of renewable energy. For example, Invergordon FC have worked with Community Energy Scotland to install a solar thermal energy system which can heat all the showers on site. Solar panel electricity systems, also known as photovoltaics (PV), capture the sun's energy using photovoltaic cells. These cells don't need direct sunlight to work – they can still generate some electricity on a cloudy day.

The cells convert the sunlight into electricity, which can be used to run appliances and lighting throughout the club's facilities. The Energy Saving Trust provide expert consultation services and information about ways in which you can make investments. As solar energy usually provides electricity at a high voltage or around 250 V, where most appliances optimise at around 230V, this extra kick of energy can be saved by installing Voltage Optimisation (VO) equipment. In so doing, this piece of equipment can reduce your electricity use significantly.

Wind energy is another of the main sources of renewable energy and is something Scotland is never in short supply of. Like installing solar panels, the initial costs can be seen as an investment, as there is an option of making money from the energy source each year. Feed-In Tariffs can generate around £1,500 each year.

http://www.energysavingtrust.org.uk/renewable-energy/ electricity/wind-turbines

#### WATER USE

There are a number of ways in which water use around club facilities can be reduced. For example, toilet systems can have a centrally managed flush system adjusted to meet the number of users on any given day.

Waterless Urinals can each save up to 120,000 litres of water each year. These urinals are more hygienic, creating less odour than conventional water flush urinals, as well as less bacteria. A range of local companies supply this technology which can lead to significant financial savings. Your Zero Waste Scotland adviser can help you to identify a selection of suppliers to contact to arrange getting this work carried out.

#### **ENERGY USE**

Building Management Systems (BMS) can control functions such as toilet flushing during peak times, like match days, dramatically reducing water usage. BMS systems can also ensure that vacant rooms are not being needlessly lit or heated. This can dramatically reduce overall energy consumption.

Biomass Boilers are seen as a carbon neutral way of providing heating for your facilities. The use of renewable energy, usually derived from plants (biomass), is an environmentally sustainable way to heat your facilities. Hamilton FC underwent a £290,000 project, fully funded by Biofund, to solve their heating issues. The project saw them convert from their old and expensive gas heating system. The results were 35% financial savings per year on energy bills, as well as a saving each year of 500 CO<sub>2</sub> tonnes on top of that. The Biofund was created to buy, set up and manage these systems in return for government payments for the use of the boiler.

Kit washing/drying. Through their creation of a kit drying room, Ayr United saved 8.55 tonnes of CO<sub>2</sub> in a year. By cutting down on the energy needed to power tumble driers they were able to have a positive impact on the enviroment. It was calculated that over 10 years, this would save 95.23 tonnes of CO<sub>2</sub> equating to a projected financial saving of approximately £12,000. Constructing a kit drying room alongside larger bulk washes can save considerable costs as well as energy over the year.



### YOUR HOME

The stadium and the grounds are the central stage and home of the football club. Changes that can be made to the stadium can reduce costs, environmental impact and importantly deliver messages of sustainability to fans.



#### FLOODLIGHTS

LED floodlights are growing in popularity in sports stadiums around the world. The lighting provides a higher quality illumination whilst also using less energy than the conventional floodlighting systems and as a result costing less to run. Floodlights are required in order to meet standards outlined within the Scottish FA's Club Licencing Manual so refer to this guide when deciding which type of LED floodlights you would like to install. Halliday Lighting boasts a partnership with one of the world's leading LED lighting companies, OSRAM, and as a result offers clients the top of the range lighting in both quality and energy efficiency.

www.halliday-lighting.co.uk www.sports-lighting.co.uk/index.php www.apollolighting.co.uk www.musco.eu

#### PITCH MAINTENANCE

#### **IRRIGATION SYSTEMS**

Keeping your pitch in good condition is crucial to the performance of any football club, however it also uses a lot of water. According to the 'Ethical Consumer Guide', the average football pitch uses around 20,000 litres of water per day to maintain the pitch quality over the course of the year. Not only is this an extensive use of a resource in relation to impacting the environment, it can also be costly in the long run.

One innovative solution to this problem is harvesting rainwater. This approach has been used in the last two FIFA world cup final stadiums, Soccer City in South Africa where there was a water shortage at the time and Brazil's Maracanã. For further information, access the 'Rainwater harvesting and other water reuse systems: A guide to safe installation and use' report at:

www.scottishwater.co.uk www.westsiphonics.co.uk

#### **SOIL MANAGEMENT**

Looking after the soil is key to maintaining a good quality sports turf. As such there is a need for a regular supply of nutrients and fertilisers to help the grass grow at an optimal level. The use of organic matter from sources such as green waste compost has been recommended as an effective alternative to feed the grass.

Increasing the organic matter in your soils can help provide quality grass growth while at the same time increasing the capacity of your soil to store carbon. This helps act as a way to offset some of the carbon emissions elsewhere in your club's facilities and activities. For more information, visit: www.sepa.org.uk/environment/land/soil www.sportsmastersuk.co.uk www.sispitches.com www.psdscotland.co.uk www.sportslabs.co.uk www.strigroup.com www.labosport.com www.sruc.ac.uk/info/120139/design\_and\_land\_ management/1130/sports\_pitch\_design\_ construction\_and\_project\_management

#### **ARTIFICIAL TURF INSTALLATION**

One of the main benefits of this type of pitch is that it can make your club even more of a hub for the community by facilitating multi-purpose use for the community throughout the week. A limited number of manufacturers offer cradle to cradle products in artificial pitch installation. This means products are entirely recyclable by parts and in turn have been sourced from recycled materials.

For example, Desso have been endorsed by FIFA for the quality of their product but also their circular economy inspired cradle to cradle approach.

www.dessosports.com www.edelgrass.com www.fieldturf.eu/en www.greenfieldsturf.co.uk www.sgsgrass.co.uk www.tigerturf.com/uk www.polytan.com www.sispitches.com

#### CATERING

**Production** - Certain food products have a much higher ecological footprint than others. For example, beef production requires a very large number of resources (a kilogram of beef requires over 15,000 litres of water for it to be produced) and switching to a less resource intensive meat such as chicken (over 4,000 litres of water per kilogram of meat) can reduce this impact on the environment.

Alternatively increasing the number of vegetarian options can be cheaper to source but also more beneficial for the environment. Another consideration to make is the use of locally and nationally sourced food and drink products. This can dramatically reduce the amount of travel each product has taken to get there, thereby reducing emissions involved in the process of sourcing the food products.

By supporting local businesses you are once again ensuring that the club has a positive impact on the communiy.

**Packaging** - Clubs around Europe as well as commercial food and drink retailers are cutting back on the packaging they use to serve food and drink at events. Plastic can be harmful to the environment as it is not biodegradable. Vfl Wolfsburg have introduced a ban on plastic at their stadium in Germany for this reason, serving food in a small paper bag instead. While serving drinks has to follow certain safety standards, there are more sustainable options such as an eco-cup, which uses a customer deposit scheme on all cups. This reduces the cost of cups, prevents the waste of single-use plastic cups and so can significantly reduce the amount of waste produced on site which will save money for your club too.

## YOUR COMMUNITY

At the heart of any club is the community itself including everyone from the players to the club staff and the fans themselves. These are the people that make football. They encompass the whole footballing community and for this very reason, the smallest of changes can make a really big difference.



### TRAVEL

#### Cycling

The most sustainable way to travel anywhere is to travel by bicycle. Creating good cycle paths to and from the stadium grounds, as well as Bike Stations around the stadium and grounds can encourage fans to get on their bike.

Similarly, organising community cycling events and activities can act as fun ways for the community to get together, get active and encourage people to reduce their carbon footprint when travelling in the community. Encouraging local fans to travel by bike also significantly reduces the flows of traffic to and from games. Healthy stadia is a good starting point in trying to identify ways in which cycling in the community to and from stadiums can be encouraged https://www.cycling.scot

#### **Public Transport**

Public transport greatly reduces the number of vehicles on the road thus reducing both traffic pollution and the amount of fuel being used. While stadiums within cities are usually well linked up to public transport networks, it is worth ensuring that these routes are well pointed out and advertised. Extra incentives can be beneficial and innovative ideas to encourage public transport use is sometimes a good option. Using public transport can be far easier than many fans think and good journey planning can avoid being stuck in traffic, the hassles of cost and parking and lead to reduced carbon emissions. Some clubs have been promoting Travel Line Scotland which shows the most effective way of getting from A to B on public transport.

https://www.travelinescotland.com

#### Car Sharing

For some, public transport is not always convenient or may not even be an option. In these cases, driving a car may be the only way to get to a football match. However, there are a number of options that can still reduce total emissions from travel. As well as running fuel efficient driving lessons, car shares can be established in order to reduce the number of cars travelling each time.

Successful schemes may be set up through the club website so that fans can log on and see who's travelling by car in a nearby area. Some clubs might reserve priority parking spots nearer the stadium for vehicles that have travelled in this way. Car shares can reduce costs and, once established, can be a near door-to-door service to get to football matches.

#### WASTE

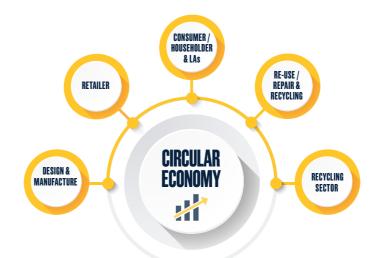
Waste is one of the biggest issues for sporting events to deal with, with thousands of supporters leaving trails of litter, match programmes and food waste behind them. Waste that ends up in landfill can cause environmental concerns such as gas emissions as well as chemicals leaching in to water resources. On top of this, collections of residual waste can mean expensive costs for your club. Since 2014 the Scottish Environmental Protection Agency (SEPA) made it a requirement for all business to present food waste, metals, plastics, glass, paper and cardboard for recycling.

#### **RECYCLING FACILITIES**

There are a number of measures that can be taken around the stadium and facilities to encourage the community to recycle. Recycling points around facilities and stadiums can drastically reduce the amount of waste going to landfill. Providing bins that are appropriate for the quantity and type of waste produced from the event is a positive step.

These bins need to make clear the separation of waste material from the point of source through to collection, for example, reusable items, recyclables, composting and general waste. This can also be done through clearly labelling bins with colour coding, icons and text. Often communicating what will happen to the waste afterwards can help explain to people where their waste ought to go and reduce the amount of waste going to landfill.

A free Scottish Government funded waste and recycling audit can be arranged through Zero Waste Scotland and their Resource Efficiency programme. They will provide a friendly specialist to carry out a site visit and produce a full report on how you can cut waste costs and increase recycling rates. They can also highlight funding support to implement improvement measures identified. Simply contact HelpforClubs@zerowastescotland.org.uk



#### Kit / Equipment Recycling

Club kits are typically renewed every season meaning the old kit goes to waste after one season of use. Clubs are starting to recognise the wasteful nature of this practice and are donating old kit to their community. Not only does this create a more environmentally sustainable club, it also has a positive impact on the way they are viewed in the community

Similarly some clubs have developed up-cycling projects where what has been considered waste materials are used to make a more fashionable product, both delivering a new financial value but also preventing materials ending up in a landfill.

#### **COMMUNITY ENGAGEMENT**

One of the main ways to get the community involved with football and the club is organising community events. Developing community activities and events that incorporate environmental education in some way is a great way to inform the community about environmental issues and aims of the club. Examples of these events or activity days can range from getting the community on their bikes, large kit recycling events, and litter picking.

#### **CREATING GREENSPACES**

Creating greenspaces in the community and around your football club can create small habitats for wildlife whilst also reconnecting your community with the natural environment around them. Creating small ponds and wildflower meadows is a simple way you can do this and will make the neighbouring community look pretty as well as increasing the biodiversity in the area.

Constructing these greenspaces can be a community activity itself, drawing volunteers in to help. Such greenspaces have been proven to improve the mental health and wellbeing of communities as well as the health of the environment.

Greenspace Scotland work with a wide range of national and local partners on the planning, development, sustainable management, use and evaluation of greenspaces, green networks and green infrastructure. Their activities include: developing and sharing practice, research and knowledge management, policy and funding advocacy, partnership development and support, training and pioneer projects. We also provide bespoke consultancy, training and support to national, regional and local organisations. https://www.greenspacescotland.org.uk/how-we-work

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# CHAPTER 04/ YOUR STORIES



### **YOUR STORIES**

You might assume with the big budgets of the clubs in top flight football that the examples of good environmental practice would be coming from that direction. However you'd be mistaken. We take our lead from grassroots clubs who are able to demonstrate the power of football in bringing the community together and in environmental sustainability. Here is a selection of clubs from Scotland and across Europe who have implemented successful schemes.

#### IN SCOTLAND

Ayr United Football Academy - funded by Climate Challenge Fund Recycling, Energy Efficiency and Environmental Education. Ayr United Football Academy ran the FreshAyr, CleanAyr, GreenAyr project involving Academy staff and players. The project was a great success and demonstrated the ways in which making changes can save money in the long run as well as reducing your environmental impact.

As an example of one of the areas in which you can make reductions in energy use, Ayr United saved 8.55 tonnes of  $CO_2$  in year 1 of their project through developing a kit drying room as opposed to using tumble dryer machines. It was calculated that over 10 years, this would save 95.23 tonnes of  $CO_2$  equating to a projected financial saving of approximately £12,000.

The club also managed to implement many of the changes already outlined in this report running activities such as fuel-efficient driver training and encouraging lift-sharing to reduce carbon emissions. The Academy also incorporated an educational component into the project by promoting sustainable practices and lower carbon choices in the Schools and communities of South Ayrshire.

#### Blantyre Soccer Academy - Blantyre Bikes Better

The Academy believes that families, who play together, stay together. Their latest scheme, Blantyre Bikes Better is a community cycling project aiming to get 300 local children and families to take up cycling or have the confidence to venture further on their own bikes. They break down the barriers to cycling and get the community out on their bikes, increasing their confidence, health and sense of freedom.

They offer a range of services including community bike rides, bike training and bike maintenance/repair. They work with a steering group of local people to map out safer bike routes in and around Blantyre and Hamilton and produce maps which are available to local people. In addition they work with the Police, local schools and youth groups to educate children at an early age about the benefits of cycling.

#### Clyde FC - Carbon Clyde Project

The Carbon Clyde project is delivered by Clyde FC Community Foundation to reduce local carbon emissions in Cumbernauld. The project involves a range of activities including free home energy audits, establishment of a sports kit and boots recycling scheme, low carbon travel and an eco-friendly football program for primary school pupils.

#### Greenock Morton FC - Greener Morton

Morton in the community hold a strong commitment to the community around them, working with all ages. The charity delivers a number of programmes that range from improving mental and physical health to tackling unemployment. 'Greener Morton' is an environmental education programme which aims to raise awareness about the impact we have on the environment in areas such as energy and water consumption, waste and transport.

This programme is taught through football sessions, using an 'eco workbook' as well as interactive games and exercises. Around the club, Morton FC have implemented a few major energy saving measures such as the kit drying room which uses a larger bulk washing machine, and a low energy drying room. This saves significant amounts of energy and as a result money too.

#### Giffnock Soccer Centre in partnership with the Scottish Football Partnership - Eco Friendly Changing Room

Giffnock Soccer Centre constructed a 'smart' building which represented a step forward for the club development and their carbon footprint. The eco-building, based on the 'Passivhaus design' has in-built features to reduce energy costs including high-insulation materials, movement and light sensitive lighting, and heat-sensitive extractor fans. They also make use of water efficient showers/taps and solar panels which provide electricity for the building. The layout of the facility was designed specifically to meet the needs of the club. It consists of two adult changing rooms with showers, two children's changing rooms with showers, a referees' changing room and a kitchen. The pavilion was designed, project-managed and funded by the SFP in partnership. 25% of the project costs were contributed by parents and officials of Giffnock Soccer Centre, demonstrating the role the community can play if they are on board with such schemes.

#### Motherwell FC – Sustainable travel schemes and recycling

'Greener Well' is a project run by Motherwell Football Club Community Trust which uses the power of football to promote lower carbon lifestyle choices across Lanarkshire. The project activities range from a 'Kit Bank', a sports kit and footwear recycling initiative, and a lower carbon travel program. Project staff also deliver a 'walk to school' program in partnership with local schools. New bicycle parking facilities will be created at Fir Park Stadium to enable more fans to travel to games by bicycle.

#### Ross County Foundation - County's Climate Challenge Project

The project, funded by the Pebble Trust, introduced climate change learning into football training sessions for children in P4-6 involving 10 schools in Ross-shire and Inverness. Sessions included physical training followed by learning using specially produced climate change booklets. Ross County also started work to reduce car mileage through liftshare and have also embraced a kit recycling scheme.

#### **UK AND EUROPE**

#### Dartford Football Club - Eco football stadium

English football club Dartford FC's 'eco stadium' was created with two ponds nearby to store rainwater for watering the grass. In a complete drought the ponds are able to supply water for almost two months without being topped up. The ponds make the stadium self-sufficient in terms of pitch irrigation but also act as an attraction to local wildlife and provide habitats to encourage biodiversity. The stadium was created with a 'living roof' which encourages biodiversity as well as acting as insulation and air filter for the stadium and its surroundings.

#### Forest Green Rovers FC – Going Vegan

Dubbed as the 'greenest' football club in the world, the club has made significant changes to the way they run. One of these was to remove meat from the menu both for fans and players alike, promoting a vegan diet throughout the club. This has significantly reduced their ecological footprint as well as having a positive influence on members in the community too. Fans enjoy the high quality vegan alternatives and as a result reduce their own meat consumption.

#### KAA Gent/ Voetbal in de Stad - Velo Buffalo

KAA Gent and its Community Organisation 'Voetbal in de Stad' encourages its supporters to care about the environment by visiting the stadium on game days by bike instead of using the car. Every game, around 1500 to 2500 supporters are taking their bicycle to the stadium, but this figure rises to 3500 fans on big game days. In order to implement the approach successfully, the club, together with the city and other partners ensured that around 2850 bicycle racks were installed. Additionally, the cycle paths around the arena were properly developed. KAA Gent's active travel strategy has officially been recognised by Healthy Stadia.

#### Juventus FC, Italy

Juventus have focused on sustainability as a key part of their corporate social responsibility report and have advocated the use of energy audits and Life-Cycle Analyses/Assessments (LCAs) in order to understand where energy use is highest. Juventus' first steps in ensuring their club was more environmentally sustainable was to assess where changes might be possible.

An LCA looks at the whole process of activities that go on in delivering an end product in order to identify the impact either a product or system has on the environment. The key areas identified by the club ranged from stadium management, catering facilities, to aspects such as the travel logistics for fans.

In terms of addressing these issues, the club have taken many steps in improving their energy efficiency around the stadium and grounds, implementing a Building Management System (BMS) in order to reduce energy and resource inefficiencies. Juventus have placed great emphasis on their corporate social responsibility side of their business model, incorporating ideas of sustainability in everything they do, including who they chose as their partner organisations.

#### Manchester United FC, England

The Red Devils have recently made considerable strides to become more green. Working with Maloney Associates Ltd (www.maloneyassociates.co.uk), the club recognised where they could make energy savings and implemented a number of measures such as a Building Management System (BMS) to control energy use around the club facilities and stadium. In installing a lagoon by the club's training facilities and using reed-bed technology, 'dirty' or 'grey' water is collected and then cleaned before being used for pitch irrigation.

#### SV Werder Bremen, Germany

SV Werder Bremen stand out in Europe for their renewable energy scheme and have demonstrated the benefits of installing solar panels for the club and community. The club has incorporated 20,000 single module solar cells on the stadium's roof. This installation generates enough power for the Weser Stadium and a surplus amount of energy which is fed back in to the local community, powering 400-500 houses a year.

#### Vfl Wolfsburg, Germany

Wolfsburg hold efficiency as the most important factor in their approach to reducing their environmental impact. This runs throughout their five guidelines in this area;

1. Efficient technology. Pitch maintenance, floodlights and stadium operations all require a large amount of energy and water. Through energy audits Vfl Wolfsburg have made cuts in these areas.

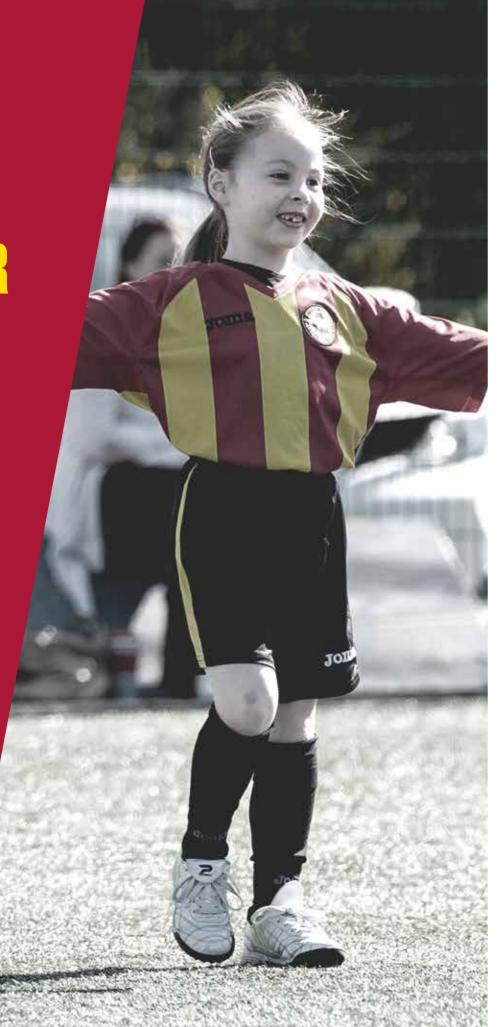
2. Reducing valuable water usage. Using grey water from sources such as the nearby canal for pitch irrigation helps them save 'blue water' for drinking purposes.

3. Commitment to closed cycles. The German club have placed a ban on plastic bags in shops. Recyclable, compostable paper bags are used in replacement.

4. Intelligent mobility through encouraging sustainable alternatives to travel. An initial mobility analysis was carried out to identify where most fans travel from before subsequent targeted policy measures, e.g. combined travel and match tickets.

5. Tracking carbon footprint. The club use methods such as Life-Cycle Analyses (LCAs) of products as well as stadium facilities in order to highlight areas for improvement. This uses the concept of an Ecological footprint and incorporates this into the club's corporate social responsibility agenda.

# CHAPTER 05/ FUNDING RESOURCES AND FURTHER READING



Despite the fact that many environmentally sustainable changes you can make at your club will save you money in the long run, the upfront costs can sometimes be beyond club budgets. However there are plenty of opportunities for funding and access to grants in Scotland that you can apply for.

For each of the following funds, the application processes rely on evidence that your project will meet the objectives of each of the funding organisations.

#### Zero Waste Scotland

Zero Waste Scotland can provide advice and support with funding to clubs across Scotland to help:

- Cut energy bills typically we can help reduce costs by 24%;
- Improve waste prevention and recycling;
- Reduce food waste:
- Tackle litter;
- Reduce single-use plastics and other materials;
- Implement sustainable procurement;
- Provide advice and support on sustainable construction and infrastructure.

### Please e-mail HelpforClubs@zerowastescotland.org.uk or visit zerowastescotland.org.uk

#### **Climate Challenge Fund**

The Climate Challenge Fund (CCF) is set up to support projects that aim to reduce local impacts on the environment. In the past, funds have been allocated to a range of projects involving energy efficiency improvements to community owned buildings, home energy efficiency advice, lower carbon travel options, community growing initiatives and schemes to tackle waste.

https://www.keepscotlandbeautiful.org/sustainability-climatechange/climate-challenge-fund/

#### **Community and Renewable Energy Scheme**

The Community and Renewable Energy Scheme (CARES) is a Scottish Government scheme intended to support organisations that aim to support installations of renewable energy systems into the community.

https://www.gov.scot/policies/renewable-and-low-carbon-energy/local-and-small-scale-renewables/

#### Cycling Scotland

Cycling Scotland aims to fund local projects which encourage people to take up cycling. The site also highlights activities and events that support the uptake of such initiatives. http://www.cyclingscotland.org/our-projects/ award-schemes/cycle-friendly-community-project

#### The Pebble Trust

Eligible projects include those which aim to advance environmental protection or improvement, community development and lastly education and science. The Fund has previously supported a range of activities with Ross County who developed several schemes such as kit recycling, car sharing and environmental education programmes.

http://www.thepebbletrust.org/index.asp

#### **Scotrail Foundation**

This fund looks to support community projects that can make a positive difference in their local neighborhood. https://www.scotrail.co.uk/about-scotrail/scotrail-community/

#### scotrail-foundation

### Community Environment Challenge Fund - Perth and Kinross Council

If your club is in the Perth and Kinross area then this fund could be suited to you. Projects that may qualify for funding include schemes which aim to make environmental improvements or that benefit the wider community encompassing a range of age groups. http://www.pkc.gov.uk/CECF

#### **Aviva Community Fund**

The Aviva Community Fund is for any community organisation that will make a positive difference in the community, particularly in reference to changes that will positively impact the health and wellbeing of the community. This could include active cycle/travel schemes, and recycling activities.

https://www.aviva.co.uk/services/more-from-aviva/avivacommunity-fund/

**Changeworks** aims to develop and deliver innovative projects that inspire and empower people and communities to make a difference to improve quality of life and to protect the environment. **www.changeworks.org.uk** 

**Community Energy Scotland** Scotland's only national charity dedicated to supporting communities to develop renewable energy projects. www.communityenergyscotland.org.uk

The Community Resources Network Scotland aims to build a stronger community repair, reuse, recycling and upcycling sector in Scotland, creating real social, environmental and economic benefits for local communities. http://www.crns.org.uk

**Energy Saving Trust** is a source of free advice and information for businesses across the UK looking to reduce carbon emissions associated with travel impacts. With Energy Saving Trust, you can arrange for a fleet audit at your club or for more general sustainable travel advice in order to identify the areas where you may be able to make improvements. They can also provide information on domestic energy schemes to help fans and staff save money, reduce carbon emissions and reduce fuel poverty.

https://energysavingtrust.org.uk/programmedelivery/scottish-programmes

**Greener Scotland** is your one-stop website for greener living. This site combines a wide range of information and resources to help everyone in the country go greener together. www.greenerscotland.org

**Greenspace Scotland** support the planning, development and management of sustainable greenspaces and green networks in our towns and cities. **www.greenspacescotland.org.uk** 

Keep Scotland Beautiful aims to protect, preserve and enhance the environment of town and country in Scotland for the benefit of the public and to educate the public about the environment generally by promoting awareness of the ways in which the environment is at risk and the ways in which this can be minimised. https://www.keepscotlandbeautiful.org



## **FURTHER READING**

### SCOTTISH FA RESOURCES

Here are a number of resources to help: Visit ScottishFA.co.uk/ClubServices to get resources on the following: Developing Community Clubs Community Asset Transfers Legal Structures for your club Environmental Sustainability in Scottish Football

## **CONTACT DETAILS**

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## **OUR PARTNER**

#### Zero Waste Scotland

Zero Waste Scotland plays a vital role in inspiring people to act, bringing together our communities, businesses and public bodies to innovate and demonstrate the practicalities of a circular economy. We know that the way we use products and materials in our economy needs to change as we drive towards our vision of a nation which is both sustainable and successful. This will be vital as we respond to the global climate emergency.

The Scottish Government regards us as a vital part of its success in accelerating progress and delivering results from policies on the circular economy, business resource efficiency and low-carbon heating. We play a key role in connecting communities, businesses and public bodies, from councils to health authorities and national government.

#### The Scottish FA Club Services Team

North Region
East Region
West Region
Central Region
South West Region
South East Region



We are Scotland's circular economy expert and are a world leader in demonstrating practical progress in these policy areas. Our new corporate plan gives a clear message to our partner organisations and staff on the role that we expect to play in continuing to reduce the impact of products and materials on Scotland's carbon footprint. In addressing this issue, we are not just seeking to improve the environment here in Scotland but also to show other countries how they can follow our lead - producing global results too.





