

Bring on the infra revolution

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It seems fitting that the first editorial of a new decade should focus on how the market is evolving to meet future demands as greenfield infrastructure morphs into a creature significantly different to the beast we know.

This year – 2020 – will go down in history as the tipping point for an entire industry as participants respond to changes in the market, a shift that will see new skills and a new breed of infra specialists brought on to teams.

While the employment landscape will alter, let's not be alarmist – the underlying market will carry along happily, even if at the currently fairly restrained pace for greenfield developments... excepting offshore wind which is going gangbusters.

Funds will continue raising capital to their hearts' content and is stood up by our funds report for 2019 that is due out soon and will show a dip on the previous year's record \$104 billion raised by unlisted infra funds.

The M&A market shows no sign of slowing down. In fact, it neatly matched the appetite of investors for assets in the sector (or in many cases the first or second cousin thereof). Investment banking is without doubt one of the sexiest places to be working right now... especially if you don't value sleep.

We'll all be kept busy following the deckchairs as they are rearranged with as more pleasing bottoms sit on them... but there's a shift afoot – one that we all need to be ready for.

Where are we heading?

The brave new world that we are entering will see technology specialists shoot up the hiring agenda as the smart money readies itself for the emergence of 5G in North America and across Europe.

The ghastly term "Smart Cities" has been doing the rounds for the best part of 15 years and finally it is becoming reality, as is Intelligent Infrastructure the Internet of Things (apologies for over-use of the upper case).

These two terms are used far too airily for their own good and, in truth, most people could not define it if their jobs relied on it... which soon will be the case.

So you'd better start skilling up because the fundamental enabler for all these developments – 5G – goes live this year and the pace of change is going to be impressive.

Intelligent infrastructure

For the benefit of this piece, I had a long chat with Matthew Garver who – through his company Management & Excellence Global Inc. – has a long-standing relationship with *IJGlobal*.

We work in partnership with Matt and his right hand Dr William Cox on their Value for Risk analysis of infra markets, and Bill frequently presents on this subject at *IJ* conferences. For a couple of examples of their work, see these stories: [Brazil political risk for infra investors](#) and [Mitigating risk shock in European wind](#).

Matt has enjoyed a fascinating career in the infrastructure community and is president and managing partner of Liberty Street Capital. You have to go a long way to find someone with as deep an understanding of Intelligent Infrastructure.

In this discussion, we distilled the relevance of technology advancements, the evolution of data transfer and the Internet of Things to a sector that can most easily be envisaged by old-school infrastructure specialists – Smart Transportation Corridors (let's call it STC).

In recent years we have become inured to developments on the electric vehicle front as Elon Musk rolls out yet another wondrous

technological advancement (not including the flame thrower) and anyone who does not foresee future ownership/lease of cars that run on something other than petrol/diesel should really ease themselves from under the rock they've been living.

This entire revolution is based on the roll-out of 5G and the ability to transfer large amounts of encrypted data.

In the media, an awful lot is being made of autonomous vehicles and connected cars. While many would be excused in thinking this is a step beyond where we need to be, it's all part of the same story.

This is why (for this piece) we are focusing on STC (which is but one step remove from data centres driving cloud analytics for devices, with which we are now all entirely comfortable with and reliant on) that will run across the Internet of Things

"The big breakthrough is 5G because, all of a sudden, every device in the world connects," says Matt Garner. "And that is a bad thing and a spectacular thing at the same time." It, of course, comes with certain security issues and the reliance on Huawei causes a great deal of concern in many circles.

The basis of STC lies with a fundamental infrastructure upgrade that is only too familiar to those in the PPP community – streetlighting. The upgrade of lighting units to LED alternatives which brings in immediate cost savings of 70-80% and could form the backbone of STC systems.

Arizona is a perfect example of a state in the US where a streetlighting [PPP is in procurement](#) that would allow for the piggy-back of an STC system with sufficient bandwidth capability for a Smart Corridor and the beginning of all things Smart.

"If we are to believe everything, then the Internet of Things is device connectivity," says Matt. "Right now, you can only do it if you have a weak WiFi connection. With 5G, it will be 100x of broadband capability. All of a sudden, every device that could be connected is becoming connected.

"Everybody in the automotive industry is chasing the Connected Car. That will only be possible if you have a Smart Corridor and that will mean that every LED light is a 5G connected data analytics engine that is driving inter-connectivity for all vehicles.

"It is no longer contractors building roads, it is systems integrators fighting it out against the likes of GM and Uber – and that is where I believe all the energy in the transport system is going."

Driverless cars are only possible with an encrypted data transfer system that is capable of handling massive amounts of traffic built across an integrated system – which can only be delivered and financed by the private sector.

And there we have the direction for a massive slice of future business.

If you don't have an eye on it, you're already behind the curve. If you're not tailoring your career to deliver it... well – you don't see many blacksmiths these days. Sure, there are some but they ain't in much demand.

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