

A nighttime photograph of the Coventry City Council building, featuring two large, illuminated arches that meet at the top. The arches are lit with a gradient of purple and blue light. The building in the background has a sign that reads "COVENTRY CITY COUNCIL MUSEUM". The sky is dark blue with some clouds, and city lights are visible in the background.

Coventry City Council

Digital Innovation

Rich Greenslade
Technical Architect
Digital Services

Fibre rollout

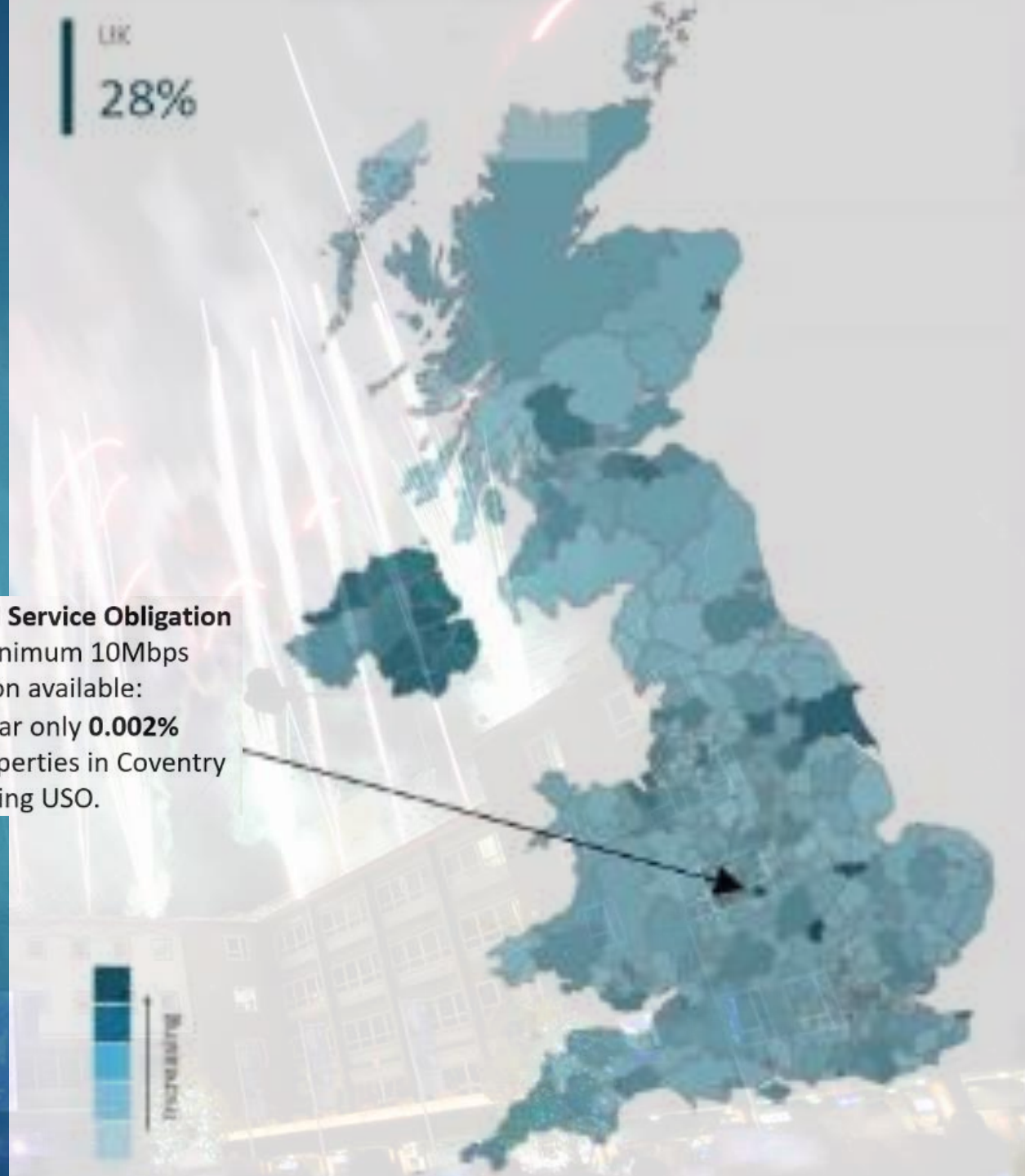
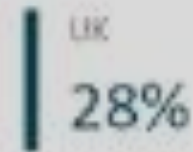
Full Fibre Nationally: Ranked 2nd out of 379 (up from 3rd in summer 2021)

laua_name	Jan-22	All Matched Premises	Rank May 2021	% Change FF
KINGSTON UPON HULL, CITY OF	98.2	121618	1	0.1
COVENTRY	92.3	141510	2	4.8
MILTON KEYNES	89.2	116207	3	0.4
BELFAST	82.9	154319	4	3.9
PETERBOROUGH	82.3	87386	5	8.3
ARDS AND NORTH DOWN	81.5	68842	6	2.4
ANTRIM AND NEWTOWNABBEY	75.1	57216	7	2.7
MID AND EAST ANTRIM	74.5	57794	8	1.5
DERRY CITY AND STRABANE	73	58661	9	6.8
NEWRY, MOURNE AND DOWN	71.1	65270	10	8.4
WORTHING	70.9	49200	11	6.5
LISBURN AND CASTLEREAGH	70.8	56684	12	1.7

Full Fibre WMCA: Ranked 1st out of 7

laua_name	Jan-22	All Matched Premises	Rank Jan-22	% Change FF
Coventry	92.3	141510	2	4.8
Birmingham	39.9	440737	68	0.6
Solihull	38	92796	80	2.6
Walsall	12.2	111378	257	0.6
Sandwell	20.1	132996	188	3.2
Wolverhampton	15.6	111043	225	7.4
Dudley	5.2	139050	327	0

Universal Service Obligation (USO) Minimum 10Mbps connection available:
End of year only **0.002%** (**4/5**) properties in Coventry not meeting USO.



Mobile Network

- ▶ Small cells
- ▶ NTQ / developments
- ▶ Towers
- ▶ DoV (Deed of Variation)



LoRaWAN IOT

Connexin

Our Approach

LoRaWAN Infrastructure

We deploy a range of networking **Infrastructure as a Service**, so our partners and customers don't have to worry about building or maintaining networks.



Sensors

We work with an **ecosystem** of leading manufacturers, providing 'Best of breed' hardware to match requirements.

Platform

ConnexinOS consumes data and events from a wide range of subsystems and data-sources and securely manages and analyses heterogeneous data across domains.

Outcomes

Delivering a more streamlined and cost-effective service through insights, automation and business operations.

Insights

AI and Machine Learning analyses and combines information to create powerful insights.

Use cases

Some Examples of Environmental and Operational Applications



Electricity Consumption Monitoring

- Identify sources of over consumption
- Building a baseline of Carbon emissions



Smart Water Metering / Leak Detection

- Identify sources of leaks and over consumption
- Detecting irregular patterns to target sustainability targets
- Automated monitoring sources of leaks
- Increasing the longevity of buildings



Water Quality monitoring



- Automated monitoring of assets posing a risk
- Creating a digital audit of bacterial risk
- Specific application to monitor for legionella



Air Quality Monitoring

- Minimize exposure to pollutants and potential adverse health effects
- Temperature / Humidity monitoring



Health and Adult Social Care

- Assisted-Living (environment and personal monitoring)
- Reduces delays with discharges and blocking of community beds



Asset Tracking

- Create view of valuable assets



Smart Parking

- Optimise parking & user experience
- Increased safety and reducing carbon emissions



SMART Transport System

- Real-time data
- Service planning, new routes etc



Fire Monitoring

- Connected Smoke Alarms
- Fire Door Monitoring
- Automated testing of emergency lighting



Security and Access Control

- Automated entry/exit monitoring
- Improved building security



Occupancy/Footfall Monitoring

- Optimised space utilisation
- Predictive cleaning schedules



Radon/Methane monitoring

- Low-cost always on monitors of levels of dangerous gases
- Geo-visualisation to spot trends

Some Potential Outcomes

Compliance

- Generic need for all organisations to meet regulatory standards
- Automate repetitive manual tasks for increased reliability, effectiveness and audit compliance

Sustainability Ambitions

- Measure and monitor real metrics (especially air quality) to understand challenge and show progress
- Consolidate views of different data sources to ...

Resource Management

- Reducing unnecessary vehicle use to save costs and reduce emissions
- Realise energy savings through better targeting of services

Building management

- Optimisation and management of energy, access and assets across estates
- Footfall management to improve building design and usage

Service Improvements

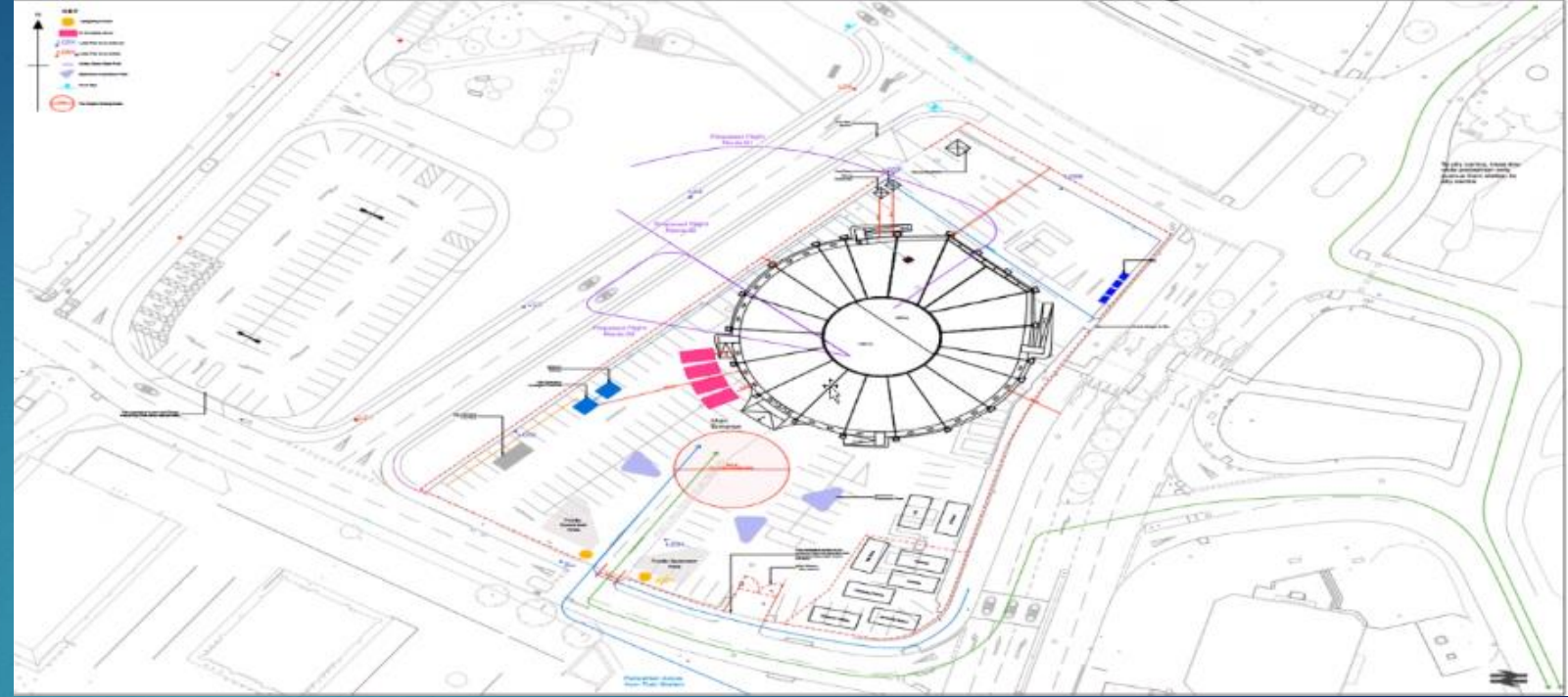
- Enhanced public transport propositions to increase uptake, reliability and access
 - Intelligent Parking to save time



5G Innovation Regions (5GIR)

- ▶ Funding from DSIT for 5G and tech adoption
- ▶ Social housing and social care
- ▶ CCC hospital discharge

Urban-Air Port

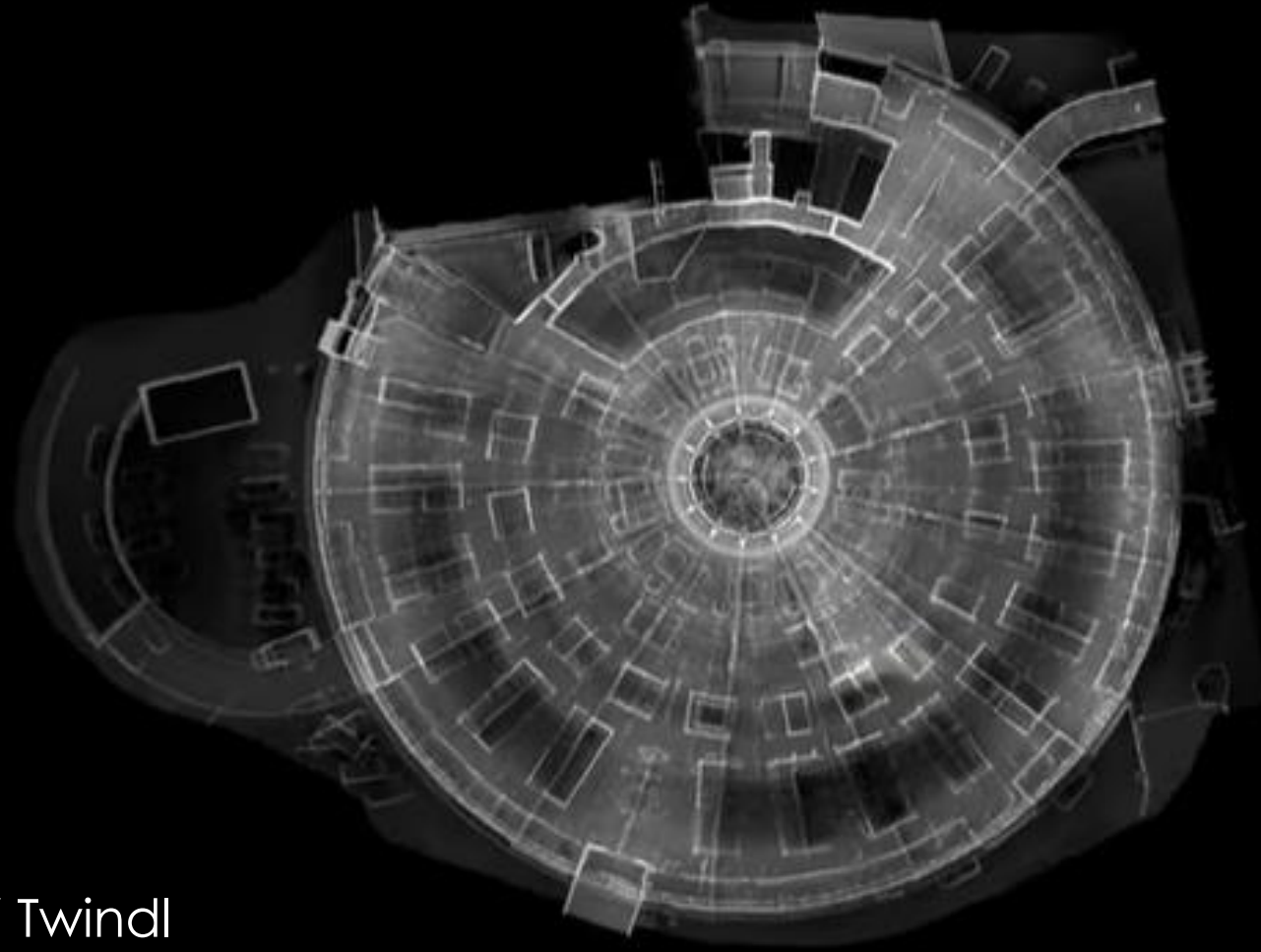


Drones in Coventry

- Asset Management
- Rooftop inspections
- Emergency Response
- Progress Monitoring
- Perimeter Surveillance
- LIDAR & GPR



LIDAR



► LIDAR / Twinkl

DSIT Secure connected places Beta

STRIDE Analysis

Spoofing

Tampering

Repudiation

Information disclosure

Denial of service

Elevation of privilege

CVLR (Coventry Very Light Railway)



SEP (Strategic Energy Partnership)



#CovConnects

- ▶ Device Bank
- ▶ Connectivity
- ▶ Partnerships
- ▶ Second in country for DI



Questions

