

North of Scotland KTP Centre Case Study

Knowledge
Transfer
Partnerships

Intelligent Growth Solutions

A KTP to develop, test and validate revolutionary high intensity crop growing systems producing consistent, high quality products year round with limited environmental footprint.

Challenge

IGS developed novel automated vertical farming systems where crops are grown in enclosed systems with light provided by tuneable LEDs. This is an entirely new concept in high intensity crop production requiring the development of novel skill sets to maximise potential crop yield, organoleptic and nutritional quality. The KTP was needed to develop crop growing protocols and operational practice while transferring knowledge into IGS and their customer base.

Results

The KTP has resulted in manufacturing cost reductions, allowed IGS to demonstrate product performance of the Total Controlled Environment Agriculture (TCEA) system, and to develop a new starter product that has accelerated their route to market. The James Hutton institute was awarded £27M funding for the Advanced Plant Growth Centre, which will enhance current plant research and enable new research areas.



Benefits

IGS is now co-located on the JHI campus, facilitating ongoing collaboration. Liaison within and between the partners has been strengthened, and they have increased their industry, research and public profiles. The KTP was graded A (Outstanding) by Innovate UK, shortlisted for the 2019 Agrifood Tech Innovation Awards, and the partners were awarded funding for a second KTP in microbiology.



IGS was founded in 2013 to make vertical farming commercially viable at scale by combining automation, smart LED lighting and power management in a modular unit for the first time.

"The initial work of the KTP has snowballed into a multi-million pound investment programme that will transform the science undertaken across the entire institute. It will have impacts on our scientific direction and interaction with industry for many years to come."

Alasdair Cox
Director of Operations

Innovate UK