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# ERDF 'WATERR' Project Seminar : 28<sup>th</sup> September 2015

## Where Next for the Irrigation Sector ?

### Irrigator Support : Future Plans

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## Irrigator Support Needs / Priorities

### Ranking - % of Irrigators Rating Very or Crucially Important

- 1. Learning about planned changes to Abstraction Licensing System (85%)**
- 2. Understanding which technologies/ techniques have the most impact on irrigation water use efficiency and financial returns (70%)**
- 3. Collaborative opportunities to improve catchment management and water demand / supply balance (63%)**
- 4. Understanding how own water use efficiency compares with other abstractors (60%)**
- 5. How to improve own water availability e.g. build reservoirs, rain water harvesting (55%)**
- 6. Visits to sites which demonstrate irrigation Best Practice (54%)**

# 'WATERR' Project

## Irrigator Support to Date

## Water Availability

### Irrigation Business Reviews

**110 irrigators / 60% of South East irrigation water use:**

- **Current water demand / outlook / business impact of shortages**
- **Potential impact of Licensing Reform / Trickle exemption removal**
- **Options and plans to improve water security**

### Workshops (x5)

**128 participants / Kent and West Sussex catchments**

- **Abstraction Licensing Reform: options , proposals and potential impact**
- **Opportunities to improve availability:**
  - **Water company untreated water supplies / trading**
  - **New Reservoir Guide**



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# 'WATERR' Project

## Irrigator Support to Date



### Irrigation Performance / Best Practice

**Irrigation Business Reviews and Follow Up Interviews : 110 growers**

**Performance Improvement Workshops (x5) : 100 irrigation businesses**

**Best Practice Demonstrations (x4) : 32 growers**

**Irrigator Water Use Efficiency / Financial Returns Data Sheets (8 crops)**

**Irrigator Performance and Best Practice Fact Sheets (7 crops)**

- **Comparative irrigator water use efficiency performance**
- **Impact on Financial Returns : Top v Bottom Quartile producers**
- **Best Practice technologies/ techniques**
- **Latest Research / new technologies : EMR / irrigation suppliers**

**Improvement Potential :**

**IBR Follow Ups - 50% of growers targeting a 10 to 25% improvement in water use efficiency**



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# 'WATERR' Project Future Support Plans



## New Project Proposal

### UK Centre for Water Efficient Technologies at EMR

#### Project Objectives

Bring together leading irrigation researchers, equipment and services providers at EMR to:

- Research, develop and commercialise an integrated portfolio of technologies and systems for the tree and soft fruit sector
- Deliver a step change in irrigation water use efficiency, productivity and financial returns .
- Promote business growth throughout the supply chain

# Proposal : EMR Centre for Water Efficient Technologies

## Case For Action : 'WATERR' Project Findings

Irrigation Business Review interviews with 110 South East irrigators :

- Over 70% of growers rank irrigation as 'Crucially Important' to their business
- Typically a 2 to 4 fold difference in grower water use efficiency/productivity
- Strong correlation between irrigation performance and financial returns
- Shortage of local advice : growers need crop specific, 'hands on' advice on more efficient technologies for the fruit sector.
- Equipment suppliers a key source of information, but equipment often not compatible and integrated / total system support needed.
- Research organisations need to focus on translating new technologies into commercial use

# Proposal : EMR Centre for Water Efficient Technologies

## Case For Action : Irrigation Supply Company Research

KCC 'Fusion' Project research: opportunities for development in Kent

- Sector consists of mainly small, specialist companies covering diverse irrigation technologies and systems
- Most suppliers are located outside of Kent
  - Only 22 of 100 companies identified are currently in Kent
  - Fruit sector important, but not as large as East Anglian field vegetable market and suppliers lack size for local representation
- Suppliers have technologies to significantly improve water use efficiency and irrigation performance but commercialisation requires:
  - Direct grower engagement: 'research extension, training and support'
  - Collaboration and 'integration through the supply chain'



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# Proposal : EMR Centre for Water Efficient Technologies



## Project Strategy

- Create an Irrigation Centre with the research, development and commercialisation infrastructure and critical mass required for suppliers to co-locate at EMR
- Engage directly with growers, Producer Organisations and Retailers to ensure technologies developed meet the needs of the horticultural fruit sector / supply chain
- Develop integrated / compatible products and systems
- Support commercialisation by raising awareness of the commercial benefits of improved water use through grower trials, crop specific workshops, demonstrations, training and 1: 1 support .





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# Proposal : EMR Centre for Water Efficient Technologies



## Key Project Activities

### Activity 1. Engage with leading irrigation suppliers (Jan to June 2016)

Identify and select suppliers / technologies which:

- Have greatest potential to improve irrigation performance
- Fit best with the needs of fruit growers / supply chain

Agree Centre modus operandi and start up requirements

### Activity 2: Establish the Centre ( June 2016 to June 2017)

- Finalise network and supplier agreements (June-Dec 2016)
- Install irrigation trials / demonstration infrastructure (June 2016 – June 2017)

# Proposal : EMR Centre for Water Efficient Technologies

## Key Project Activities

### Activity 3: Coordinate and develop new Integrated Technologies and Systems (June 2016 – Dec 2018)

- **Coordinate and align supplier /PO/ retailer and EMR research and development**
- **Ensure new technologies / systems for irrigation monitoring, scheduling and application are compatible**

### Activity 4: Support market development and commercialisation (June 2016 – Dec 2018)

- **Develop and run commercial trials , workshops, and demonstrations .**
- **Run training sessions for growers , PO/Retailer agronomists**
- **Leverage EMR media / communications capabilities to promote new products and systems**



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# Proposal : EMR Centre for Water Efficient Technologies



## Project Outputs

### Resource Efficiency / Environment

- **Significant improvements in irrigation water use efficiency**
- **Improved water efficiency = less pressure on river catchments/ water resources and associated habitats**

### Business Growth

- **Leading edge irrigation technologies and systems developed and commercialised for the UK's tree and soft fruit industry**
- **New irrigation businesses located at EMR and jobs created**
- **Improved irrigator water productivity , yields , produce quality and commercial returns**