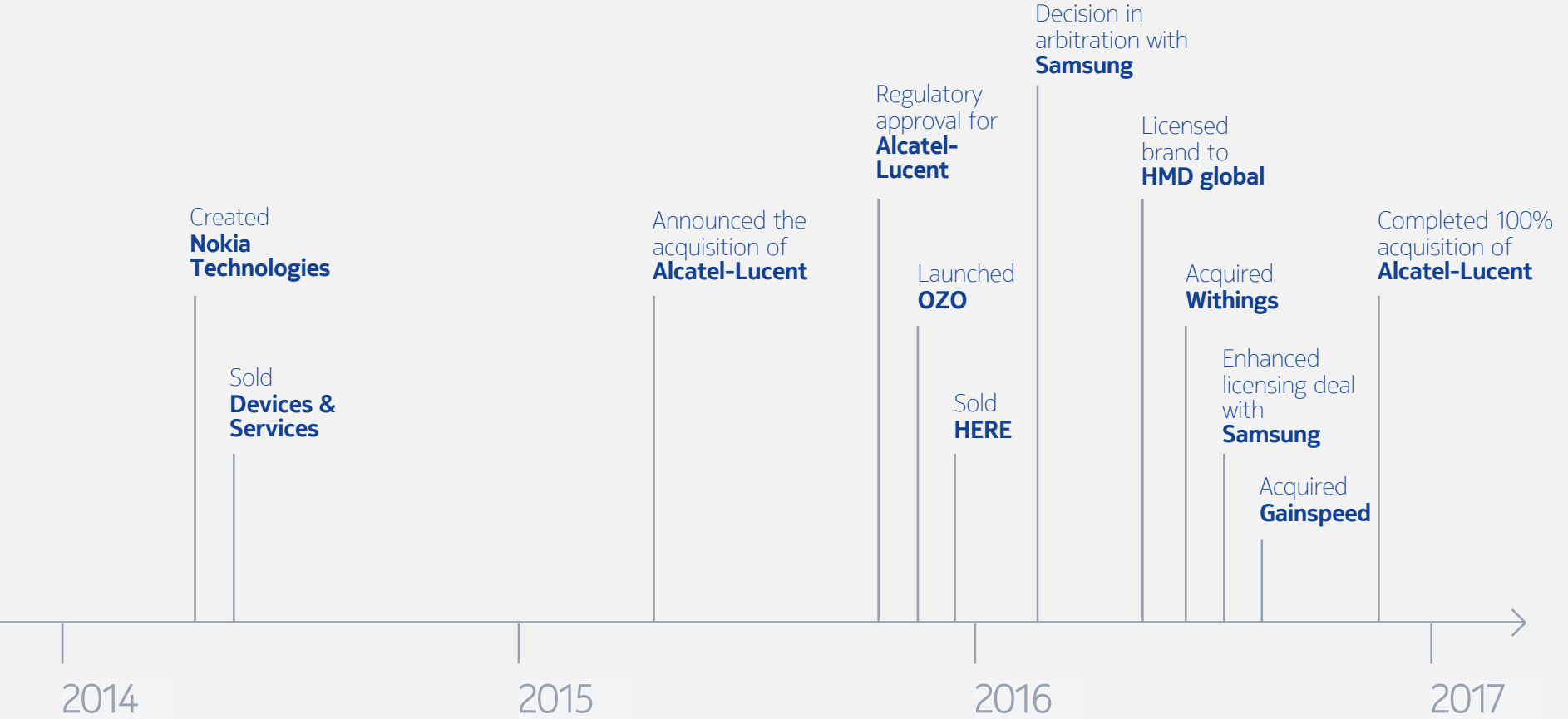




**NOKIA**

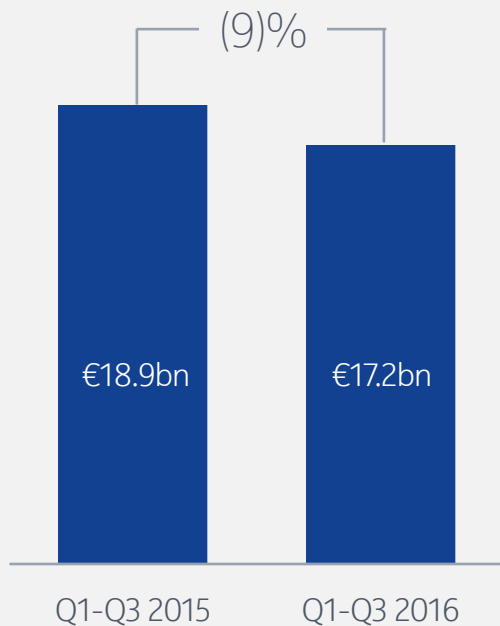
# Higher returns through focused growth

Rajeev Suri  
President and CEO, Nokia

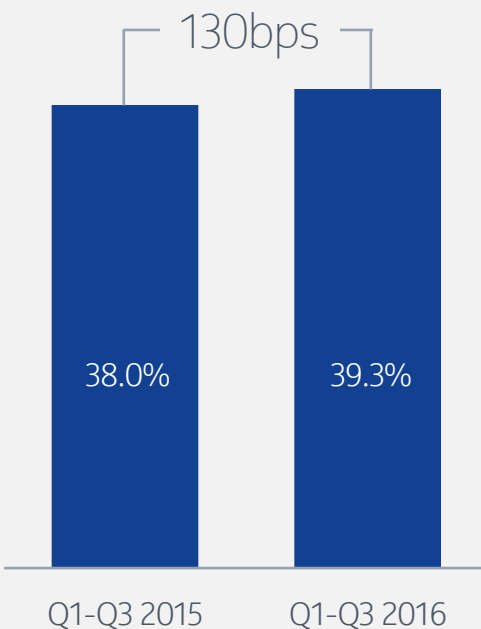


# Solid Q1-Q3 results during a transitional year

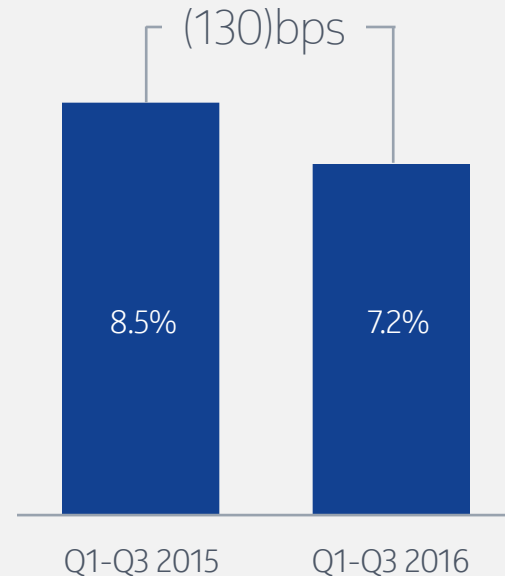
Net Sales (non-IFRS)



Gross margin (non-IFRS)



Operating margin (non-IFRS)



A blurred photograph of people walking in a modern building. The background is a curved wall with horizontal orange panels. The floor is light-colored tiles. The text 'Overview of the day' is overlaid in white.

# Overview of the day

- 1 Well positioned in our primary market
- 2 Focused growth opportunities in attractive adjacencies
- 3 Disciplined operating model an important competitive advantage
- 4 Potential to deliver superior financial results



# Rebalancing for growth

1  
Lead

in high-performance  
end-to-end networks  
with communication  
service providers

2  
Expand

network sales to  
select vertical  
markets

3  
Build

a strong standalone  
software business

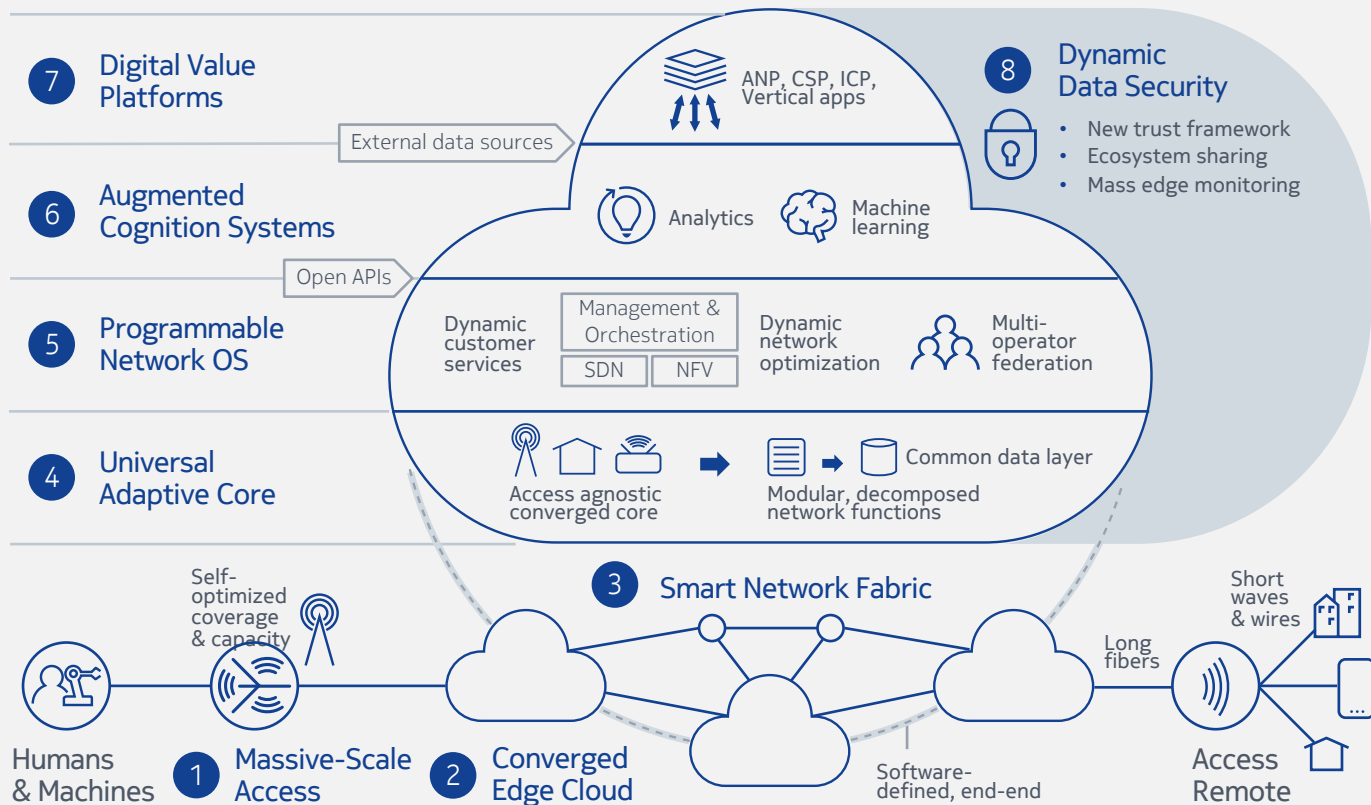
4  
Create

new business  
and licensing  
opportunities in  
the consumer  
ecosystem

Cloud Infrastructure	1 Lead in high-performance end-to-end networks with communication service providers	
Core Network		
Access Network		
	Communication Service Providers	

# Nokia Bell Labs Future X

A clear vision  
of how  
networks need  
to evolve



# Mobile Networks



Primary investment domain



Secondary investment domain

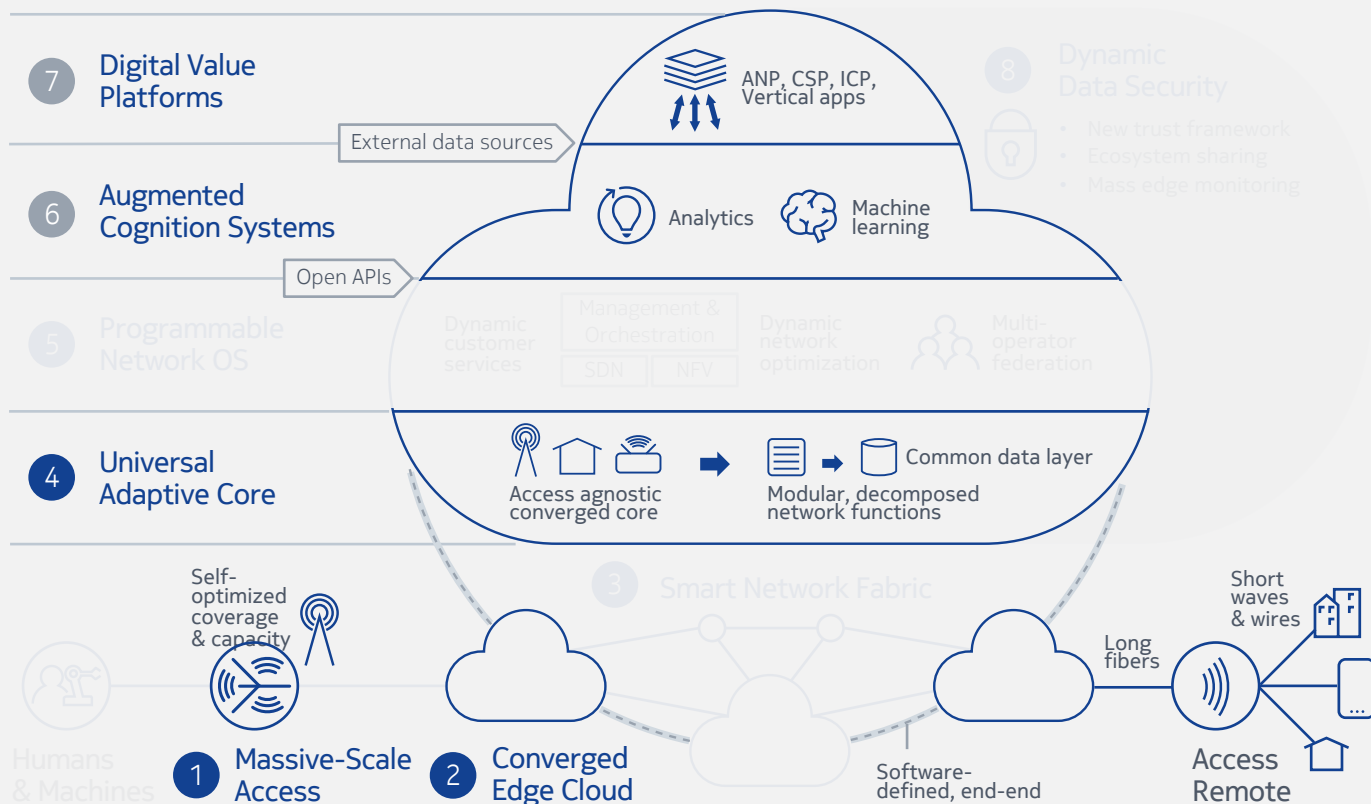
## Business Group Vision

- 1000X higher throughput, 100X lower latency, 10X peak speed
- Application aware and self-optimized networks
- Support for multiple spectrum bands, technologies, connectivity
- Ultra-secure and ultra-dependable private and public networks

## Current Portfolio Focus

1 2 4 6 7

- Radio access: LTE, 4G evolution, 5G
- Multi-technology small cells to densify networks
- Service automation
- Virtualized core & telco cloud infrastructure & services
- Shared data layer





# Fixed Networks



Primary investment domain



Secondary investment domain

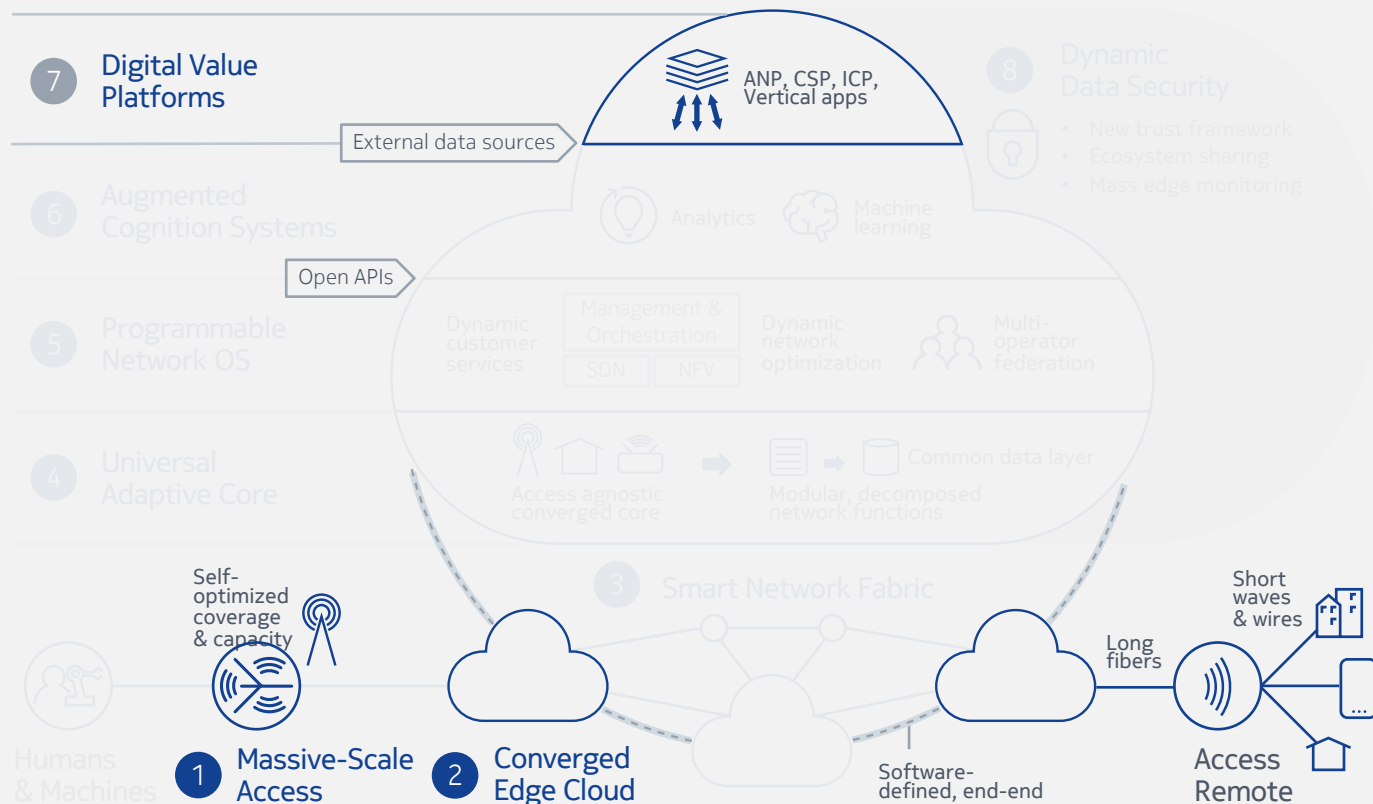
## Business Group Vision

- Massive-scale ubiquitous access
- Fiber-like speed over any media
- Flexible software-defined access
- Helping CSPs beyond pure connectivity

## Current Portfolio Focus

1 2 7

- Advanced Copper, Fiber, and Coax access
- Virtualized access solutions
- Access network transformation services
- Smart Home
- Residential CPE



# IP & Optical Networks



Primary investment domain



Secondary investment domain

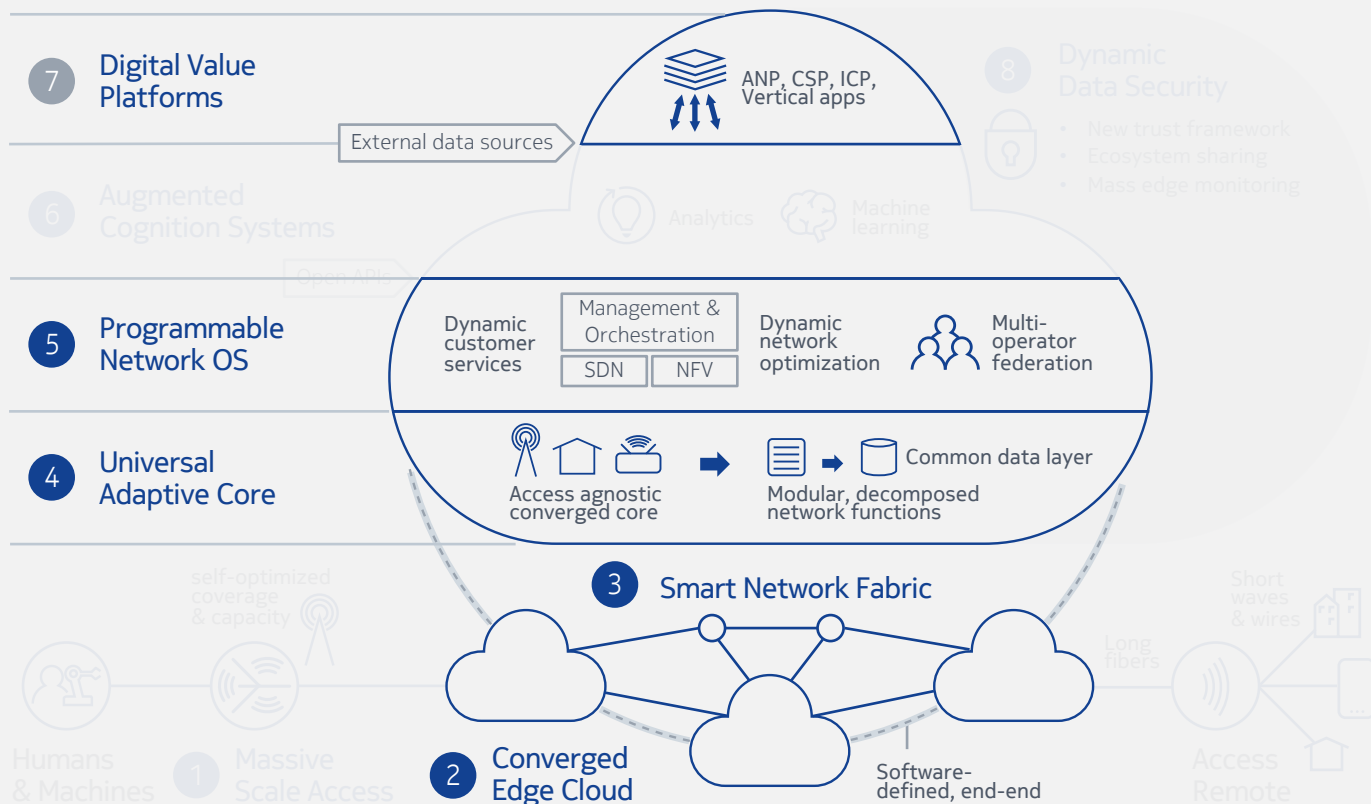
## Business Group Vision

- Terascale capacity at lowest TCO for all networks
- Dynamic cloud-optimized smart network (DC → WAN → Access)
- “Infinite” network/path programmability & slicing

## Current Portfolio Focus

2 3 4 5 7

- Terabit IP edge & core routing
- Terabit Optical networking
- Converged adaptive core
- Seamless DC & WAN SDN
- Cloud-based optimized service delivery solutions



# Applications & Analytics



Primary investment domain



Secondary investment domain

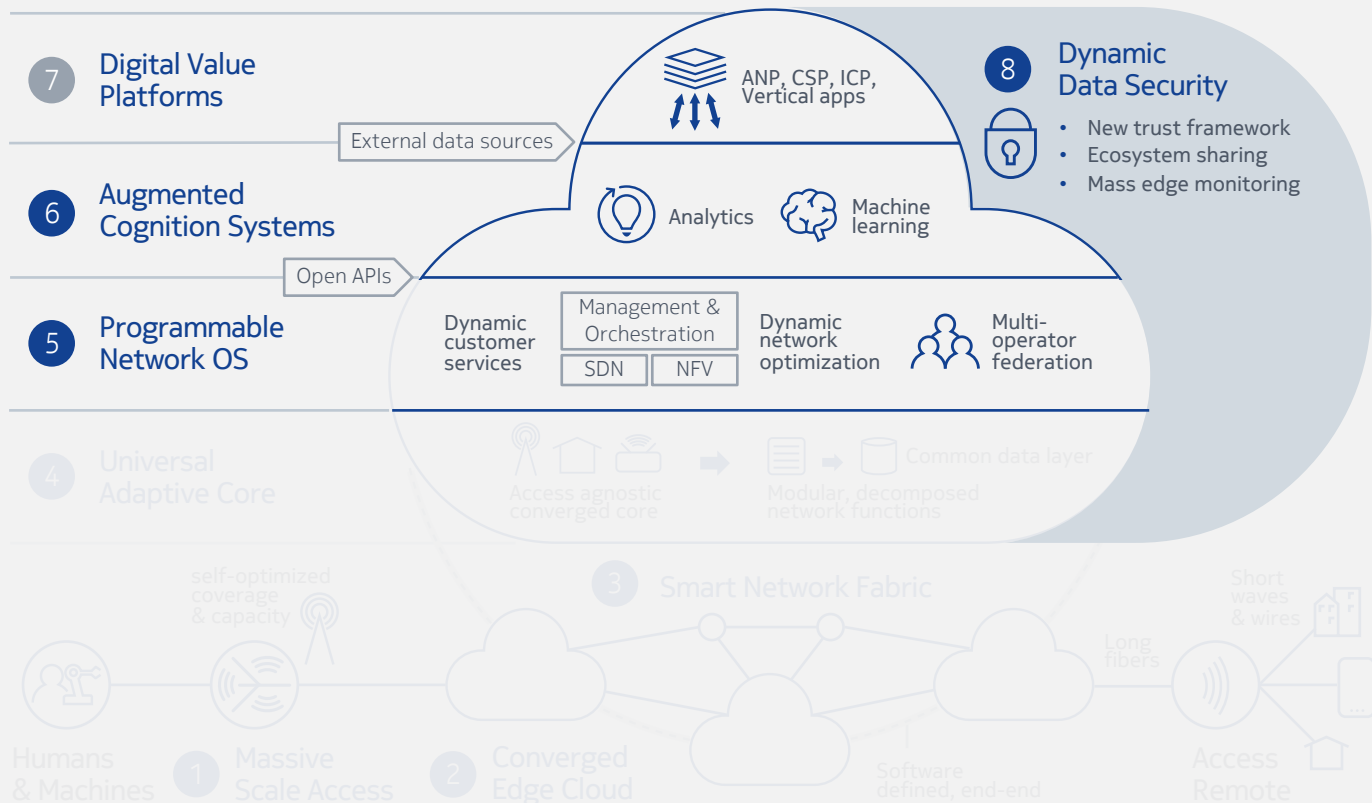
## Business Group Vision

- Automating edge/telco cloud networks
- Cognitive network operation
- Terascale automated IoT/device management contextual security
- Future Enterprise interactivity

## Current Portfolio Focus

5 6 7 8

- Cloud/NFV orchestration and operations
- Any device management
- Novel Enterprise comms
- Augmented network + user analytics & security solutions



# Nokia Technologies



Primary investment domain



Secondary investment domain

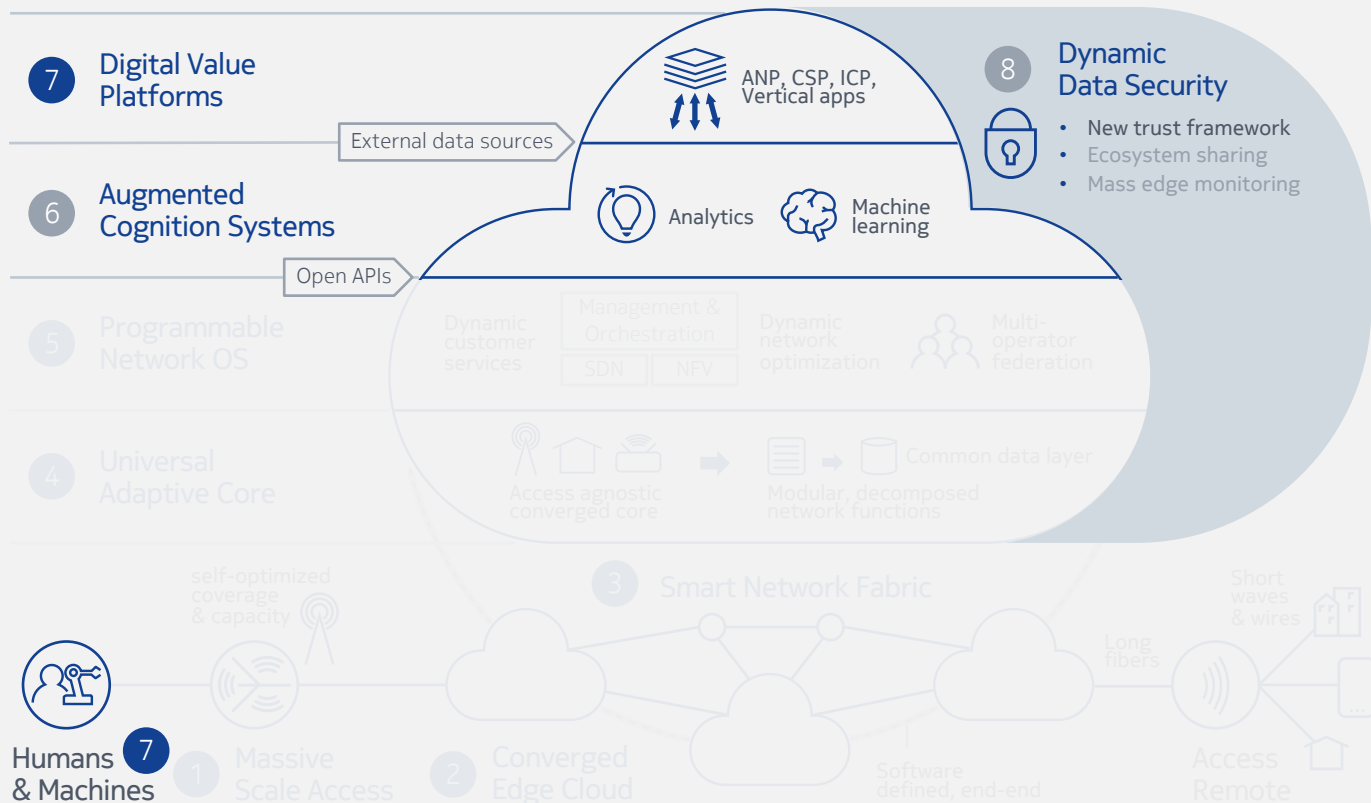
## Business Group Vision

- Innovating pro → consumer devices & device technologies
- New digital value platform exploration & innovation
- Unique IPR generation & valuation

## Current Portfolio Focus

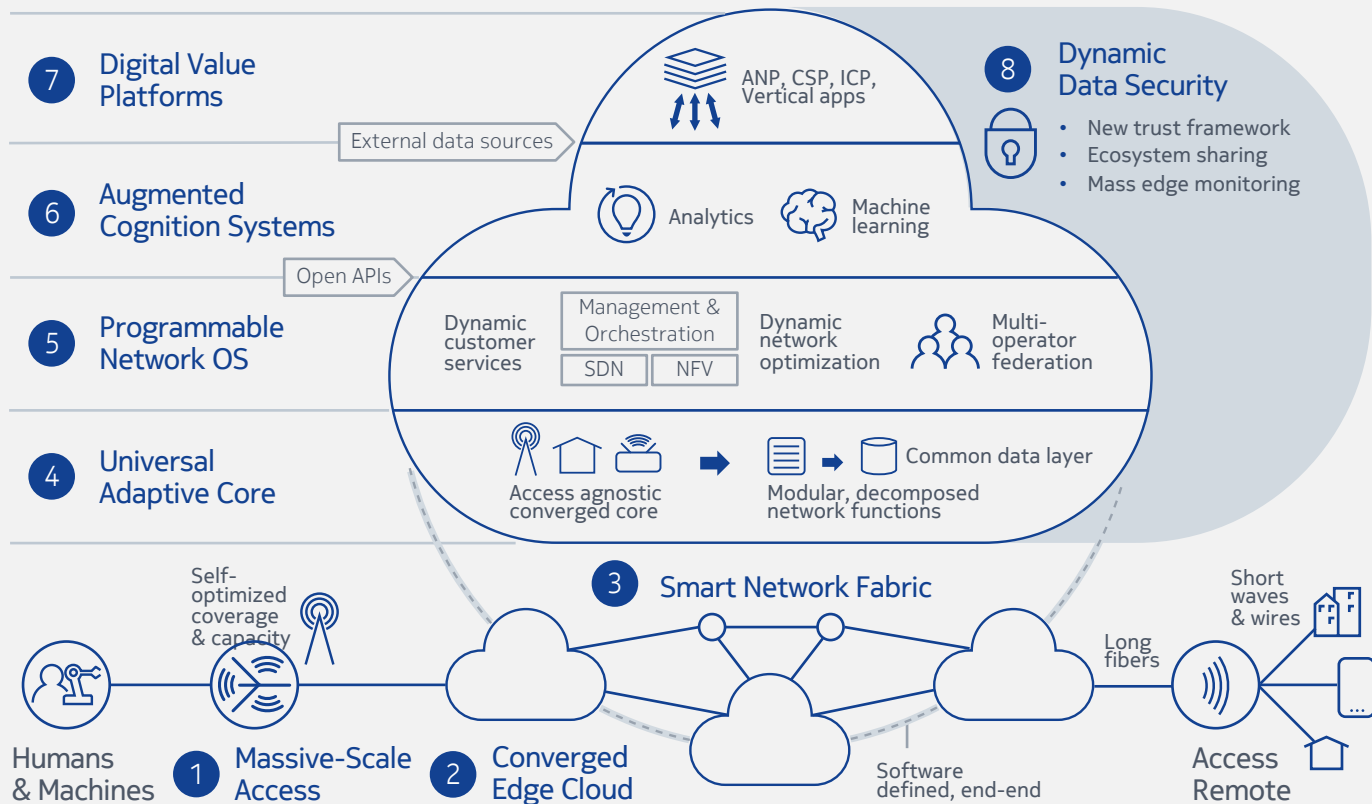
6 7 8

- Advanced digital health devices & technologies
- Advanced VR devices & technologies
- Device analytics & security





# And a powerful, end-to-end scope



#1

in 4G

#1

in copper  
access

#2

in edge  
routers

#3

in services



# Innovation





1 We use our R&D  
in a very targeted way

4G

4.5G  
4.5G<sup>Pro</sup>

4.9G

5G





2 We research technologies with  
a clear link to what we sell

FTTX



XG-FAST

XG-CABLE

XLG-PON



3 We maximize the value of  
every euro we spend on R&D





1 Improving efficiency through deployment of best-in-class tools

2 Reducing back-office complexity and redeploying people to the frontline

3 Expanding resources and improving incentives for “hunting”

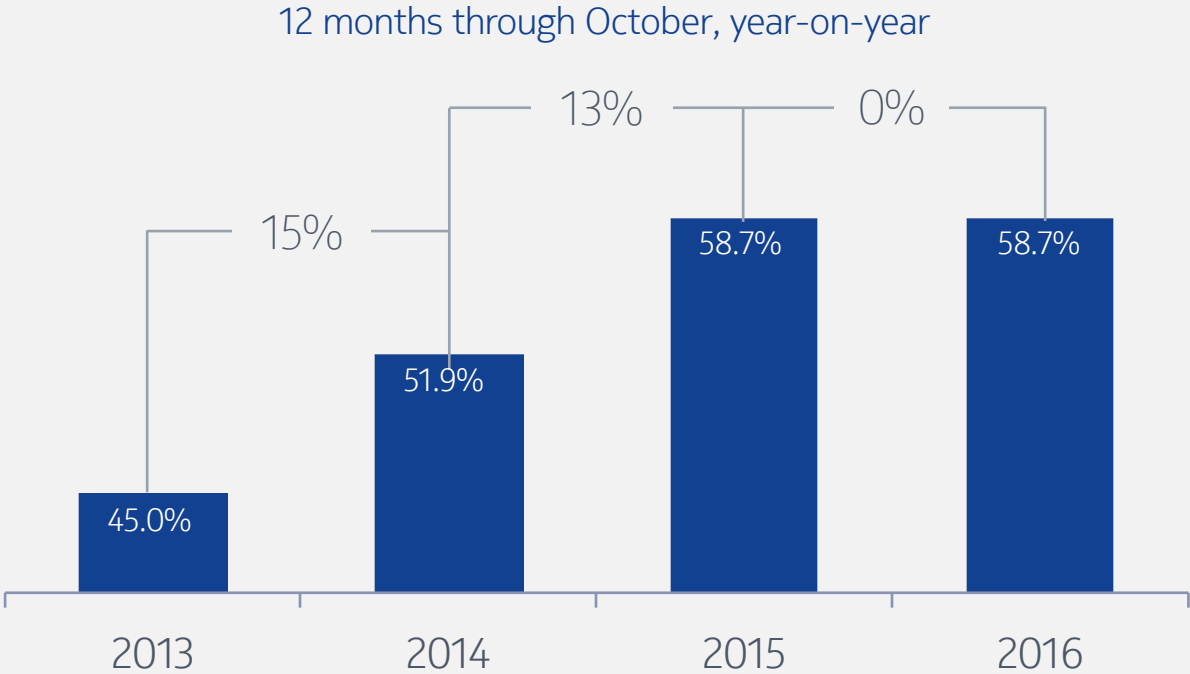
4 Strengthening competence development, related to software and new portfolio

5 Using expanded automation across all sales processes

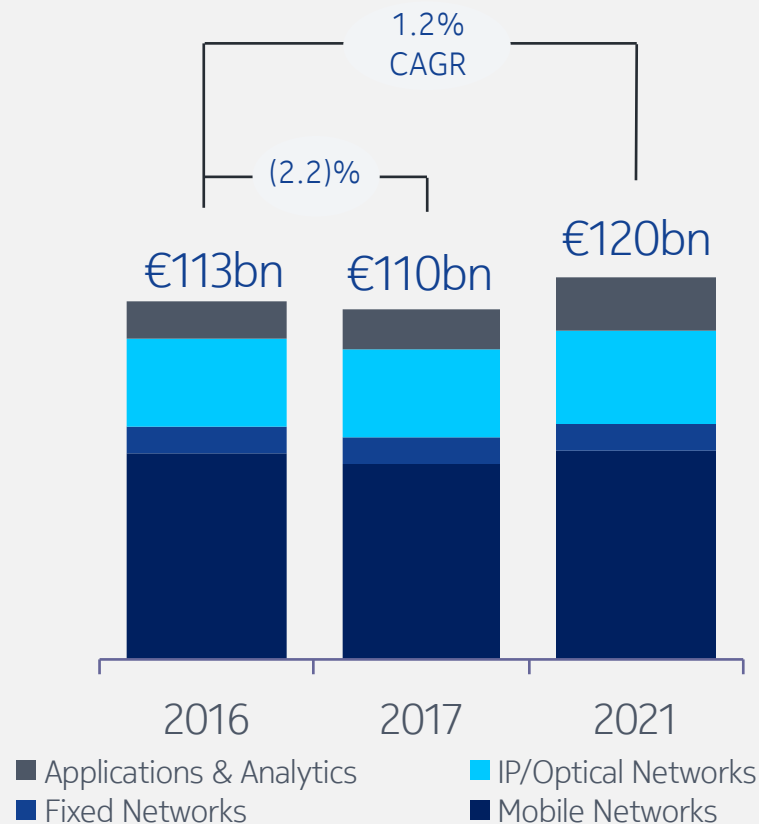




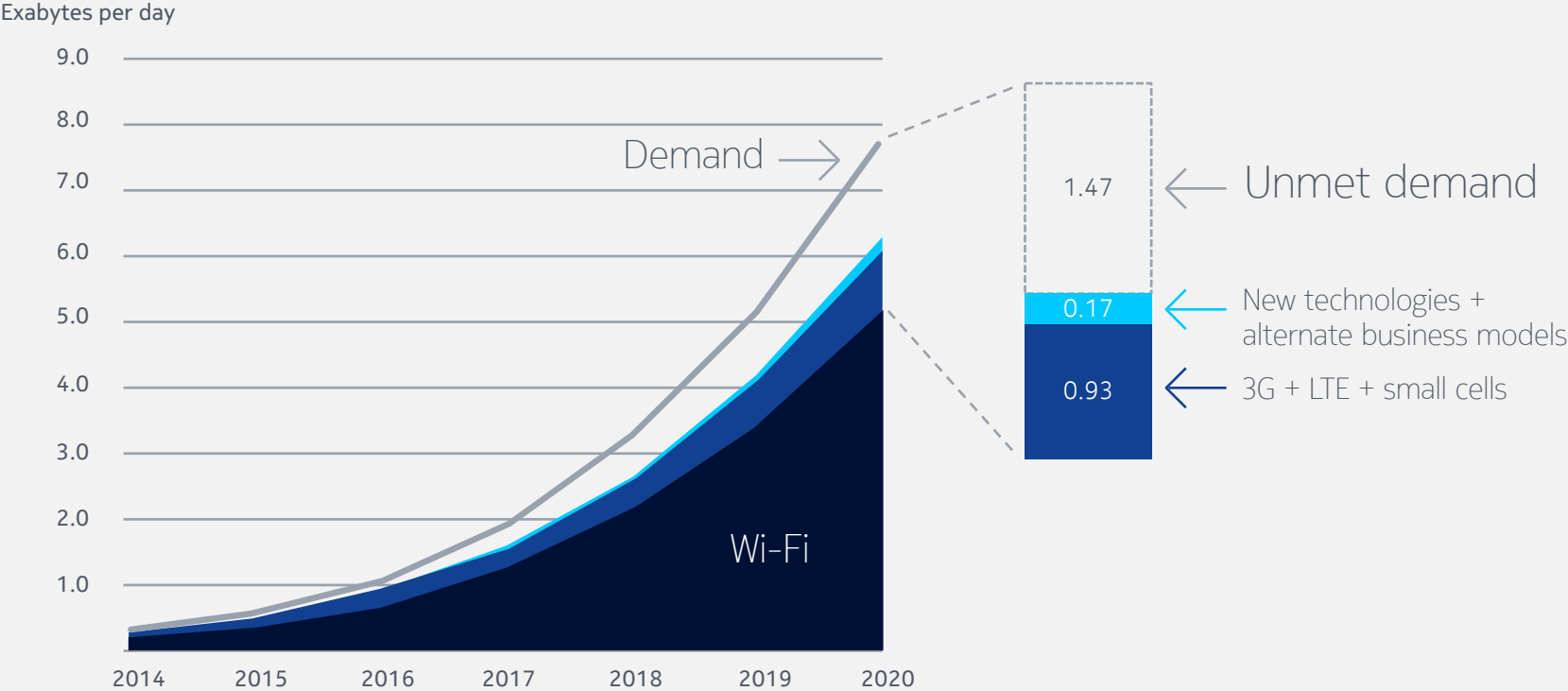
# Customer experience continues to be strong



Primary market:  
rebound to positive  
five-year CAGR



# Strong demand expected to drive future investment



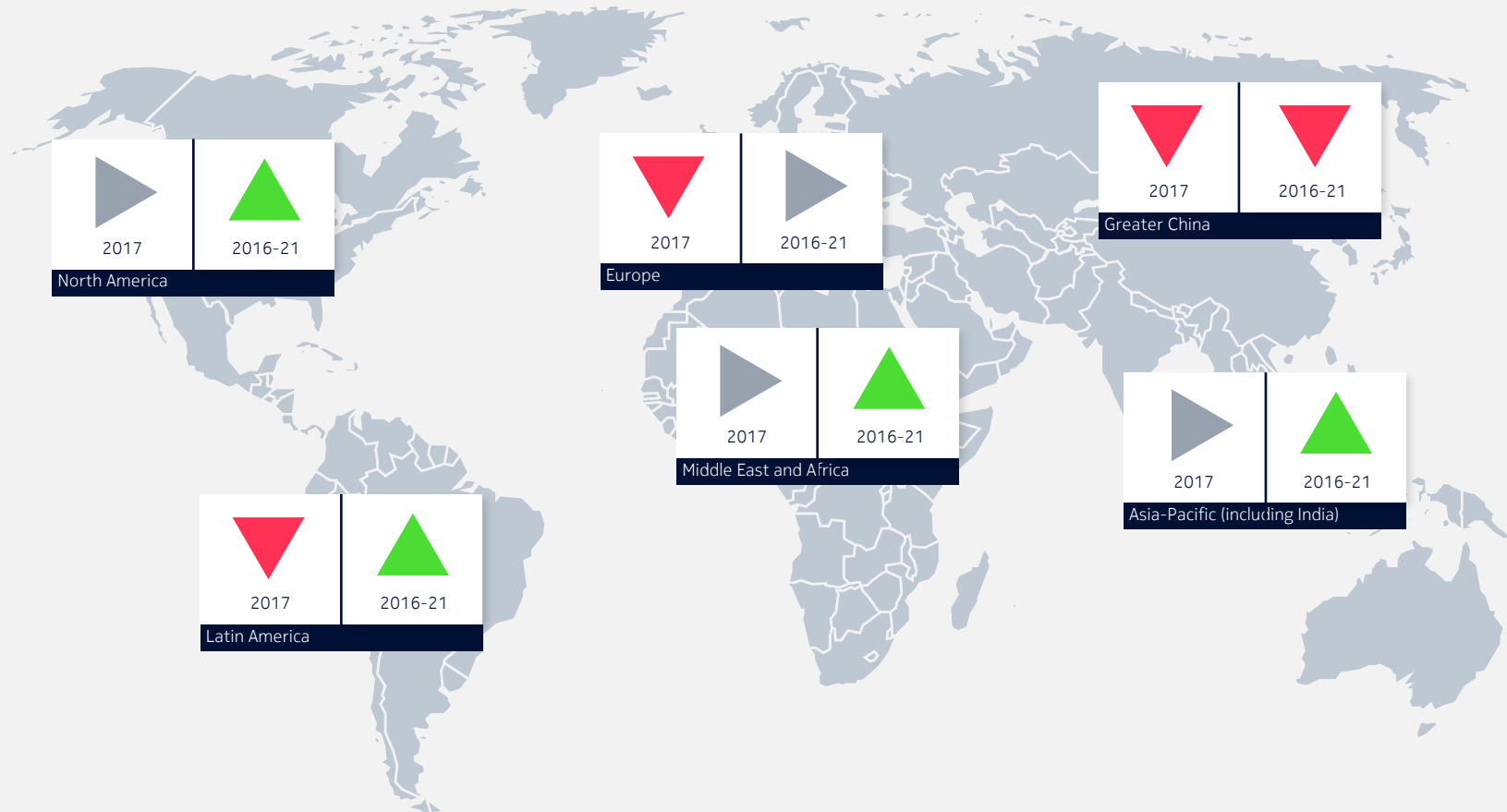
New performance requirements will need to be met



Latency

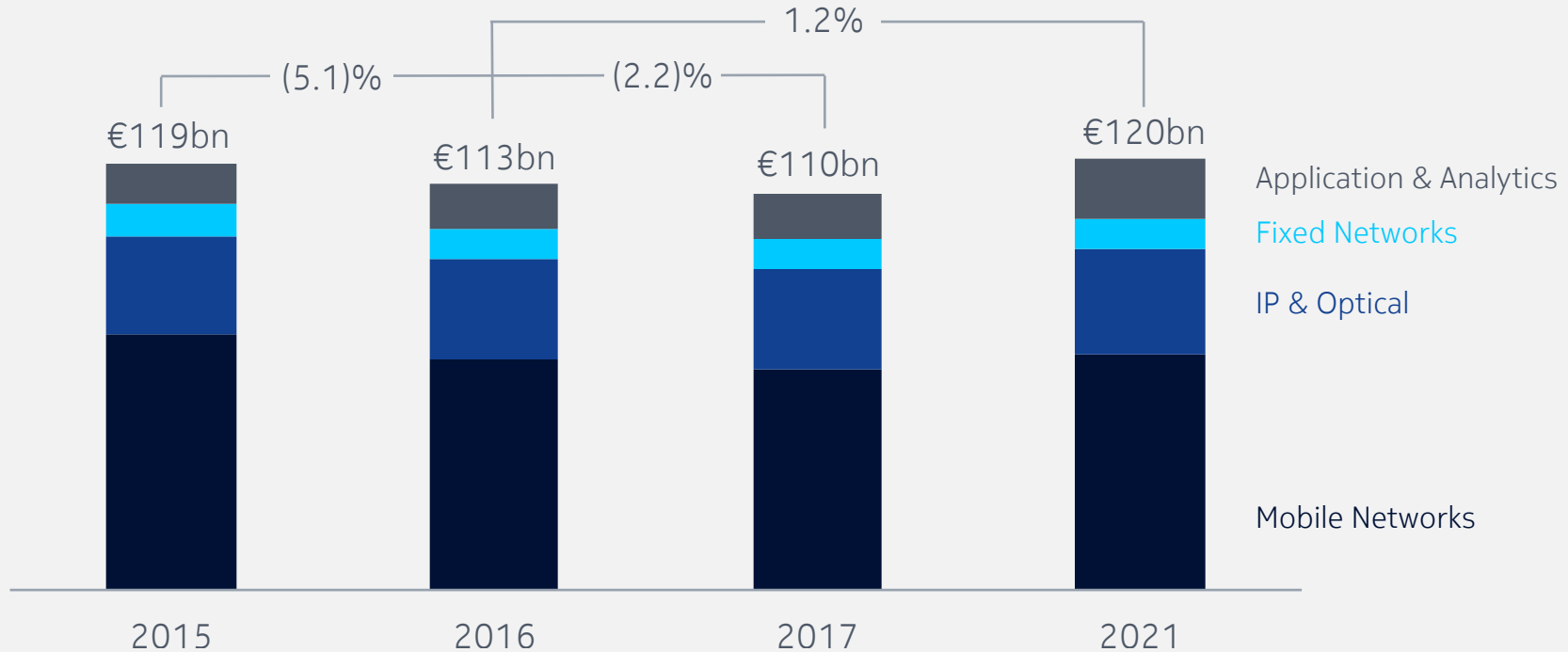


# Rebound spread across most regions





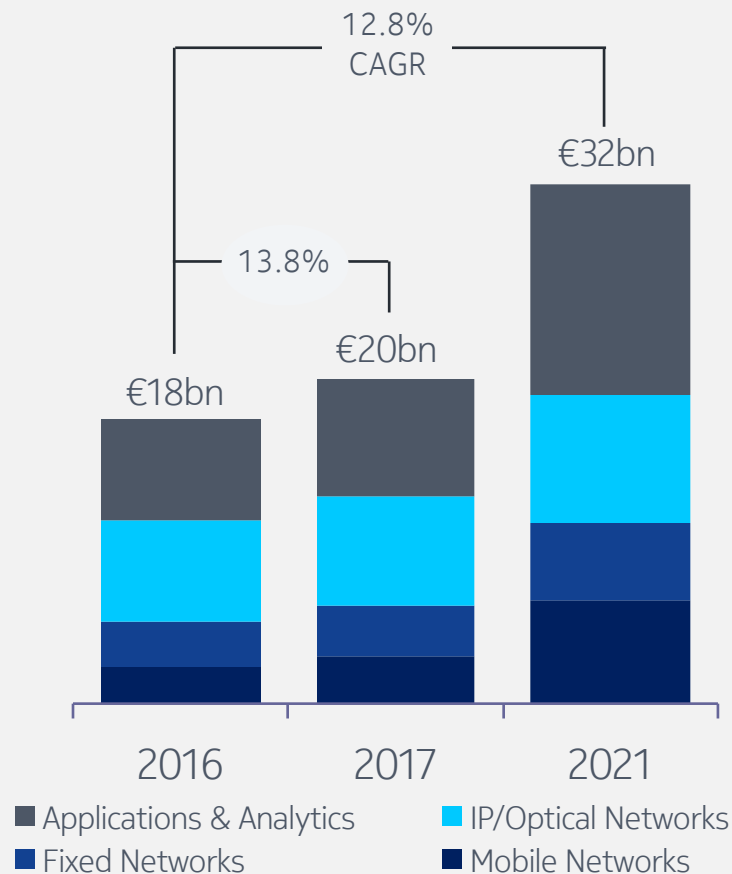
Strong market growth expected in segments covered by Applications & Analytics, 5G drives increase in mobile market



		<div> <div> Webscale <ul style="list-style-type: none"> <li>• Use IP/Optical/SDN as primary insertion point</li> <li>• Mobile access opportunities</li> </ul> </div> <div> Vertical Markets <ul style="list-style-type: none"> <li>• Energy, transport, public sector, technology extra-large enterprises</li> <li>• Increase penetration with existing customers</li> <li>• Diversify go-to-market</li> </ul> </div> </div>		
Cloud Infrastructure	1 Lead in high-performance end-to-end networks with communication service providers	2 Expand network sales to select vertical markets		
Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	

		<div>1. Leverage existing technology</div> <div>2. Focus on select segments</div> <div>3. Utilize defined insertion points</div>		
Cloud Infrastructure	<div>1 Lead</div> <div>in high-performance end-to-end networks with communication service providers</div>	<div>2 Expand</div> <div>network sales to select vertical markets</div>		
Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	

Targeted adjacencies:  
attractive growth rates,  
sizeable market



Applications	<div>3 Build</div> <div>strong standalone software business</div>			<div>Software</div> <ul style="list-style-type: none"><li>• Extend strong software presence to fixed and cable</li><li>• OSS, BSS, Service delivery platform</li><li>• Explore strategic options for Enterprise IoT</li></ul>
Platforms				
Cloud Infrastructure	<div>1 Lead</div> <div>in high-performance end-to-end networks with communication service providers</div>	<div>2 Expand</div> <div>network sales to select vertical markets</div>		
Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	

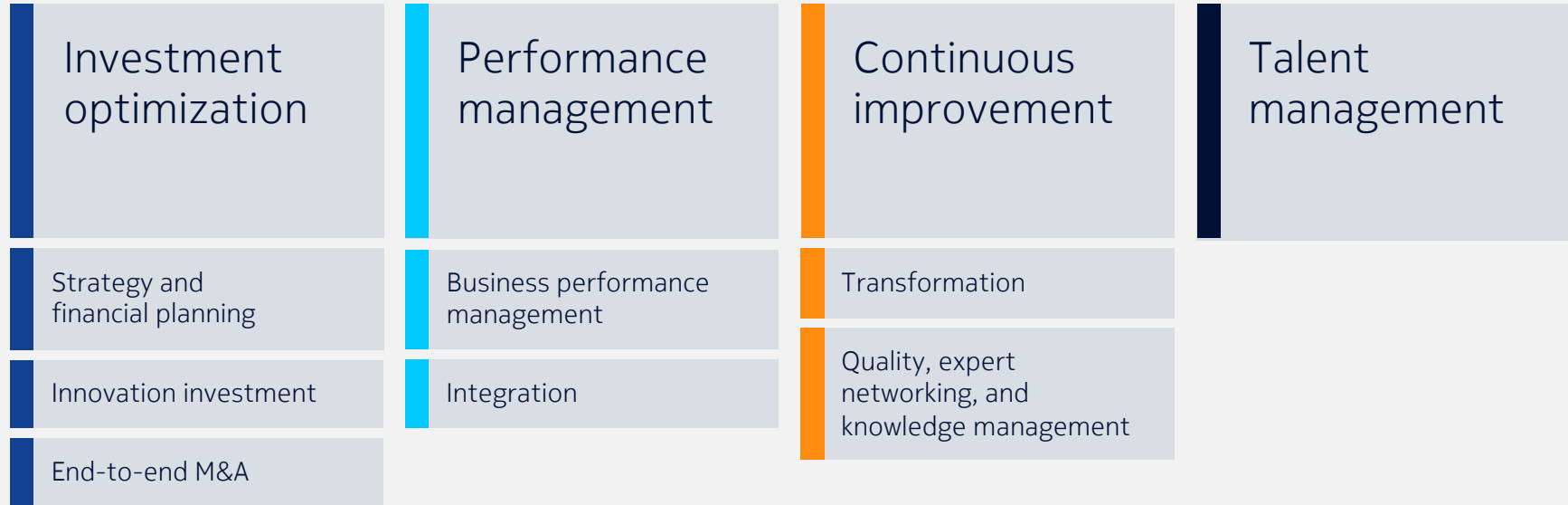


Devices	4 Create new business and licensing opportunities in the consumer ecosystem			
Applications	3 Build strong standalone software business			Patent licensing Technology licensing Brand licensing
Platforms				
Cloud Infrastructure	1 Lead in high-performance end-to-end networks with communication service providers	2 Expand network sales to select vertical markets		
Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	Consumer

Devices	4 Create new business and licensing opportunities in the consumer ecosystem			
Applications	3 Build strong standalone software business			Technology renewal through innovation  Focus on digital health and digital media
Platforms				
Cloud Infrastructure	1 Lead in high-performance end-to-end networks with communication service providers	2 Expand network sales to select vertical markets		
Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	Consumer

Devices	4 Create new business and licensing opportunities in the consumer ecosystem			
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Core Network				
Access Network				
	Communication Service Providers	Webscale	Vertical Markets	Consumer

# Operational excellence driven by Nokia Business System



# Networks targets

1 Grow faster than our primary market over the long term

2 Expand long-term operating margin to 10% to 15%

3 Perform in line with our primary market in 2017

4 2017 operating margin of 8% to 10%

5 Operating expenses to decline in 2017 versus 2016

6 €1.2 billion cost savings for the full year 2018

# Disclaimer

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It should be noted that Nokia and its business are exposed to various risks and uncertainties, and certain statements herein that are not historical facts are forward-looking statements, including, without limitation, those regarding future business and the financial performance of Nokia and its industry and statements preceded by “believe,” “expect,” “anticipate,” “foresee,” “sees,” “target,” “estimate,” “designed,” “aim,” “plans,” “intends,” “focus,” “continue,” “will” or similar expressions. These statements are based on management's best assumptions and beliefs in light of the information currently available to it. Because they involve risks and uncertainties, actual results may differ materially from the results that we currently expect. Factors, including risks and uncertainties that could cause such differences can be both external, such as general, economic and industry conditions, as well as internal operating factors. We have identified these in more detail on pages 69 to 87 of Nokia's annual report on Form 20-F for the year ended December 31, 2015 under “Operating and Financial Review and Prospects—Risk Factors”, our other filings with the U.S. Securities and Exchange Commission and in our

interim report issued on May 10, 2016, our half year financial report issued on August 4, 2016, our interim report issued on October 27, 2016 and our stock exchange release covering our Capital Market Day issued on November 15, 2016. Other unknown or unpredictable factors or underlying assumptions subsequently proven to be incorrect could cause actual results to differ materially from those in the forward-looking statements. Nokia does not undertake any obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent legally required. In addition to information on our reported IFRS results, we provide certain information on a non-IFRS, or underlying business performance, basis. Non-IFRS results exclude costs related to the Alcatel-Lucent transaction and related integration, goodwill impairment charges, intangible asset amortization and purchase price related items, restructuring related costs, and certain other items that may not be indicative of Nokia's underlying business performance. We believe that our non-IFRS financial measures provide meaningful supplemental

information to both management and investors regarding Nokia's underlying business performance by excluding the aforementioned items that may not be indicative of Nokia's business operating results. These non-IFRS financial measures should not be viewed in isolation or as substitutes to the equivalent IFRS measure(s), but should be used in conjunction with the most directly comparable IFRS measure(s) in the reported results. A detailed explanation of the content of the non-IFRS information and a reconciliation between the non-IFRS and the reported information for historical periods can be found in Nokia's respective results reports. Please see our issued interim reports for more information on our results and financial performance for the indicated periods as well as our operating and reporting structure. Nokia is a registered trademark of Nokia Corporation. Other product and company names mentioned herein may be trademarks or trade names of their respective owners.

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