HOW AGRI-FOOD PRODUCTION CAN BENEFIT FROM SATELLITE AND SENSOR TECHNOLOGIES

STEVE WELCH

DIRECTOR – THE KTN

#INNOVATEUKAGRIFOOD

THE UK AGRI-FOOD INDUSTRY

- Contributed £97Bn to the economy in 2012
- UK employs 3.7 million people across the food supply chain
- UK is home to world leading companies

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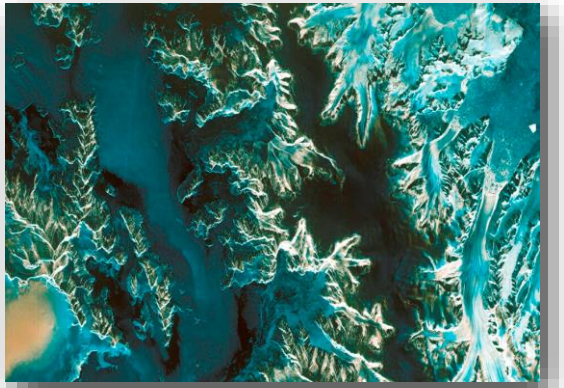
UK AGRI-TECH STRATEGY

- Launched 2013
- £160M to help implementation
  - £70M agri-tech catalyst fund
  - £90M for Centres for Agricultural Innovation
- Many other funding opportunities also exist e.g. £90M Sustainable Agri-Food Innovation Platform

SATELLITES FOR AGRICULTURE

- Small satellites (EO and telecomms)
- Hyper-spectral imaging
- Radar Systems



- EU observation for agriculture
- Combined radar and imaging
- Frequent revision using small satellites

- Connected farm
- Networks of sensors
- Robotics and M2M

HOW THE KTN CAN HELP

- We would be happy to help you access the expertise and funding to successfully innovate
- We have specialist teams working in Agri-Food, Satellites and Sensors
- To find out more, visit our website, or come and speak to us in the support zone

#InnovateUKAgrifood

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HOW AGRI-FOOD PRODUCTION CAN BENEFIT FROM SATELLITE AND SENSOR TECHNOLOGIES

Duncan Forbes

Managing Director,
Kingshay

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INTRODUCTION

- Who we are, where we are and what we do
- Our experience of writing a winning bid
- HowsMyCow - Our Innovate UK funded project

HowsMyCow™

Kingshay

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WHO WE ARE

- Independent dairy specialists (est. 1991)
- Working with dairy farmers throughout UK
- Providing independent, practical research based advice & services to the dairy farming industry

- **Memberships**
  - Farmers, vets, associates & corporates
- **Consultancy**
  – Technical & business advice, training
- **Services**
  – Costings, data analysis, products
- **Developments**
  – Specialist products and programs

WHERE WE ARE

Bridge Farm

West Bradley

Glastonbury

Somerset

www.kingshay.com

Dairy farm – 200 cows, 600 acres
– dairy – youngstock – beef - arable

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GRASS VARIETY TRIALS

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Our Testing Machines

Sophisticated
Accurate
Reliable
Clear results

Daisy knows best!

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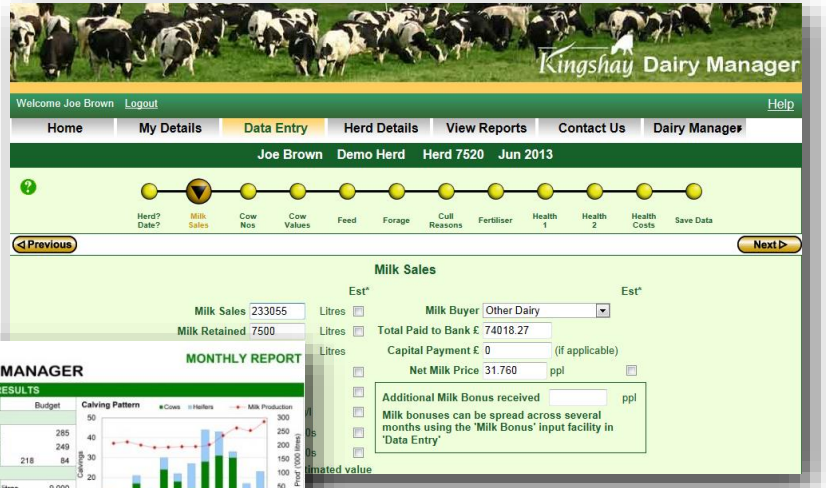
WEB BASED SERVICES

Management data for farmers
Big data for the industry



COW COMFORT & WELFARE

HowsMyHerd.com

Providing low cost **solutions** to high cost **problems**

another practical solution from Kingshay

COW COMFORT & WELFARE

Comfortable cows are healthy cows

Healthy cows are profitable cows

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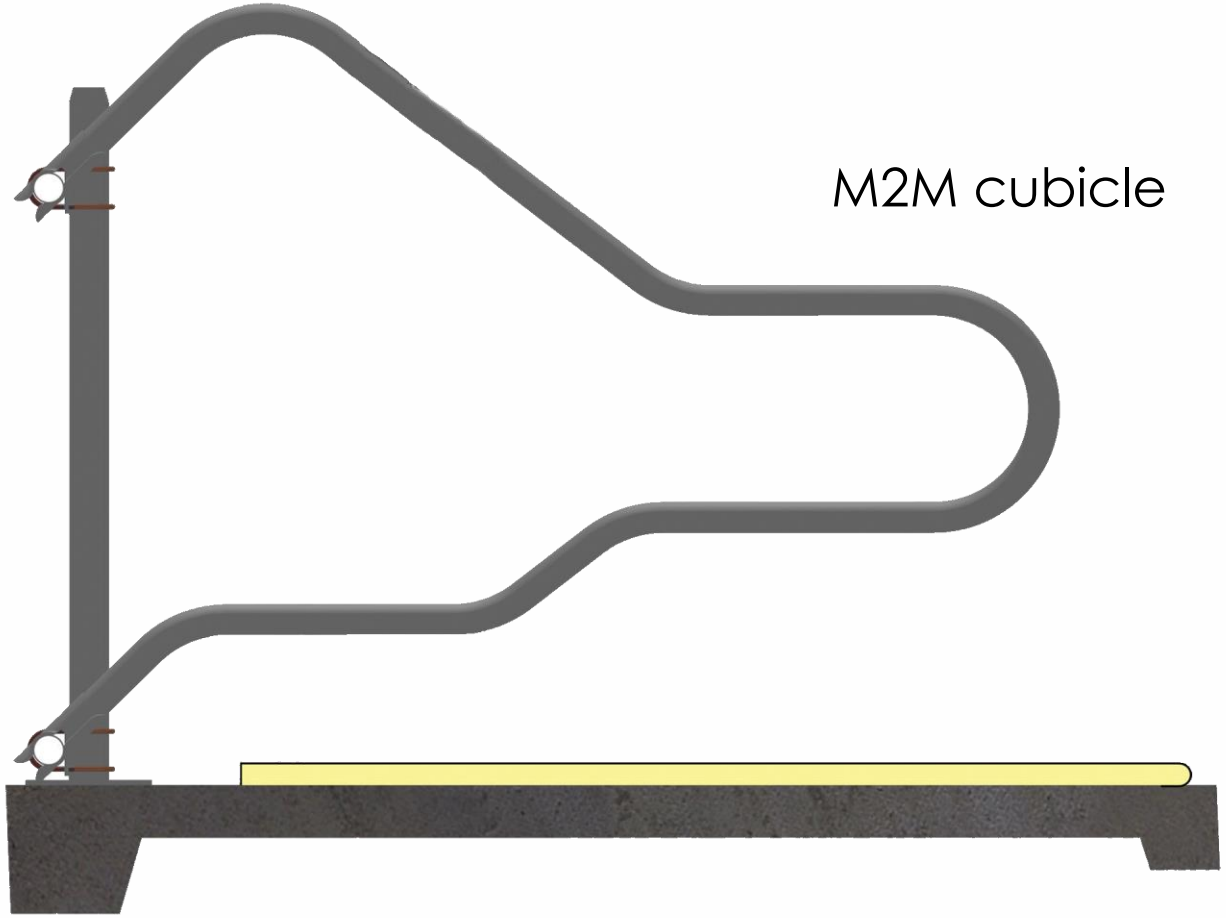
COW CUBICLE: PATENTED DESIGN



Developed by Kingshay ~ now available from GEA Farm Technologies

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Precision Cow Health Management

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Idea

Finding Partners

Writing The Bid

Creating The TECHNOLOGY

Progress So Far

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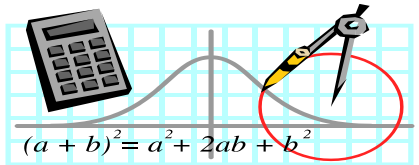
WRITING THE BID

Consortium building and agreements

- The journey from concept to commerciality

IDEA

TECHNOLOGY



ROUTE TO MARKET

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CONSORTIUM BUILDING & AGREEMENTS

- Get to know the KTN team
- Attend networking events
  - Promote your company's abilities

"It's not what you know; it's all about who knows what you know!"

- Define what you want to achieve
  - Identify potential partners with complimentary skills
  - Decide if you want to be lead partner

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CONSORTIUM BUILDING & AGREEMENTS

- Confidentiality Agreements
  - Sign prior to detailed discussions with potential partners
- Collaboration Agreement
  - Model supplied by Innovate UK. Start early!
  - Identify who will own resulting Intellectual Property
  - Sign before completing Pre-start documents

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WRITING THE BID

- It takes a lot of time!
  - Application forms are very locked down – use the space effectively
- 3 stage process
  1. Expression of Interest – on the form only
  2. Full Application – more space on the form plus appendices for background info, ROCE forecasts etc.
  3. Pre start documents – detailed plans

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WRITING THE BID

Take account of Feedback after Stage 1 EOI:

"An innovative project which seeks to use cutting edge technology."

"The partners have the appropriate blend of skills and expertise to deliver this project."

"The proposers do not seem to have done a cost: benefit analysis of the market opportunity."

"Additional information on potential value of overseas market would have added to the case."

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WRITING THE BID

Timeline	Measurement technologies for agri-food systems
Feb 2013	Announcement of funding
Mar	Consortium build
April	Expression of Interest
May	Feedback
June	Full Application
July	Notified of grant offer
Aug	Collaboration Agreement
Sept	Conditional Offer letter - New projects workshop
Oct	Pre start documents - Financial forecast, Project plan, Milestones, Exploitation plan, bank details
Nov	Project start

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OUR FUNDED PROJECT: PRECISION COW HEALTH MANAGEMENT

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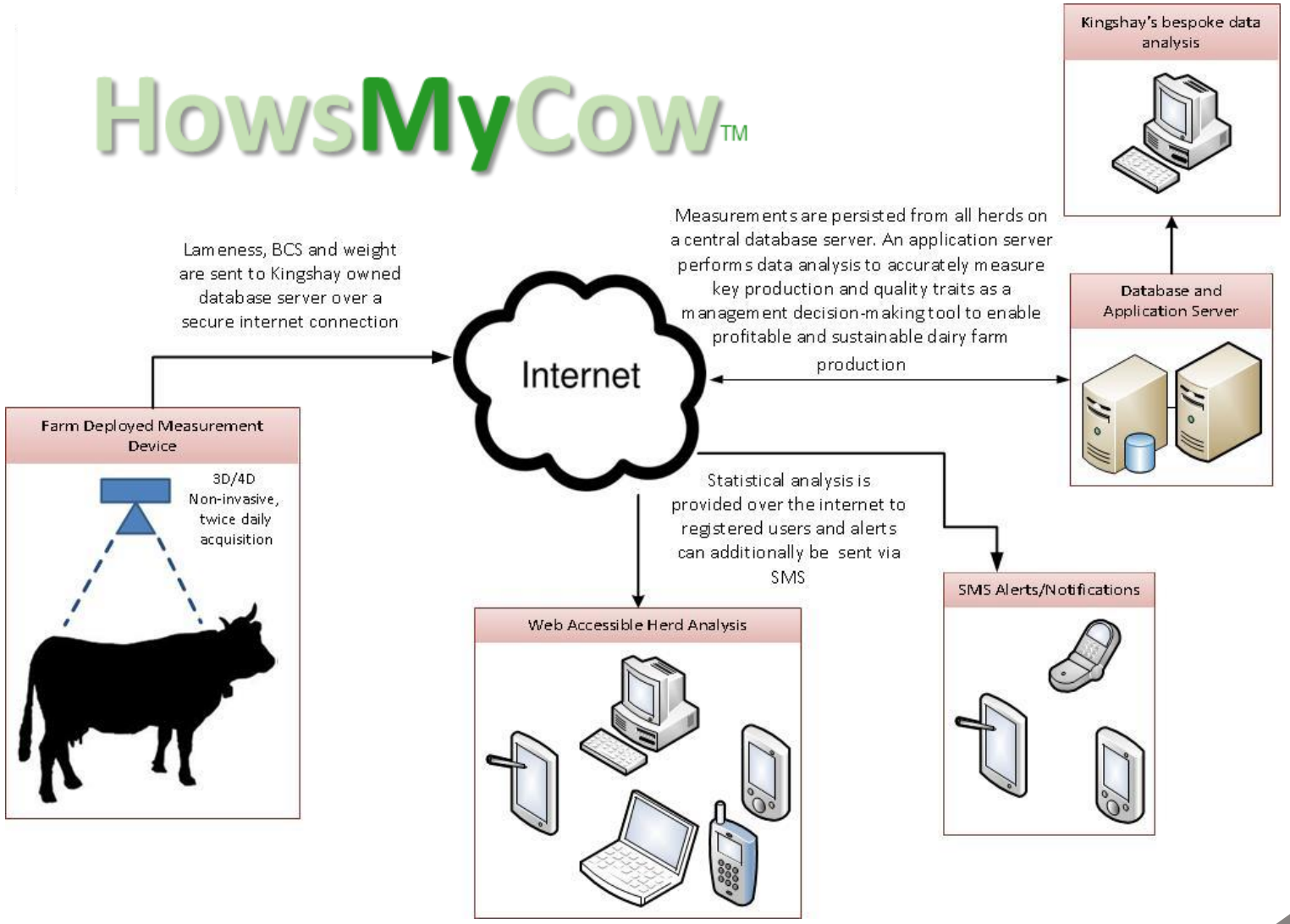

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OUR FUNDED PROJECT

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OUR FUNDED PROJECT

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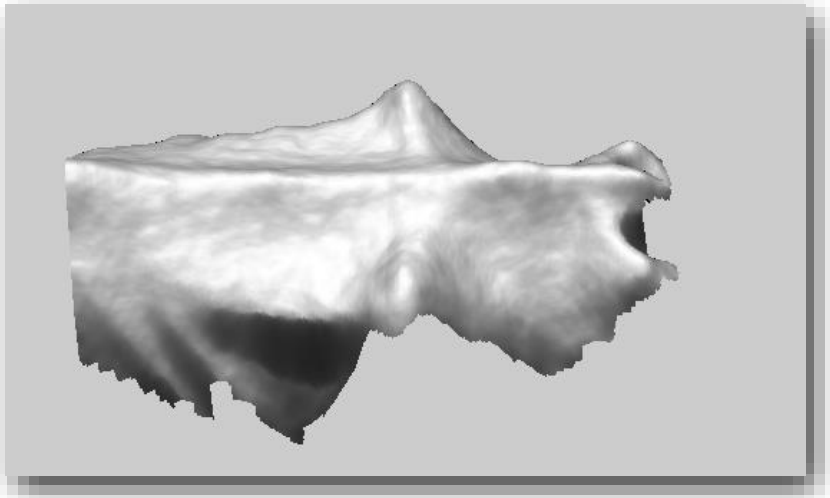

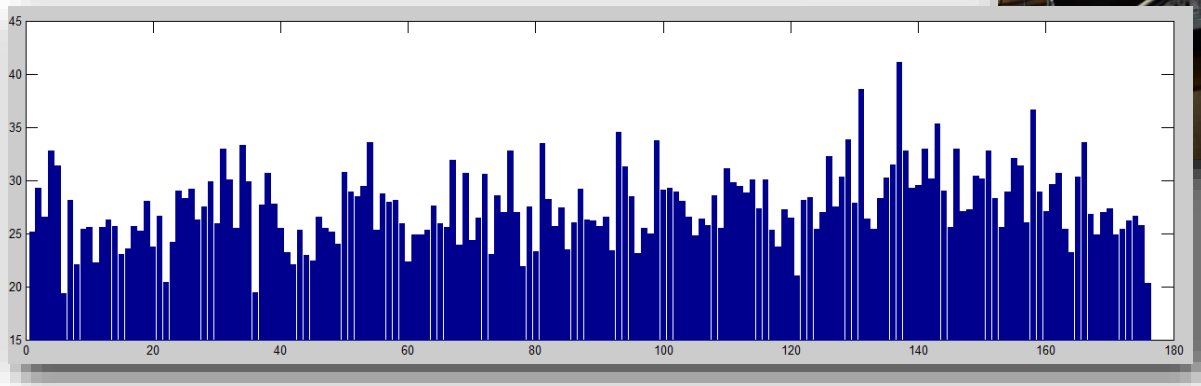

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PROGRESS

- One year into the three year project
  - Excellent progress in BCS, mobility and weight scoring
  - One additional employee at Kingshay
  - University: one full time research associate plus a PhD and a Masters related to the project
- We are seeking opportunities for **routes to market**
- Partner in another Innovate UK funded project
- Participating in bids for Agri Tech £90m fund for Centres for Agricultural Innovation

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Kingshay

Working for tomorrow's dairy farmers TODAY

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