

The View from the Malvern Foothills: Securing our 5G first-mover foothold

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The latest Quarterly Business Report from the Greater Birmingham Chamber of Commerce (GBC) covering around 400 businesses representing 30,000 employees across Birmingham, Burton, Chase, Lichfield, Tamworth, Sutton Coldfield & Solihull was launched last Friday 21st June.

Covering the period 20th May – 10th June 2019, it uses a balanced score to assess the levels of health in our local economy. Worryingly but unsurprisingly Brexit uncertainty continues to impact confidence and activity levels, with both domestic and export demand dropping to the lowest levels since the Referendum in 2016. Capital spend intentions have fallen to their lowest levels since Q1 2009, with recruitment difficulties persisting. Cashflow challenges remain with significant price pressures impacting the prospects for West Midlands business and productivity.

GBC are clear that businesses are not ready for a chaotic no-deal Brexit. They are working with the British Chambers of Commerce and the wider Chamber network to urge government to do *'everything in its power to avoid a chaotic no-deal scenario'*. Organising labour, stockpiling, rethinking international trade arrangements, briefing investors and other preparations takes time and costs vast amounts of money. Their latest Quarterly Report demonstrates the impact Brexit uncertainty is already having on businesses, most notably in falling capital expenditure and business level investment. They continue to seek *'clarity on Brexit now'*.

These fears are based on considerable research. The results are set in the context of consensus forecasts for UK growth at around 1.35% this year and next, in anticipation of a 'smooth Brexit', with growth falling below 0.5% in the event of a no-deal Brexit. UK government's

Brexit impact assessments highlight no-deal leaving the UK economy 6.3% to 9% smaller after 15 years with customs checks alone costing business £13bn a year.

Research by Professor Raquel Ortega-Argiles, University of Birmingham, indicates 12.2% of West Midlands GDP is at risk over Brexit-related negative trade consequences (*The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors*). The Government's own analysis suggests that the West Midlands region will be the second most exposed to a potential reduction in economic output post-Brexit (*EU Exit Analysis: Cross-Whitehall Briefing, House of Commons Exiting the European Union Committee, January 2018*).

It's clear that business people, used to deal-making and problem-solving in the real world, simply can't understand why politicians haven't been able to do what they have to do every day – deliver.

Three months back when the last Quarterly Business Report was produced, the Chamber CEO, Paul Faulkner, aired these frustrations on behalf of his members, stating: *"For the last two years, a sense of chaos and turmoil has defined political activity at Westminster, creating the impression that very few politicians are capable of putting aside party allegiances and working together in the national interest to tackle the most crucial negotiation this country has witnessed in over a generation....As we approach the end of March, it is clear the spectre of Brexit is having a marked effect on local business output."* One can only imagine these sentiments have hardened considerably since then.

Whilst more businesses are reported as being prepared for a no-deal Brexit, up from 20% to 40%, Bank of England governor, Mark Carney noted last week that around 150,000 still did not have the paperwork required to continue exporting after a no-deal Brexit. Not very encouraging for the West Midlands with 15% of our economy powered by manufacturing.

At the latest meeting with West Midlands MPs held by the Greater Birmingham Chamber, June 21st, and hosted by Paul Thandi, CEO, the NEC Group, Dame Caroline Spelman MP (Conservative, Meriden) shared his frustrations. She said there was a strong spirit in favour of cross party cooperation. She had worked with MP Jack Dromey

(Labour, Birmingham Erdington), to push through a non-binding cross party amendment rejecting a *no-deal at any time under any circumstances*.

This was later moved by Yvette Cooper MP (Labour, Normanton, Pontefract and Castleford) after Dame Caroline felt obliged to withdraw when it became clear the government would be whipping against it, with this non-binding amendment passed by a narrow majority in the Commons. However Dame Caroline observed with regret that there was no longer any mechanism to prevent a no-deal Brexit which would, she stated, lead to the fastest process of de-industrialisation ever witnessed.

Her hope was that in September, when MPs would be given a final chance to vote for the Withdrawal Agreement, they would not be whipped providing Labour MPs with the chance to vote freely.

Andrew Mitchell MP (Conservative, Sutton Coldfield) noted that the 'genuine differences of opinion between MPs' made it very hard to gain cross party consensus. The parliamentary stalemate persisted. He outlined how he had, for example, voted for the first Oliver Letwin amendment enabling a series of eight indicative votes on *what sort of Brexit*, but he had voted against taking *no-deal off the table* as this remained a powerful negotiating card.

Stating there was 'no such thing as no-deal', rather a managed exit, he added that we were 'under-gunned' on the Midlands Engine, leaving us poorly positioned vis-à-vis the Northern Powerhouse and Manchester, cited, too often it was agreed by all present as being Britain's 'second city'.

The meeting provided a good opportunity to ask Mr Mitchell in my capacity as Economic Development Portfolio Holder Malvern Hills District Council, about our 5G testbeds in Worcestershire. My query focussed specifically on government advice to cease drawing on Huawei technology as a 5G testbed project partner.

This followed President Trump's recent comments regarding possible US withdrawal of future intelligence sharing with the UK. It was hard not to wonder if we were 'taking back control from the EU only to hand it over to the US'. Mr Mitchell stated that through his privileged

intelligence access he personally felt clear that Huawei did not pose a security risk....An encouraging answer if followed through with action to lift the suspension. Especially so in the case of those based at the Malvern Hills Science Park trialling the UK's first advanced manufacturing 5G test bed, a £4.8m Midlands Engine funded project secured by the Worcestershire LEP.

Bringing together leading 5G and Industry 4.0 experts, the project team includes Huawei who have apparently provided up to 2000 5G nodes for this project, along with Malvern Hills Science Park, O2, BT, Worcestershire County Council, 5GIC at University of Surrey and AWTG. Given the Huawei technology suspension, it has been proving harder to capitalise on the project's first-mover advantage.

The nearest suppliers with any equivalence to Huawei – Ericsson and Samsung – are reported to be technologically 6 months behind and in the case of the former much of their production is currently based on the Chinese mainland – although they are talking about moving to the US given the massive market potential and the anticipated impact of the trade wars.

Worcestershire trials have been focusing on how to improve industrial productivity drawing on the enhanced data capacity provided through 5G with speeds of up to 100 gigabits per second or up to 100 times faster download speeds than 4G with the trials providing evidence of an early +2% productivity uplift.

Drawing on this enhanced 5G capacity – speedier, less signal delay and more simultaneous connections to multiple devices – international businesses based in Worcestershire – Worcester Bosch and Mazak – have been trialling these capabilities since March 2018 to provide preventative and assisted maintenance across their advanced manufacturing plants using robotics, big data analytics, artificial intelligence and augmented reality.

The project also includes cyber security elements through QinetiQ assurances on the '*security by design*' of 5G and Internet of Things (IoT) technology. A project extension was granted from March 2019 with Huawei removed as a partner during this period. It's hard not to ask what the cost of this decision will be both in terms of the Worcestershire 5G testbed and nationally as consultants are pulled in

to assess next steps with new partners joining and the resulting upheaval and timescale implications.

Alongside the 5G testbed, the Malvern Hills entrepreneurial ecosystem is being enhanced through access to 5G capabilities and support from the recently launched *Betaden*, a commercial tech launchpad and accelerator located at the Malvern Hills Science Park, headed up by its impressive CEO and founder, Linda Smith.

These early steps are vital for future growth and success. It's going to be an all-out bunfight for market share as these global tech giants slug it out, with Ericsson way back in 2017 forecasting a \$1.233 trillion market, but with these market estimates mushrooming regularly. Of this they stated 20% would come from energy utilities; 19% from manufacturing; 13% public safety; 13% healthcare; 10% media and entertainment; 10% public transport; 8% automotive; and 6% financial services.

It would be great to not only lead the world in our tech innovations but to benefit from the commercialisation, something we have too often failed to do in the past.

The next KPMG Economic Outlook report due out this week and written up by economist David Smith in the Sunday Times, 23rd June 2019, (*Our export prospects burn bright – if we dodge no deal*), highlights KPMG's central scenario predictions for total trade (exports plus imports) rising from £1,200bn now to £1,800bn by 2030. Investing in innovation and technology is essential to accelerating our trade growth outcomes in post-Brexit Britain with the most optimistic scenario taking place through greater technological convergence in the context of a managed Brexit.

Under a no-deal Brexit – leaving on World Trade Organisation terms – trade volumes would fall and by 2030 be at just the same levels as 2018, representing 'a lost decade' with fewer opportunities anticipated for technological convergence including in digital services (requiring the sorts of secure management systems being developed in the Worcestershire cyber security cluster). Highlighting Consensus Economics forecasts showing there is now a 32% probability of a no-deal Brexit, 35% chance of an exit with an agreement and 33% of no exit at all – the article reflects the impact the stalemate in parliament is

having on the odds for our economic growth or otherwise over many years to come.

In Worcestershire, as a smaller piece of this picture and the various scenarios outlined, pushing through the Huawei gridlock will be vital in enabling us to gain a first-mover foothold of the 5G commercialisation opportunities. With such vast amounts at stake it will remain a top priority for Malvern Hills, the Midlands Engine and in turn to a lesser or greater extent for the nation as a whole.