



SUNDERLAND
oursmartcity



**A SUPER-CONNECTED
CITY WHERE PEOPLE
AND BUSINESSES THRIVE**


Sunderland
City Council

Sunderland: Our Smart City - Background

- City Plan – By 2030 Sunderland will be an connected, international city with opportunities for all
- Next generation fibre and mobile infrastructure underpins the connectivity required so we can deliver a whole range of benefits for Sunderland residents, businesses and visitors
- A city wide partnership involving the Health, the Education and the Business Sectors
- Extensive consultation with operators/providers told us we would need to intervene in the market place.
- Importantly this is about delivering social and economic good – leaving no-one and nowhere behind
- The partnership is already starting to deliver significant improvements to health, care, education and enterprise



**NO ONE AND
NOWHERE LEFT
BEHIND**

Smart City Developments

- Development of ultra-fast free wi-fi solution - providing an enhanced offer to residents, businesses and visitors
- Fibre works underway with CityFibre, Virgin Media and Netomnia - providing the essential fibre backbone and greater choice and convenience for customers driving more effective price-points
- Delivery of a range of transformational projects – assistive technologies, smart video sensor devices, smart building solutions, e-mobility.....
- First private 5G network operational in the city enabling delivery of the 5G Create automated logistics pilot at Nissan/Vantec
- Digital Careers partnership secured
- Technology Start-up partnership secured
- Education, skills and enterprise working group shaping curriculum design and working with industry to fulfil job creation opportunities
- Government funding for 5G for City Centre & Riverside / citywide LoRaWAN - kick-started a 5G Neutral Host Partner Procurement



Advanced Wireless Connectivity Ambitions

- A competitive dialogue procurement resulted in an award to BAI Communications
- A **first of its kind** 'Smart City and 5G Neutral Host' Joint Venture
- 20 year Strategic Partnership; A pivotal next step in achieving our Smart City Vision and the significant resulting benefits
- Fund, build & manage private LoRaWan, Wi-Fi & 5G neutral host networks.
- Extensively accelerating the delivery of scalable next generation digital infrastructure and transformational use cases – making a real difference for local businesses and residents
- Working in partnership to develop Sunderland as a leading UK Smart City and a Global Centre of Excellence



The Opportunity

Phase 1 (delivery by June 2022)

- Deliver a 5G Neutral Host Network across the city centre/Riverside, a city-wide LoRaWAN and an initial sensor offer supporting movement and air quality monitoring
- Take over the operation of our free ultra-fast wi-fi service and expand the offer
- Partner with MNO and ISP communities to deliver services
- Begin supporting priority projects

Phase 2

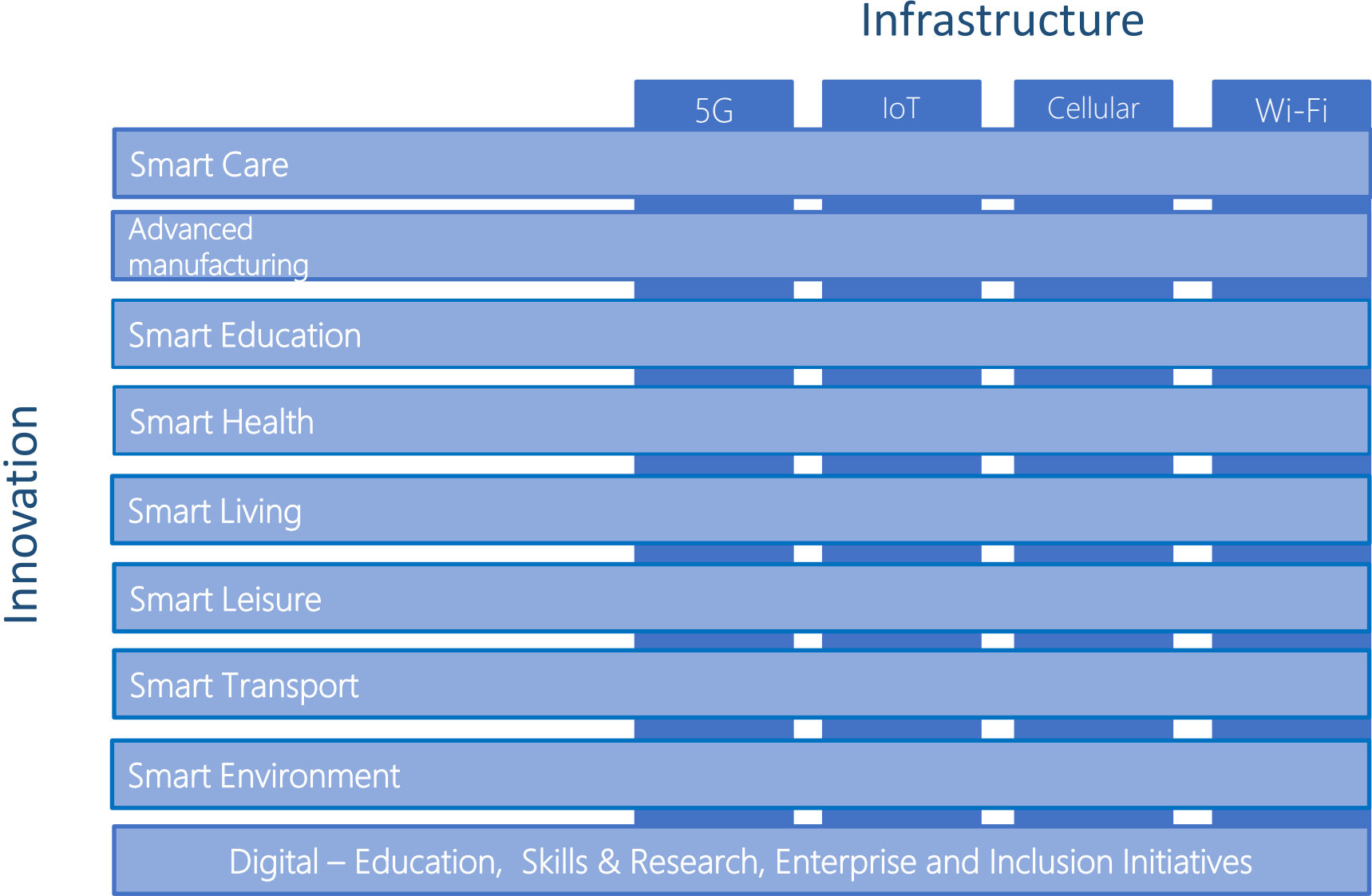
- Take over the operation of 5GCAL and expand the offer
- Continue to deploy next generation wireless connectivity to key locations
- Prioritise and accelerate the delivery of a range of use cases – creation of the Joint Innovation Board and seed fund
- Work together to secure additional government funding/opportunities

Phase 3

- Ubiquitous coverage across the city working in conjunction with Mobile Network Operator partner's national rollout commitments, with infill where appropriate



Infrastructure Supporting Innovation: “all encompassing” Smart City



Smart City - Early Opportunities



Health & Assistive Care

- Assistive Technologies & Telehealth Solutions
- Supporting social care delivery
- 5G demonstrator home and living lab



Housing/ Building management

- New build opportunities
- Energy use
- Proactive/preventative maintenance
- Building Management



Environmental/ Services

- Waste Management
 - Commercial
 - Street Scape
 - Residential
- Roads
 - Potholes
 - Gritting
- Air Quality
- Noise Monitoring



Infrastructure & Transportation

- CCTV (5G)
- City developments
- Traffic Management
- E-mobility
- Cycle Tracks
- EV charging
- Flood management
- Public safety



Manufacturing

- CAL
- Smart Factory
- Smart Logistics/Operations



Education

- Sunderland University
- HISCA

Smart City - Early Opportunities



Culture/ Sports/ City Experience

- Culture House
- Way finder
- Homes Expo '23
- E-Sports
- Wi-Fi Messaging & City-wide App



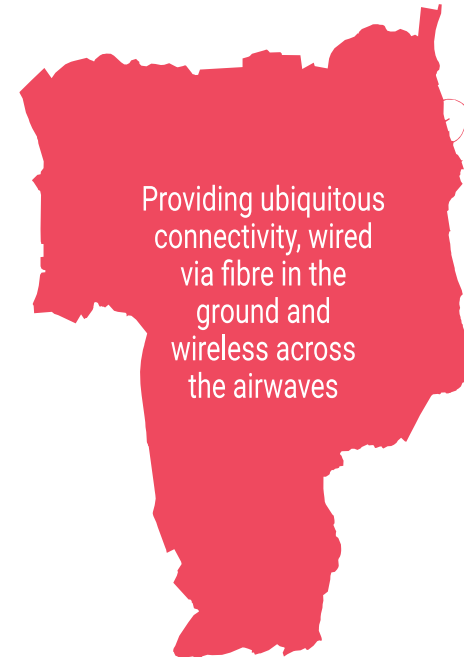
Energy

- Envision (Giga Plant)
- Smart City Grid



Social Value

- “Leaky Wi Fi” extension of public Wi Fi network for social purposes
- Addressing Digital Poverty - Social Value plans, communications and commitments



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SUNDERLAND OUR SMART CITY MODEL

