



The
GrowFrame360™

The Future Of Farming

We build world-class aeroponic vertical farming systems using exclusive patented technology. Revolutionising agriculture by achieving exceptional crop yields, locally and sustainably, whilst eliminating seasonal constraints of traditional farming.

No matter if you're just starting out in vertical farming or you're an established operation looking to enhance your productivity, we have the solution for you.





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A Note From Our CEO

The world of vertical farming is moving apace. Our technology is designed to address the global food supply crisis and put fresh, clean produce closer to the consumer without interruption.

Let IAG provide the tools to face these challenges head on and support you to thrive through delivery of our accessible technology, we are proud to share our journey.

Jaz Singh
Founder & CEO



Did you know?

Vertical farming is the practice of growing plants vertically to produce “significantly higher yields per unit of floor space” compared to conventional farming (Verticalfarming.com, 2022)



The Global Necessity For New Ways Of Farming

As the world's population booms, we must grow more food over the next 35 to 40 years than we have done in the last 10,000 years.



Population

World population to reach 9.9 billion by 2050

— International Institute for Sustainable Development, 2020



Food Production

To feed this growing population, food production must increase by at least 70% to feed the growing population

— IBM, 2021



Loss and Waste

One-third of food produced for human consumption is lost or wasted between harvest and retail globally. Amounting to about 1.3 billion tons per year

— UN-Water, 2021



Water Usage

Water scarcity is impacting billions of people around the world and 72% of all global water withdrawals are used by conventional agriculture

— UN-Water, 2021



Greenhouse Gases

Approximately one-quarter of the world's greenhouse gas emissions come from agriculture, forestry and other land-use

— GOV UK, 2021



Soil Degradation

As a result of intensive agriculture, 33% of the Earth's soils are already degraded and over 90% could become degraded by 2050

— FAO and ITPS, 2015; IPBES, 2018



Our Mission And Values

Our Mission

To deliver innovative farming solutions to growers, making food production sustainable and accessible for all.

Our Vision

To revolutionise the agriculture industry through innovative, sustainable, and efficient vertical farming technology, providing year-round food security for our communities and a better future for our planet.



Our Values

1. Innovation not imitation: Be at the forefront of agritech breakthroughs
2. Agility: Be nimble and ready to pivot promptly
3. Sustainability: Demonstrate concern for and prioritise the environment
4. Integrity: Be reliable and always honour commitments
5. Customer-oriented: Exceeding customer expectations
6. Quality: Delivering the highest standards. Always.
7. Accessibility: Provide offerings which are accessible to all
8. Collaboration: The greatest solutions are co-created
9. Enthusiasm: Having joy and passion for the work we do
10. Growth focused: Think Big!

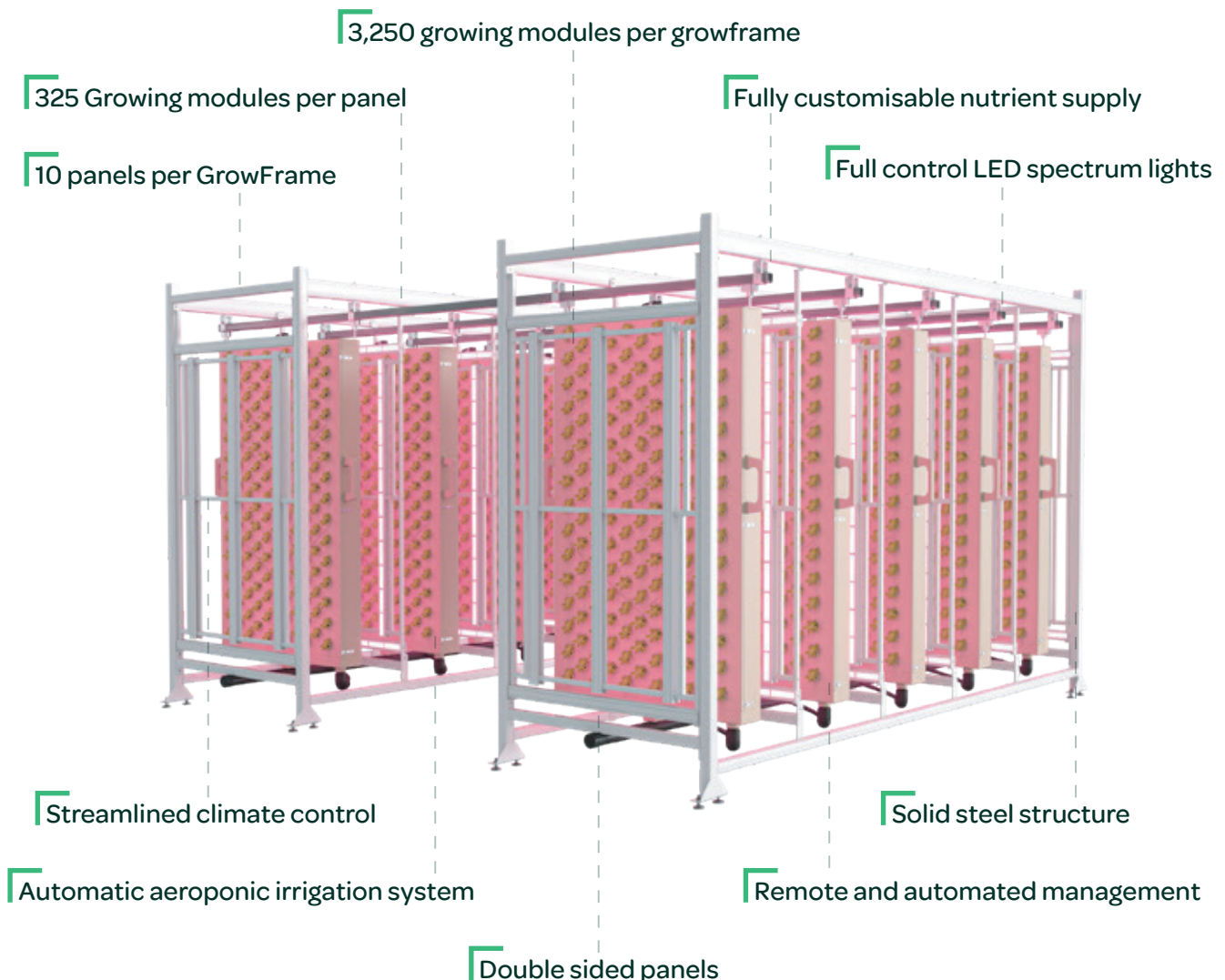


The GrowFrame360™ Technology

Product: the GrowFrame360™

The IAG GrowFrame is made up of 10 double sided panels, with an automatic aeroponic irrigation system, controlled LED spectrum lighting, and automated management package allowing you to monitor and take full control of the growing environment. Our solution also allows users to upgrade to tunable-spectrum LED lights for specific crops that will benefit.

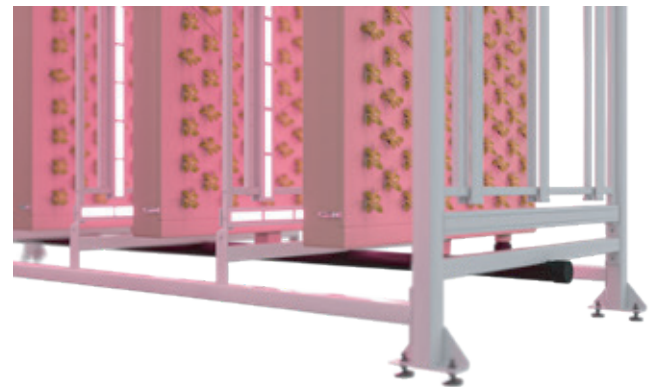
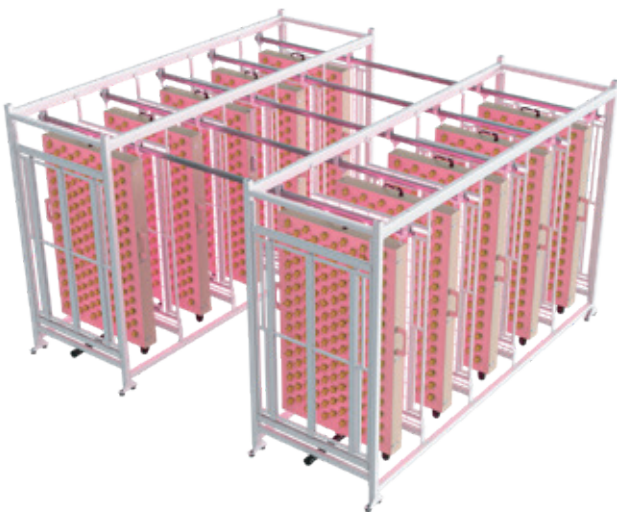
The IAG GrowFrame360™





Building Your Own Bespoke Farm

With our technology you can create your own vertical farm in any space, anywhere in the world. The patented IAG GrowFrame360™ vertical farming system can help you grow and sell local, sustainable food.



Germination Rooms

All our farms come equipped with a customisable germination room to house young plants and seedlings, with full spectrum lighting which is specially engineered for young seedlings at early stages of growth. Our chambers house seedling trays stacked in a 'ebb and flow' design to supply over 7,000 seedlings per trolley. The number of trolleys is customised to each client's needs.

- Automated seeder
- 7 shelves per trolley
- Full spectrum LED lights
- Flexible racking systems
- 338 seedlings per tray
- 7,000+ seedlings per trolley
- 21 seedling trays per trolley



The IAG Growing Process

1.

Seeding

- Seeds are placed into a specially designed seedling tray.
- This process can be completed manually or with our automated seeder. The automated seeder is filled with loose seeds and uses a suction vacuum to collect and drop the optimal number of seeds into the coco peat substrate, multiple seeds at a time.

2.

Germination

- The seedling trays are then moved into the Germination room.
- The trays are stacked in a 'ebb and flow' design to supply over 7,000 seedlings per rack.
- The room has calibrated lighting, temperature, and moisture settings to optimise germination for shoots to appear.

3.

GrowFrame360™

- Once seeds have germinated, they will be transferred from the trays to the IAG GrowFrame panels.
- These IAG GrowFrames™ sit within a controlled environment for optimal growing conditions which are automated using Siemens hardware, to control temperature, humidity, CO₂, etc.
- The plants remain in substrate throughout the entire growing process, minimising labour.

4.

Harvesting

- At the appropriate time, sliding grow panels and vertical array make harvesting easy, from the IAG GrowFrame™ ready for packaging and distribution.
- The crops will be ready to harvest at a much faster rate than traditional farming.
- The fresh produce will grow strong, flavoursome, and full of nutritious goodness every time.



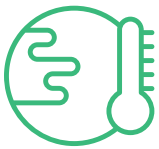
Controlled Environment

How Can You Control Crop Growth With The GrowFrame360™



No need for sunlight

No sunlight? No problem! The GrowFrame360™'s full control LED spectrum lights eliminate seasonal and climate restrictions on crops and allow you to grow any time, anywhere. What's more, light levels and colours can be precisely tailored to different stages of the growth cycle, allowing you to optimise the yield and quality of your harvest.



No climate dependency

Offering a fully controlled and protected growing environment, our tech keeps your crops safe from drought, disease, pests and extreme weather conditions. From fragile seedlings to fully grown plants, you can be assured of strong, healthy development at every stage of the growth cycle.



Automated management package

Save time, effort and money by using the fully automated GrowFrame360™. The GrowFrame360™ is automated and managed from a Human Machine Interface (HMI), allowing operators to control the lighting, irrigation, temperature, pH, nutrients, CO₂ levels and so much more, either on site or remotely via smartphone or tablet. Crop quality is optimised and on-site man hours significantly reduced.

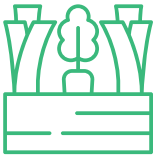
Did you know?

Controlled Environment Agriculture (CEA) is the practice of growing plants under fully controlled conditions inside buildings, using LED lighting to provide different wavelengths specific to each crop and growth stage. CEA has been proven to produce stronger, healthier crops at a much faster rate than conventional farming methods.



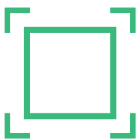
Exceptional Yield

How Can The GrowFrame360™ Provide Exceptional Yields?



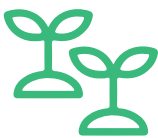
4 to 5 times more harvests per year than traditional farming

Maximise productivity and profit by investing in the GrowFrame360™. Optimised faster growing cycles and all-year-round growing enable you to produce up to 17 harvest cycles annually and fulfil high commercial demand for produce all year round. Traditional UK farms produce just 3-4 harvests per year.



Grow more, with less space

Limited on space? No problem. With our tech you can grow 2.5 acres worth of traditional farmed crops on 0.75 acres, which equates to 10 of our IAG GrowFrames, allowing you to achieve extraordinary yields.



Grow both sides of the panelling

Maximise space and profits with the GrowFrame360™. Crops can be grown on both sides of the panelling, doubling the amount you can grow per sq/m and providing a total of 3,250 growing modules per GrowFrame360™.



Faster growing cycles

Our technology accelerates crop growth to achieve shorter growing cycles than traditional farming. Our automated system allows you to access optimal parameters for growing from seedling to harvest, whilst also allowing real time adjustment and monitoring from any internet connected device.



Superior Crop

How Can The GrowFrame360™ Help You Grow Superior Crops?



Longer shelf-life

Extend shelf-life expectancy and achieve higher plant success rates with the GrowFrame360™, which is proven to produce healthier root systems and superior crop growth.



Healthier, more flavoursome produce

Produce grown in the GrowFrame360™ tastes better and contains more vitamins and minerals than conventionally grown food. Plant roots are continuously exposed to oxygen whilst being misted with the optimum amount of H₂O and nutrients through our state-of-the-art delivery system. The resulting produce is exceptionally flavoursome and nutritious.





Sustainability

How Can The GrowFrame360™ Create A More Sustainable Future?



98% of used water captured and recycled

Save money on water costs and be more environmentally friendly by using the GrowFrame360™. Unlike traditional farming due to our closed-loop system allows for 98% of water used to be captured, recycled and UV treated rather than lost to run off.



Soilless growing

Our GrowFrame360™ allows crops to be grown without soil, as perfectly pH-balanced nutrient solutions and H₂O are sprayed directly onto the plants' roots. Because our soilless growing technology is free from soil-borne pathogens, we eliminate the need for pesticides, allowing both pest and chemical free - better for our health and better for the environment.



Reduce food miles

Reduce your carbon footprint by bringing farms closer to distribution networks and major retailers. The GrowFrame360™ can be set up in any location with access to electricity and water, allowing you to be more environmentally friendly and drastically reduce transportation costs.



Recycled waste products

You can contribute to a better environment and grow cleaner, healthier crops by using the GrowFrame360™. Our system uses recycled waste products like coco peat in order to be more sustainable.

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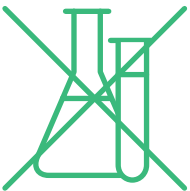
Sustainability

How Can The GrowFrame360™ Create A More Sustainable Future?



Lower greenhouse gas emissions than traditional farming

Lower greenhouse gas emissions with the GrowFrame360™. Our vertical farming system can reduce carbon emissions by up to 70% compared with conventional agriculture. And by spraying the nutrients that crops need directly onto plant roots rather than using nitrogen-rich fertilisers, nitrous oxide emissions are also drastically reduced.



No need for chemical pesticides or herbicides

The GrowFrame360™ is a perfectly controlled indoor solution that requires zero pesticides or herbicides for strong, reliable crop growth. This means no harsh chemicals leaching into groundwater, damaging ecosystems or posing hazards to human health.



Repurpose old barns and buildings for growing

Need to grow closer to your distribution networks? Our 360 vertical farming solution can be installed anywhere with access to electricity and water. Meaning you can repurpose old barns and buildings to grow.

What's Aeroponics?

At IAG we use an automatic aeroponic irrigation system. Which means instead of growing in soil, the roots are exposed to the air and sprayed intermittently with a fine, high-pressure mist of water containing nutrient-rich solutions.

Any water not absorbed by the plants' roots is simply recycled through the closed-loop irrigation system, so we use a fraction of the water required by conventional growing.



Intuitive Design

How Is The GrowFrame360™ Designed With You In Mind?



Simple, intuitive system

Save time and money on training. The GrowFrame360™ is simple and intuitive to use, so you don't need experience in indoor vertical farming to begin your growing journey.



Modular, scalable system

You don't need masses of land space; the GrowFrame360™ is a completely modular, scalable system allowing you to upscale when you're ready. And if required, you can easily replace singular elements instead of the full system.



Easy access to plants from ground level

Save money on additional machinery and lower health and safety risks. The GrowFrame360™ allows access to all plants from ground level, mitigating the risks of working at height.



Easy cleaning and maintenance

All parts of the GrowFrame360™ and panels are easily accessible for cleaning and maintenance, ensuring the continuous smooth running of your vertical farm.



Fewer on-site man hours

You don't always have to be on site. With the GrowFrame360™, everything can be controlled from the HMI or via your smartphone, meaning the only time anyone will need to enter the room is for planting and harvesting. This also minimises the risk of contaminating or disturbing the growing crops.



Best-In-Class Tech

How Are We Delivering You The Best Technology?



Marine-grade High Density Polyethylene panels

Delivering you the best. Each panel within the GrowFrame360™ has been carefully manufactured using marine-grade High Density Polyethylene (HDPE), allowing it to withstand the temperatures, moisture and humidity needed for growing crops.



Red Tractor and Global GAP accredited

Grow with confidence knowing that your produce is adhering to the highest industry standards. The IAG process is Red Tractor and Global GAP accredited, allowing us to share best practice protocols to help you gain accreditation and sell your produce into major retailers.



Dedication to R & D

At IAG, we continually undertake extensive research and development in collaboration with our partners and advisory board. You can therefore be confident that our technology is the latest and best in the industry, optimising crop yield, quality, and range.



Competitively priced

Reduce your equipment costs by choosing the GrowFrame360™. Our efficiencies allow us to offer the IAG GrowFrame™ system as the most competitively priced full turnkey aeroponic solution on the market, helping you to reach profitability more quickly and improving your return on investment.

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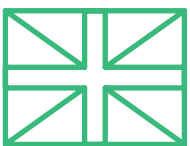
Best-In-Class Tech

How Are We Delivering You The Best Technology?



Industry Partnerships and Academics

We work alongside many leaders of the vertical farming industry, from business to academia. At IAG, we have partnered or collaborated with Duncan Bannatyne, Professor Tracy Lawson, Dr Chris Foulds, Co-Alliance, the University of Essex, Royal Holloway University, CHAP, UKUAT and NIAB, to name but a few, all to ensure that we are delivering you the very best technology.



Designed and engineered in the UK

At IAG, quality is at the heart of everything we do. All elements of the GrowFrame360™ have been specially designed and engineered in the UK so you can be confident you're receiving reliable, industry-leading technology.





After Sales Support

How Will We Support You On Your Growing Journey?



5-Year warranty

Worried about something going wrong? We've got you covered! In addition to the comprehensive customer support package, the GrowFrame360™ also comes with a 5-year warranty for added peace of mind.



Customer support packages

Become a part of the IAG family and enjoy stress-free growing. We offer a range of comprehensive customer support and training packages that mean we'll always be on hand to assist, share resources, and collaborate with you to help make your farm a success.



Annual service option

Book a regular service of your GrowFrame360™ and we will flag and fix any issues before they start affecting your yield. You can register for an annual service to ensure your tech keeps running smoothly, year after year.



Site Audit

Our qualified quantity surveyors will conduct a full site audit for wherever you intend to install the GrowFrame360™ to ensure that you have all the necessary elements in place to create a successful growing environment.



IAG approved consumables

You can purchase all required consumables directly from us. After years of research, we have perfected a range of consumables like seedlings and nutrients that are highly effective and fully compatible with the GrowFrame360™, to get your growing journey off to a flying start.



IAG vs Traditional Farming

98% of water used is saved and recycled

Reduced carbon footprint

No soil required

More sustainable

Year round growing season

More flavoursome

No pests

Longer shelf life

No pesticides

Independent of local climate

Grow more, with less space

Faster growing cycles

Up to 5X more harvests per year

Higher crop success rate





What Sets The IAG 360 Vertical Farming Solution Apart From The Rest?

The IAG GrowFrame™ 360 takes vertical farming to the next level. We are proud to have developed an aeroponic farming solution which is a complete game-changer, setting us apart from the rest, and here is why...

Competitively Priced

Many competitors use stainless steel which is an expensive commodity that hikes up the price point of their systems. Instead, we use marine-grade high-density polyethylene panels for longevity and we're able to pass on the cost-saving to our customers.

Modular & Scalable

The IAG GrowFrame™ is modular and scalable so replacing and expanding is easy. Unlike other vertical farming systems which are often limited by space simply aren't built for upscaling as business needs grow and require full systems to be repurchased when expanding.

Grow A Wider Variety Of Crops

Our patented panel design offers much more room per crop allowing us to grow a wider variety of crops, such as herbs, leafy greens and edible flowers, which many competitors are unable to grow due to their limited tray design.

Superior Crop Quality

We use an aeroponic irrigation system, unlike many competitors who use hydroponics system. Our aeroponics solution delivers healthier roots, by providing greater oxygenation, resulting in better quality crops. This is through suspending crop roots in the air and misting them with optimum amounts of H₂O and nutrients.

Accessibility Of Crops

The pull-out panels and accessible height allow crops to be accessible without any additional machinery. Saving on machinery costs and allowing for visual quality control checks of all crops at all times which is otherwise difficult with horizontal stacked growing systems.

Recycling Waste Products

We're continually focused on a more sustainable future and although our competitors may be more sustainable than traditional farming, we take it a step further by using recycled products in our growing process where possible.

Double Sided Growing

In comparison to a horizontal stack design which is used by most competitors, IAG uses vertical panels which are double sided, allowing growth on both sides to maximise production yield.

What Can Be Grown Using The GrowFrame360™

The GrowFrame360™ is not restricted to producing just one kind of produce.

Soft Fruits



Edible Flowers



Leafy greens



Root vegetables



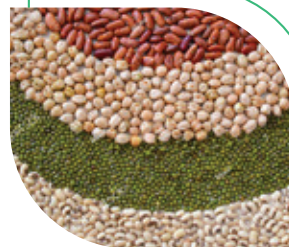
Micro leaves



Herbs



Legumes



Brassicas



Growing a niche crop?

Growing Trials

Growing is not limited to these plant species. Is there something you want to grow, that we haven't previously grown at our facilities? We have a solution for you. At IAG we offer growing trials where we will order the seeds, germinate, plant, grow, harvest the crop, and conduct an analysis on the crop growth. Get in touch at info@iagri-tech.com, and our plant scientists will talk you through your options.

Hire Our Grow Room

We also offer customers an option to hire our grow room. This option provides sole use of the entire grow room to test the growing of crops, in a fully controlled environment, optimised to whichever crop you want to test and grow. If you are interested in hiring out the grow room, or would like to know more please get in touch at info@iagri-tech.com.

Did you know, there are many end uses for produce grown using the GrowFrame360™? Such as:

- Cosmetic (make-up and skincare)
- Medicinal
- Decoration
- Beverages
- Cooking
- Baking



Featured in



the business magazine

iGrow News



verticalfarm daily

Farmers Guardian



FoodTech Daily

Agronomist & Arable Farmer

AgriTech Tomorrow

Essex Chambers of Commerce



BBC SOUTH TODAY



KQ Education Group



FOFP The FUTURE of FOOD PRODUCTION

The Eastern Echo

yahoo!

Business Leader INSPIRE • INFORM • CONNECT

GG GROCERY GAZETTE

CISION PR Newswire

BBC RADIO BERKSHIRE



Hort News



GULFOOD MANUFACTURING

FOOD MATTERS live

Positive.News



groenten nieuws

Agronomist & Arable Farmer



Net Zero Investor



mmj daily



Newsires



horti daily



Want to know more?




To find out more about the GrowFrame360™ and our services email us at info@iagri-tech.com and we'll get back to you as soon as possible.

Get in touch now

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