



West Midlands 5G

WMCA Oversight and Scrutiny Committee

9th March 2020



Objectives

1. What is 5G, what benefits will it deliver and where is 5G in our region
2. Why does WM5G exist and what benefits will WM5G deliver
3. What has WM5G delivered to-date and what will it be delivering next
4. How is WM5G ensuring that the least well-off in society benefit from 5G
5. What is WM5G investing and who is receiving/benefiting from this



5G is the next generation of mobile with potential to transform our region

5G vs 4G

1. **Connect many more devices**
2. **Shorter delays (low latency)**
3. **Faster speed**
4. **Greater reliability**
5. **Stronger security**

Example use cases



Broadband & media



Smart transport



Utilities



Manufacturing



Healthcare



Agriculture

Source: Ericsson 2017



For example a 5G healthcare use case which we trialed in 2019

ITV REPORT 20 June 2019 at 4:32pm

5G remote-controlled ultrasound scans 'will save lives and reduce waiting times'

UK
1st



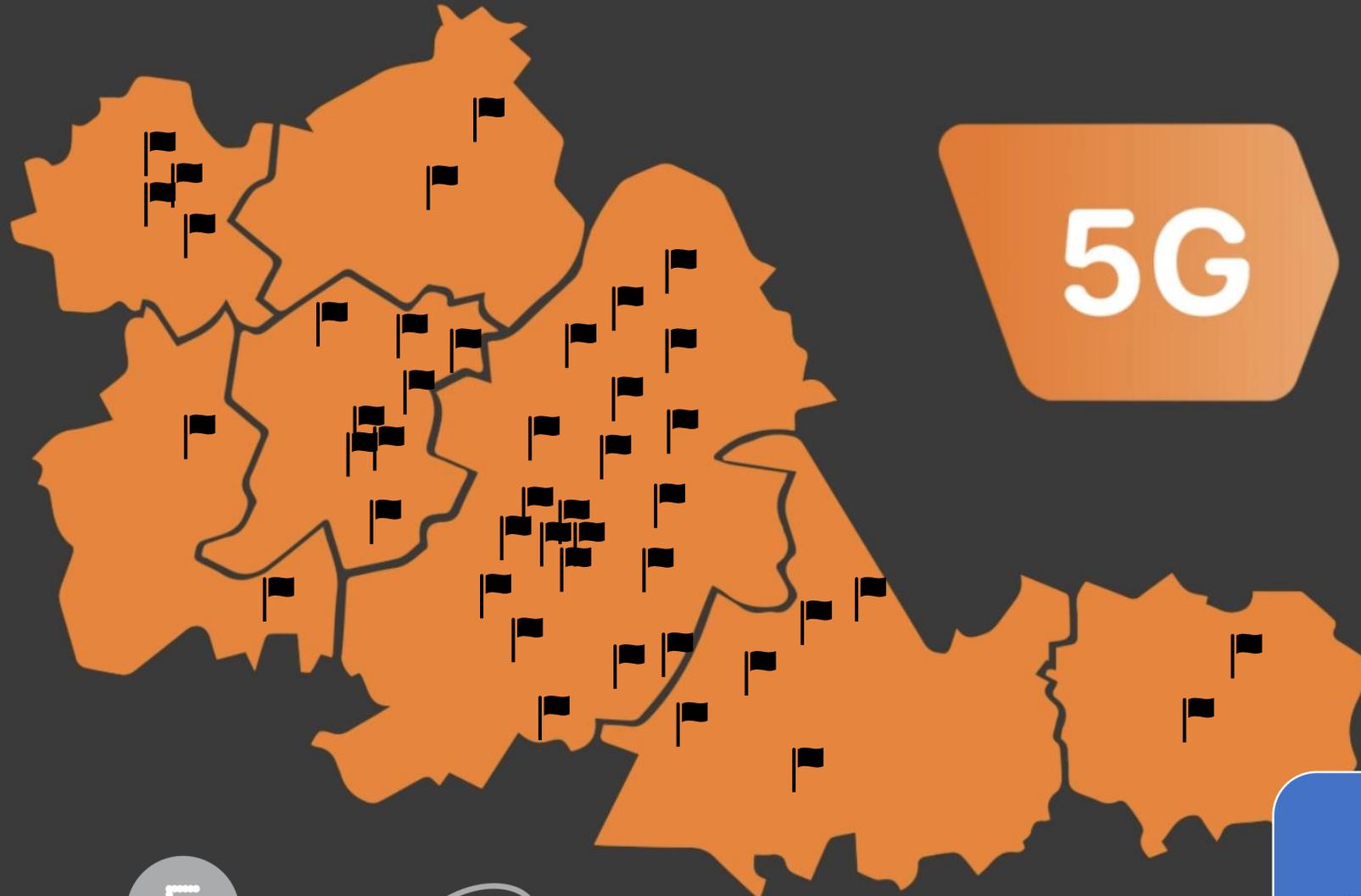
While our region has been one of the 1st in the world to launch 5G

Towns:

Walsall
Rowley Regis
Smethwick
Dudley
Wednesbury
West Bromwich
Hockley
Handsworth
Perry Bar
Erdington
Yardley
Sparkbrook
Balsall Heath
Solihull
Shirley

Cities:

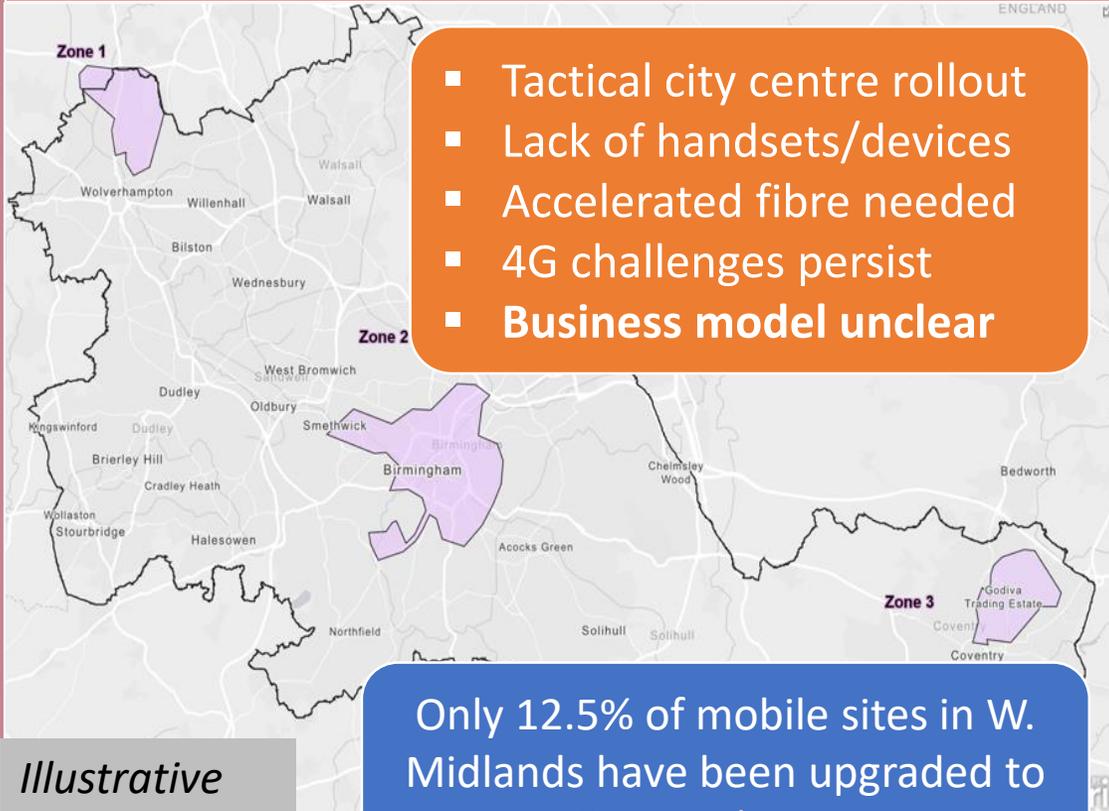
Wolverhampton
Coventry
Birmingham



It's vital that we maximise this early mover advantage

The reality is the benefits of 5G won't happen automatically

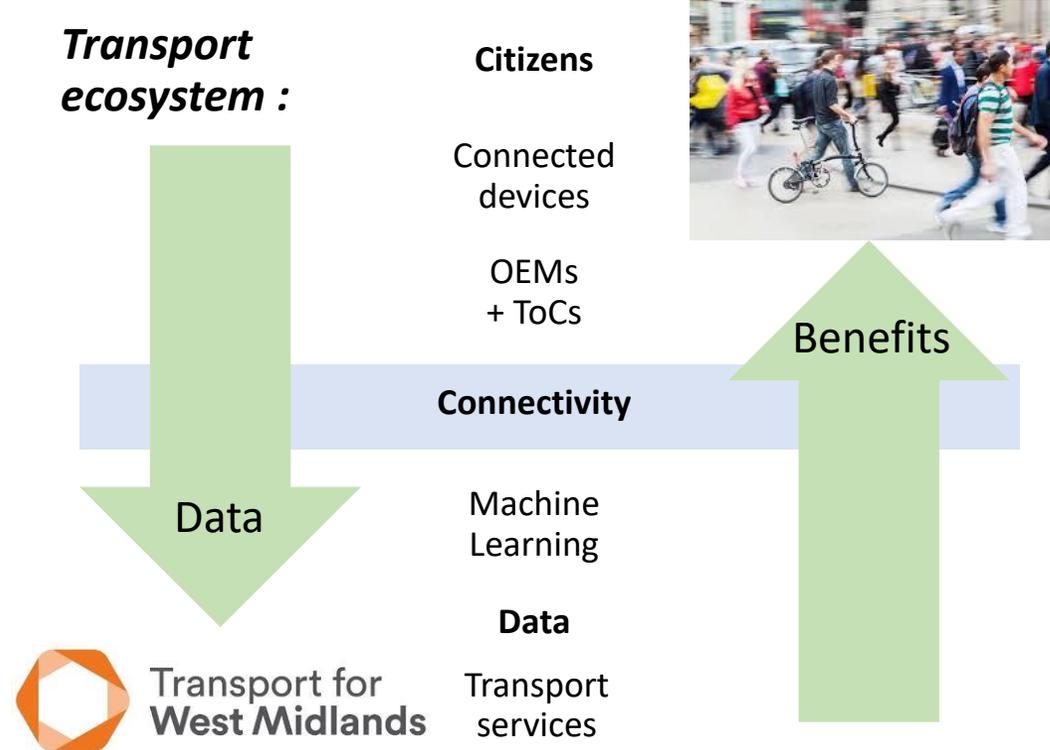
5G is in start-up mode



Illustrative

Ecosystem change is needed

Transport ecosystem :



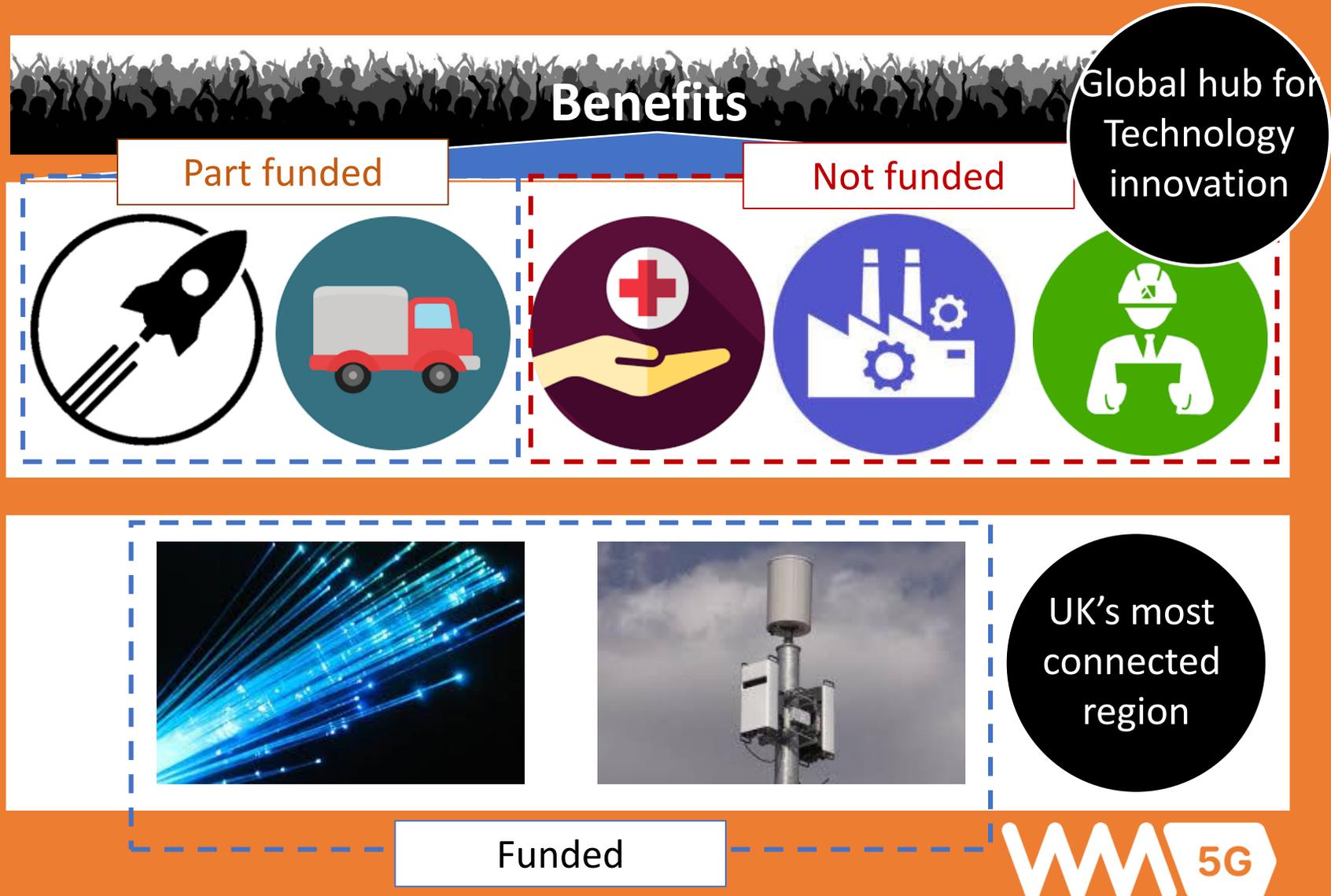
Hence we've launched WM5G to deliver two key benefits

2

Test, prove and scale new 5G services

1

Accelerate 5G & fibre networks



We're working in partnership with Local Authorities and Operators to reduce the time + cost of rolling out 5G and fibre



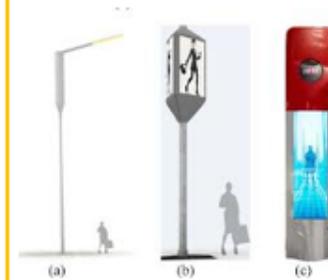
Shared Infrastructure

Shared towers and rooftops to cover 'not spots' and 'hot spots'



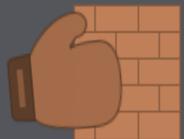
New models for small cell deployment – Commercial and Technical

Understanding smart Infrastructure



Fibre

Investigating the extent of full fibre across the region and building a business case to support wider full fibre roll out and, if viable, facilitate its delivery.



Barrier busting

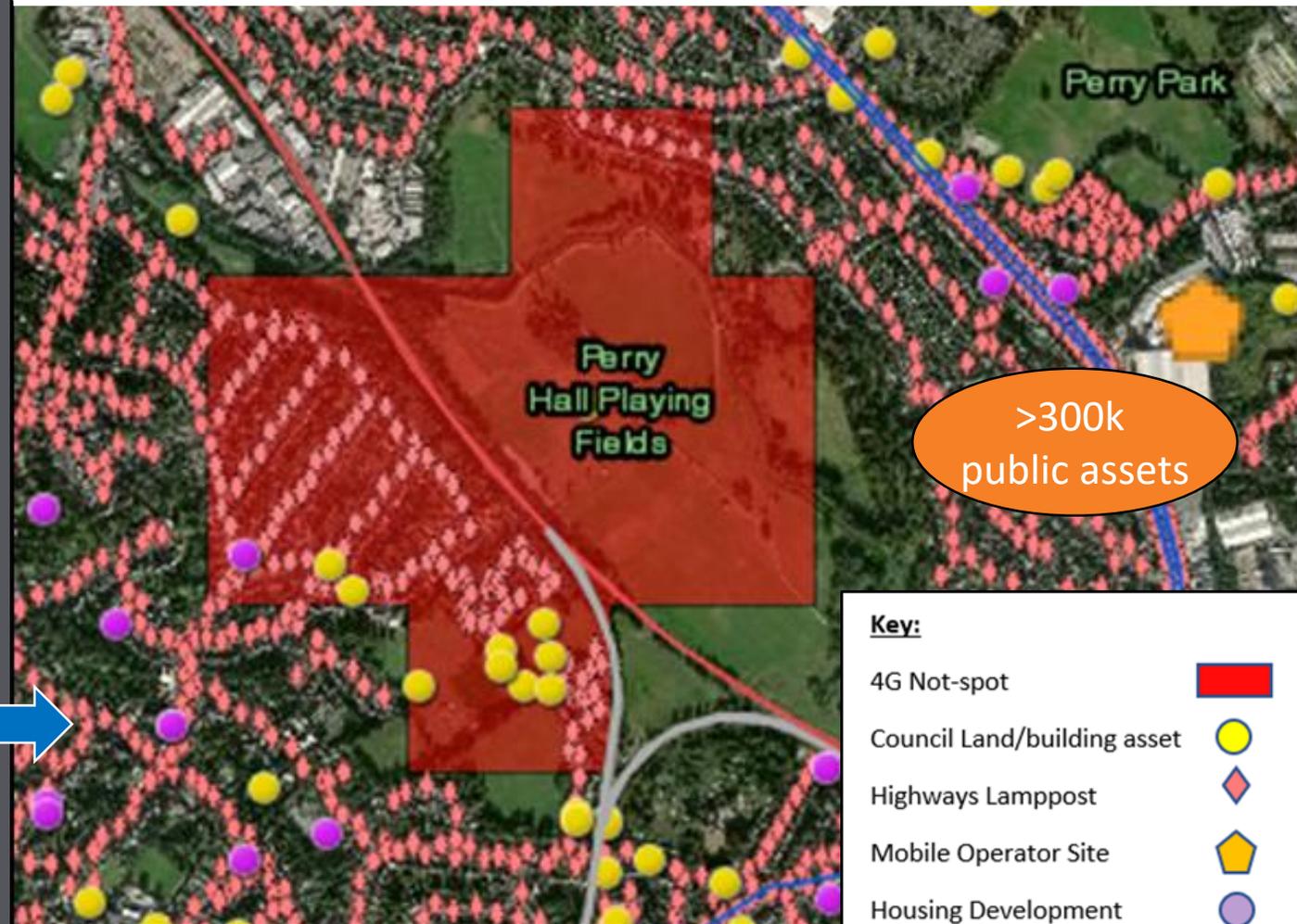
Issues arising from the Electronic Communications Code
- Interpretation and Implementation
Town and Country Planning Challenges
Templated Standardised Wayleaves and Agreements

Infrastructure Acceleration: Proof points

- ✓ 5G launched in Wolverhampton 6-12 months early
- ✓ Moratorium on public buildings removed by Solihull Council
- ✓ Training for all constituent authorities in latest legal advice
- ✓ Establishment of best practice Head of Terms with Operators
- ✓ Development of digital coverage map with >300k public assets
- ✓ Development of best practice compensation models
- ✓ Fibre acceleration strategy developed

Screenshot from WM5G digital connectivity map:

A UK first showing where connectivity issues exist and helping to understand how to resolve them. For example:



Multiple layers of data created in the connected map provide an easy way for operators to access the right assets

We're launching the UK's first 5G Accelerators to help thousands of businesses understand 5G & benefit from 5G innovation

Wolverhampton

Birmingham

Coventry & Warwickshire

UNIVERSITY OF WOLVERHAMPTON

UNIVERSITY OF WARWICK SCIENCE PARK

5G Accelerator locations – subject to local funding



- ✓ Commercial advice and support
- ✓ Access to leading triallists & investors
- ✓ Cutting edge private 5G network - with latest features before release
- ✓ Commercial 5G network - with indoor and at least 5km of outdoor coverage
- ✓ Advanced IoT sensors + devices

Hence we're testing, proving and scaling the UK's first 5G sensor network working with TfWM at up to 1,000 junctions



And we are undertaking a series of 5G demos and supporting use development through competitions



5G enabled vehicle detected kerbside availability in real-time



5G enabled live HD CCTV from inside a West Midlands Metro Tram



5G CCTV Enhanced Vehicle Counting Sensor



Using radio frequency (RF) characteristics from a 5G mast to count vehicles by volume and type



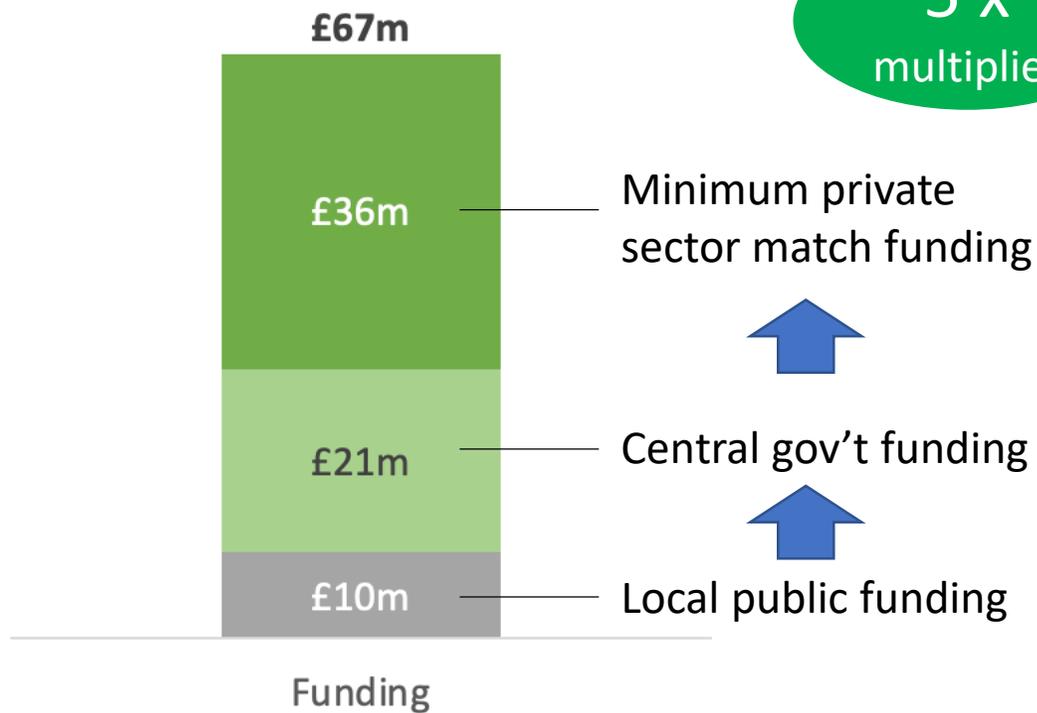
Funding competitions for innovation projects that develop a new 5G service or product



WM5G is funded on a match basis with £10m of local funding pulling in >£57m of inward investment generating >£100m NPV

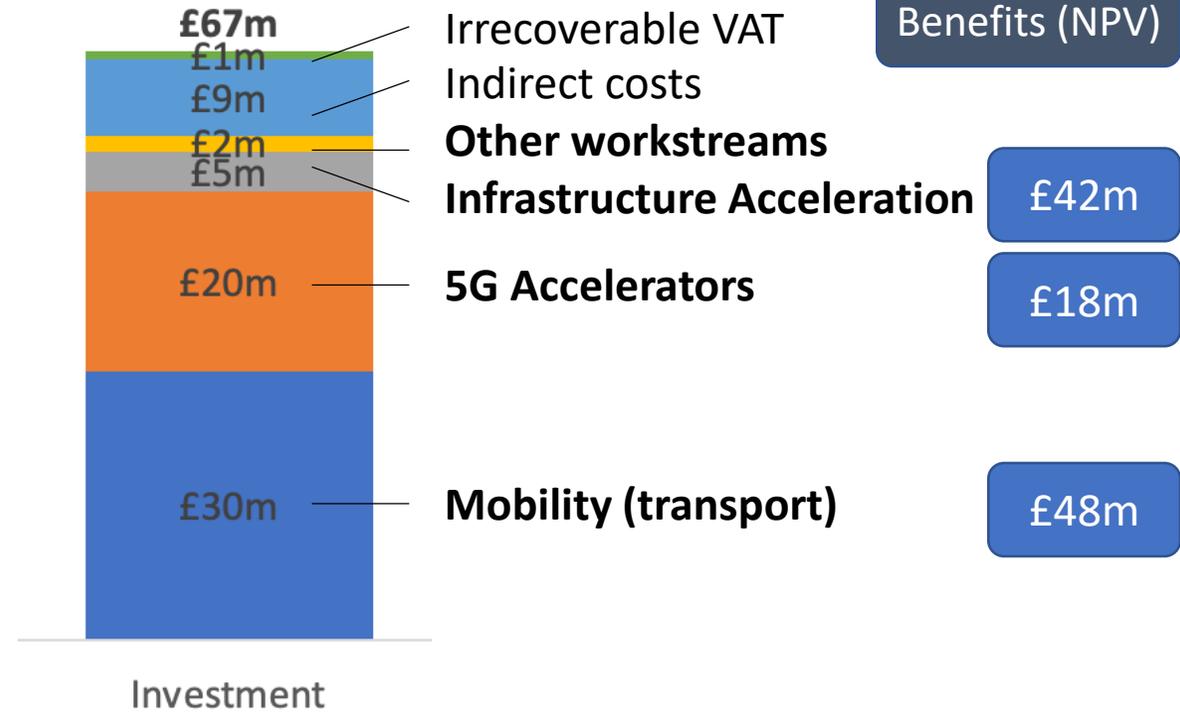
Funding

5 x multiplier



Every £1 of local public funding pulls through over 5 times more inward investment in 5G innovation

Investment + financial benefits



87% of investment is in developing, test & proving new 5G services and accelerating network rollout

WM5G will deliver social benefits across all three streams

5G Accelerators

We are legally committed to run innovation calls to attract entrepreneurs, SMEs and public sector organisations to identify social problems 5G could address and then to design, test and build solutions.

Mobility (transport)

People from disadvantaged backgrounds tend to rely on public transport more and are more affected by pollution caused by transport. Our focus on reducing congestion and pollution and increasing economic mobility will address some of these challenges for the people who need help most.

Infrastructure Acceleration

The private sector is already installing 5G connectivity in prosperous city and town centre locations. Our commitment and work to increase the number of 5G sites by 20% takes in areas that are less financially attractive to the private sector and identifies solutions to drive investment in coverage.



Thank you

