

Not at Mobile World Congress this year? Here's what you missed!

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Deloitte had a large team in Barcelona from 27 February to 2 March. As every year, there was a combination of hype and genuinely important and interesting news.

The biggest overall highlight was that there was no overall highlight! The two major smartphone players; Apple and Samsung were conspicuously quiet, with the much-anticipated product launches for their new flagship phones coming later in 2017. There were [launches from other manufacturers](#) of course, but the best example of the scarcity of important news was [all the media attention around the "new" Nokia 3310](#). It was a fun story, but the device is not likely going to sell the tens of millions of units it takes to have an impact on the global smartphone market, which will be around 1.5 billion phones this year.

If we look at MWC through the filter of our 2016 and [2017 TMT Predictions](#) topics, what stood out?

1. **5G**

Although fifth generation wireless networks won't start launching at scale until late 2018, there were [many announcements of trials, base stations, routers, automotive applications and testing protocols](#). All the usual suspects were talking about 5G, both network operators and equipment makers, and the globe was covered, with trials occurring in the US, Japan, the UK, and Australia.

2. **4.5G, aka LTE-Advanced and LTE-A Pro**

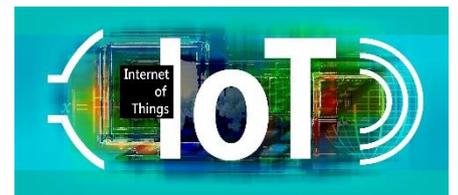
Although it will be a while before 5G launches, [Deloitte predicted that we will see advanced LTE solutions](#) (using many of the foundational technologies that will be part of the 5G standard) rolling out in 2017. It's a good thing that operators are launching the networks, but how will consumers take advantage? There were multiple announcements that will bring these speeds to a handset near you, over time. The [big modem companies announced chips](#) that will support gigabit wireless speeds on a smartphone. And [one of the manufacturers showed off](#) a "concept phone" (real, but not for sale) that used all the building blocks of 5G: carrier aggregation, 256-QAM modulation and 4x4 MIMO. Sorry for the geek speak, but sometimes that's how we roll!

3. **Internet of Things**

The 5G demos weren't all about getting gigabit speeds to handsets. That's important too, of course...but one of the benefits of next generation wireless tech is dramatically reduced latency: [think about factory robots being controlled wirelessly](#) with sub-millisecond response times! At one time, the Mobile in MWC stood for mobile phones, but there are all kinds of mobile devices, with [autonomous cars \(and race cars and trucks!\)](#) being some of the real stars of the 2017 show. Connected autonomous cars are just another kind of robot, of course, and look like they may end up using a lot of mobile data to do their job properly: one estimate is that an autonomous car might need to use a terabyte (1,000 gigabytes) of wireless data per month.

4. **Machine learning goes mobile**

Our 2017 prediction was that 300 million phones will be shipped that have the capacity (usually in the form of a semiconductor chip) for on-device machine learning. The machine learning training will still be done in the data center, but the implementation will be on-board. Our forecast looks to be on track, with [virtually every high end phone launching at MWC](#) featuring this technology.



5. Wearables

There were [smart watch launches](#) and booths, probably about as many as last year. But the novelty seems to be wearing off: see Paul Lee's picture of an empty smart watch display. These devices remain niche, and there are some good questions about how many people don't just own a device, but actually wear it regularly.

6. Virtual Reality

2016 was a big year for VR at MWC, with big product launches. But the disappointing sales of the top end headsets (not to mention price cuts – never a good sign!) was an overhang for this year: there were still many VR displays, but "...[there were no headset announcements](#), there was no push for particularly new ideas... if you wandered around the show you'd see a large amount of VR demonstrations using older HTC Vive and Samsung Gear VR hardware to show off new experiences." Deloitte folks at the show said the same: small crowds for VR and less excitement than last year. The Predictions team continues to believe that VR headsets are unlikely to be worn (outside of gaming) by consumers in their homes for hours at a time. But for trade shows like MWC, they are an excellent technology for letting attendees experience a virtual product in an immersive way – many booths used VR headsets.



7. Vinyl

This is a bit of a stretch, since it was announced before MWC. But [there is now a device that you can attach to smartphone](#) that allows you to play vinyl records. We have to be honest: this looks like a fun idea, but we think that most people who play vinyl will use traditional turntables.

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