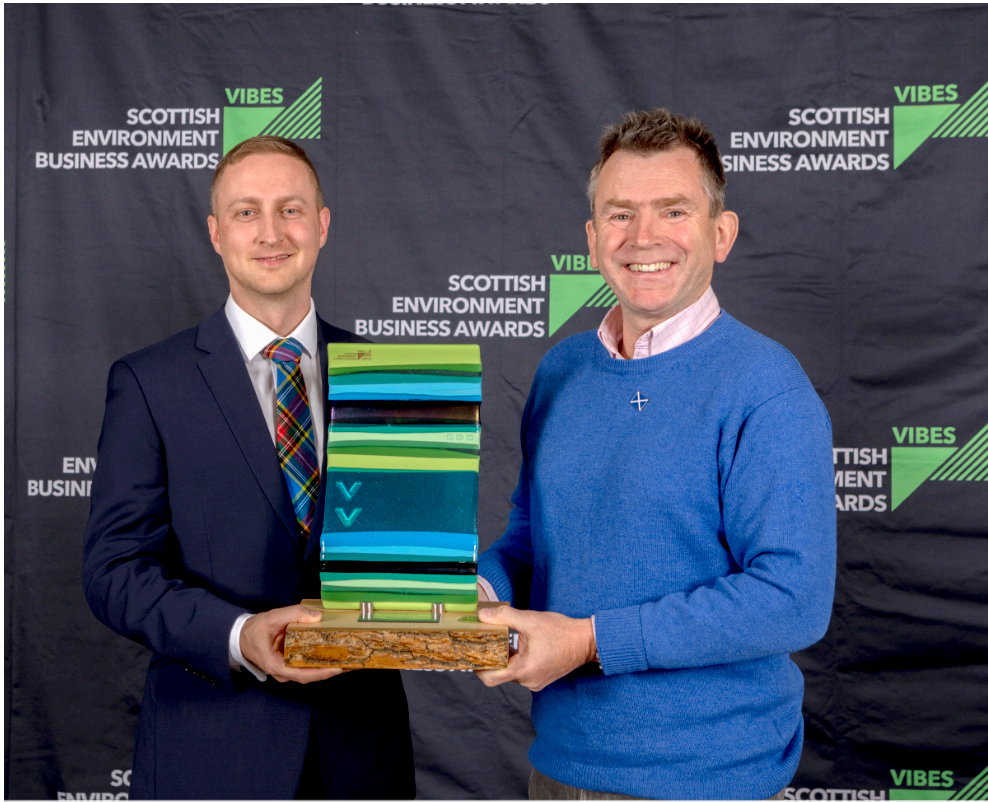


A patented Internet-of-Things enabled power and communications platform that helps optimise system performance/efficiency of vertical farms.

IGS has incorporated intelligent multi-spectral lighting, a dynamic power system and a closed-loop irrigation system / rainwater harvesting to minimise water use.

The IGS system delivers yields of 225% and labour savings of up to 80% compared to glasshouse production and energy savings of 50% in comparison to other indoor growing environments.



# Intelligent Growth Solutions

## Innovating Scotland

Established in 2013, Intelligent Growth Solutions (IGS) is an agri-tech business headquartered in Edinburgh and with a demonstration facility at the James Hutton Institute in Invergowrie. Their mission is to create the optimal conditions for commercially viable vertical farming. Through extensive trials at its demonstration facility, IGS has been able to develop a tried and tested technology that will provide the global vertical farming sector with a system that will help to revolutionise indoor food production.

The IGS technology has been designed specifically to address core challenges facing the vertical farming sector. Its goal is to deliver economic and productivity benefits by reducing power and labour costs whilst growing consistently high-quality produce to demand at the point of consumption.

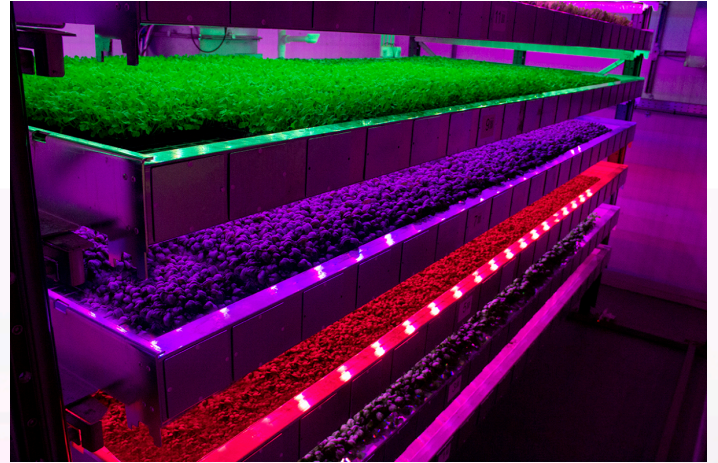
**Winner of the Innovating Scotland Award 2019**

*Sponsored by Scottish Power*

Innovating from a grower's perspective, the company has combined electrical, electronic and mechanical technologies to deliver "total controlled environment agriculture". As part of the system, IGS has developed, patented and produced a breakthrough Internet-of-Things enabled power and communications platform to help optimise performance and system efficiency.

IGS has incorporated intelligent multi-spectral lighting which only delivers the light the plants need, a dynamic power system to flex responsively to the grid and a closed-loop irrigation system combined with rain water harvesting to minimise water use. The judges were impressed by the improvements and efficiencies offered by the system. For example, the IGS system delivers yields of 225% and labour savings of up to 80% compared to glasshouse production and energy savings of 50% in comparison to other indoor growing environments.

The Innovating Scotland Award recognises businesses that have introduced innovation(s) into their operations and obtained sustainability benefits as a result. The Judges were impressed by the potential of the project to reduce food miles and look forward to new developments. The judges were also impressed by the fact the same weight of produce can be grown in a 100m<sup>2</sup> vertical farm that can be grown on a 1.1 ha conventional farm.



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David Farquhar, Chief Executive of IGS, commented: *“Our commitment to delivering a sustainable future is at the heart of everything we do at IGS and has been integral to our development. We need solutions that are sustainable, economically viable and provide food security. Our systems will play a part in providing these solutions to a truly worldwide market.*

*“We are delighted to have been recognised at this year's VIBES awards in the Innovating Scotland category. Our success is testament to the hard work and dedication of our team who work tirelessly to deliver solutions to the challenges facing global food security in an efficient and environmentally friendly way.”*  
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