

Innovation – our competitive advantage

Hossein Moiin

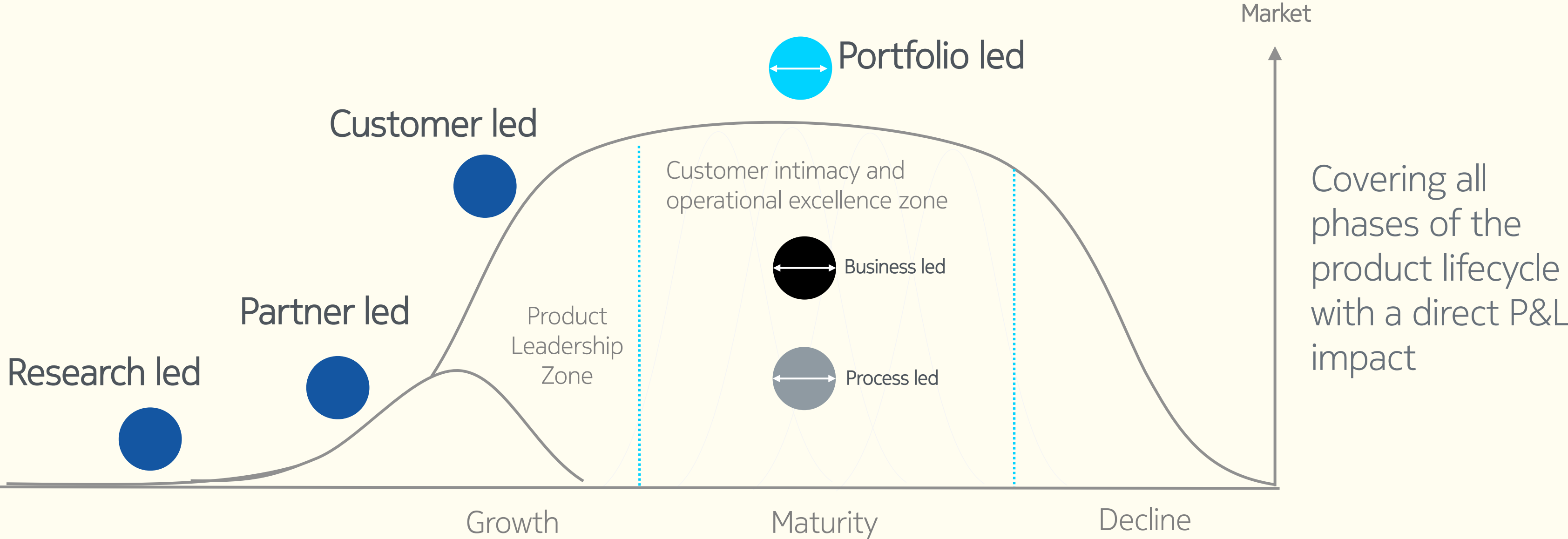
Executive Vice President, Chief Technology Officer
Nokia Networks



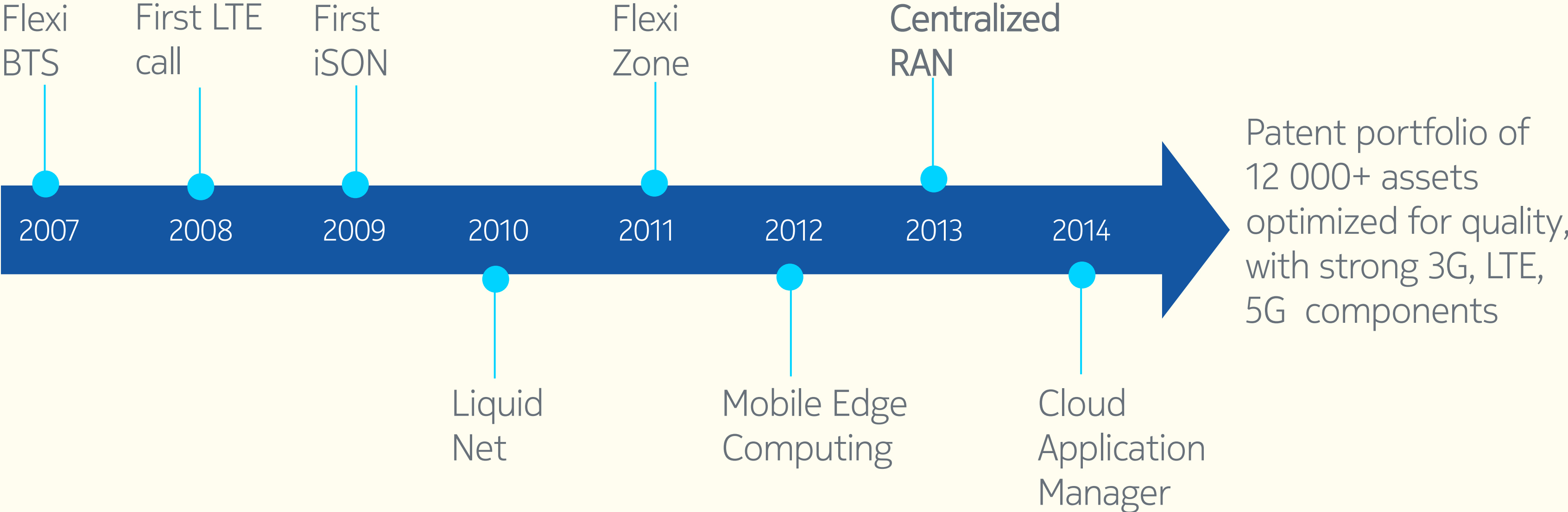
Agenda

1. Our approach to innovation
2. Drivers and investment focus
3. Innovation pipeline

A Nokia Networks-wide approach to innovation



Proven ability to continuously innovate in networks



A future of 'Open innovations'

Outside in innovation
with partners

Israel Open Innovation
Challenge 2013

Silicon Valley Open
Innovation Challenge 2014



POP – Platforms,
Orchestration,
Partnerships

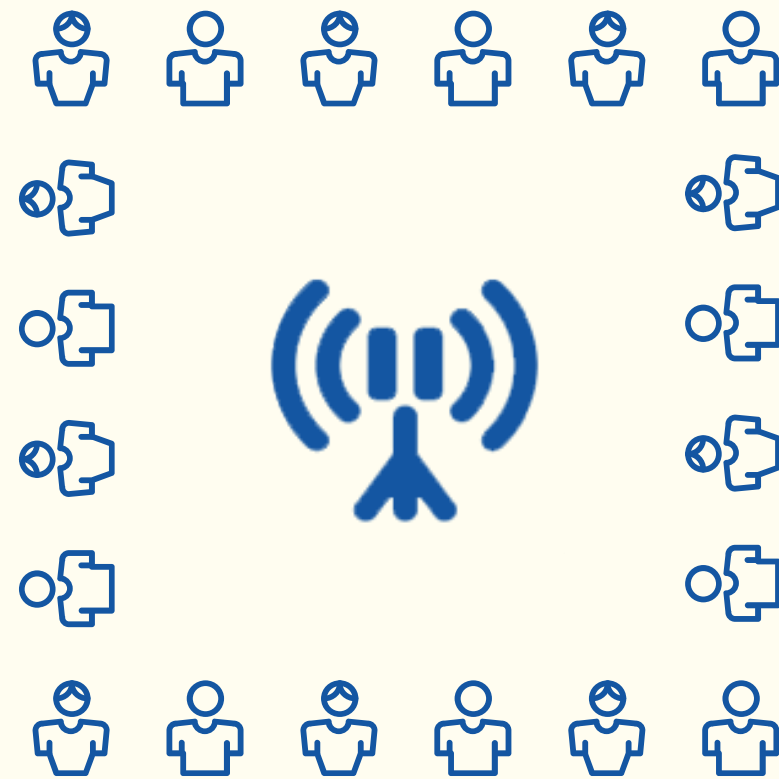
Customer
led innovation



Agenda

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Generation “ME”: Transformation in network design



Today

Build network first, users around it; users adapt to the network

Networks built to deliver specific ‘services’ (Voice/Messaging/Data)

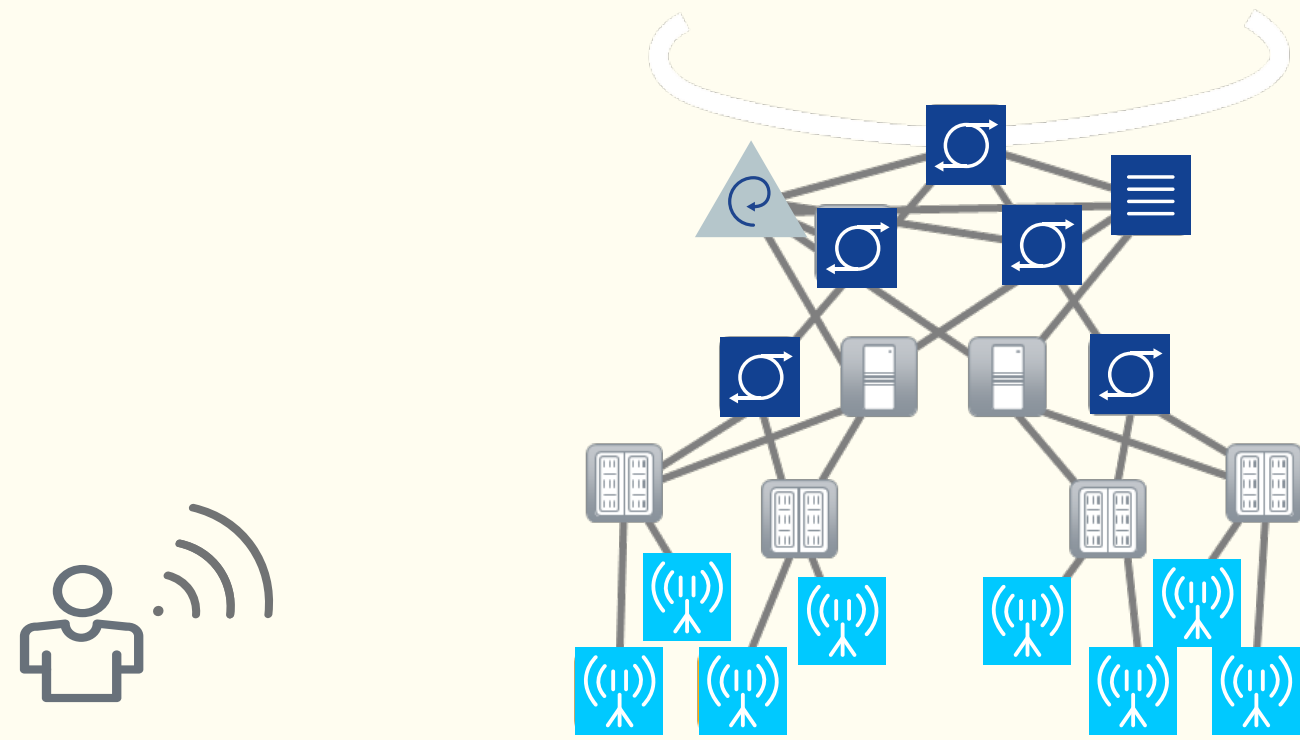


Tomorrow

Users first, build networks around them; network is absorbed in life

Flexible/Liquid Networks built to deliver multiple ‘apps’

Generation “NOW” : Transformation in network deployment



Today

- Standardization driven
- Large integrated equipment providers
- Vertical architecture
- Value in Services and Devices



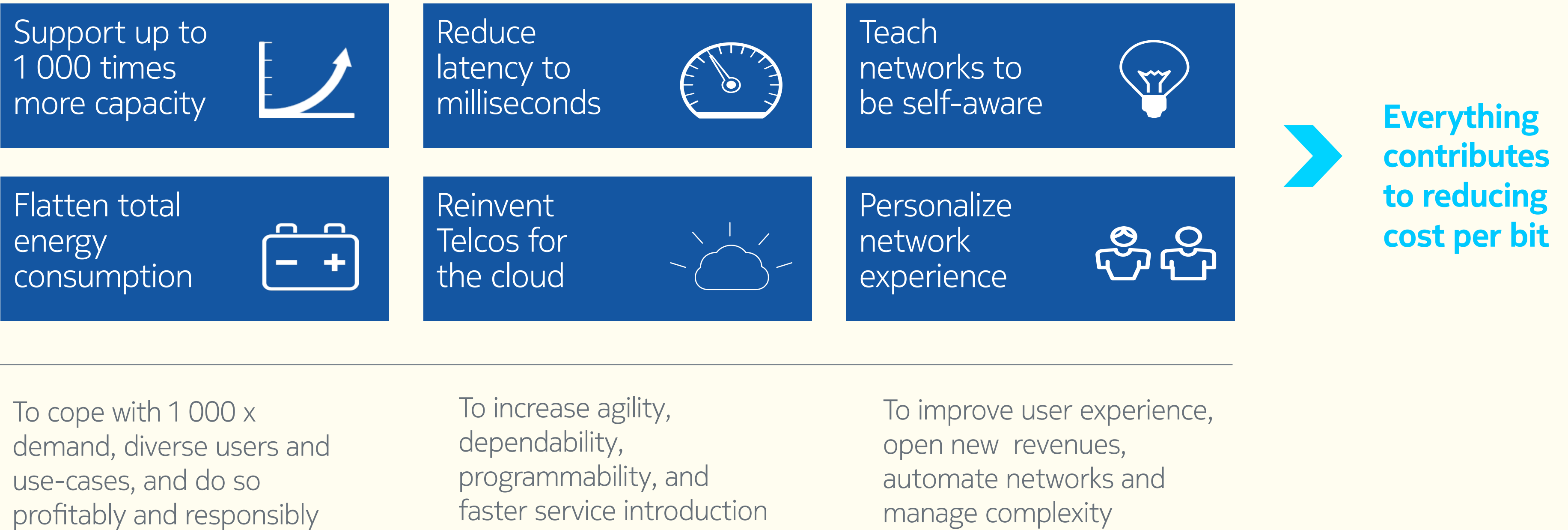
Tomorrow

- Open Source and industry compliance
- Greater collaboration with IT players
- Cloud Optimized architecture
- Value in Network and Application Personalization

Nokia Networks' Technology Vision 2020 drives this future transformation

Mobile Networks to deliver
GBs of personalized data
per user per day profitably

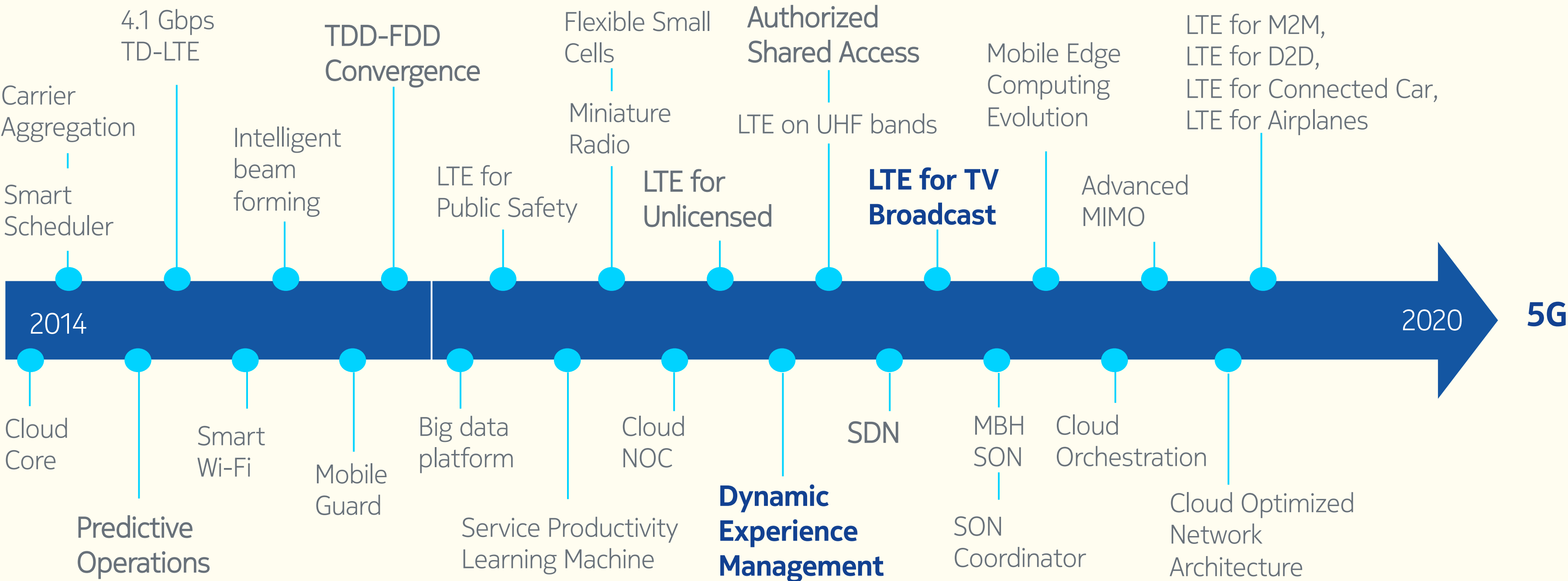
Technology Vision 2020 defines six focused investment domains



Agenda

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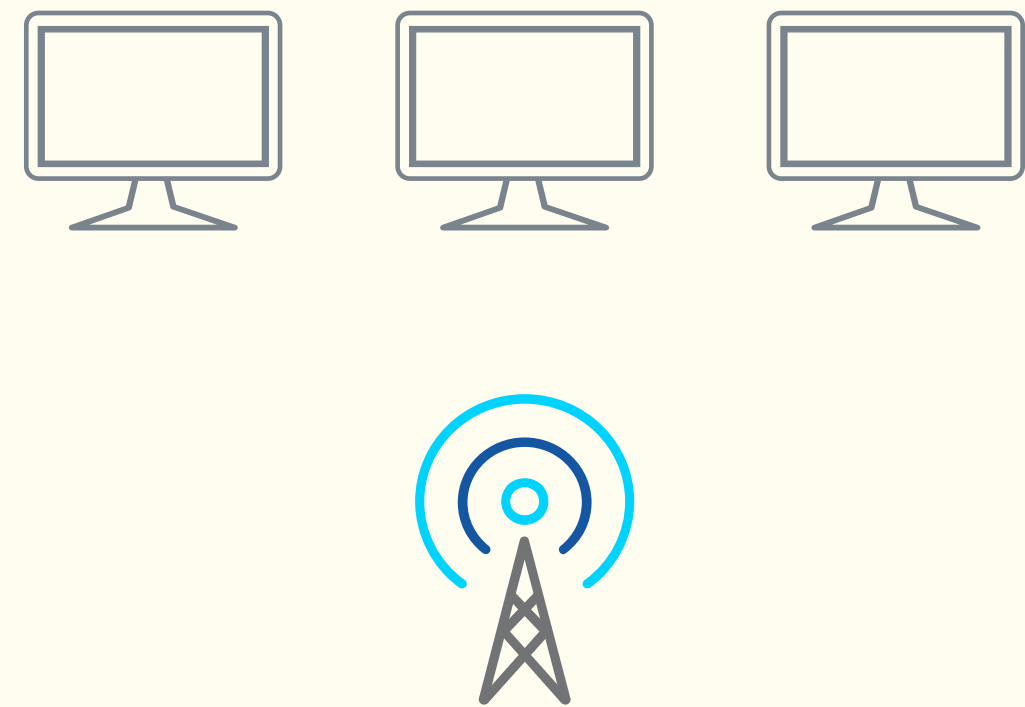
Our Innovation Pipeline*: Strong, optimized and well balanced



* Innovation pipeline represents concepts, innovations and technologies that demonstrate possibilities (not commitments) for our future portfolio and roadmaps, not indicative of either timeline or order

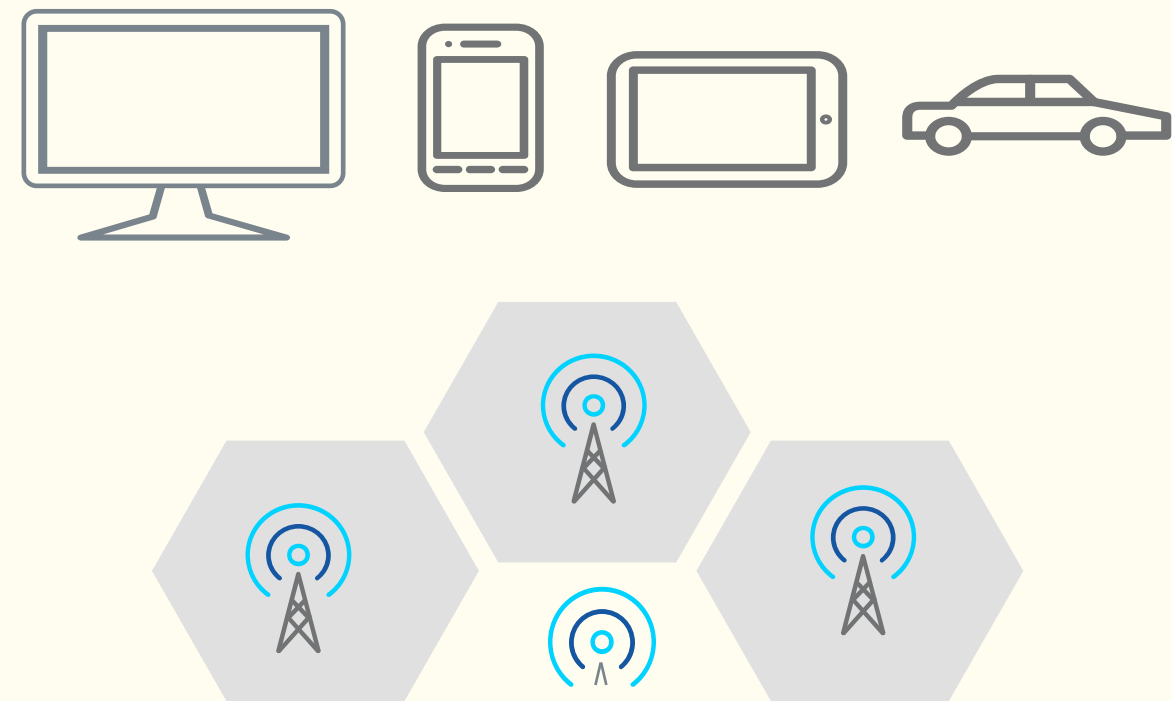
Mobile Broadband Dividend
Expanding LTE to new frontiers: Broadcasting

Digital terrestrial television (DTT)



Today

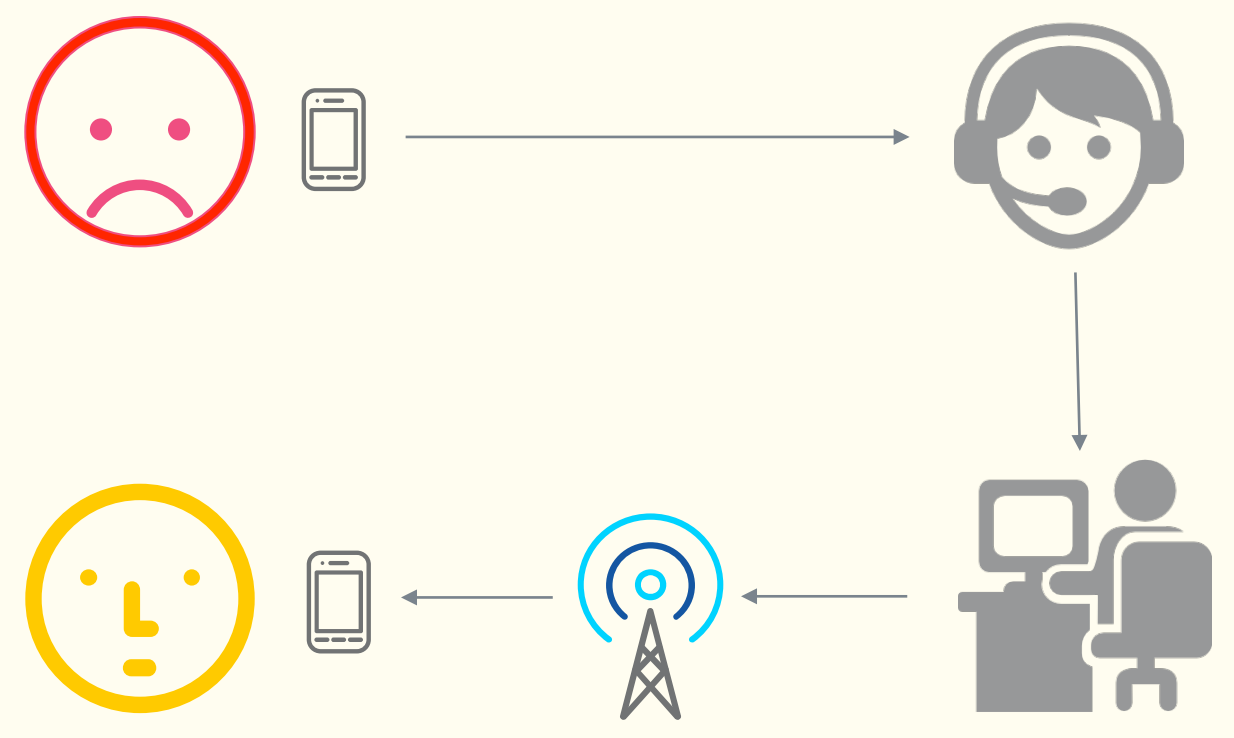
LTE for Broadcast



Tomorrow

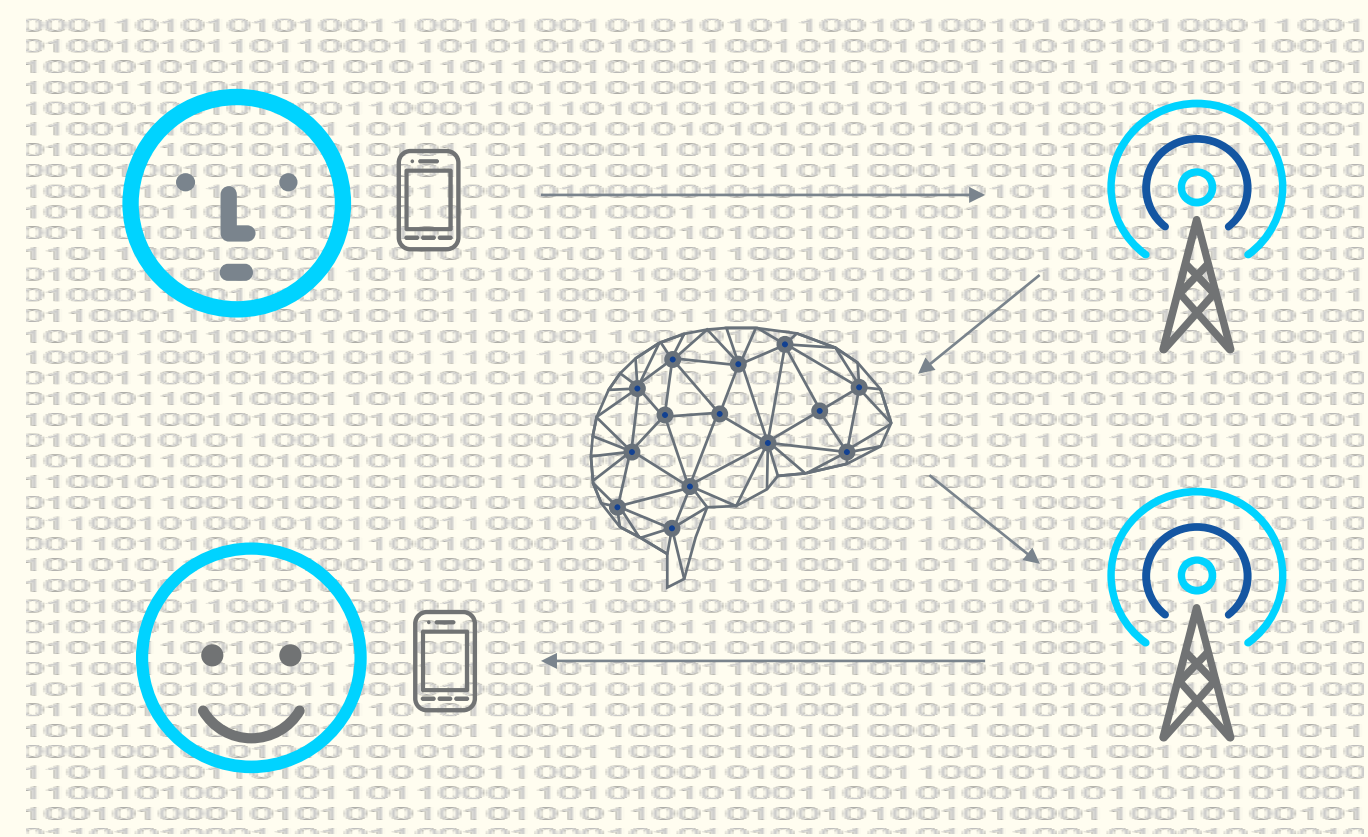
Improving user satisfaction: Dynamic Experience Management

Static Customer Anger Management



Today

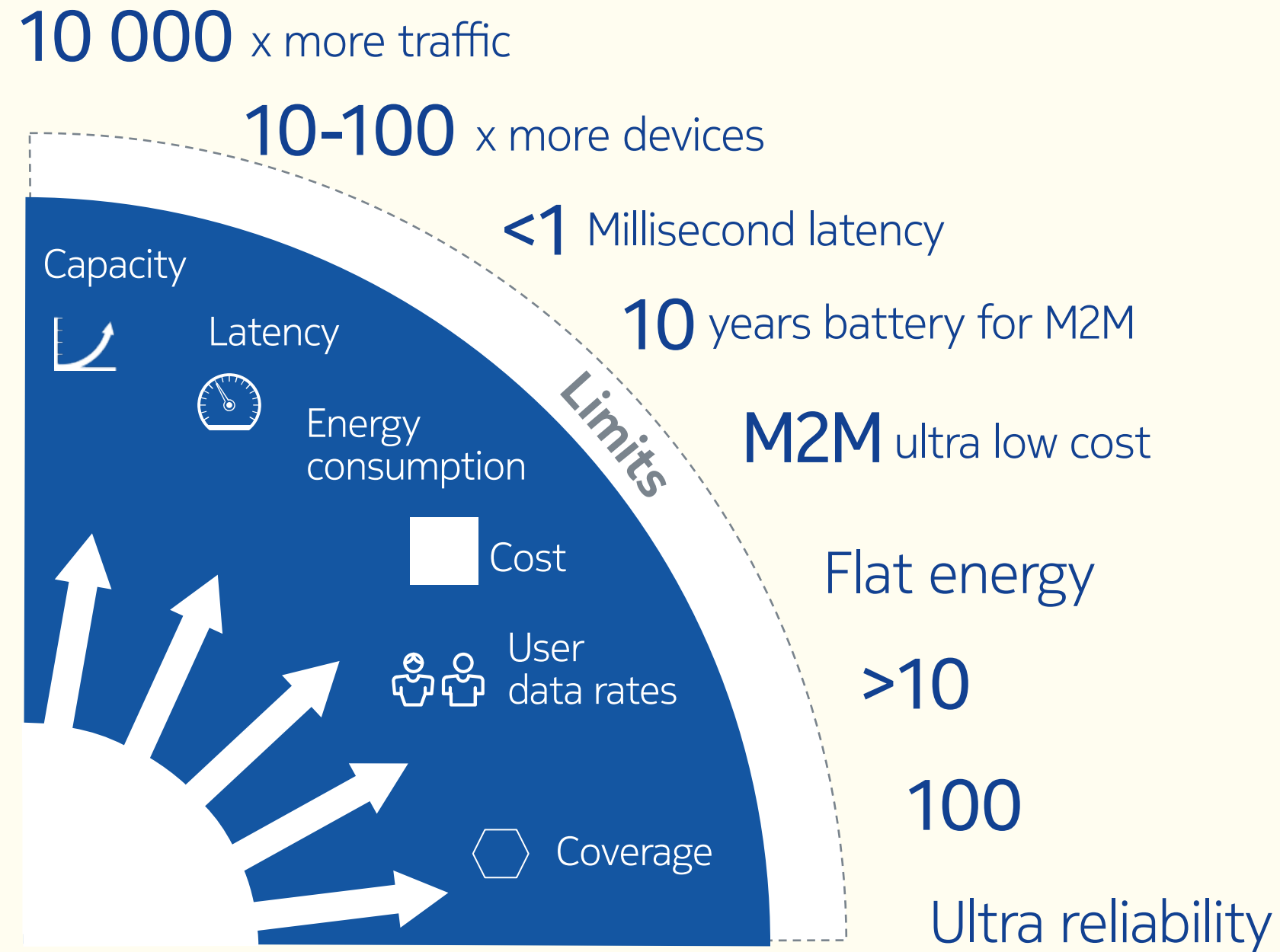
Dynamic Customer Experience Management



Tomorrow

Generation Next : Nokia aims to lead in the 5G era

Requirements



Targets

- Pre-commercial 5G deployment @ Olympics 2020
- Drive ecosystem to get significant new spectrum
- Maximize flexibility for the unknown cases
- Drive collaborative research & standardization
- Maximize mobile broadband dividend



Summary

- Create continuous new opportunities via a unique and credible **innovation approach**.
- **Focus investments** via a vision and domains aligned with an ever evolving ecosystem.
- Deliver value via a strong, balanced and optimized **innovation pipeline**.

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