

# Britain's broken broadband

Why is Britain ignoring the solutions to go slow Broadband?

Prepared by Tratos UK Ltd



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## Executive Summary

- Fibre to the Home broadband doesn't exist in the UK. There are the privileged and proactive few who currently enjoy the speeds that many of our worldwide counterparts are achieving but UK cable manufacturer Tratos believes solutions are being ignored.
- British business is telling Government they can 'no longer remain silent' about patchy broadband and how their companies' performance is being "severely affected".
- Industry regulator Ofcom is concerned about a mismatch between broadband speeds that small firms believed they were buying and what is actually being delivered.
- Broadband, a report backed by 121 cross-party MPs calls for BT to be forced to sell the country's leading broadband provider, Openreach.
- Technology has moved faster than anticipated and the UK remains reliant on its existing copper network as the way forward.
- Fibre to the Cabinet (FTTC) is not Fibre to the Home (FTTH) but the fibre advantage isn't making the last mile to premises – what we are sold is just a dream.
- BT owns the existing infrastructure but other options exist – Tratos has technically advanced fibre optic cables that can travel efficiently through other utilities' routes to homes and offices
- Gas, water, electricity are into-the-home routes explored and exploited in other countries and with all utilities investing now a smart grid to monitor resources flowing into homes, fibre optic rather than copper could be adopted - and broadband can effectively piggyback.
- Government needs to open up the race for the right solution
- Even investment now will still see Britain left lagging by up to seven years as it struggles to catch up.
- Significant challenges – whether they are architectural, heritage, rural have been worked around – other countries have found ways around these problems.

Britain's broadband is in danger of developing into a block on the country's economy as alternative routes to high speed connectivity and huge gains in download pace - available now - are ignored.

Tratos Ltd, a global player in fibre optic cable, points to some of the advanced technological solutions that are smart enough to bypass current network gatekeepers – and are available to UK.com today.

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### **BRITAIN'S BROKEN BROADBAND** | Report into the state of Britain's Broadband

The Anglo-Italian cable manufacturer presents a UK, European and global view of Britain's position in this report and calls for urgent action to protect the country's position as a leading economic power.

Tratos wants to be part of the UK's solution. It is one of a number of smaller, more agile and innovation-focused competitors that could be instrumental in making the change with more than 20 years experience in the UK and Europe and has the 'smart' fibre cables that shoot down some of BT's arguments on installation expense/disruption as copper gives way to fibre.

## Britain's Broken Broadband

### The Key to Faster Broadband Now from Tratos Ltd

***International Anglo-Italian cable manufacturer Tratos Ltd warns the UK will pay the ultimate price for not investing in FTTH in 2016. The cracks are already evident as DIY Britain embarks on 'build your own' broadband.***

Whatever Britain is being told – and sold – about fibre to the home broadband, it's not the whole truth. Fibre to the home doesn't exist in the UK - for all but a privileged few, and those who have taken matters into their own hands.

There are solutions at hand, but, says cable manufacturer Tratos, they're being ignored.

Fibre to the Cabinet (FTTC) is not Fibre to the Home (FTTH). Fibre advantages are lost as connections from fibre-fed cabinets to homes still rely on low-technology copper.

Debate is raging at fever-pitch and an early trend for frustrated DIY FTTH-ers is growing.  
<http://www.thisismoney.co.uk/money/smallbusiness/article-3424561/Bath-based-firm-TrueSpeed-sets-fibre-based-broadband.html>

Whatever the rhetoric; Britain's broadband is not keeping up. Ten years on, and with very little changed, the fibre/copper debate is now a full-scale battle. Technology has moved faster than anticipated and the country remains reliant on an old and creaking copper network.

Anglo-Italian cable technology company Tratos Ltd says the solution is within the UK's grasp, but it's being ignored.

Tratos CEO, Maurizio Bragagni said: "BT may own the existing, out-dated infrastructure, but it's not the only route to a solution, or into people's homes. We have technically advanced fibre optic cables that can travel just as efficiently thru other utilities' routes to the home - gas, water, electricity.

"All of the utilities are investing in a smart grid to control and monitor resources flowing into homes. There is no reason they can't use fibre rather than copper to achieve supply controls now - and introduce fibre to the home which broadband can effectively piggyback, circumnavigating existing copper. All we need is the Government to open up the race for the right solution. Clever technology companies will respond and start the process right now"

Last week tens of thousands of businesses, employing 4.5m people, told the Government they can 'no longer remain silent' about patchy broadband and how their companies' performance are being "severely affected". Business owners warned of slow Broadband's negative impact in a letter to John Whittingdale, the Culture, Media and Sport secretary, signed by 52 Chambers of Commerce, representing 75,000 companies.

Industry regulator Ofcom, says it is concerned about a mismatch between broadband speeds that small firms believed they were buying and the service actually delivered. A new Ofcom voluntary code will commit broadband suppliers like BT TalkTalk and Virgin to allow business customers to exit the contract if speeds fall below a minimum guarantee level. Tratos' view is - it's not enough. The talking has to stop and work that should have been undertaken a decade ago, begun.

Developing world communities have faster connectivity while UK.com remains heavily handicapped and unequal in the fight to remain one of the dominant commercial powers.

Even investment now is likely to see Britain left lagging by up to seven years as it struggles to catch up, says Tratos' Maurizio Bragagni. Countries like Italy don't have fast speeds across the nation right now, but they are better placed to achieve them quickly, especially in the cities. Once Italy takes up a true fibre solution at a reasonable cost, thanks to an early acceptance of the future shape of commerce and action to facilitate change, it will also outstrip the UK. Arguments that true fibre to the premises is not affordable – ever – for the UK (from Gavin Patterson of BT) are ridiculous, says Mr Bragagni. Whilst speeds obtained currently are, in many instances acceptable, if not competitive now, this will not be the case in the near future. Inevitably, copper will become redundant and fibre will have to be installed.

A new report 'Broadband' backed by 121 cross-party MPs calls for BT to be forced to sell the country's leading broadband provider Openreach because of poor performance. The report suggests BT's Openreach has only partially extended superfast broadband despite £1.7bn of government money and its sale would open up the race for speed to competition. The MPs' cross-party British Infrastructure Group (BIG) claims 400,000 small and medium-sized companies still do not have access to superfast broadband and more than five million people have unacceptable download speeds.

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The Broadband report says there would be little change until BT and Openreach were formally separated, and adds that Openreach "makes vast profits and finds little reason to invest in the network, install new lines or even fix faults in a properly timely manner". The BIG group, led by Grant Shapps, points to underinvestment stemming from the "natural monopoly" of BT and Openreach as the primary factor holding the UK back and costing the economy £11bn a year. Speaking to the BBC he accused BT of being "a monopoly company clinging to outdated copper technology with no proper long-term plan for the future." Mr Bragagni is whole-hearted in his support of the report.

He says: "We are in an interesting position. We can see the challenges from within the UK, and we look at the UK's commercial viability from a global perspective. As a company that has committed investment here what we take away from a critical view is that what we have today is unsustainable. And there is no practical reason for us not to be among the top ten for broadband speed."

Broadband speed in the UK barely makes it into the world's top 20 countries for connectivity. The UK is trailing Japan, S Korea, Switzerland, Netherlands, Canada, Sweden, Latvia, Ireland, Czech Republic and more. Only 38% of UK internet users have access to high-speed 10 Mbps broadband. In Saudi Arabia the figure is 84%.

The UK drops even further in the rankings when it comes to peak internet speeds, maxing out at 48.8 Mbps and landing 24th in the world rankings. (The peak connectivity speed in Saudi Arabia is 484.4 Mbps: Australia, Kuwait, Japan and Singapore also hit triple figures). In June 2014 Saudi Telecom Company (STC), the country's leading telco in terms of subscribers, announced it had passed a 900,000 households milestone with its fibre-to-the-home (FTTH) network. Going forward, the operator continues to extend the footprint of its fibre network with a FTTH network supporting triple-figure download speeds. STC introduced its FTTH services in August 2010. Source: TeleGeography

Closer to home Irish company Eir is pushing forward FTTH connectivity, passing the 1.4m homes mark with fibre-based broadband at speeds of up to 100Mbps. The company aims to provide fibre broadband to 1.9m homes by 2020, revising a previous target of 1.6m, which it will surpass by the end of this year. Eir is also currently deploying 1Gbps speeds using fibre-to-the-home technology to 66 towns within the 1.4m premises and currently 28,000 premises in 16 towns can now get 1Gbps speeds alongside the Irish Government's investment in a super-fast fibre network. Little wonder broadband dependent mega-companies like Google list connection speed as one of the deciding factors on choosing Ireland as a strategic base.

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The Irish Government has said of its own initiative to ensure the final 750,000 homes and businesses deprived of broadband are finally connected with at least 30Mbps: "This is the biggest broadband intervention in the history of the State.

We can't even leave a few people behind." BT, which owns Britain's copper network and manufactures copper cable, has expressed an interest in tendering for this fibre optic cable work in Ireland, demonstrating that what Britain needs can be done.

<https://www.siliconrepublic.com/comms/2015/12/22/broadband-intervention-ireland-procurement>

The UK generates more money online than any other G20 nation, but for how much longer, says Tratos. The internet is a bigger part of the British economy than education, healthcare or construction. "Britain is being frozen out of the next industrial revolution," Peter Cochrane, a former [BT](#) chief technology officer, warned four years ago. "In terms of broadband, the UK is at the back of the pack. We're beaten by almost every other European country and Asia leaves us for dust."

This broadband blind spot is a critical factor influencing the health of the UK's economy. Other countries facing challenges on a similar scale began their investment trail significantly sooner than the UK and, even though their broadband speed may lag behind now, they are expected to leap-frog to a significant lead as infrastructure projects reach completion.

Even where there are significant challenges that match/or are bigger than the UK's – architectural and heritage sites to work around for example - others have found ways around the problem.

Tratos wants to be part of the UK's solution, and, it believes, it is one of a number of smaller, more agile and innovation-focused competitors that could be instrumental in making the change.

Tratos has been a supplier of fibre to the National Motorway Communication Systems (Highways Agency) for more than 20 years. Its products are some of the most flexible for construction projects, with combined power and fibre optic needs. It has the 'smart' fibre cables that shoot down some of BT's arguments on installation expense/disruption as copper gives way to fibre.

In Europe it has supplied fibre directly to apartment blocks using central distribution layout systems within the buildings, and a range of flexible cables that can be installed in almost any kind of duct.

Its solutions include microcables and microtubes, breakout cables, floating cable, cable (floating and sinking types) that can be pulled through sewers, dielectric self-supporting

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cables and multiusage cables employing techniques that see new cable installed at the same time as its copper forerunners are stripped out.

The real reason behind Britain's slow Broadband is its gatekeepers. They are the old network's custodians who stand to take a financial hit in the short term but for whom Tratos sees mid to longer term gains. They are blocking progress for everyone else, but Tratos believes they could be part of the bigger solution – if they open up to collaborative working.

The world of work has already changed. There are more sole traders working from home or small silo offices. There are also people working at home for larger companies, or working flexibly between the office and a home base. Speed is no longer simply an office environment issue.

Tratos is focused on talking about how fibre could be delivered directly to the premises now. The company has the technology available, today.

Italy trails the UK presently but as it has - and is investing in - a fibre infrastructure, that's about to change. It has had the technology – and the desire to use it - since 2008. So, Italy is already ahead of the UK in investing in the technology that will see it overtake in the short to medium term. In effect, although much of the UK enjoys faster connectivity than Italy now – Britain is already lagging seven years behind the starting line on delivering next generation speeds. This is the technology that could take the UK into the top ten countries for broadband speed if BT was to invest or BT/Openreach was to separate.

Telecom Italia is gearing up its ultra-broadband in Trentino Alto Adige, bringing fibre to homes in Trento and Bolzano, and super-fast connections from 100 Megabits per second (and potentially up to 1 Giga). The initiative is part of the new national cabling plan in FTTH (Fibre to the Home) technology, from the Ministry of Economic Development through Infratel, which plans to reach 100 cities by March 2018.

The new infrastructure programme goes beyond road cabinets directly into homes and offices with the goal of reaching 75% of the population by 2017.

Existing infrastructure will be used to lay fibre optic cables and, in case of excavations, innovative low environmental impact equipment and techniques will be used that reduce work time, work site area, ground broken, material removed, paving impairment and consequently keep road repairs to a minimum.



Some may see investment in a fibre network as a risk (cost). The cost if we don't is significantly greater. The cold truth is that – whatever consumers believe - fibre to the home simply doesn't exist in the UK.

Further information about Tratos is available at [www.tratos.co.uk](http://www.tratos.co.uk)

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