

Making 5G a commercial reality

NOKIA

December, 2016

Humanity's long standing dream...

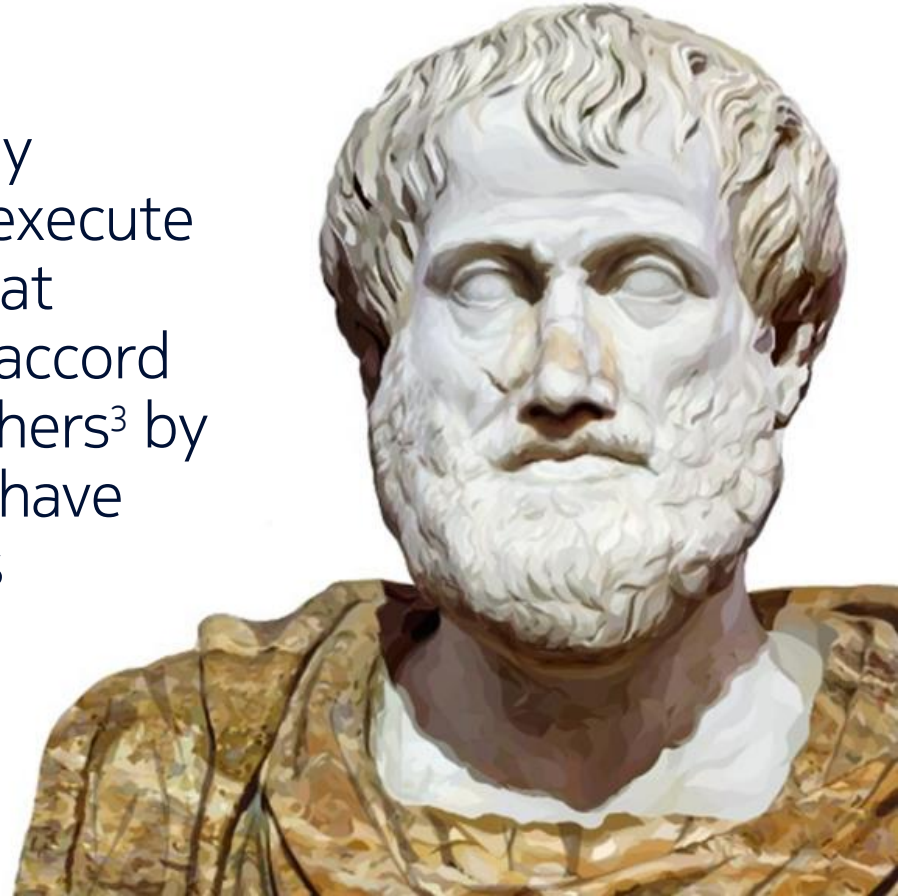
“Suppose every instrument could by command or anticipation of need, execute its function on its own; suppose that spindles¹ could weave of their own accord and plectra² strike the strings of zithers³ by themselves; then craftsmen would have no need of hand-work and masters have no need of slaves.”

Aristotle (384 - 322 BC)

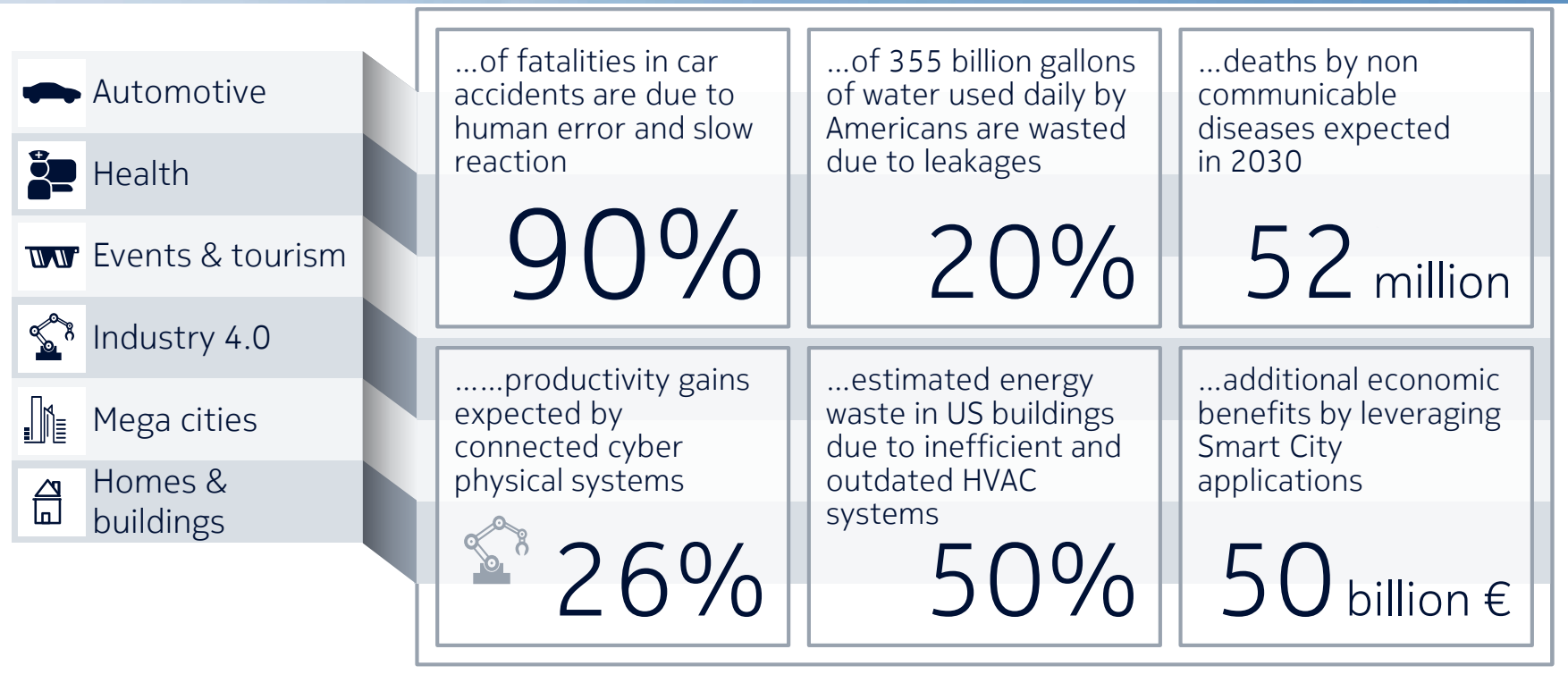
¹ a rod used in hand spinning to twist and wind thread from a mass of wool.

² thin flat pieces of material to pluck the strings of a musical instrument.

³ a musical instrument consisting of a flat wooden sound box with numerous strings stretched across it, placed horizontally and played with the fingers and a plectrum.



New business models, a myriad of use cases and huge potential

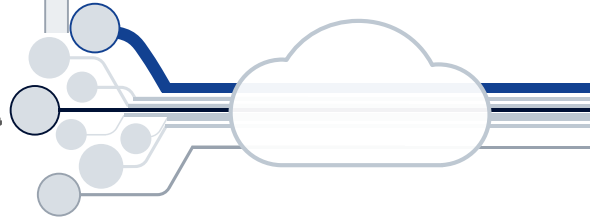


Moving from 4G to 5G

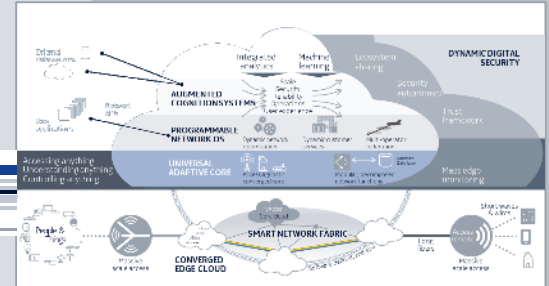
5G



Multiple connections simultaneously



Individual network 'slices' for different needs



Fully cloudified networks and applications

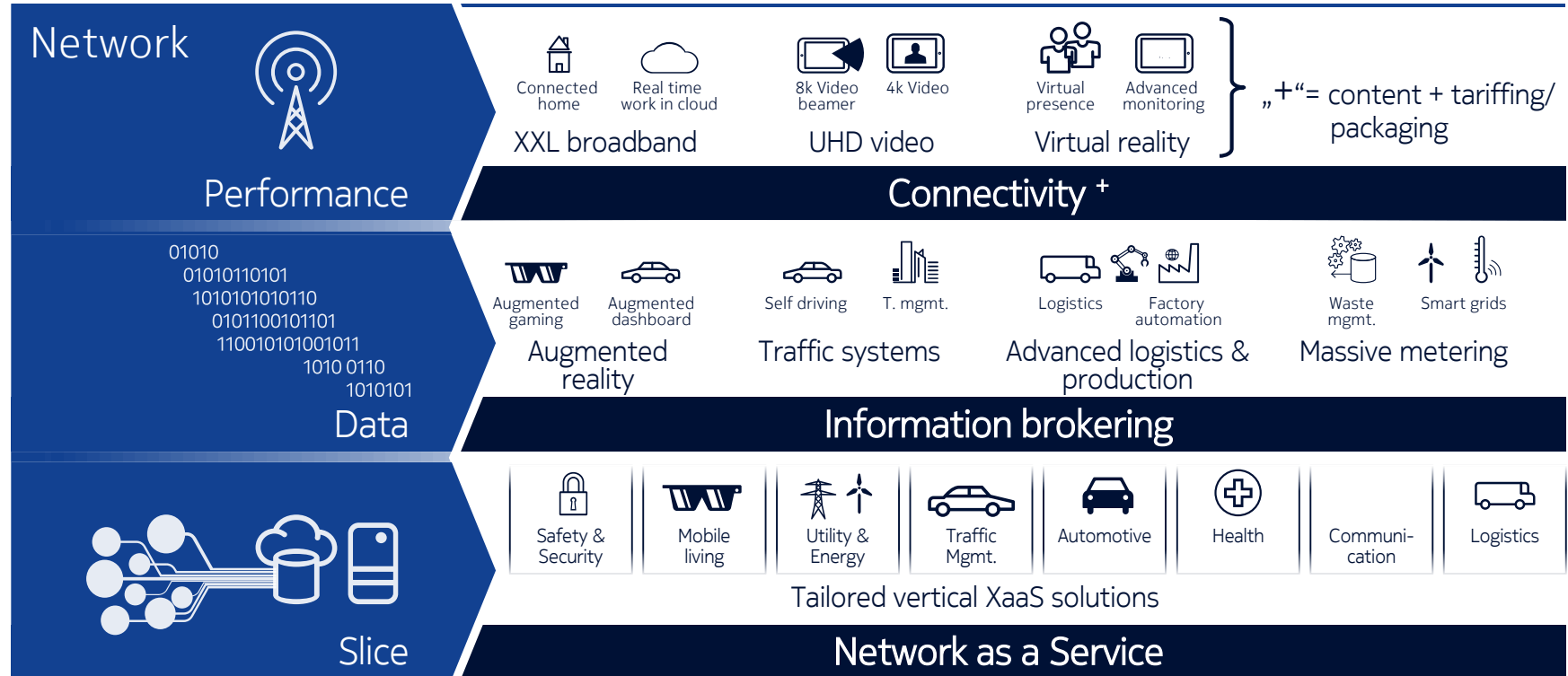
4G

One radio connection at a time

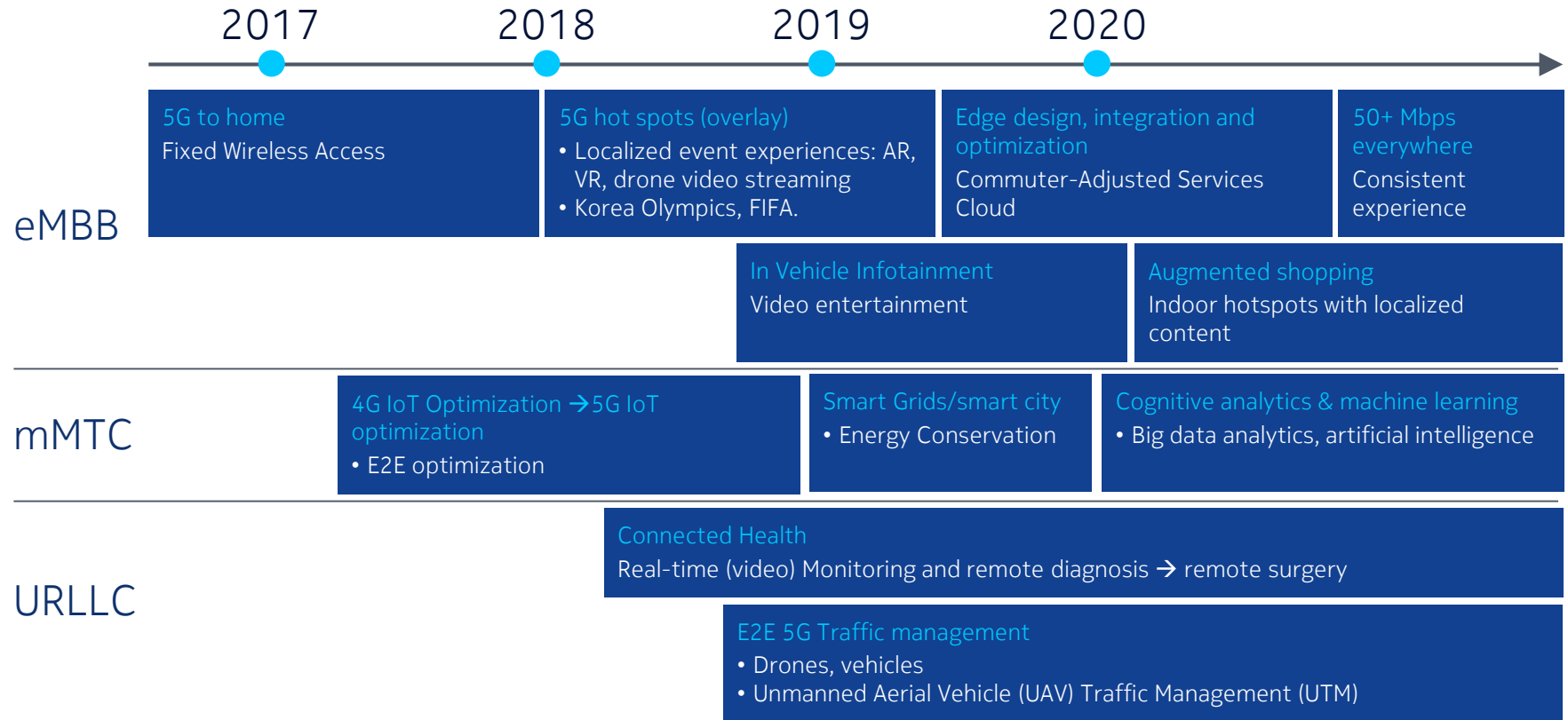
Single network for broadband video and machine type traffic

First steps into the cloud

Business models powered by network performance, data and slicing



Example use case timelines



Nokia demonstrated the world's first 5G-ready network



Mobile World Congress, February 2016

5G VR/360° demonstration on
AirScale Radio
>200TB of data transferred



5G World Summit, June 2016

5G AirScale Radio connected to cloud
packet core - MME, SAE gateway and HSS
all running on AirFrame



The image features the Nokia logo in a large, white, sans-serif font, centered horizontally across the upper half of the frame. The background is a blue sky with light, wispy clouds. Below the sky, a cityscape of modern skyscrapers is visible, rendered in a dark blue, semi-transparent style. A network of white lines connects various points across the cityscape, suggesting a global or interconnected network. The overall aesthetic is clean, modern, and technological.

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www.networks.nokia.com/innovation/5G