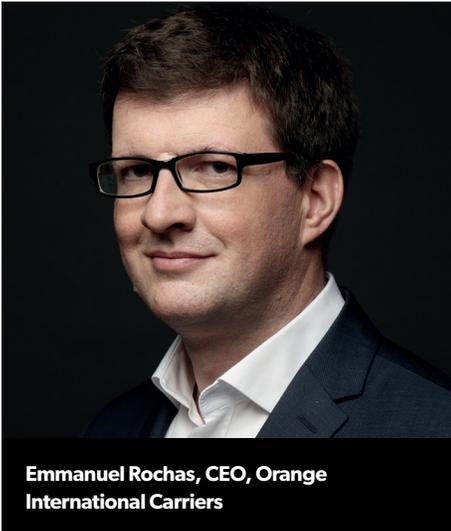


# WILL CARRIERS BE THE LEADERS OF INDUSTRY 4.0?



Emmanuel Rochas, CEO, Orange International Carriers

This revolution is about velocity, it's about powerful scope and systems impact, and it's about forceful disruption. The 4.0 industrial revolution is upon us. And, it is set to bring exponential change to all disciplines, industries and economies. It's going to transform the rules and behaviours of society, of communications of economics, and these changes will be ground-breaking. It's going to trigger a renaissance of innovation that will transform our world.

So how will this revolution affect carriers? What will our role be? Where are our priorities in a challenging disruptive environment? How should we be innovating in an ultra-smart world?

## THE HIGH RISE IS COMING

We are seeing greatly increased needs for capacity today, but we've only just begun to see the impact that this will have! Companies that embrace industry 4.0 will be quick to see how it can transform an organisation's agility, efficiency and competitiveness. As a result, there will be a rising clamour for advanced connectivity to enable them to deliver reliable connectivity, security, and seamless performance for end-to-end applications. So carriers need to invest strongly in next-gen networks capable of transmitting vast quantities of data. Smart networks that cater for fast-evolving, high-speed needs.

## BUILDING CONNECTIVITY BLOCKS OF THE FUTURE

Tackling high speed connectivity and low latency means that network access time will be cut dramatically. SDN/NFV technology is transforming traditional hardware-based networks into programmable, automated and self-adaptive software-based network. Orange is actively working on this to gain in flexibility and in simplification and thus to facilitate network evolution. Recently, Orange teamed up with Nokia and announced the successful full migration of the Orange long-distance network to a photonic control plane (a distributed software intelligence to optimally manage network resources). In doing so, Orange is reinforcing its network performance in the long term to offer more flexible on-demand transmission solutions. Therefore, Orange has introduced Ethernet Now, a 'self-service' online order management to deliver on-demand and real-time Ethernet connectivity. Orange Ethernet Now benefits customers with vastly reduced delivery times.

Additionally, we have totally reassessed our approach to the construction of cables today. We're now working alongside the GAFAs to ensure the expansion and development of our cable infrastructure. We've also accelerated the rhythm of cable deployment particularly on the transatlantic route as well as the Europe-Middle-East-Asia route.

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## CONNECTIVITY GATEWAY

Through our strategy of PoP launches and upgrades, we at Orange are widening our geographical presence in order to improve connectivity for international and local traffic. As a Tier-1 operator, we continue to support the huge rise in IP traffic. We offer cost-effective network access that brings content

providers closer to internet users. We have increased our PoP numbers by 30% during the past year. Our recent PoP launches include Lagos, Cape Town, Johannesburg, Abidjan and Amman with many more to come.

## SEEKING THE NEXT GAME IN TOWN

With every new tech advance customers reset their expectation levels with a customer-centric priority. As it accelerates, Industry 4.0 will create new imperatives for carriers to reinvent their innovation approach to keep ahead of the game. Orange has fully grasped this imperative. We are innovating for a 360° customer experience. To get this up and running we are taking a global, positive approach. It's about creating a digital journey that will bring a more streamlined and efficient way of working for carriers with a faster time to market and fully tailored solutions for customers. It's about creating value for the customer and, indeed value across the industry.

## CRACKING THE 4.0 PERILS

But there are possible perils ahead. We're seeing an unprecedented acceleration of network growth and connectivity. With 5G and IoT around the corner the priority will be combatting the cyber security threat. At Orange we are already on the job. SDN and AI are, for example, set to metamorphose the way we work with customers. They will enable powerful analytical solutions to combat cyber criminality. Security in the 4.0 industry era is a must-have. Blockchain will also serve for new service development in the mobile money, digital asset transactions and smart city vertical applications.

## SHAPING THE FUTURE, UNITED WE ARE!

Industry 4.0 is happening now, it's not just a future vision. Carriers need to shift into top gear to innovate smartly and accept their responsibility in order to make it work. It needs to be a collective effort, it needs global cooperation and it needs to be human-oriented. We must be smart, and we must be visionary. If we succeed in doing that, then carriers will be the enablers of the industrial revolution 4.0. 