

# SENSORCITY

Making the future happen



**European Union**  
European Regional  
Development Fund



UNIVERSITY OF  
**LIVERPOOL**



Department for  
Business, Energy  
& Industrial Strategy

**Liz Beattie**

Marketing Manager

Sensor City

# What is Sensor City?

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**Global Innovation Hub  
and  
University Enterprise  
Zone**

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**Backed by** Department of  
Business, Energy and  
Industrial Strategy (**BEIS**)  
and European Regional  
Development Fund (**ERDF**)

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Gateway to the  
**Knowledge Quarter**  
and positioned at the  
intersection of  
**Industry and  
Academia**

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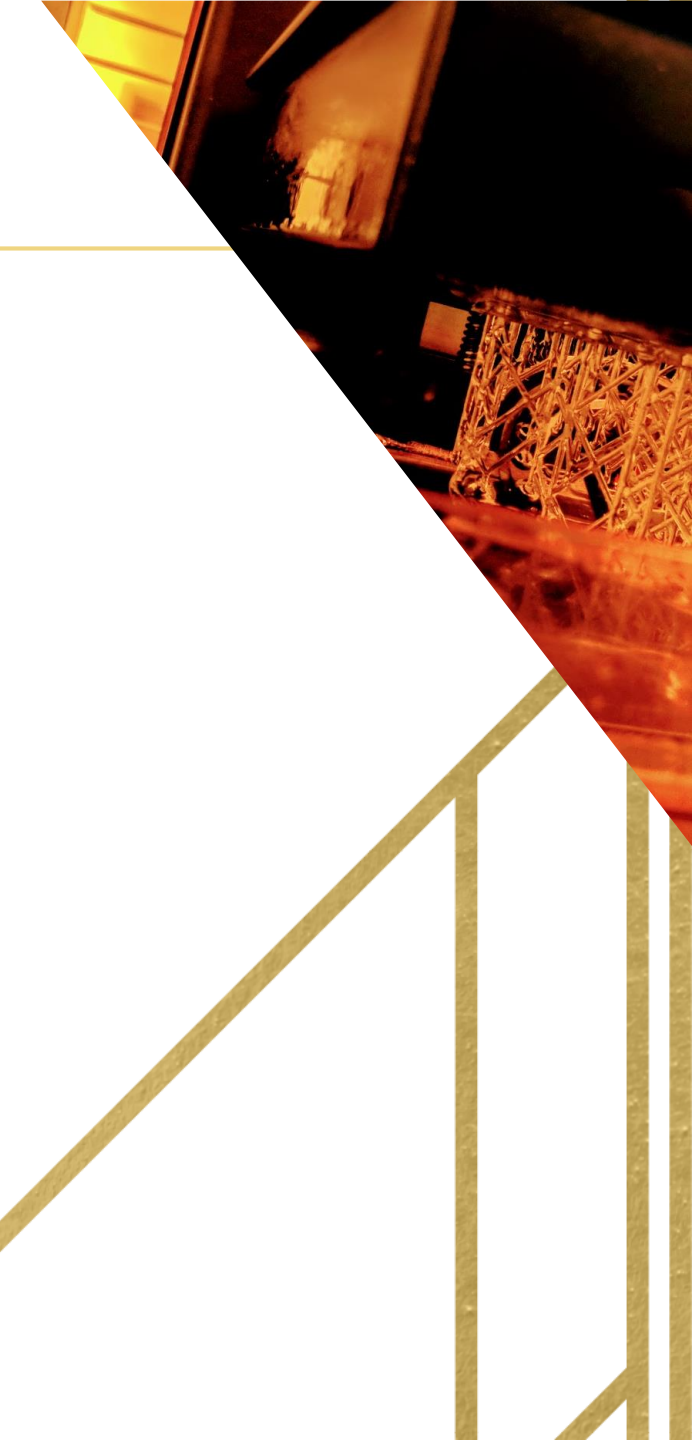
Fostering the creation,  
development, production and  
promotion of **cutting edge  
sensor technologies** for use  
in a range of sectors.

# Purpose of our Global Innovation Hub

## 4<sup>th</sup> Industrial Revolution



- **Digital technology** is transforming industrial processes at such a rate that it's being described as a **fourth industrial revolution**
- Development of **IoT, robotics and Artificial Intelligence** is rapid and can provide a **\$100 billion boost** to industry and society
- The **number of connected devices in the world** set to increase from 6.4 billion today to **20 billion by 2020**
- > **Sensor City** is working to enable industry and academic partners in a range of sectors to **translate their innovative sensor and IoT concepts into commercially viable solutions at pace**



# University Enterprise Zone

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## **VISION**

To create an ecosystem for sensor-related technology companies and to become a global hub for sensor technologies.

## **MISSION STATEMENT**

To promote a thriving ecosystem of sensor companies with a base in the Liverpool City region, through the provision of an infrastructure which allows the development and demonstration of novel sensor approaches and provides a training ground for new student talent, thus further encouraging the location of companies in to the region and new collaborations for the partner Institutions.

# How do we deliver our vision?

## COMMUNITY

Creating a dynamic and supportive community where those who are committed to the development of sensors and IoT can **collaborate** and **thrive**.

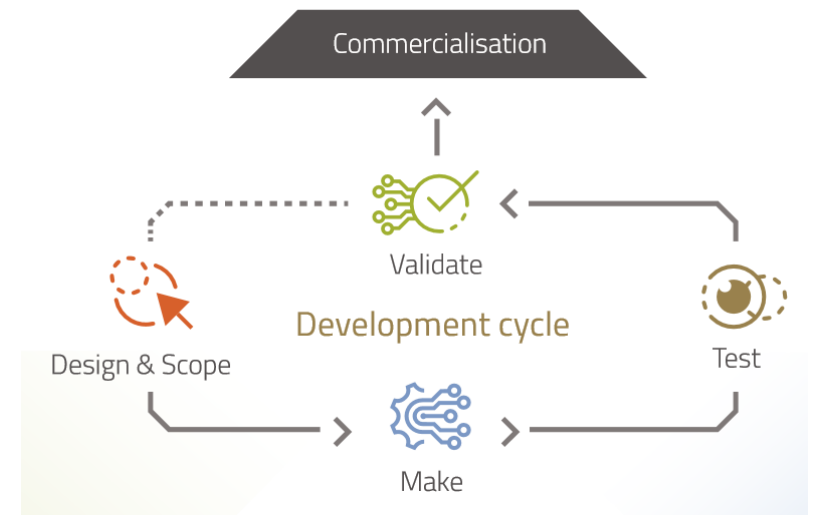
## KNOWLEDGE

Sharing knowledge from a global network to grow the UK's sensor and IoT capabilities. **Expert engineering input** from our University partners.

## ASSETS

Providing the latest specialist equipment, hands-on professional support and technical expertise that can **accelerate innovation** from idea to prototype.

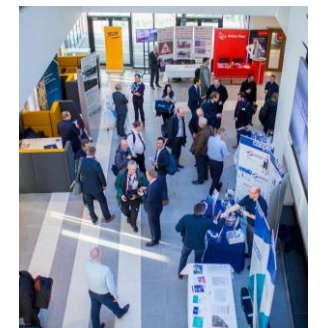
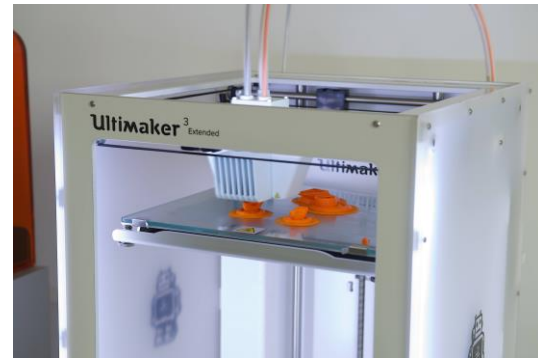
## Facilitating rapid prototyping









































# Our facilities

- **In-house laboratories** for concept to pre-production prototyping:
  - 3D Printers
  - VR Suite
  - LPKF circuitry prototyping
  - PCB design software
- **Office space** and **hot desks**
- **Meeting** and **event space**



# TENANTS & MEMBERS



# Case studies

## IGNATIA SENSORS

**Developing a novel sensing system** for proactive fire prevention and user safety.

Sensor City's LCR 4.0 Industrial Software Specialist first investigated the required hardware, sensors and consumables required for the project and subsequently **produced a rapid prototype of the product utilising the LPKF equipment in Sensor City.**

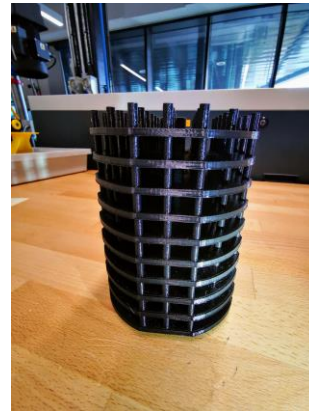


## CLATTERBRIDGE CANCER CENTER

This innovative work is focused around mapping geometric distortion in MRI scanners.

Using **computer-aided-design (CAD) and 3D printing technology**, a phantom calibration tower was manufactured using Sensor City's Ultimaker 3D printer and Pro PLA materials.

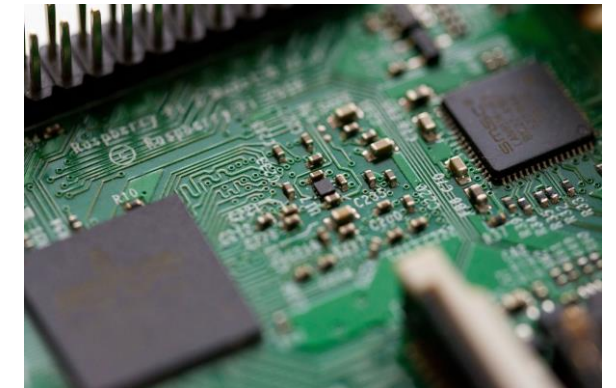
This will lead to enhanced analysis of MRI imaging, **subsequently resulting in accuracy improvements, particularly in radiotherapy treatment.**



## GEDAP

The LCR 4.0 team at Sensor City worked closely with GeDaP to create **KeyTalk IoT Secured Sensors (KISS), using microprocessors as gateways.**

GeDaP can now address a wider market with KISS and as a **Crown Commercial Service G-Cloud 10 Supplier**, they can supply the Public Sector with secure Internet/IoT pilots and installations without the need for a tendering process.





# Case studies

## NOC Sea Glider

Robotic underwater vehicle for measuring oceanographic parameters

Gather ocean data and transmit back to shore

Full size replica to allow product demonstration, visualisation and training

CAD designs modified to allow 3D printing and assembly in sections. Laser cut wings

Printed in environmentally sound materials

Combined digital additive manufacturing with traditional engineering



Project demonstrates rapid prototyping facilities and illustrates the capabilities at Sensor City to make things far larger than the normal scope of a 3D printer

# Collaborative approach

- Local resource
- Route to prototyping and testing
- Outsourced engineering department
- Access to partner academics
- Links with AWS, Unilever, Altium, Northern Powerhouse
- Platform for promotion
- Membership
- Corporate Challenges
- Events



# Links with Academic /Student Community

## ACADEMICS

- Free Membership for Researchers and Academics
- Delivery Partner in Grant Applications (eg: 5G Consortium)
- Access to laboratory equipment at discounted rates
- Promotion of academic research and published papers
- Access to events

## STUDENTS

- Free access to events
- Internships, year in industry placements, work experience
- Free event space for society meetings
- Free State Aid hot desks for student start-ups



# Connecting Industry with Academia

- Facilitated **collaborations and assists** between SMEs and UoL/LJMU (ERDF C26s)
- **Knowledge Exchange Vouchers** projects between SMEs and Researchers/Academics
- Dissemination of **live industry projects** ideas for undergraduates (eg Unilever)
- Facilitating Industry Focussed **PhD** researchers with tenants
- Deployment of **interns** within Sensor City and with member companies



## August Offer

- **50% discount on room hire rates throughout August!** ● ○
- **FREE desserts when booking catering!**

- Graduation Celebrations
- BBQs and Drinks Receptions
- Summer School Workshops
- Away Days / Planning Meetings
- Rooftop Yoga and Mindfulness Classes

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# Find out more

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