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About the author



Amy is a part of the Technology, Media & Telecoms (TMT) team of Macquarie Specialised Asset Finance based in London. A TMT industry expert, Amy turned her passion for technology & commercial management into delivering smart capital products; to support the TMT sector delivering the technology of tomorrow faster, and more efficiently.

Prior to this Amy had held executive positions as Commercial Director of Ericsson's Market Area in Europe and Latin America and as Head of Commercial at the BBC — with over 15 years' experience in the Media, Telecommunications and Transport sectors.

1 Unlocking digital connectivity with smart capital

The concept of digital connectivity as a human right has risen on the agenda of governments and regulators in recent years. In industry, it has been a subject of growing debate from Davos and the United Nations, to leading industry conferences such as Mobile World Congress and the Telecoms Infra Project (TIP) Summit.

In Q1 2020, the COVID-19 outbreak triggered a significant and long-lasting impact on the communications sector. As a result of the transition to home working, school closures and wider societal restrictions, there has been an unprecedented demand for increased connectivity as society's use of technology has shifted both in terms of scale, and geographical spread.

Within the communications sector this has meant a wide-spread acceleration of network capacity expansions, at significant capital outlay, in unusually short timelines. During this time, we have witnessed the Communications Service Providers (CSPs) and their suppliers collaborate to ensure ubiquitous connectivity, to the largest extent possible, is available to us all.

Providing this level of connectivity to communities depends upon a mix of solutions: national fibre roll-out, the expansion of wireless communication and internet access and enterprise connectivity. Government initiatives and public policy play an important role in these major infrastructure investments.

Today, on the cusp of 5G standalone core and radio technology roll-out, this new generation of wireless communication technology can open up a range of exciting opportunities facilitated by gigabit connectivity, low latency and network slicing. The benefits promised by these use-cases, however, will depend upon greater collaboration between existing fixed infrastructure operators, wireless providers, corporate customers and governments.

There is recognition that it will be impossible to deliver wide-spread connectivity without crossindustry co-operation, competition in the market, and an end-to-end vision shared by industry and government. Crucially, significant investment will be required to deliver at speed and scale particularly in a post COVID-19 landscape. The strategies necessary will be specific to each unique ecosystem and will depend on the state of the digital economy and level of economic development in particular markets.

The guestion is, how can that investment be delivered in the context of operators' existing capital commitments, balance sheet constraints and challenged rates of return on investment?

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2 Consumer demand and economic dependency

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CONNECTIVITY

Connectivity has become fundamental to modern societies and economies. There is a quantifiable link between gross domestic product (GDP) and connectivity.¹

Within developed nations, a lack of connectivity will increasingly result in competitive disadvantages for industry and consumers. A lack of connectivity could significantly inhibit the ability for industry to capitalise on the well-documented benefits of 5G technology use-cases, and of those presented by the gigabit speeds that would be enabled by a national fibre network.

In developing nations, access to the Internet can equal economic opportunity, particularly for any activity that relies on wireless payments, internet access or online education

3 Connectivity and cross-industry collaboration

The national connectivity ecosystem comprises four distinct yet interdependent, elements: urban wireless connectivity; national fibre connectivity; rural connectivity; and enterprise/industry connectivity.

To deliver connectivity, governments can pursue numerous strategies, in whole or in part including:

- Full fibre to the home (FTTH) nationwide
- Fibre backhaul (or intermediate network links) and 5G-enabled fixed wireless access
- Shared rural networks
- 5G spectrum monetisation, or provision at cost

However, governments and industry players, face a complex landscape with regard to:

- The level to which connectivity roll-out requires subsidised initiatives to achieve the required pace
- The level and pace of private sector investment solutions for each ecosystem element

- The extent to which spectrum is available, and the impact of the regulatory environment on commercial strategies
- Agreements between Mobile Network Operators (MNOs) to address rural connectivity
- Passive tower sharing and/or active sharing
- Private 5G/Long-Term Evolution (LTE) networks increasing prioritisation to deliver industry and enterprise growth
- An increasing prioritisation of new, agile Tier 2 industry players to increase competition in the 5G infrastructure and services landscape

Fundamentally, there is a growing acceptance that roll-out plans and market connectivity commitments will not be possible without the industry looking at investment in an alternative way—and considering the use of a new class of smart capital investment vehicles.

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SMART CAPITAL

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The challenge of capital constraints

As a result of the unprecedented pace of change and state of the wider economic landscape, within industry there is a clear need for a new wave of capital to ensure:

- Operators can invest to differentiate business models and capitalise on new technology use-cases made possible by 5G speeds and low latency
- Widespread fibre-roll out can be delivered at speed
- Businesses can invest in 5G and in building private networks to deliver further advances in manufacturing, healthcare, education, and agriculture
- Pressure on Original Equipment Manufacturers (OEMs) can be relieved after a decade-long wave of low return on 5G research and development, facilitating further product advancements at pace
- Governments can deliver on commitments to connect the under and un-connected, while supporting industry growth

However, we believe there are several factors that can constrain the private investment required:

- Operators need to balance the imperative to invest in the future with delivering returns to shareholders in market conditions where growth is difficult
- While operators have had plentiful access to capital in the past, the market now has higher expectations on the required returns on the capital employed by operators
- Enterprise and industry increasingly look to their service providers to bring the capital, take some risk and innovate
- Low capital returns expected from the delivery of connectivity to the under- and un-connected groups of users

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Effective application of smart capital could be the solution

In our view, the answer lies in making investment a higher priority for all industry players and addressing capital allocation more strategically – and much sooner in the budgeting process. Specifically, we believe there is a clear need for 'smart capital' solutions, providing flexible finance to deploy as and when required throughout the annual investment cycle.

In response, we've built a specialist TMT team to deliver smarter capital solutions for the industry. The unique combination of our strong balance sheet, residual value appetite and asset life cycle management experience, has enabled us to develop innovative financial solutions addressing the core challenges the industry is facing in this capital constrained environment.

These smart capital products include:

- Utilising our asset lifecycle expertise to extract maximum value for legacy telco network infrastructure supporting the business case for upgrades and swaps
- Connectivity as a service allowing for consumption of Radio Access Network (RAN) Core, or Fibre technology as a monthly charge off balance sheet
- Tailored industry term funding meeting individual operators' requirements across the entire B2B and B2C value chain

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By employing these smart capital products, OEMs, operator customer finance and procurement teams can adopt a new approach to financial products, which could smooth the flow of available capital — thus allowing firms to make more timely investments that improve the outlooks for revenues and costs.



6 Final thoughts

In this defining moment for the sector, the telecoms industry is challenged to think differently about the way in which capital is used to help solve the technology and connectivity challenges of the future.

According to Proximus², the largest telecoms company in Belgium, we are in "a defining moment for the telecommunications industry, which more than ever demonstrates its central role for consumers, companies, governments and the entire society".

Consider what an influx of capital into connectivity investments could achieve. It could enable faster deployment, reduce operational expenditure, drive increased efficiencies, promote competition, and even aid the delivery of shareholder commitments in a less cash constrained operating landscape.

Partnering with specialised investors to apply smarter, more flexible capital solutions could help support industry players to effectively drive progress – and ultimately unlock connectivity.

