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to sustainability

# IEMA Webinar:

The Role of Smart Living in Decarbonisation and  
Sustainability –Advance findings & case study  
insights

20.11.2020

Marc Jourdan - IEMA;

Tom Holden - Mondra;

Jon Foot (FIEMA) - AHDB;

Ben Tongue (MIEMA) - NHS Digital.





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## Focus of this session

The Role of Smart Living in Decarbonisation and Sustainability –Advance findings & case study insights

During this session:

- An advance overview of the thought piece;
- Case study insights from experts in the public health and agricultural sectors;
- An understanding of the key challenges and opportunities in using tech for sustainability.



# IEMA Engagement

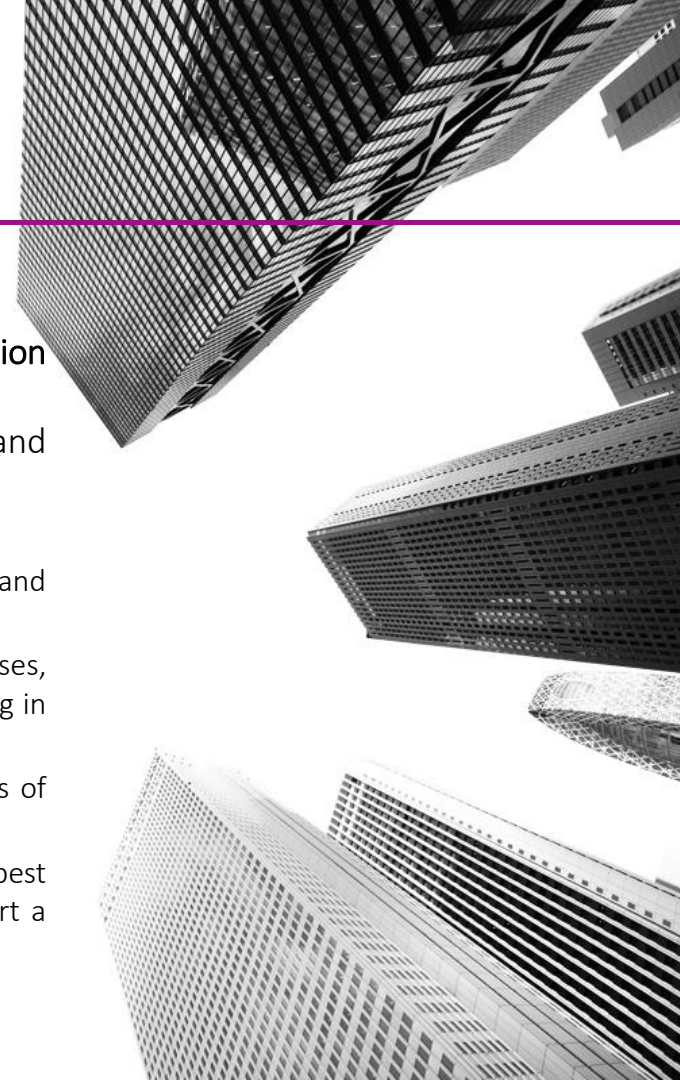
- **Fellows Working Group on Disruptive Technologies & the Digital Economy:**
  - Formed in September 2018;
  - Group of 20 IEMA Fellows with expertise/interest in 4IR
  - 4 working group meetings throughout 2019;
  - Extensive project research;
  - Internally reviewed.
- **External expert peer review** (i.e. Microsoft, NERC, PwC, etc...)

Available from 10.12.19: <https://www.iema.net/iema-shop>



## Overview

- IEMA 2020 Thought Piece on the Role of Smart Living in Decarbonisation and Sustainability
- Key sectors: Public health, transport, infrastructure, agriculture and energy
- Focus of the document:
  - Take stock of new landscape of issues faced by environmental and sustainability professionals (IEMA, Beyond the Perfect Storm)
  - Recognise uptake in disruptive technologies (e.g. numerous responses, from online health care to 3D printing to help manage social distancing in manufacturing plants)
  - Balance benefits against the economic, social and environmental risks of faster adoption of disruptive technologies (First thought piece)
  - Uses case study perspectives and Fellow member insights to share best practices of how smart and digital technology can be used to support a smarter way of living and drive sustainable outcomes.







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## Call for case study input

- Timeline: Plan to launch in Q1 of 2021
- Open for case study input from IEMA members
- Submit interest by 4<sup>th</sup> December 2020
- Email [m.jourdan@iema.net](mailto:m.jourdan@iema.net)



# Speakers



**Marc Jourdan**  
Policy and  
Engagement Lead

**IEMA**



**Tom Holden**  
Product Owner

**Mondra**



**Jon Foot**  
Head of Environmental &  
Resource Management

**AHDB**



**Ben Tongue**  
Sustainability Manager  
(MIEMA)

**NHS Digital**

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# Webinar slides and recording

All IEMA webinars are recorded.

They can be found here:

<https://www.iema.net/event-reports>





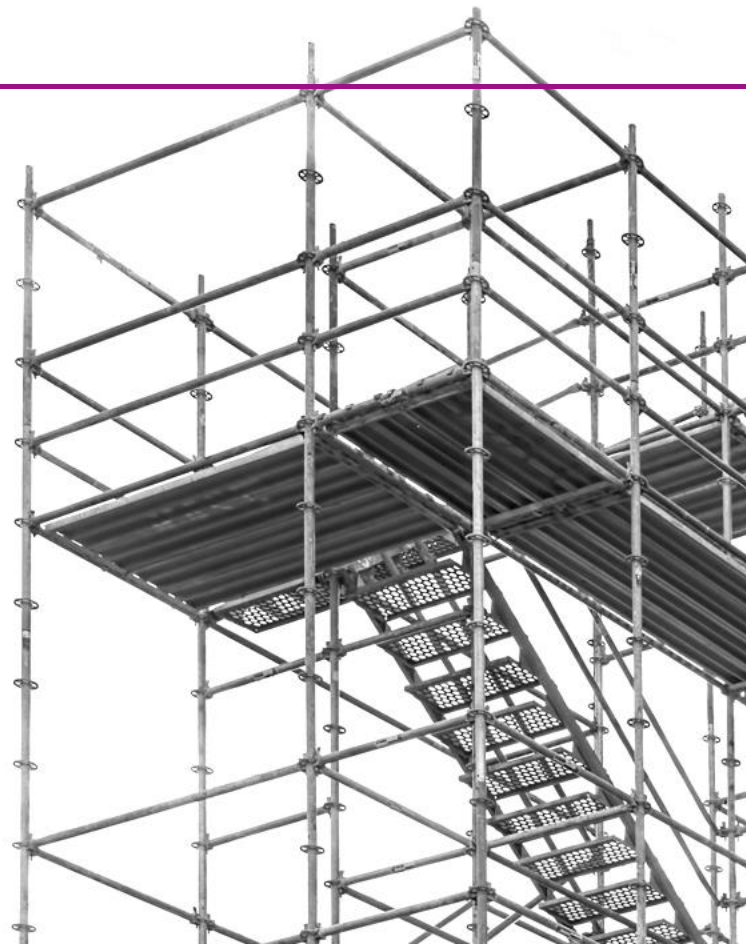
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# Questions and Answers

We will have a Q&A/discussion session  
at the end of the presentations.

Send in your questions as we go  
through today's webinar.

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# Questions

Marc Jourdan  
IEMA Policy & Engagement Lead  
[m.jourdan@iema.net](mailto:m.jourdan@iema.net)

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# Presentations

## Environment – Achieving Net Zero

Dr Jonathan Foot

## Goal

- **Improve the impact of agriculture on air, water and soil with productive farming systems whilst enhancing our land and the global environment.**

### **Legislative Compliance**

Help farmers, growers & processors comply with environmental legislation & provide guidance on access to environmental support.

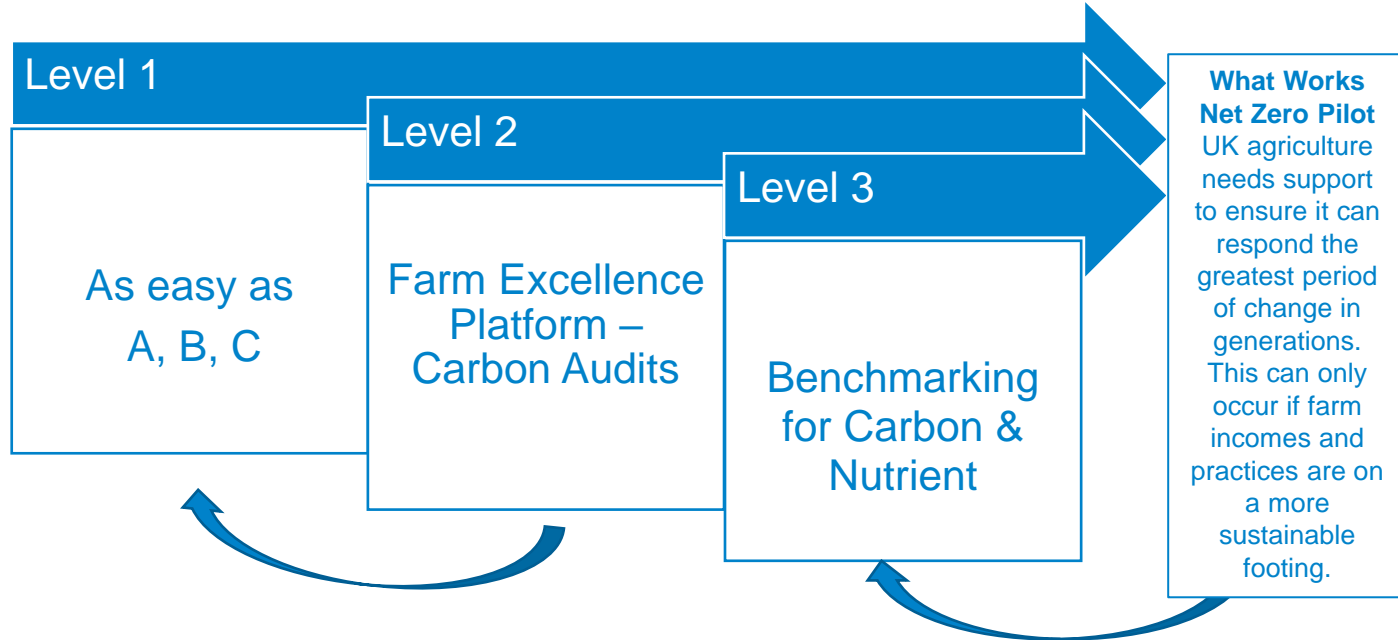
### **Drive Productivity**

Showcase how good  
environmental  
management delivers  
sustainable financial  
benefits

### **Agri- Footprint**

Be trusted source of  
information on  
environmental footprint  
of UK livestock and crop  
production.

## 3 LEVELS







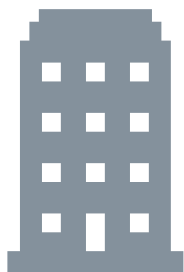
**‘Inspiring our farmers, growers  
and industry to succeed in a  
rapidly changing world’**

**NHS Digital**  
**Enabling Efficient and Resilient Smart Systems**

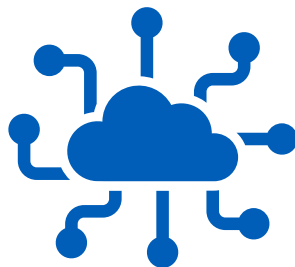
**Information and technology**  
for better health and care

Presented by  
**Ben Tongue (MIEMA  
CEnv)**





**Operational  
performance**



**Digital  
sustainability**



**Culture  
change and  
staff  
engagement**

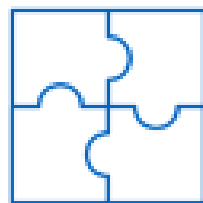
# Efficient low-carbon platforms journey



**2013/14**  
Outsourced  
data centres



**2015**  
Moved to in-  
house  
servers



**2017**  
Co-location  
data centres



**2019**  
Removed in-  
house data  
centres



**2020**  
Cloud first  
strategy

## Objectives

Cloud-first strategy

Better server selection

Better value and efficiency

**Sustainable Platforms Infrastructure**

## Electronic Prescription Service (EPS)



- Reduces postage, paper and travel
- Estimated to have saved:
  - Over £1.2 million worth of carbon emissions per year
  - £7 million in the costs of return visits to the pharmacy due to out-of-stock medicines

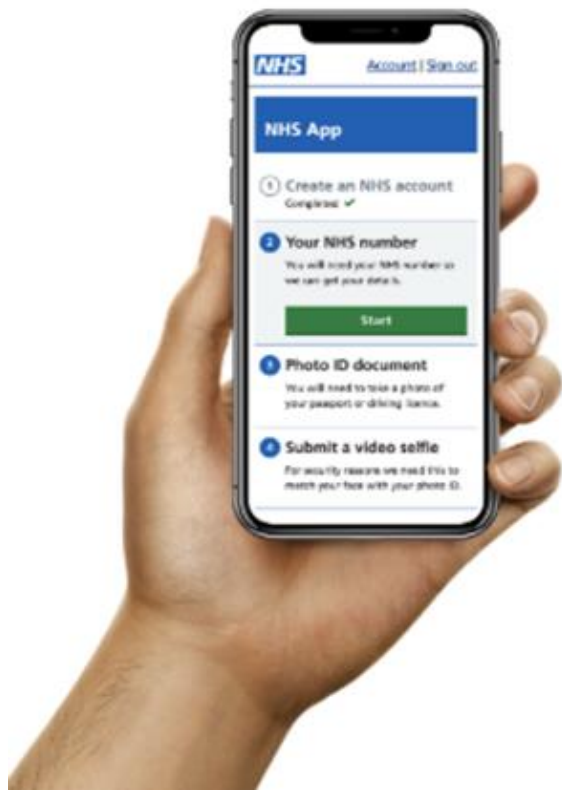


## Electronic Referral Service (e-RS)



- Allows patients to choose their outpatient hospital or clinic appointment
- Sustainable technical architecture principles to enable e-RS to become efficient by reducing server downtime, moving to virtualization and adopting Cloud First principles
- Replaces patient letters with emails, saving paper across the system

## NHS App and NHS Login



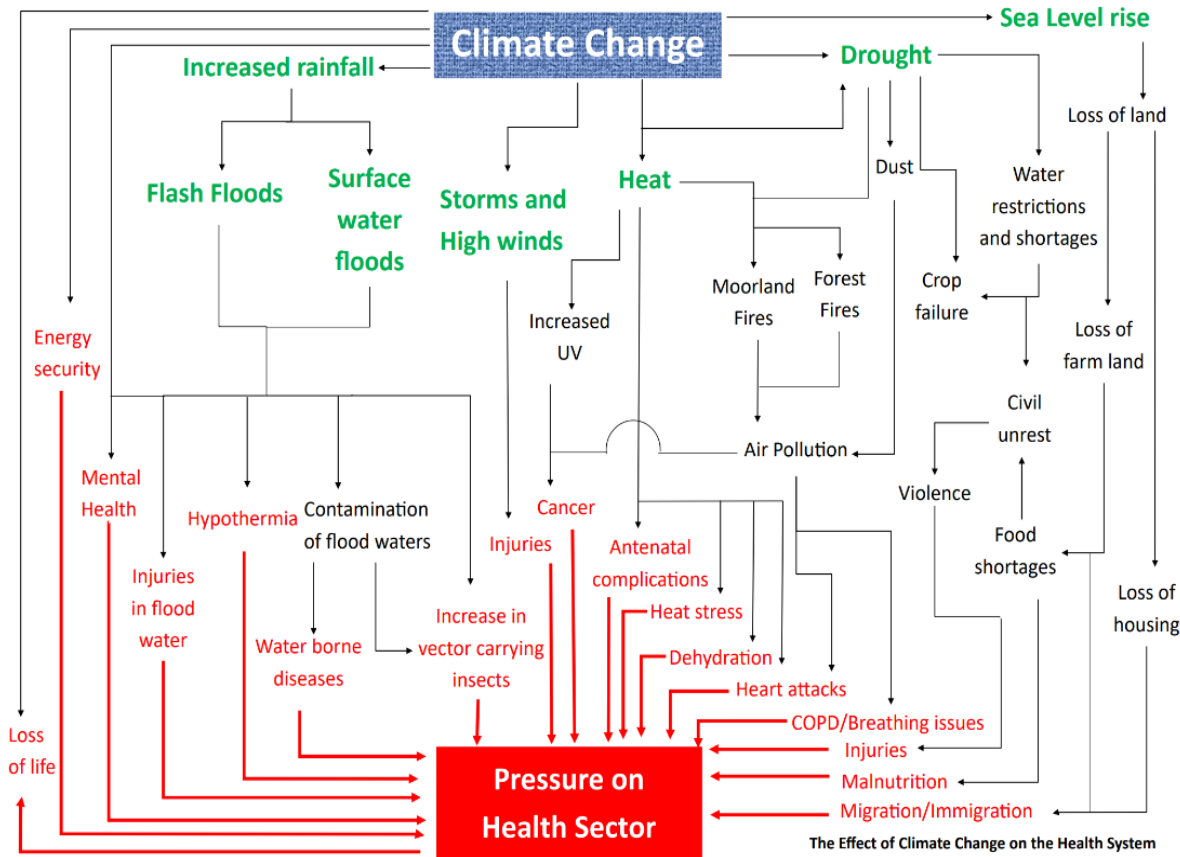
- NHS App is significant because it provides access to high quality health and care information to enable people to manage their care
- NHS Login is a service that provides a re-usable way for patients to access multiple digital health and social care services with a single login

## Other sustainable technology opportunities

- Circular economy
- Net-gain design principles
- Data storage, transfer and sizes
- Upstream ethics and supply chain
- AI and machine learning
- HMG Green Book sustainability tool to capture benefits of sustainability technology interventions



# Climate adaptation and resilience



Adapting our services to be resilient in the context of a changing global climate requires:

- short term business continuity planning
- a longer term strategic focus on resilience

## Delivering a 'Net Zero' National Health Service





## Greener NHS Digital Priorities (from p39 of report)

- Cement the telehealth progress coming from COVID
- Fully implement digitally enabled care models, significantly reducing travel
- Migrate data hosting to efficient sustainable providers
- Build net zero into the digital maturity framework and spend controls
- Support front-line provider digitisation of workflow and communications
- Investigate opportunities for digitisation of estate and smart hospitals
- Reducing the need for the storage of large volumes of data

## The NHS AI Lab

Accelerating the safe adoption of Artificial Intelligence in health and care

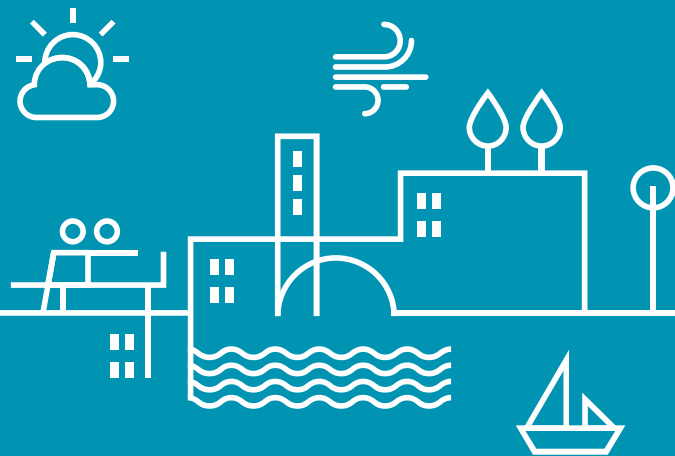
Artificial Intelligence (AI) has the potential to make a significant difference in health and care settings through its ability to analyse large quantities of complex information. We're already seeing great applications of AI technology, but more needs to be done to fully harness its benefits and use AI safely and ethically at scale.

## Connect with us

 @nhsdigital

 company/nhs-digital

 [www.digital.nhs.uk](http://www.digital.nhs.uk)



# Poll Question



# Questions and Answers



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## Where next?

- Record your CPD on IEMA's new CPD Portal: Plan, record and reflect on your learning.
- Join us at an event near you on [www.iema.net/events](http://www.iema.net/events)





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# Thanks for joining us

You'll be sent a link to the slides &  
recording from today's session

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