## Results of competition: Agri-Tech Catalyst - Late stage - round 5

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

<table>
<thead>
<tr>
<th>Participant organisation names</th>
<th>Project title</th>
<th>Proposed project costs</th>
<th>Proposed project grant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn Bioponics; Vale Fresco</td>
<td>VerticalVale: Viability of the Saturn Grower in commercial farming</td>
<td>£318,537</td>
<td>£127,415</td>
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</tbody>
</table>

### Project description - provided by applicants

Saturn Bioponics are working on a collaborative project with leading fresh produce growers ValeFresco, to prove and showcase the benefits that the Saturn Grower vertical growing system offers in a commercial growing environment. The project will demonstrate the 2.5-3.5 yield increase and reduced costs of production the system delivers on leafy crops, with particular focus on pak choi. Results have wider application across the fresh produce industry, in particular for leafy salads, herbs and soft fruit. The project enables a step change in the economics of high-value crop production.
### Participant organisation names

| Sharp Laboratories of Europe Ltd; Lincolnshire Herbs Ltd; APS Salads Ltd; May Barn Horticultural Consultancy Ltd |

### Project title

| Improving hydroponic production using new online nitrate sensor |

### Proposed project costs

| £125,525 |

### Proposed project grant

| £40,585 |

### Project description - provided by applicants

Many crops, including tomatoes, lettuce, herbs, strawberries, raspberries and ornamental flowers are often grown using hydroponics, where fertiliser for the growing plants is supplied in the irrigation water. Hydroponic farming produces excellent quality crops with good efficiency but there is an opportunity to improve the method by continuously monitoring and controlling the fertiliser components in the irrigation water. This project aims to enable better control over the use of nitrate, which is an important component of the fertiliser. A new sensor which can be used to continuously measure the nitrate concentration in irrigation water will be deployed at commercial hydroponic farms, allowing continuous nitrate monitoring for the first time. We will evaluate the potential for expected benefits including reductions in fertiliser use and expense and smaller discharge of fertiliser into natural waters, helping to meet environmental legislation. The technology is relevant to UK and global farming.
### Participant organisation names

| Farm Energy & Control Services Ltd; ARM Buildings Ltd; Garth Pig Practice Ltd; DC & RJ Allen & Partners; J M Sankey Fmrs; DA & EM Skinner; Stockcroft Ltd; Yorwold Pigpro Ltd | Real-time Information Systems for Precision Pig Production | £301,317 | £120,526 |

### Project title

Real-time Information Systems for Precision Pig Production

### Proposed project costs

£301,317

### Proposed project grant

£120,526

### Project description - provided by applicants

This project unusually involves a consortium of prime producers and technology suppliers. It is farmers who will actually deliver on sustainable intensification and that is why this project involves them directly as full partners. Entitled Real-time Information Systems for Precision Pig Production, the project will commercially pilot a recently developed system - Guardian Action - as a precursor to full UK industry roll out. The information system provides real-time remote data recovery from pig production units and allows browser access to the processed and analysed data designed to create knowledge at a farm level. In addition, anonymous data will be pooled and analysed to add further value for end users. Crucially, the pilot will include the setting up of a customer support resource to ensure that end users can turn the knowledge into profit. Uniquely, veterinary and nutritional expertise will complement the data analysis and interpretation. The system will be supplied and supported on a subscription fee basis.