

SMART AGRIFOOD TECH FOR SUSTAINABLE DEVELOPMENT GOALS

NIALL KELLY
CENTRE DIRECTOR
THE CUBE





OUR MISSION

"The CUBE is a Midlands-based national centre of excellence focussed on facilitating economic growth, innovation and education in the Low Carbon and Renewables industry"

OUR VISION

"Creating a globally attractive location for the establishment of sustainable focussed business, through a world class cluster of skilled personnel, sustainable innovation development, design and infrastructural capabilities that will provide regional competitive advantage in the Low Carbon economy of the future"

National outlook

- Irish Govt. committing 30 billion investment for transition to low carbon economy
- €1 euro for every €5 spent under national development plan will be on sustainability



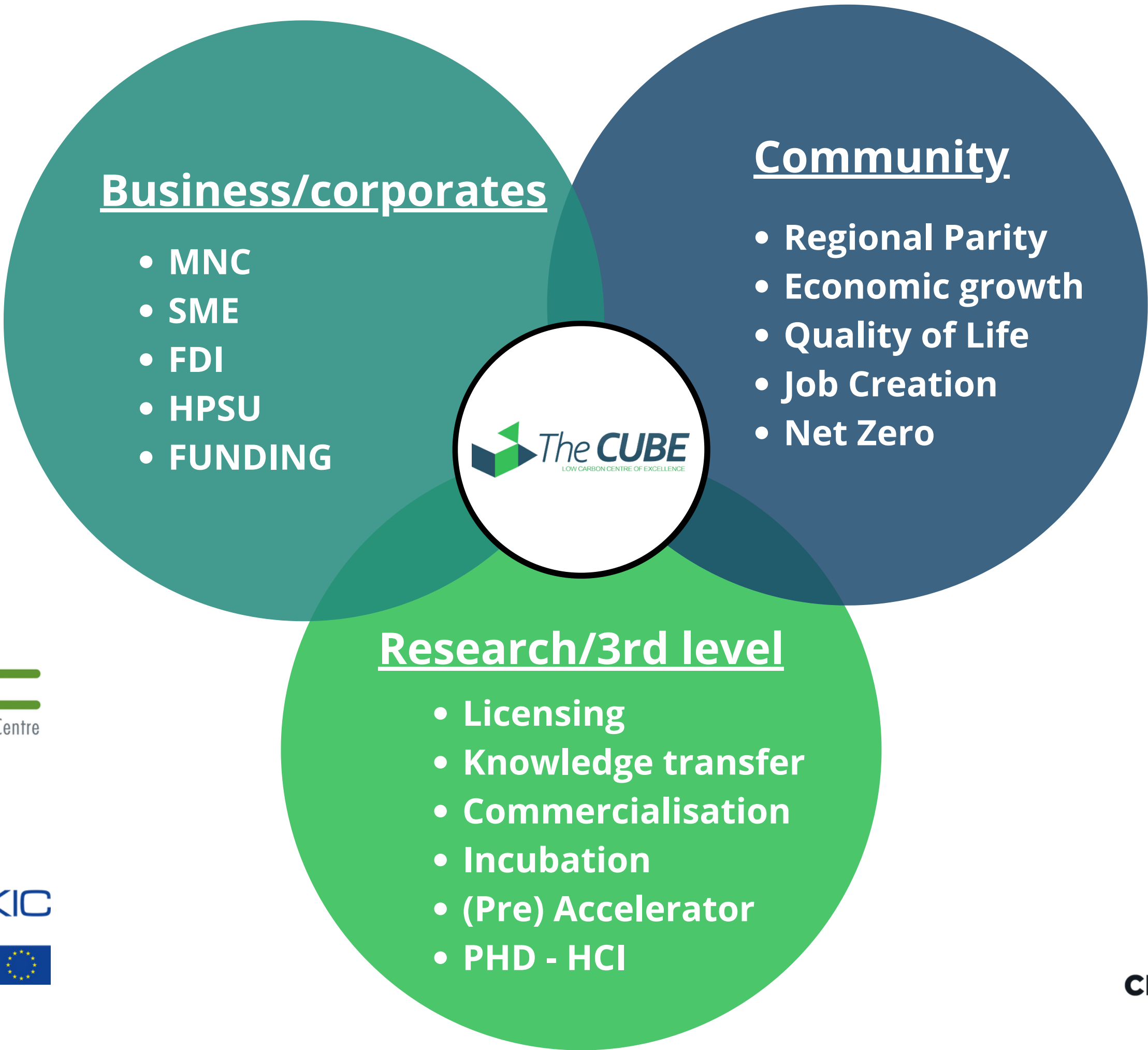
\$27 trillion dollar industry
Globally by 2030



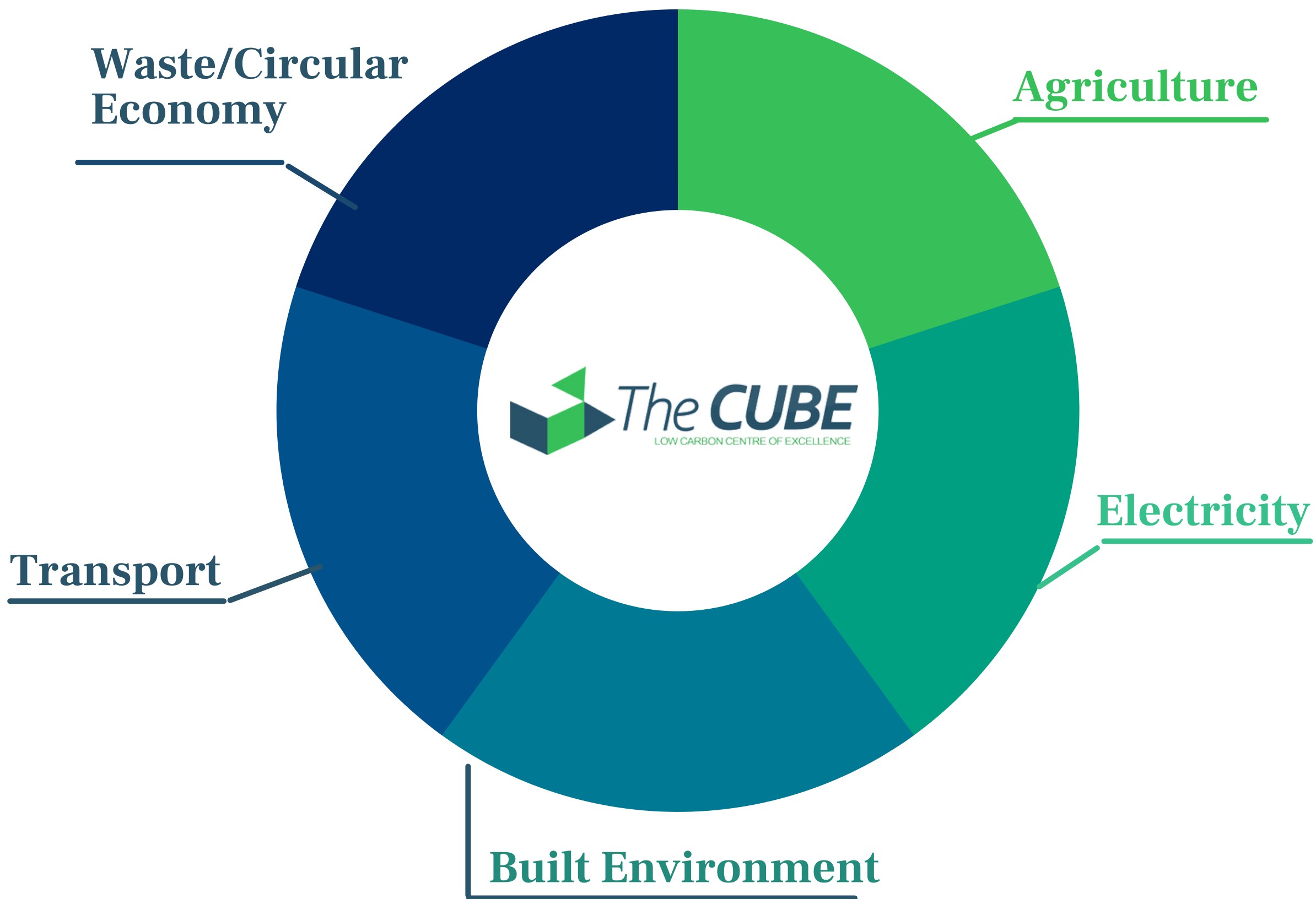
Sectoral Focus

- Electricity
- Built Environment
- Transport
- Enterprises Services
- Circular Economy
- Agriculture





Areas of Focus



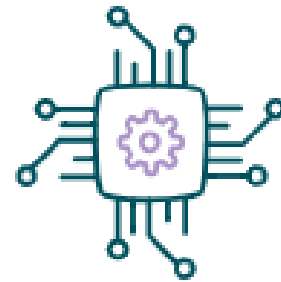


Our Approach



Human Capital

Transform the skillset of talent pool to take advantage of Green collar industry



Innovation

HPSU development and large scale adoption of Low-Carbon technology throughout midlands Industry



Communities

Create Community buy in and benefit through prosumer activity



Funding/Finance

Provision of support in the confidential fundraising of projects



Services to Midlands industry

Access to a network of facilities, research, and thought leaders.



Foreign Direct Investment

Support and facilitate the attraction of FDI to Ireland in the Low Carbon/Renewables market.



Collaboration

$$\text{Business} + \text{Research} + \text{Community} = \text{Prosperity}$$

Diagram illustrating the components and flow of the equation:

- An arrow points from "Business" to "Variable".
- An arrow points from "Research" to "Value".
- A wavy arrow points from "Prosperity" to "Answer".

"The future resilience of Irish jobs and enterprise will be determined by the approach we take."

"The prospects for our children will be shaped by our success, societies who delay the transition needed will face higher costs and fewer opportunities"

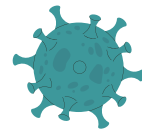
Climate Action Plan 2020

Agrifood and the IoT



IoT: Its utility is undeniable

- IoT enables companies to automate processes
- reduce labour costs
- cuts down on waste
- improves service delivery, making it less expensive to manufacture and deliver goods
- as well as offering transparency into customer transactions and customer supply chains.



The Covid-19 Pandemic - Prime example:

Sensor patient monitoring, Contact tracing, Monitoring/delivering medicine, Remote working

BUT... it needs to be done responsibly...

we must consider its environmental impact :

- Manufacturing • Installation • Energy Consumption • Disposal

Answer = Lean, efficient and durable devices

- Just the right amount of resource for the job
- lower operational impact - updates
- longer lasting hardware



IoT and AgriFood

IoT is driving growth in the Farming industry globally
GDP in Agriculture reaching 804 million in the 1st Qtr 22 --
Critical for Ireland to advance

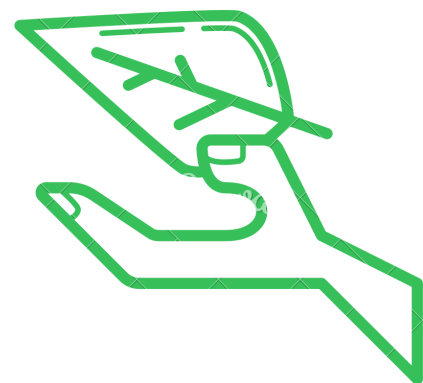
How does it aid the industry?

Allows you to measure vast datasets remotely and present this data to the farm in **real-time**

- Soil Moisture • Chemical application • Water levels/use
- Livestock and plant health

Benefits:

Allows operators to track performance, make better more informed decisions and crucially increase productivity and yield quicker and more cost effectively



"In Essence it puts data behind the natural and inherent intuition of the farmer"





Agri-Innovation Development Midlands



AIDM

The Cube in conjunction with BloomHq were recently awarded funding under the recent Smart Agri Hubs call

Remit: Increase the competitiveness of the farming industry in the region through technology adoption

- Research the salient issues facing the regions Agrifood industry
- Linking innovation and solution providers to these issues
- On-Farm technology trialing - partnering with technology providers

Goal: Trial and test on farm input of technology and IoT and in doing so support the regions AgriFood community to become technology enabled and to bring the region to the forefront of the industry, creating a sustainable future



Niall Kelly
niallkelly@cubecentre.ie

<https://cubecentre.ie/>