

Accelerating economic growth via digital adoption

Update to the Innovation & Business Support Forum

Presentation objectives:

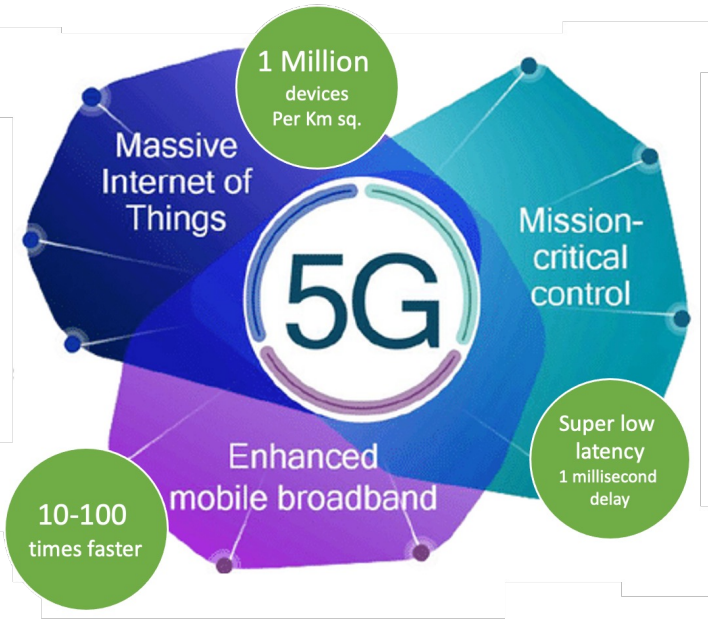
- 1. Briefly recap WM5G's mission*
- 2. Update 5GIR prog. to accelerate adoption*
- 3. Confirm how businesses can get involved*

9 May 2024



WM5G exists to accelerate economic growth through 5G, IoT & data

Significant benefits forecast from 5G



But will only be realised with network at scale + innovation

Network rollout is too slow + expensive



Innovation is needed to apply 5G to solve real-world challenges



Hence WM5G was formed to accelerate 5G rollout and accelerate the realisation of 5G benefits

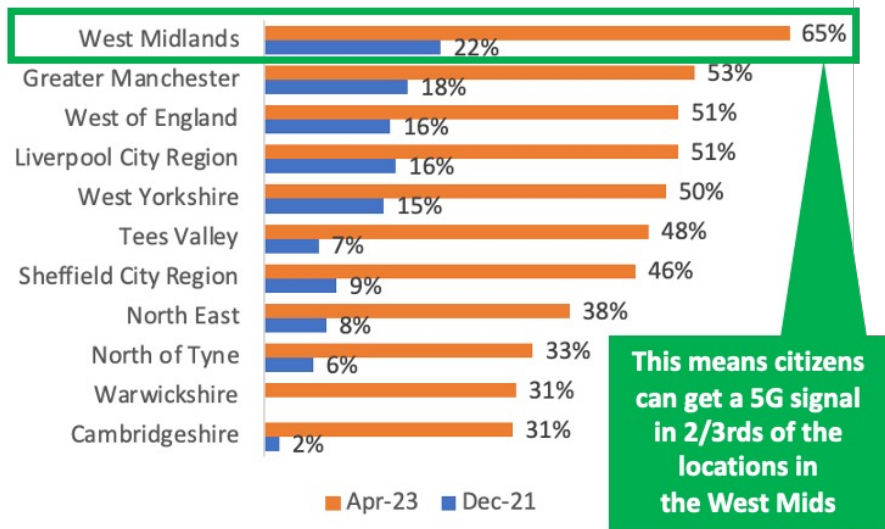
We've helped build the West Midlands as the best-connected region (outside of London) and deliver over £200M benefits from trials

Best connected region for 5G



Transformational benefits in key sectors

5G Geographic coverage % by CA region



Health & social care

Improve care & prevention



- Pioneering early bowel cancer diagnosis trial
- Care home trial live in 8 care homes
- UK's 1st 5G connected ambulance trial
- Black Country Tower Block remote care with NHS Digital & BC ICB

Manufacturing

Improve productivity + jobs



- 1st real-time quality assurance trials
- High-value asset tracking trials
- Machine servitisation trials to boost ROCE
- UK's 1st SME adoption programme with MTC

Transport

Reduce congestion + pollution



- UK's first 5G road sensor network live at 270 junctions
- 1st 5G connected tram
- 14 projects developing new products to support road/rail infrastructure and traveller experience

SMEs & start-ups

Productivity + skilled jobs



- UK's first 5G Accelerators launched in three cities
- Supported over 700 SMEs with adoption
- Green innovation challenge completed
- Local Gov't smart cities challenge in progress

Now we're focussed on 3 key missions aligning to the digital roadmap

WM5G's missions:

Make great connectivity available for everyone

Transform wellness and productivity

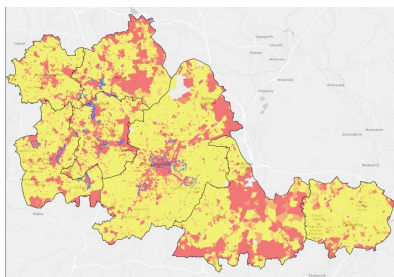
Transform economic growth by accelerating adoption

Strategic challenges:

Connectivity notspots and digital exclusion

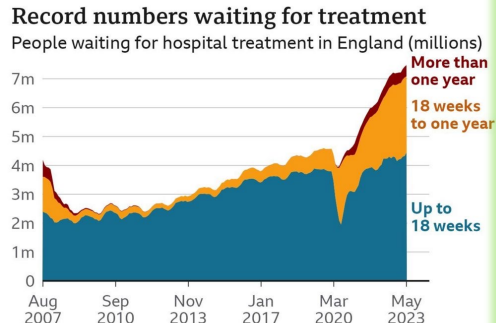
Increasing waiting lists and health inequality

Digital adoption and skills gap

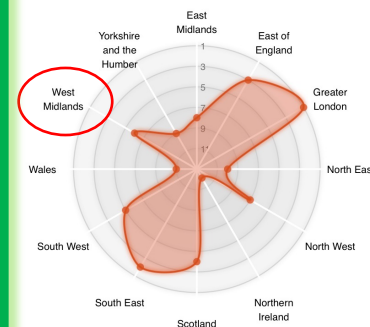


Mobile notspots and over 250k citizens lack gigabit broadband

+ >30% of households struggling to afford connectivity



Source: NHS England, data to May 2023



Key priorities:

Connectivity incl. broadband + digital inclusion

Levelling-up health, care and wellness via tech

Business adoption & telecoms skills via UKTIN

Focus of this presentation

The 5G Innovation Region programme to accelerate 5G adoption

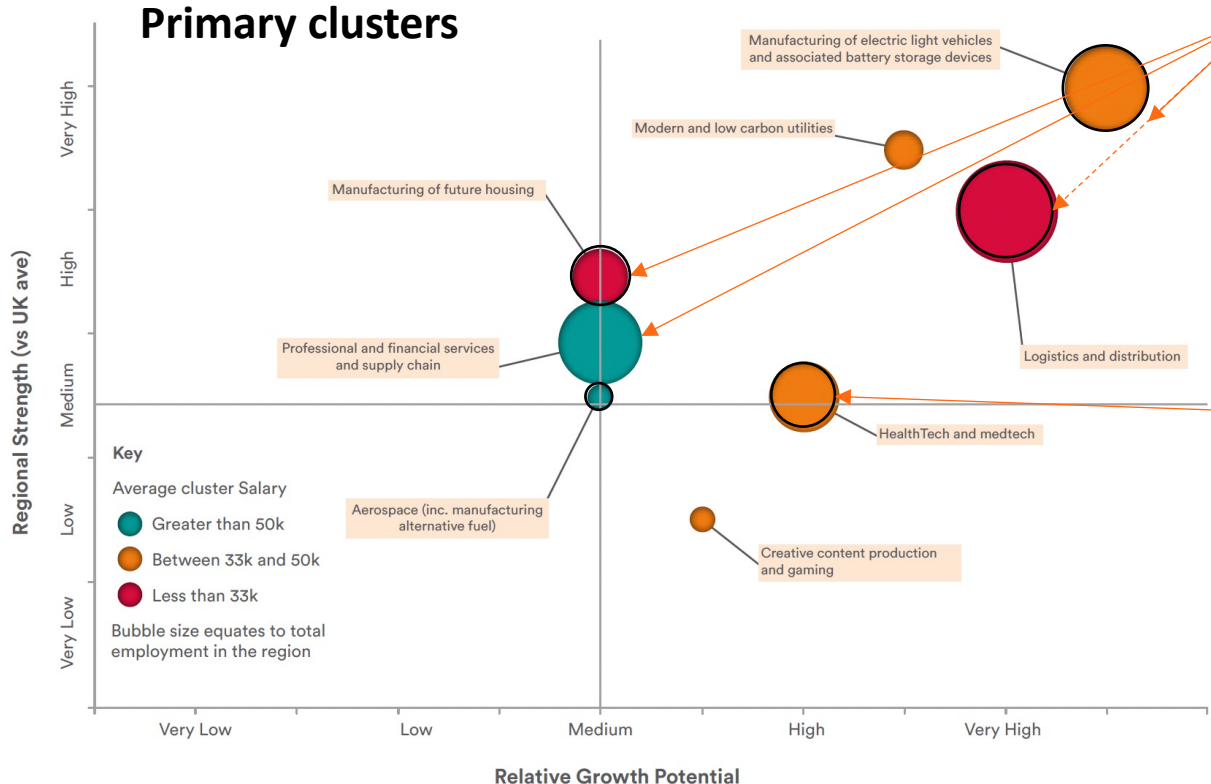
Headline: “Providing **up to £40 million for regions and local authorities** across the UK to establish themselves as ‘5G Innovation Regions’ **to promote innovation and growth through investment in, and scaled adoption of, 5G and other advanced wireless technologies by business and public services.**”

“The primary objectives of 5G Innovation Regions are to:

- **drive productivity and economic growth in places** across the UK through supporting the development and scaled adoption of 5G by businesses and public services
- **accelerate commercial investment** in 5G and other advanced wireless technologies by aggregating and demonstrating demand
- **foster the 5G ecosystem** by enabling activities that will bridge the gap between trials and adoption”

The W Mids has recently won £3.8m of Gov't funding to accelerate 5G adoption in two key clusters in the W Mids Plan for Growth

Primary clusters



Advanced manufacturing

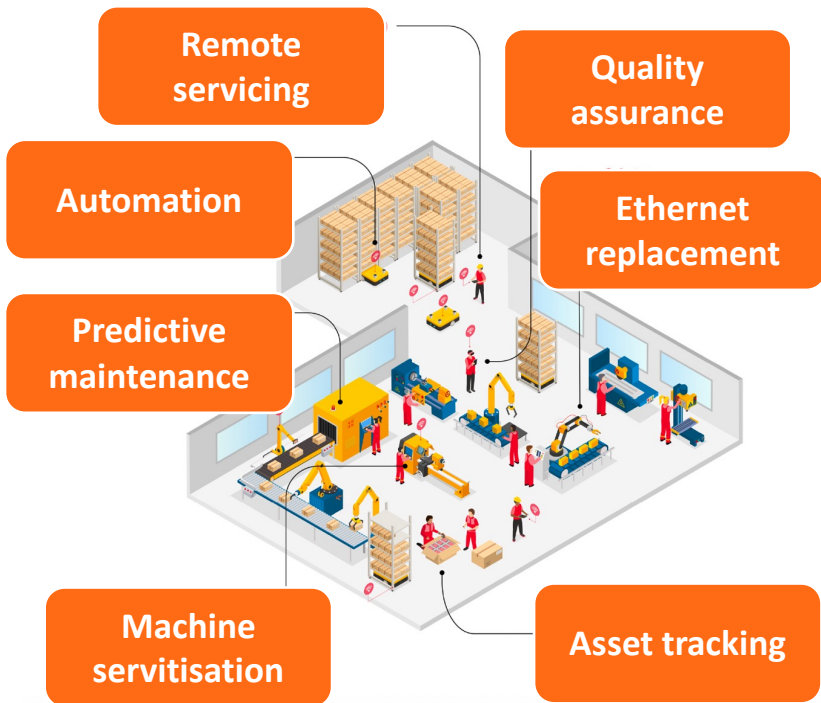
14% of GDP from manufacturing
 290,000 manufacturing jobs
 3 key subsectors :
 - Transport equipment – 31% of output
 - Metal products – 17% of output
 - Machinery equipment – 9% of output

Social care + social housing

Social care is largest area of expenditure for Local Authorities
 Ageing population increasing demand but funding and recruitment challenges
 194k social housing units in West Midlands (12% of UK total)

Pioneering 5G trials have evidenced >£4 Billion GVA benefits

Key 5G manufacturing trials led in W Mids.



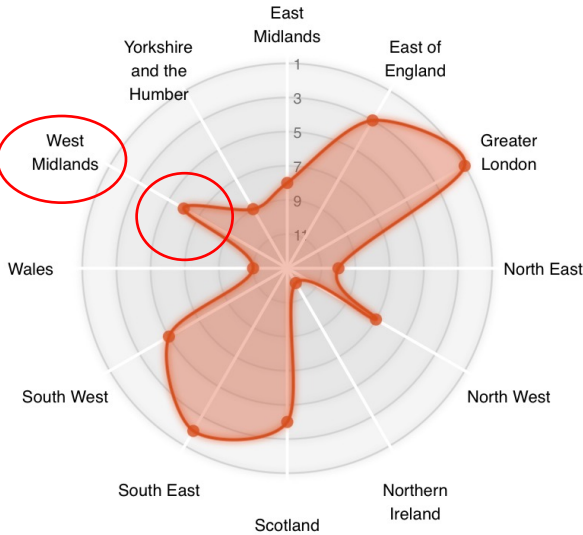
Forecast benefits from adoption in manufacturing

Forecast GVA impact:	Cumulative 2021-2025 (£ million)	Cumulative 2026-2030 (£ million)
Wales	500	1,500
West Midlands	1,000	3,250
East Midlands	750	2,500
North West	1,250	4,000
North East	250	1,250
Northern Ireland	250	750
Yorkshire and the Humber	750	2,500

Source: WPI Economics July 2021

But there's a business adoption gap due to macro and market challenges

W Mids 6th out of 12 for business ICT adoption overall

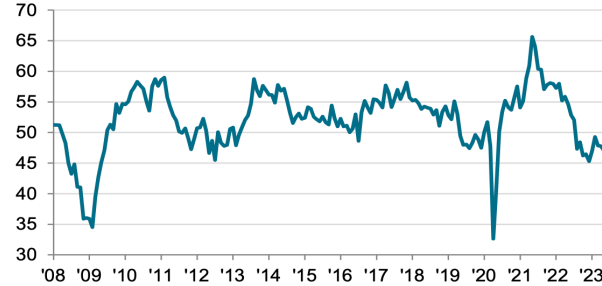


Source: TechUK Local Digital Capital Index Oct-23

Due to a combination of macro-economic and product-fit challenges

Manufacturing downturn deepens as output and new orders fall at faster rates

UK Manufacturing PMI
sa, >50 = improvement since previous month



Source: S&P Global PMI.
Data were collected 10-25 August 2023.

Product-market fit challenges

- 1 Awareness
- 2 Proposition & benefits
- 3 Business model & ROI
- 4 Channels & sourcing
- 5 Delivery complexity
- 6 Skills
- 7 Ecosystem

Hence the objectives of the W Mids 5GIR programme are to ...

Demand-side – manufacturers, social care & housing providers

Objectives

- 1 **Accelerate the adoption** of key 5G, IoT and data/AI solutions **by making the proposition(s), business case and delivery model compelling and straight forward**

Outcomes

Evidence accelerated **take-up resulting in** transformative **productivity, efficiency, quality, wellness and revenue benefits**

Supply-side – IT companies, prof. services, scale-ups, telcos

- 2 **Accelerate the commercialisation of 5G, IoT and data/AI solutions** by clarifying business requirements , accelerating product and market development

Evidence accelerated **revenue** from **signed customer contracts and increased investment** in product development, jobs, professional and network services

Mutually reinforcing

To realise these objectives we are launching the UK's first 5G/IoT/data Adoption Hubs and Programmes in partnership with JLR and LAs

Adoption hubs

x 2 clusters

Prove adoption offer by co-deploying propositions, benefits and business model

Demand-side sponsors

Compelling use case set

Collaborate to industrialise

With full-stack capabilities

Supply side partners

WMCA region Locations illustrative



Adoption programmes

x 2 clusters

Scale adoption of propositions by supporting other organisations to engage

Other prospects

Bus. case, sourcing support

Collaborate to grow take-up

Product/solution support

Supply side partners

The Adoption Hubs will accelerate chipset integration and solve for key 'last mile' adoption challenges in a live factory & social housing

Barriers to 5G adoption

Lack of end-point 5G devices

Evidence additional use case benefits

Deployment costs too high

Inconsistent device radios

Solutions being delivered



Manufacturing device makers



Chipset vendors



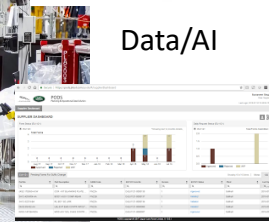
5G private network



Processes & OT devices in plant



Data/AI



Ops. centre

Benefits

*5G ready
Operational
Technology
(OT) devices*

*Proven
business
benefits and
scalable
products/
solutions*

While the Adoption Programmes will provide in-depth business support building on WM5G's adoption progs.

Target audiences

Demand-side organisations – manufacturers, social care & housing providers

Supply-side organisations – IT companies, prof. services, scale-ups, telcos

What we'll be offering in H2 2024 & Q1 2025

Bespoke independent expert business support to provide in-depth support to help selected organisations accelerate:

- Roadmap development
- Business case development
- Design & sourcing
- Deployment & operations

Self-serve toolkits, events and introductions and support materials available to all

Benefits

Access to free, independent, best practice advisory services to accelerate 5G adoption and commercialisation at each of the main stages of adoption and/or product development... resulting in evidence of more orgs. accelerating adoption

Key takeaways & asks

- WM5G exists to accelerate economic growth through 5G, IoT and data
- We've secured £3.8m of Gov't funding to accelerate 5G adoption in the manufacturing and social care clusters
- The objectives of 5GIR are to overcome key adoption barriers and accelerate demand-side and tech benefits
- We'll do this by launching the UK's first Adoption Hubs and in-depth Adoption Programmes with JLR & key LAs
- Please get involved if your organisation is a:
 - a) Manufacturer, social care or housing provider and take part in the adoption programmes
 - b) Manufacturer/OEM of OT devices or smart building or care devices and take part in chipset integration
 - c) Tech, telco or prof. services business to take part in the adoption programmes or to supply services to the 5GIR programme - in which case you need to register for the WM5G DPS Framework

Thank you