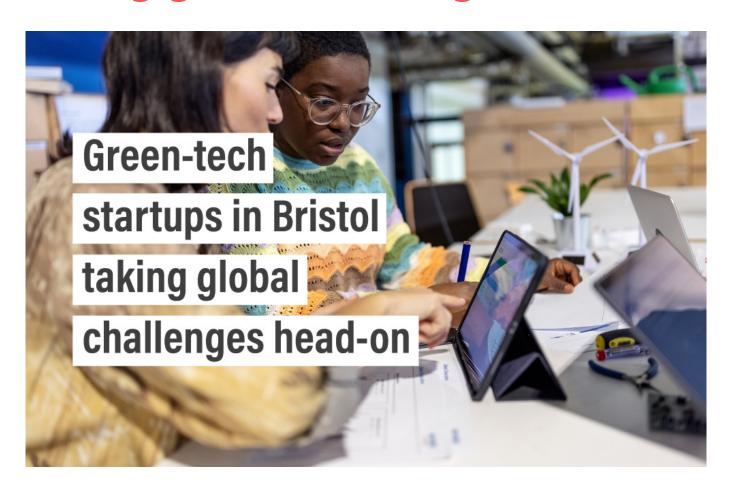
# Green-tech startups in Bristol taking global challenges head-on





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#### **Key Points**

- Green-tech startups in Bristol are tackling UK's biggest sustainability challenges head-on and providing solutions that are affordable, scalable, and adaptable
- These initiatives highlight that there's more to future sustainability than reducing global warming and that many of the challenges we face are interrelated
- 72% of UK land is managed for agriculture and contributing to resource depletion, and a loss of habitat for many species vital for healthy ecosystems
- Urban Forestry, Sustainable Farming, and technology promoting Biodiversity provide practical and affordable solutions to the sustainability of the agriculture and farming industries
- Textile waste in the UK fashion industry amounts to an average of £140 million in value every year and is a significant contributor to greenhouse gasses, land toxicity, and water pollution.
- Technology innovation to eliminate textile waste from landfills and incineration could solve that.
- The world's first mobile class of renewable energy could provide a solution to solar and wind power's fatal flaw: no affordable way to store surplus electricity at scale

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Managing Director

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Bristol has a well-deserved global reputation for being <u>an ideal base for startups</u> – with a robust business ecosystem built on innovation and collaboration serving as the foundation for the success many of us have found here. In this post, we're shining the spotlight on green-tech startups in Bristol that are finding solutions to some of the UK's (and the world's!) biggest problems and inspiring others to follow suit in sectors such as:

- Urban Forestry
- Sustainable farming
- Protecting biodiversity
- Textile waste management
- Mobile renewable energy

An important issue these initiatives help to address is the <u>76% of UK adults who feel anxious</u>, helpless, and worried about future generations. These feelings are understandable considering how much the mainstream narrative focuses on global warming and carbon footprints- making the world's

problems seem far-removed and insurmountable. However, by giving global concerns a local platform, these green-tech startups provide tangible solutions with visible results that help people feel more empowered.

#### Suggested articles

What makes Bristol an ideal base for green tech companies?

Are sustainable innovation and disruptive innovation mutually exclusive?

Renewing our commitment to clean energy and green tech

## Top local green-tech solutions that are adaptable, scaleable and affordable

As we mentioned in our previous post on <u>disruptive sustainability</u>, affordability is one of the most significant barriers to eco-friendly practices becoming mainstream. This is another reason why carbon footprints and global warming get so much attention: choosing public or shared transport, reducing waste, and switching to renewable energy don't necessarily require additional spending and often results in cost savings.

However, these green-tech startups in Bristol provide affordable solutions, allow us to be more proactive, and help reduce feelings of helplessness surrounding global challenges.

#### 1. Urban Forestry

<u>Alo Mundus</u>, an urban tree-planting initiative in Bristol, connects nature projects with businesses and increases the impact they can have on local communities. Benefits include:

- Protecting biodiversity
- Creating sustainable and 'living' cities

- Having a direct and visible impact in areas where employees and customers live, e.g.
   improved air quality, green public spaces
- Doing more than offsetting carbon

Better still, by providing access to various projects with different environmental and social impacts, people and businesses can choose the type of project they wish to support based on personal or organisational values or objectives.

#### 2. Sustainable farming

Farmers across the UK are feeling the impact of rising input costs: the prices of pesticides, fertilisers, animal feed, and machinery have all increased. The <u>Sustainable Farming Incentive</u> supports sustainable farming and promotes a healthy natural environment.

<u>LettUS Grow</u>, a Bristol-based startup, does precisely that. Their goal is to provide sustainable and efficient solutions for food production by enabling the cultivation of fresh produce indoors. By developing a system that uses a combination of innovative aeroponic cultivation methods, sensors, and control technologies, they can optimise plant growth and crop yields.

- Indoor and vertical farms require less space and reduce the burden on farmland
- Requires less water and fertiliser
- Uses no pesticides
- Drop & Grow®, container farm projects, deliver sustainable, affordable, and nutritious food to local communities across the country

#### 3. Protecting biodiversity

The UK has <u>lost almost half of its biodiversity</u> since the 1970s, and most of this is due to the loss of habitat caused by commercial farming (72% of UK land is managed for agriculture) and urban development. Sustainable farming and urban forestry initiatives are certainly helping to address this and are creating more opportunities for startups focusing on biodiversity to provide additional solutions.

<u>Wilder Sensing</u> provides actionable biodiversity insights using a scalable, artificial intelligence solution that's affordable and adaptable to any space (e.g. small urban garden or office complex). By using machine learning to recognise and identify animal species (e.g. birds) in a specific habitat, meaningful insights can be developed on how to protect and propagate them.

#### 4. Textile waste management

The UKs booming fashion industry comes at a cost. A staggering 10,000 clothing items are sent to landfills every five minutes, equivalent to £140 million in value every year. Not only is this a waste of money and resources, but the environmental impact is equally staggering: it can take over 200 years for materials to decompose. During this time, methane gases contributing to global warming are released, and toxic chemicals leach into the soil and groundwater.

Zori Tex aims to eliminate textile waste from landfills and incineration through technology innovation. Their solution unlocks the value of circular textiles, enabling a new textile-to-textile recycling market to scale rapidly. Their proprietary technology is patent-pending, so little detail is available – but this is one to keep on the green tech in Bristol radar!

#### 5. Mobile renewable energy

Harnessing solar and wind power has a fatal flaw: there's no affordable way to store surplus electricity at scale, and the rising energy costs continue to soar.

<u>Drift Energy</u>, the world's first mobile class of renewable energy, could provide a solution:

- High-performance sailing vessels cruise around the world's tradewinds harvesting energy from underwater turbines
- Al routing algorithms keep yachts in optimum weather conditions and ready to deliver stored energy to the nearest port
- Economical and scalable to 70% of the globe
- Sustainable as their energy harvesting solution leaves nothing behind but oxygen
- A solution that's able to both bypass and complement existing green energy grids

#### A final word on green-tech startups in Bristol

The range of sustainability challenges we're facing (from global warming, waste management, and habitat loss; to resource depletion, accessible healthcare, and universal education) can feel overwhelming. But these green-tech startups providing solutions that help us to be more proactive by tackling these challenges one solution at a time deserve recognition.

At Ignitec®, we're <u>committed to clean energy and green tech</u> and equally passionate about projects and partnerships that contribute to finding sustainable solutions. Our recent collaboration with Aarhus

University to <u>design environmental monitoring technology</u> highlighted that green-tech solutions can be cost-effective and quick to manufacture. If you're looking for help with sustainable product development that's low-cost and efficient, <u>contact us</u>.

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