



NOKIA

IP Networks & Applications

Creating Value Through
Applications & Analytics

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Our market is different from Nokia's Networks businesses

1. More fragmented
2. Pure software play
3. Multi-vendor, multi-network
4. Different buyers

Portfolio drives new markets and reinvent old ones

Cloud



Analytics



IoT



Security



Business Support Systems



Operation Support Systems



Service Delivery Platforms



Foundation: Technology Depth & Innovation

#1 device management

Multi-tenant, Cloud platform securely manages >1.5B devices

#1 Centralized self organizing network

Automated quality and performance management.

Customer experience management Strength

Most complete CEM product set on the market.

OSS leadership

Innovation in analytics, assurance and Cloud.

NFV/SDN leadership

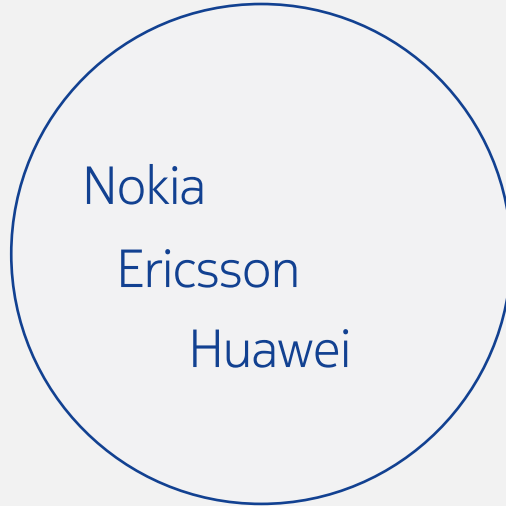
Nokia has most comprehensive NFV/SDN portfolio.

Best innovation in IoT

Standard-based device management, security, and analytics in platform.

Market drivers:

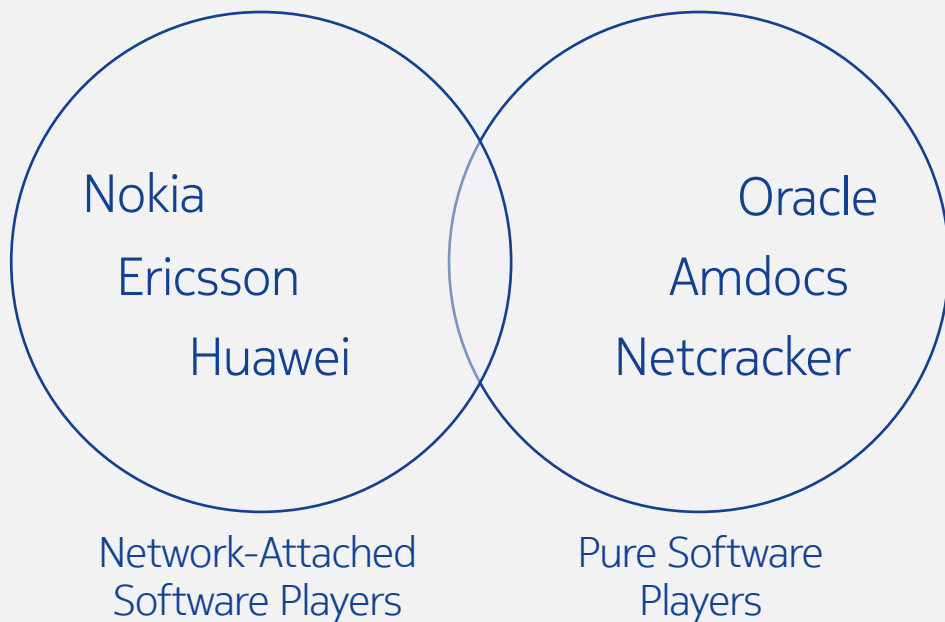
Worlds colliding to
create an opportunity



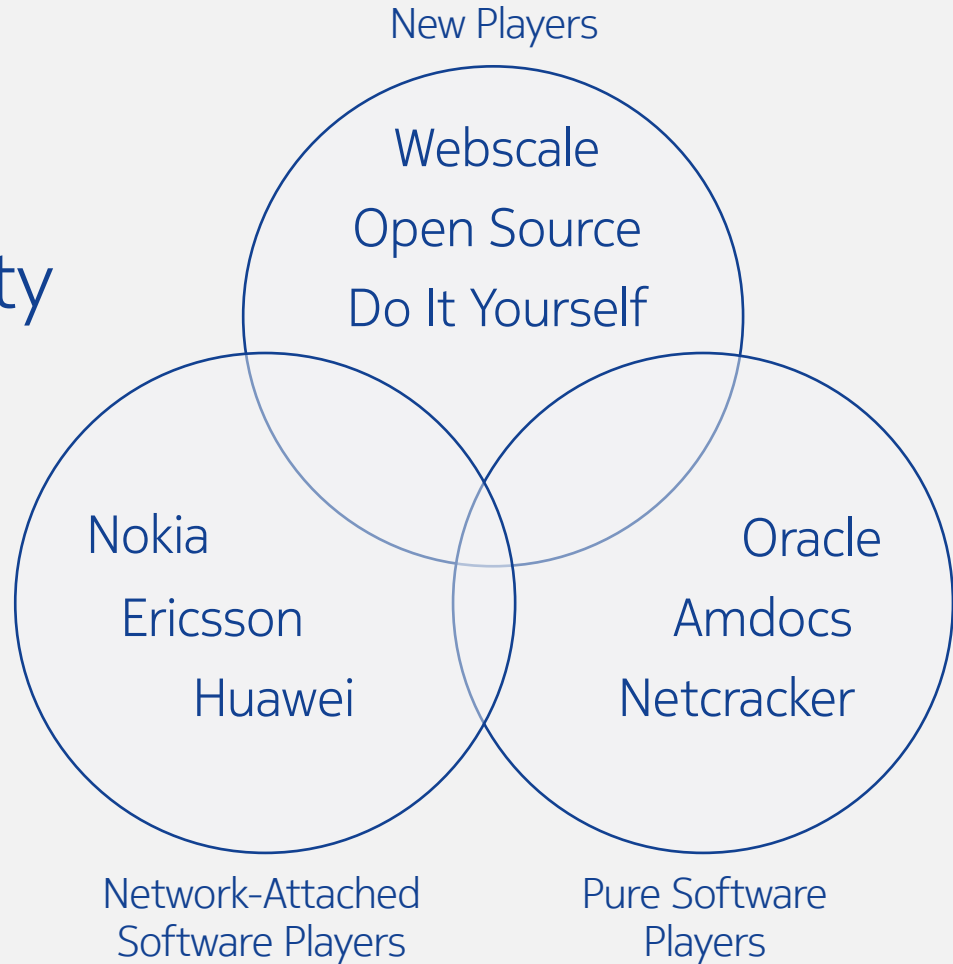
Network-Attached
Software Players

Market drivers:

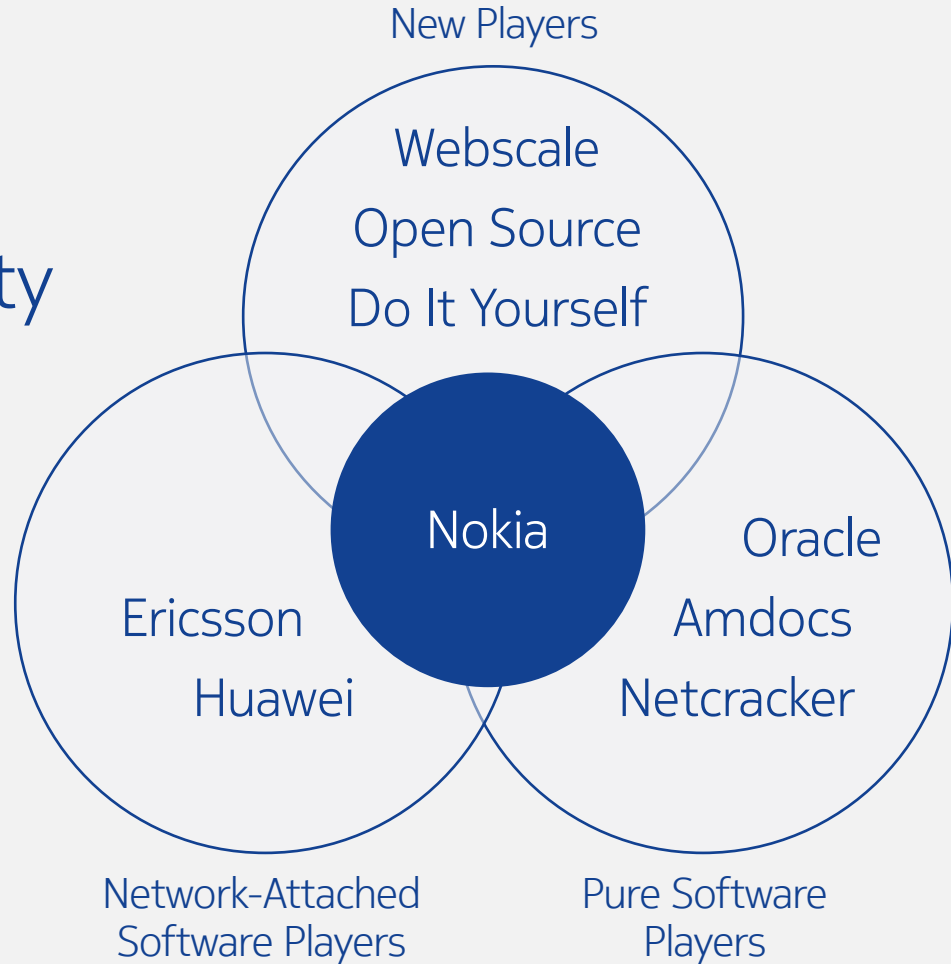
Worlds colliding to
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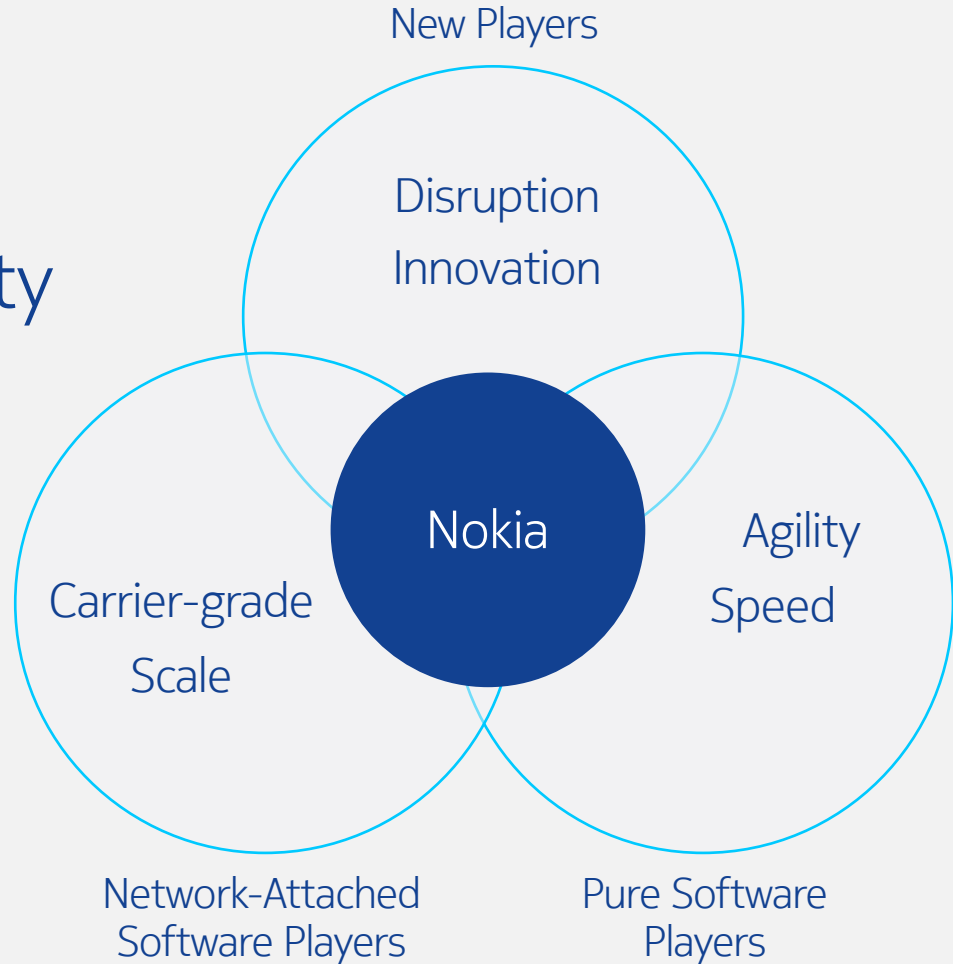
Market drivers:
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How do we move from
a network-attached to
a software business at
scale?



Building a software business at scale

1. Build software sales organization
2. Strengthen and expand portfolio
3. Diversify markets and business models

Evolve operations and organization



Go-to-Market: software sales force and new commercial models



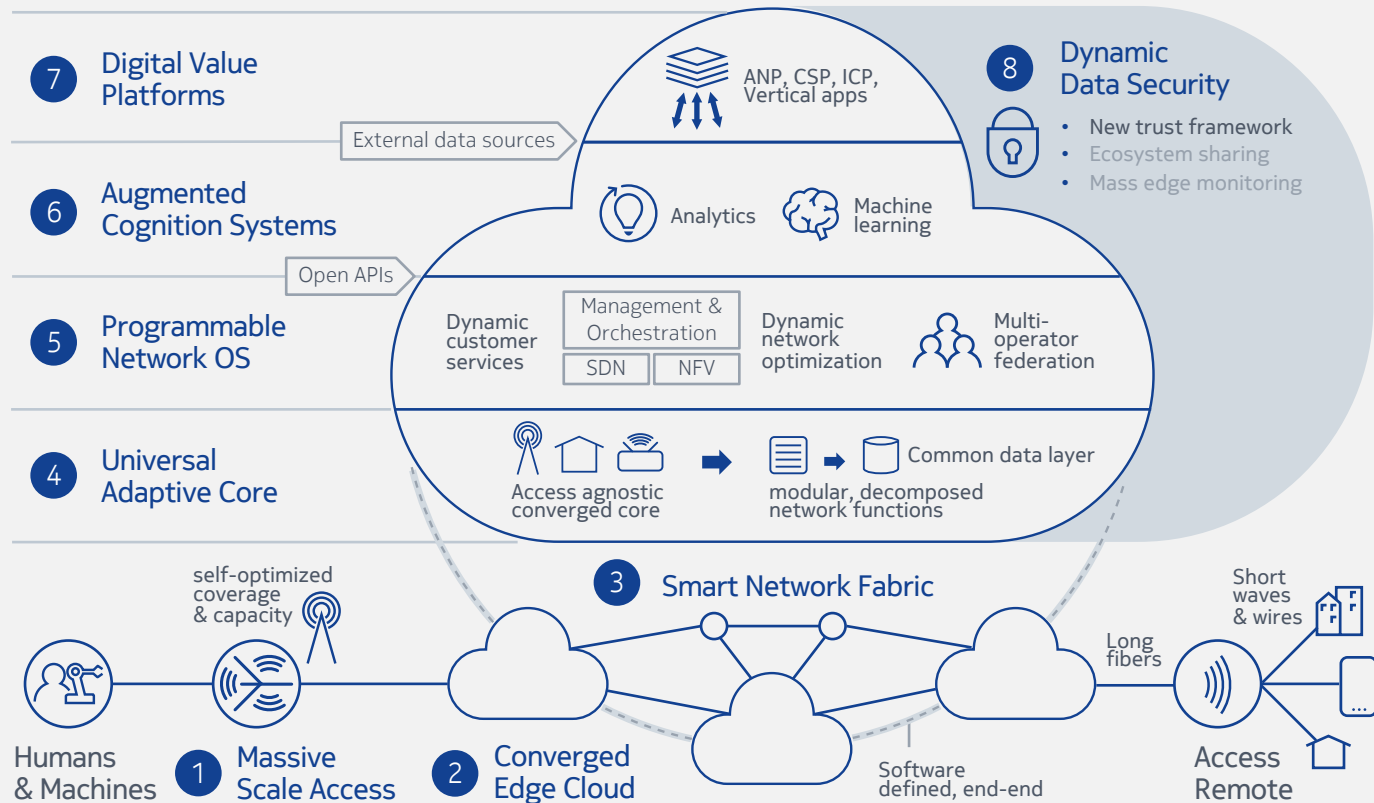
Services: efficient back office, move to more SaaS and hosted offers



Research & Development: Common Software Foundation **reduces middleware costs by 60%** and deliver value faster

Nokia Bell Labs Future X

A clear vision
of how
networks
need to
evolve



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Primary investment domain



Secondary investment domain

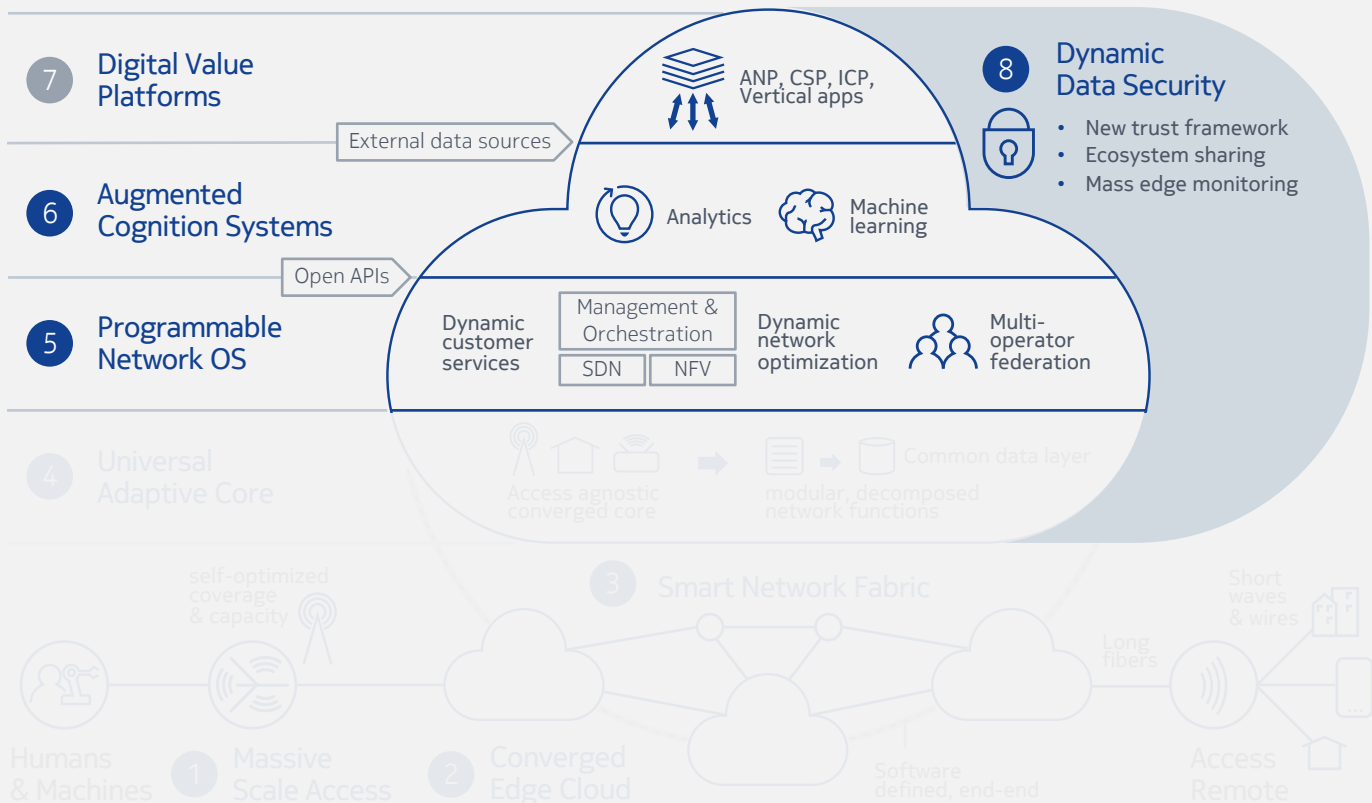
Business Group vision

- 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



Diversify markets

Primary market



Communication
Service
Providers

Diversify markets

Primary market

Communication
Service
Providers

Attractive adjacencies

Over the Top
Players

Digital
Enterprises

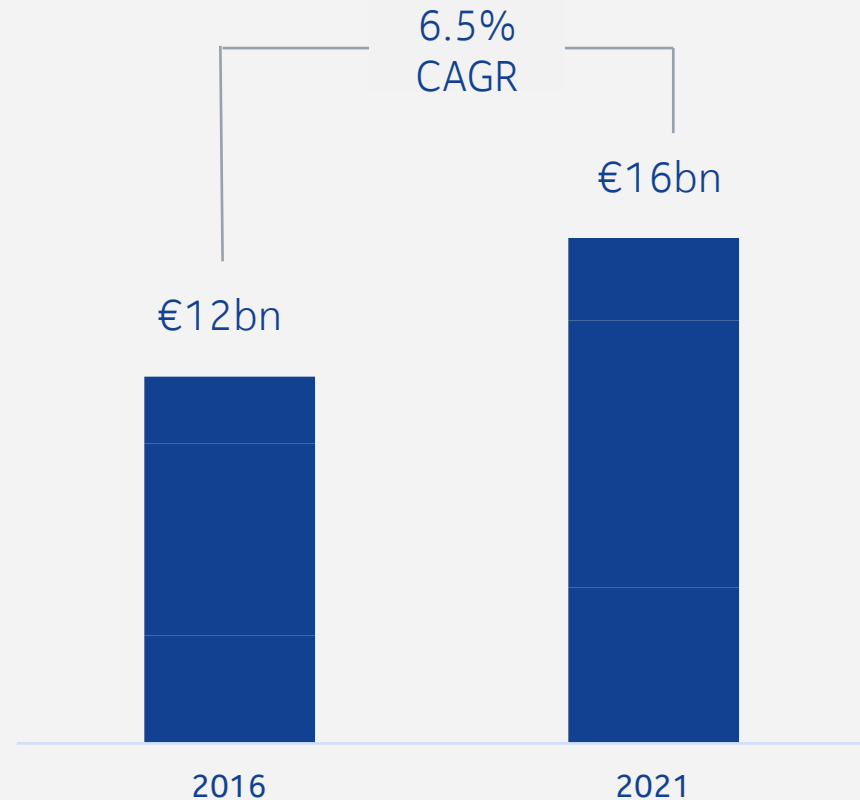
IoT Verticals

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Primary market outlook

Primary market includes sales of BSS, OSS and SDP to Communication Service Providers

Source: Nokia estimate

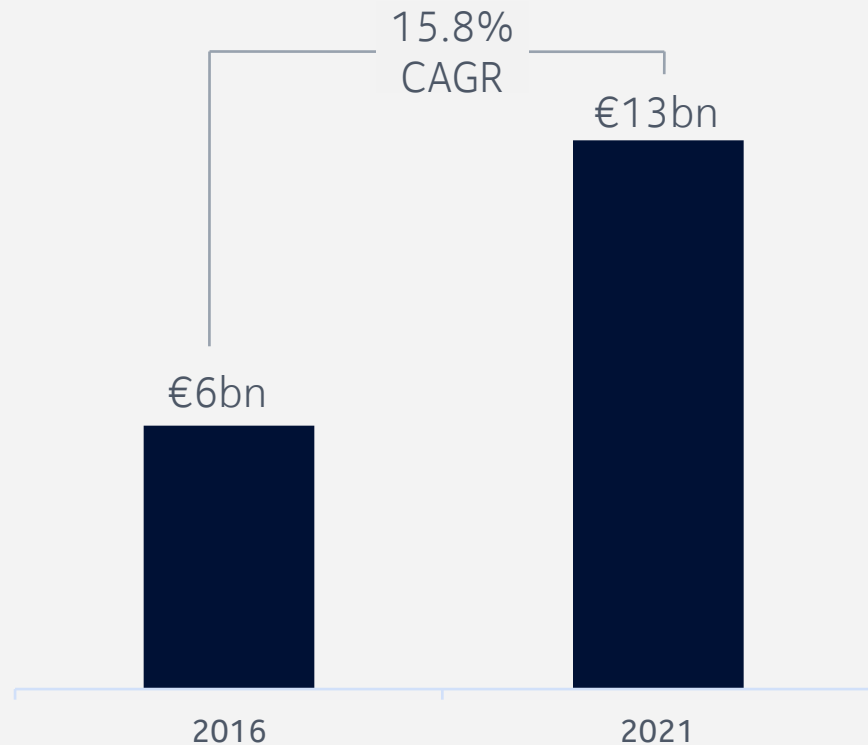


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Market outlook for attractive adjacencies

Adjacencies include emerging Cloud, Analytics, Security and IoT businesses and sales to Over-the-Top players, Digital Enterprises and IoT verticals.

Source: Nokia estimate

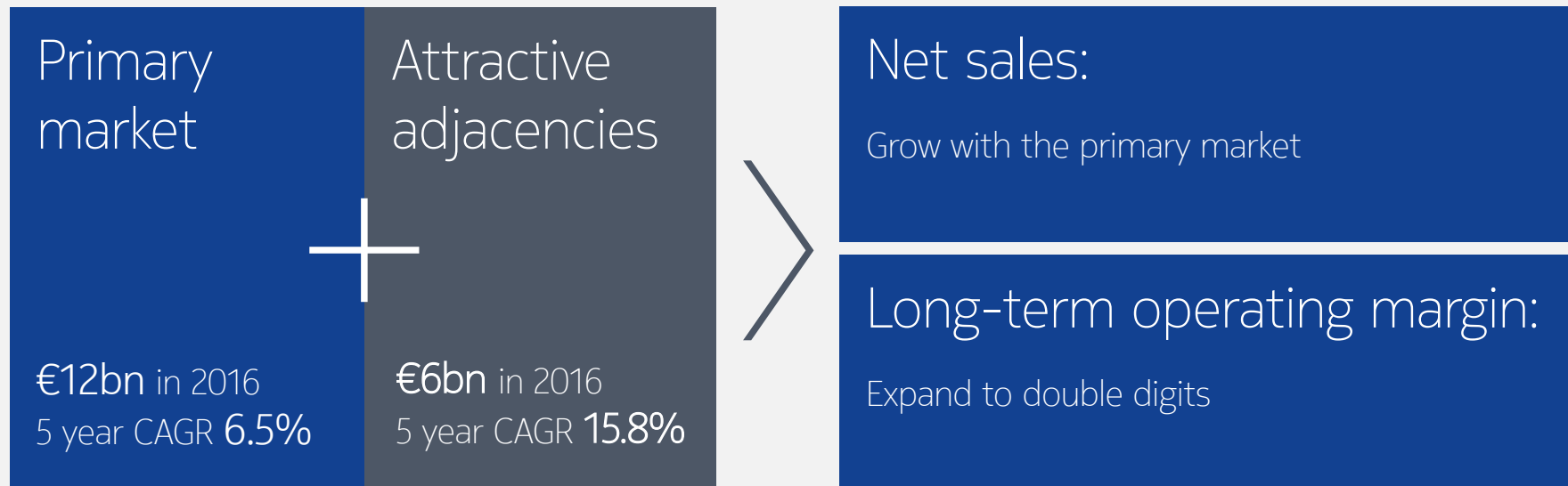


Applications & Analytics : Higher returns through focused growth

Required investments already factored into long-term Networks guidance

Disciplined expansion and diversification

Strong long-term business model



Nokia will achieve the EUR 1.2 billion cost savings target

Adopt Nokia
Business
System

Use Common
Software
Foundation

Operational
efficiencies
with scale

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Looking forward

2016



- Software strategy in place
- Common architecture and components defined
- Software sales enablement

2017



- Common software elements delivered
- Streamline service offering
- New commercial offers (SaaS, Hosted)
- Dedicated sales force

2018



- Software suite for major product lines
- Diversification success
- Improved service and care attach rate

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