

# Telefónica launches its ‘fourth platform’ in a bold move to be a digital player, but this strategy raises questions

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Telefónica announced the launch of what it is calling its ‘fourth platform’ at Mobile World Congress 2017. Aura, the data analytics engine at the core of the fourth platform, is a bold concept that shows one way for telcos to become digital service providers (DSPs). However, it is at risk of being replicated by competitors, and may not provide sufficient long-term differentiation.

## Telefónica’s fourth platform is a determined move towards positioning itself as a ‘smart telco’ instead of a ‘dumb pipe’

Telefónica categorises its service architecture in terms of three ‘platforms’:

- **physical assets** (like network infrastructure) at the base
- **IT and systems** (such as BSS/OSS)
- the operator’s own **products and services**.

The fourth platform was introduced to orchestrate the underlying layers, and provide interactivity through multiple channels, including voice. Telefónica expects Aura to help its customers to control the services that they subscribe to, the devices they use, and the personal data that they share with the operator and other third parties.

*Figure 1: Telefónica’s Chairman and CEO, José María Álvarez-Pallete announces the operator’s fourth platform at Mobile World Congress 2017 [Source: Telefónica]*



The fourth platform is the latest development in the transformation that Telefónica began in 2012. Since then, the operator claims to have spent over EUR48 billion rolling out new infrastructure and digitalising the underlying three platforms.<sup>1</sup> Aura is the name of the machine learning (ML), or 'cognitive intelligence' functions at the centre of the fourth platform. Its applications will include helping customers to understand their services (for example, whether they can watch a specific sports event with their current bundle), anticipate their needs (for example, tariff optimisation depending on their data consumption), and prevent problems (such as overages) before they appear. Ultimately, Telefónica aims to steer away from being a mere connectivity provider towards capturing more of the value that can be accrued from digital services and from becoming the custodian of users' data.

## Microsoft's technology helps Telefónica to iterate quickly, but poses long-term strategic questions

Aura is a bold bet illustrating how operators' services may evolve in the future. Telefónica developed the business logic, contextualisation, planning and learning frameworks upon which the system relies, while leaving the language recognition capabilities to a third party (Microsoft's conversational agent cloud-based API).

One of Aura's first applications will be to respond to common customer queries. According to Telefónica, over 45% of customer support calls are questions about service plans, bill clarification requests, and TV programming questions (for example, on which channel is a specific show airing). To succeed, Aura will have to be more convenient, accurate and comfortable to interact with than currently available options (such as speaking to a human agent at a call centre). This is not a trivial endeavour, but Telefónica made sensible architectural choices that will help it to identify the use cases that provide the greatest value to customers, and the highest cost savings to itself, while iterating to improve on them.

Telefónica plans to deploy Aura in key markets including Argentina, Brazil, Chile, Germany, Spain and the UK in the next 12 months. During that process, Telefónica could face challenges around localisation, speech recognition accuracy and latency over which it has limited control. The demonstrations at MWC were all in English, yet nearly 93% of Telefónica's subscribers as of 4Q 2016 live in non-English speaking countries and speech recognition accuracy for Spanish, Portuguese or German may require improvements. Latency could also be an issue for customers in Latin America because Microsoft has only one Azure datacentre in the region (Brazil South).

## Telefónica's move into machine learning reflects the tension within telcos on how to position themselves against tech players

The telco business has developed services built on top of commodity technology developed by third-party vendors. However, operators have realised that the lack of differentiating technology of their own makes them vulnerable to disruption from tech giants and OTT players. Therefore, a key strategic consideration for operators is how to navigate the tension between being just a data pipe, and developing a strong technology position.

Telefónica has stated in the past that it is not a technology company and does not aim to compete directly against technology players because it is aware of the costs involved in developing state-of-the-art technology. In developing Aura, the operator took advantage of Microsoft's commodity speech solutions while developing its own ML-based platforms, which it regards as a key differentiator. This could signal a shift towards Telefónica

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<sup>1</sup> See Telefónica's press release announcing Aura, available at: [www.telefonica.com/en/web/press-office/-/telefonica-presents-aura-a-pioneering-way-in-the-industry-to-interact-with-customers-based-on-cognitive-intelligence](http://www.telefonica.com/en/web/press-office/-/telefonica-presents-aura-a-pioneering-way-in-the-industry-to-interact-with-customers-based-on-cognitive-intelligence).

developing more of this kind of technology in-house, and the operator could even reach a point at which its home-grown analytics solutions are sufficiently mature to be offered to third parties.<sup>2</sup>

Technology giants are investing heavily to develop analytics technology.<sup>3</sup> Amazon, Google and Microsoft all provide ML and NLP APIs to third parties as a complement to their B2B cloud platforms. The barriers to entry are becoming greater, and solutions packaged for specific vertical markets are starting to appear.<sup>4</sup> It may not be long before Internet companies start offering solutions that encroach on telcos' capabilities. As competition in this space intensifies, the extent of Telefónica's ability to differentiate itself with ML capabilities is likely to face important challenges.

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<sup>2</sup> For example, Vodafone's Managed IoT Connectivity Platform and Verizon's Exponent are provided as white-label solutions to operators in non-competing markets. For a discussion of Verizon's Exponent announcement at MWC 2017, see Analysys Mason's article [MWC 2017: IoT has no compelling need for 5G, so the focus was on competition between LTE variants](#).

<sup>3</sup> The amount of effort required to develop such solutions is substantial. Chinese Internet giant Baidu is developing speech recognition technologies. Baidu's Deep Speech system is reported to require training sets in the order of 100 000 hours of data to learn from. See <http://research.baidu.com/deep-speech-lessons-from-deep-learning/>.

<sup>4</sup> For example, Google is developing a jobs search and discovery API for the recruitment industry, currently in closed alpha. See <https://cloud.google.com/jobs-api/>.