



# Digital Industries Innovation Hub





## Digital Industries (DI) Innovation Hub

Digital Industries demonstrates where we are unlocking the potential of Industry 4.0 across all vertical sectors; areas such as the **automation of industrial processes using smart technology**. We believe that partners and customers will benefit from **energy savings, reduced downtime, increased productivity** and **reduced costs** by embracing technical infrastructure improvements on a global scale. The DI Innovation Hub is here to help facilitate those outcomes.

# What Is The DI Innovation Hub?

The DI Innovation Hub is both a community and a program of innovation that focuses on building and improving the pathway to benefits realisation from Industry 4.0 technologies. Your experience will be tailored to suit your specific needs, but here's an overview of what to expect as a member.

## ENGAGE WITH THE COMMUNITY OF:

- **Users** to help focus and shape opportunities
- **Solution providers** who build the new solutions
- **Academics** to address complex challenges
- **Start-ups** who inject new ideas
- **Industry bodies** who provide sector knowledge

## EXPERIENCE FACILITIES INCLUDING:

- **World class showcases** aligned to key industries
- Access conference rooms and **co-creation spaces**
- **5G, Drone and Robotics laboratory access** and **Testbeds/sandpits** to develop solutions
- Stages/spaces for **conference & networking events**

## BENEFIT FROM AN INNOVATION PROGRAM:

- Work with us to **co-create** new and exciting solutions to meet industry challenges
- Participate in **technology trials** via our laboratories for a state-of-the-art sandboxed environment
- Collaborate with other hub members and explore grant funding in key areas
- Work with our **academic partners** on their research to explore cutting edge ideas



## WHY HAVE WE SET UP THE HUB?

For more than 175 years we have pioneered technological development to support the foundations of the modern connected world. For us, innovation has always been a priority. For example, we have spent **£2.8Bn on R&D** over the past five years and we hold over **5000 patents in our portfolio**.

Moreover, we have a worldwide presence in over 180 countries and links to 40+ universities. Customer or partner, there are industry-wide challenges to which no single organisation has all the answers. As such, we want to offer our extensive network and platforms for co-innovation and co-creation: for the benefit of all.

# Key Themes



## Sustainability

### SUSTAINABLE SUPPLY CHAIN

Around two-thirds of telco's end-to-end carbon emissions come from the supply chain. Switching to renewable energy sources, decarbonising business estates and transitioning to net-zero or low-emission vehicles are changes we have implemented to our own supply chain so we are eager to share our experiences and encourage others to do the same.

It is estimated that carbon emissions from IT should drop 40% by 2030 through the adoption of innovative technologies like 5G, fibre and cloud – via the reduction of excess waste. By integrating these technologies, we can all help to contribute to this positive trend. For example, we are currently developing a solution with QiO which uses an AI/ 'edge compute' energy optimisation solution that will help achieve our goal of avoiding 60 million tonnes of CO2 emissions by 2030.



## Security

### A HISTORY OF PROTECTING OUR USERS

We constantly protect BT and our customers from our global network of security operations centres. With the proliferation of Industry 4.0 and networks being at the heart of a connected Digital Industry, it is more important than ever to ensure that these connections are secure, as they provide the gateway to customer and business data.

### DRIVING SECURITY INITIATIVES

By joining the Innovation Hub you will have the opportunity to interact with industry experts to discover what changes could be implemented to improve your security culture.

We are also exploring 'quantum key distribution' with Toshiba and have built a quantum secure metro network. This technology uses quantum physics for mathematical certainty, ensuring that your message has not been intercepted. Find out more [here](#).



## 5G Innovation

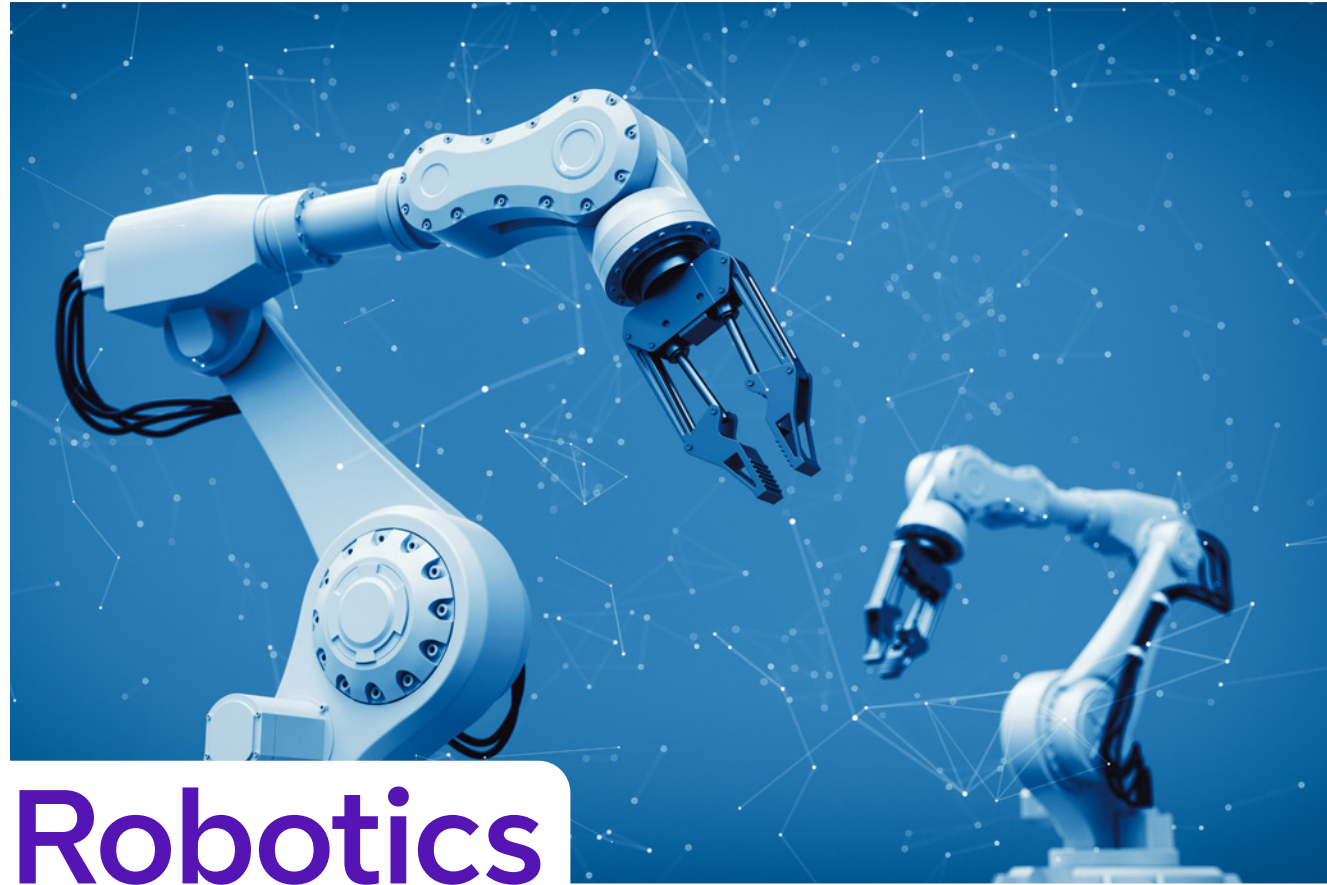
### POWERING INDUSTRY 4.0

A recent collaboration with the Manufacturing and Technology Centre (MTC) in the West Midlands built a private 5G network to trial automation through robotics on the manufacturing floor. This standalone network allows the MTC and their wider community of partners to experiment without interference and is one of the first of its kind in the UK.

### DIGITAL VISION FOR AI-BASED VIDEO ANALYSIS

We've partnered with Atos to create Digital Vision – a proposition using AI to extract value from digital images and videos. Digital Vision will use our secure multi-access networks (5G and fixed) alongside an edge compute capability to provide vital insights to drive improved business outcomes.

# Key Themes



## Robotics

### ROBOTS FOR THE FUTURE

Sometimes traditional methods and deployment practices are slow, inefficient and expensive. However, the use of robotics for accelerating processes, optimising performance and achieving scale represents a significant opportunity for many industry sectors.

### ROBOTICS FESTIVAL 2022

We are passionate about sharing and developing our knowledge of robotics, so in November 2022 we hosted the Robotics Festival. The festival was attended by inspirational robotics leaders from manufacturing, logistics, civil engineering and health. Keynotes featured world-renowned speakers on topics like ethics and trust. Attendees were able to get involved and explore Adastral Park, our headquarters for Research and home to our world-class showcases and technology facilities - including the new Robotics and Drone lab.

### COLLABORATION IS KEY

Collaboration is the foundational principle of the Hub. An example of a collaborative opportunity is the Innovate UK funded 'Robot Highways' project which explored the use of IoT and robotics in 'Smart Agriculture' to drive automation.



## Space

### A HISTORY AND HERITAGE IN THE SPACE INDUSTRY

Our experience in the space industry goes back to 1962, to the first Communications satellite, Telstar 1, and the Post Office Satellite Communications Station at Goonhilly Downs in Cornwall. The station was designed to track communication satellites and it took part in the first ever transatlantic television transmission.

Today we are actively engaged with the space ecosystem. We are already participants in projects with the UK Space Agency (UKSA) and European Space Agency (ESA), both organisations are keen to engage and share future related activities with DI Innovation Hub members.

### COMPETITION IN SPACE HEATS UP

Space has become a key connectivity battleground for the likes of OneWeb, Kuiper and Starlink. The acceleration of LEO technologies indicates a revolution in the delivery of broadband services. The global impact and opportunities this creates will be discussed with our partner OneWeb in the DI Innovation Hub.



## Drones

### AN EXCITING FRONTIER

Our exploration of Drones has deepened over the last decade and this sector is now a key pillar in our portfolio. With Ofcom now issuing UAS Operator Radio licences we're delighted to have launched our own drone connectivity trial and a Drone and Robotics Lab in Adastral Park.

Our Digital unit recently announced that they have entered into a £5 million deal with Altitude Angel, a world leading UTM (Unified Traffic Management) technology provider. This will scale the UK's drone superhighway, set to be the largest and longest network of its kind in the world. This partnership will accelerate the technology development which detects and identifies drones, enabling the safe sharing of airspace with traditional aviation. The regulatory challenges and potential this offers will again be shared with members of the DI Innovation Hub.

# The Digital Industries (DI) Showcase

## THE ART OF THE POSSIBLE

The DI Showcase includes over 60 demos and use cases from around the world. It takes you on a journey of the 'art of the possible' bringing Industry 4.0 to life. From raw material extraction to the storage of data: it shows the importance of capturing, transporting, hosting, securing, and analysing data for digital transformation and improved business outcomes.

The showcase is filled with demos from our partners and includes exciting topics such as human-to-robot haptic interfacing, space, security, sustainability and digital vision technologies all supported by leading edge secure networking capability.

Please reach out to your account manager if you would like to visit our showcase or you feel like you have an exciting technology to demonstrate.

We are more than happy to facilitate virtual showcases for our global customers, though we recommend the in-person experience!



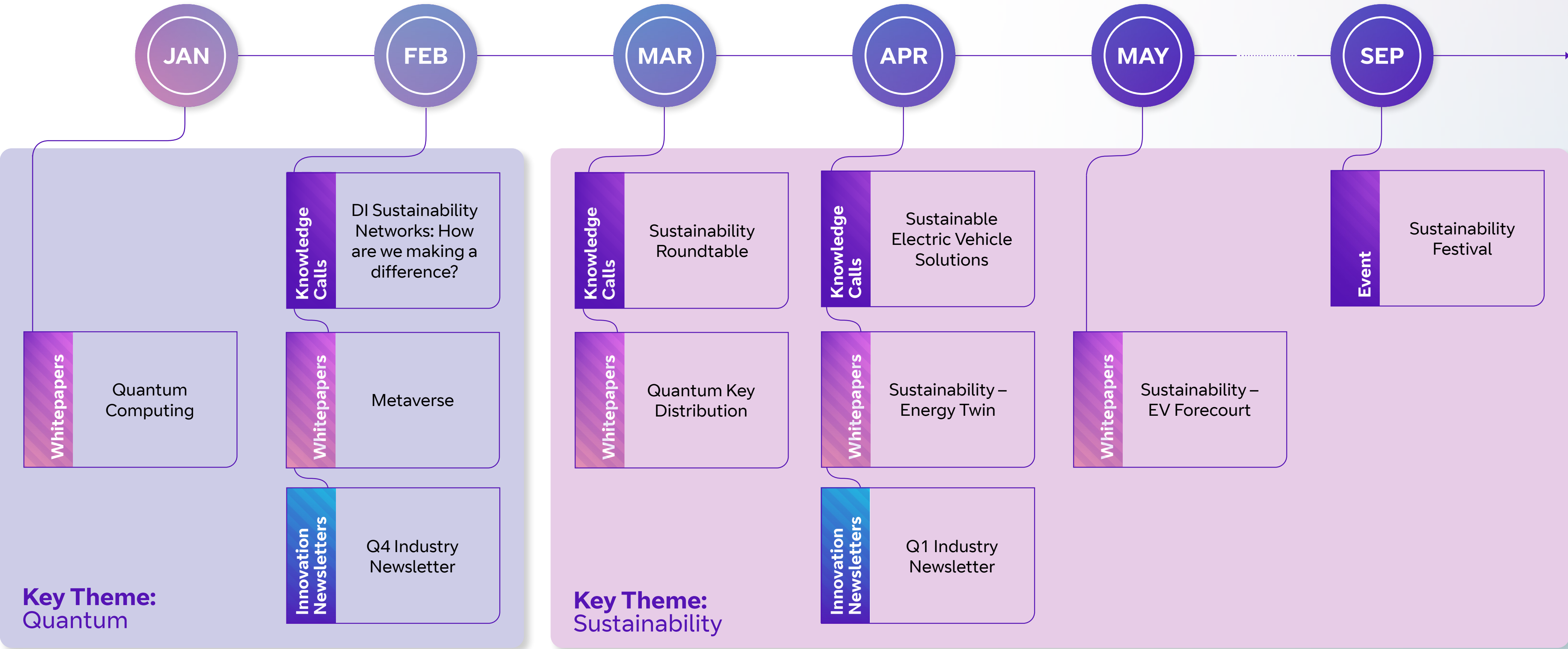
DI Showcase

# DI Innovation Hub Activities

Our DI Innovation Hub Calendar

Hub Activities

## THOUGHT LEADERSHIP



# Get Involved In The DI Innovation Hub!



Check out our [website](#) for more information and if you're interested in joining 90+ other professional bodies already collaborating together, sign up [here!](#)

Contact your Account Manager or scan the QR code to join the DI Innovation Hub/ visit the showcase.