

Capital Markets Day 2021



Nishant Batra
Chief Strategy and Technology Officer (CSTO)

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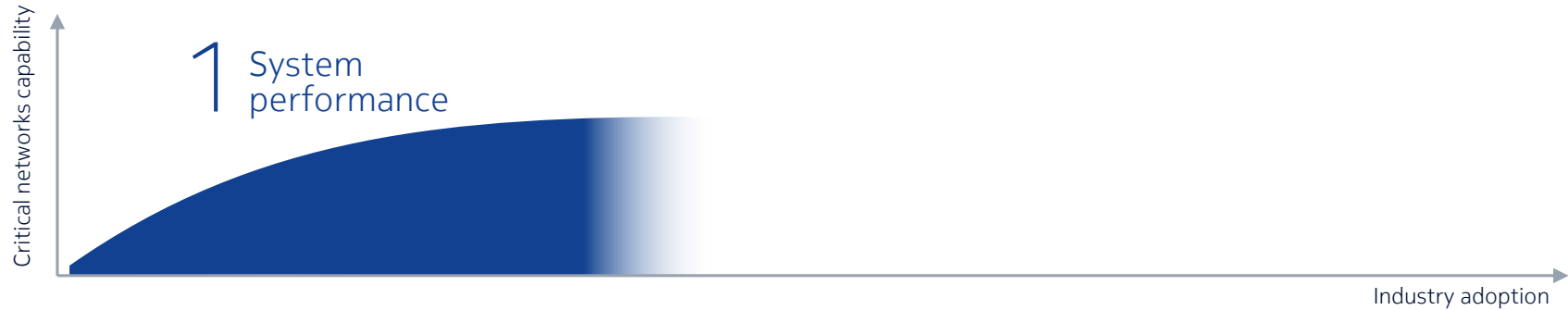
Exchange Commission, including Nokia's financial results reports. Other unknown or unpredictable factors or underlying assumptions subsequently proven to be incorrect could cause actual results to differ materially from those in the forward-looking statements. We do not undertake any obligation to publicly update or revise forward-looking statements, whether as a result of new information, future events or otherwise, except to the extent legally required.

Nokia presents financial information on reported, comparable and constant currency basis. Comparable measures presented in this document exclude intangible asset amortization and other fair value adjustments, goodwill impairments, restructuring related charges and certain other items affecting comparability. In order to allow full visibility on determining comparable results, information on items affecting comparability is presented separately for each of the components of profit or loss. Constant currency reporting provides additional information on change in financial measures on a constant currency basis in order to better reflect the underlying business performance. Therefore, change in financial

measures at constant currency excludes the impact of changes in exchange rates in comparison to euro, our reporting currency. As comparable or constant currency financial measures are not defined in IFRS they may not be directly comparable with similarly titled measures used by other companies, including those in the same industry. The primary rationale for presenting these measures is that the management uses these measures in assessing the financial performance of Nokia and believes that these measures provide meaningful supplemental information on the underlying business performance of Nokia. These financial measures should not be considered in isolation from, or as a substitute for, financial information presented in compliance with IFRS.

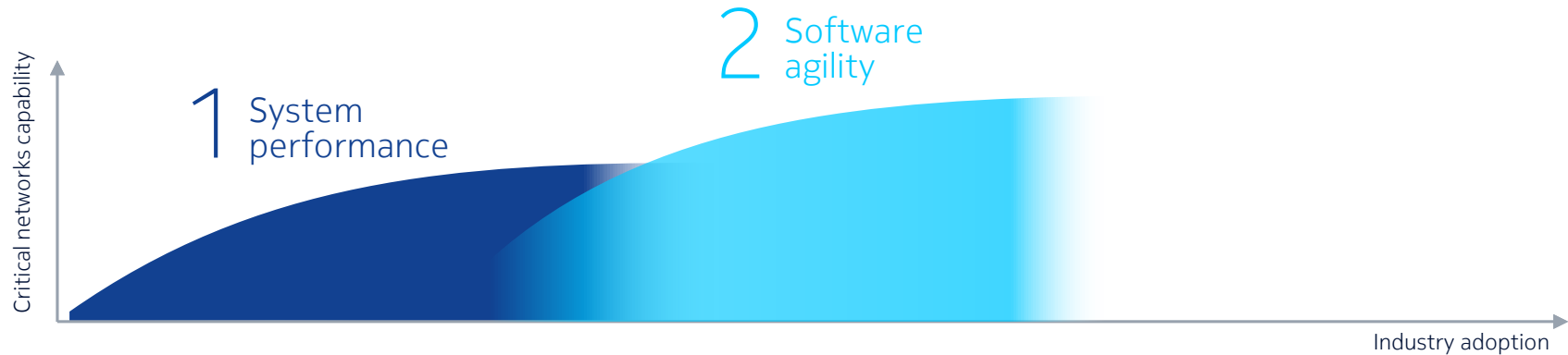
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Our industry is evolving in three waves to enable critical networks



Maximize network **performance** –
at lowest TCO – maximizing
physical resource utilization

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Create an **agile** network – to
enable rapid service creation –
in a webscaled-network world

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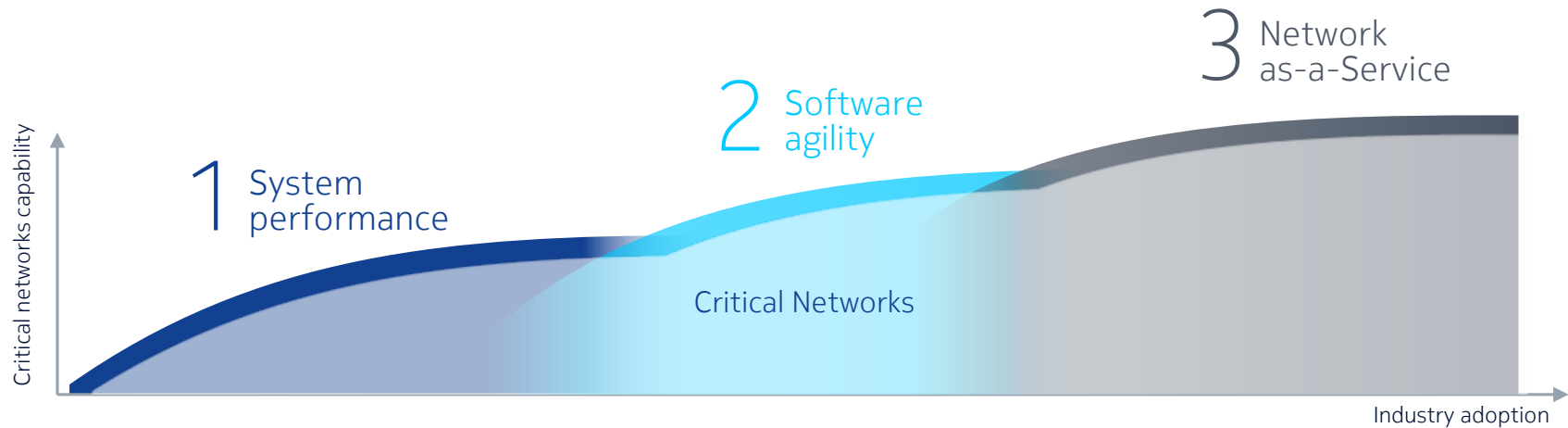


Maximize network **performance** – at lowest TCO – maximizing physical resource utilization

Create an **agile** network – to enable rapid service creation – in a webscaled-network world

Simplify the operations paradigm – transform the business model – adopt **as-a-Service** consumption

Our industry is evolving in three waves to enable critical networks

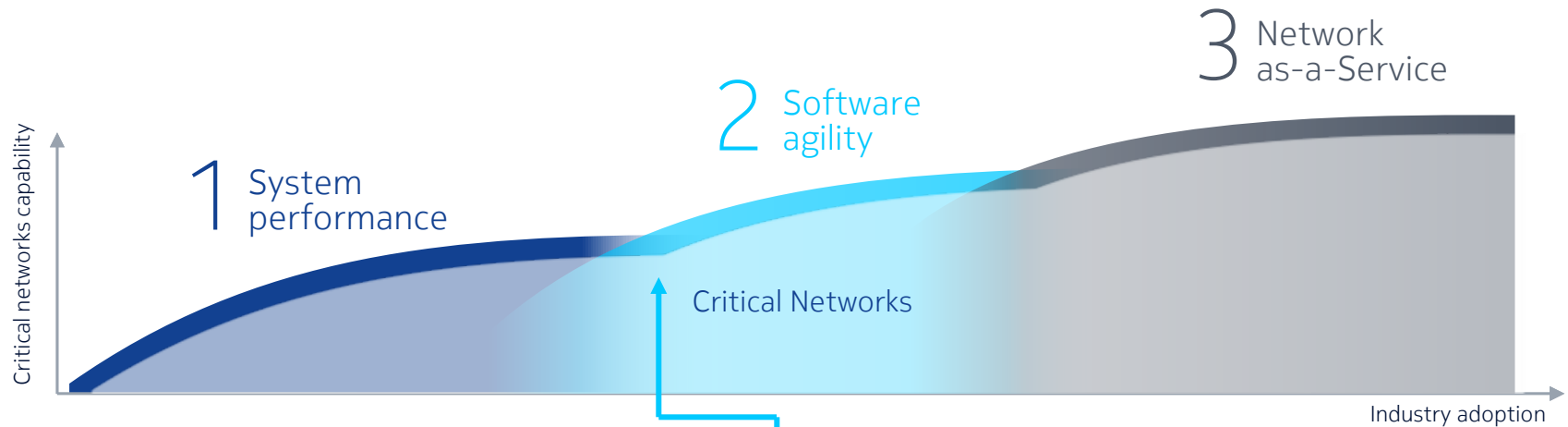


Maximize network **performance** – at lowest TCO – maximizing physical resource utilization

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Simplify the operations paradigm – transform the business model – adopt **as-a-Service** consumption

Connected Industries will drive new Critical Networks



Critical networks for consumer connectivity:

- Mobile Internet : 3B smartphone users
- Few centralized edge clouds
- E-commerce and social platforms
- High performance networking

ICT* and OT* coming together in the 5G era

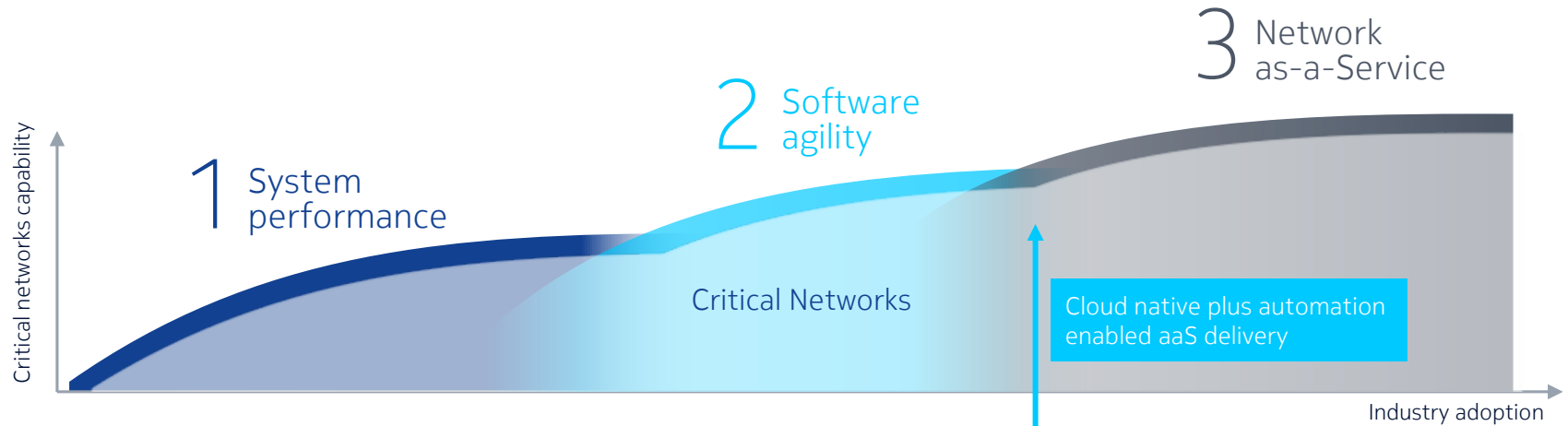
*ICT = Information & Communications Technologies,
*OT= Operational Technologies



Critical networks for industrial IoT:

- > 25B IoT devices and sensors by 2025
- Multitude of micro edge clouds
- Augmented intelligence control platforms
- Fit-for-purpose network SLAs

Connected Industries will drive new Critical Networks



Engineered critical networks:

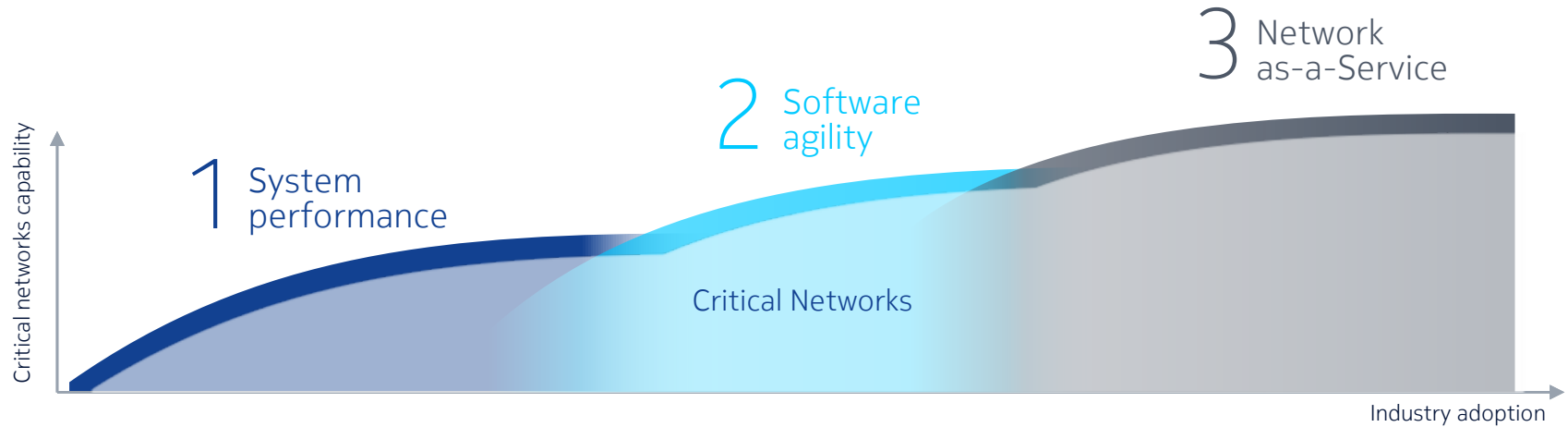
- Custom network slices
- Coordination between network & application
- Negotiated terms & conditions
- Semi-automated network life cycle



Frictionless critical networks:

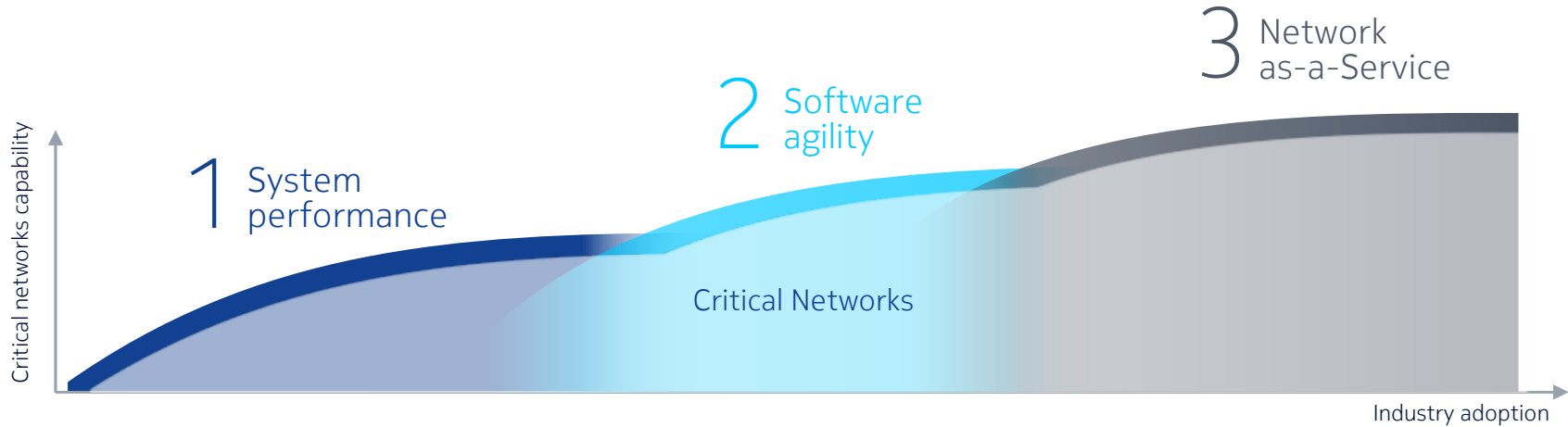
- 'Instant' cloud + network mash-ups
- Easy intent-based APIs
- Business outcomes driven
- Fully automated network aaS life cycle

Nokia's strategic commitments shape these technology waves

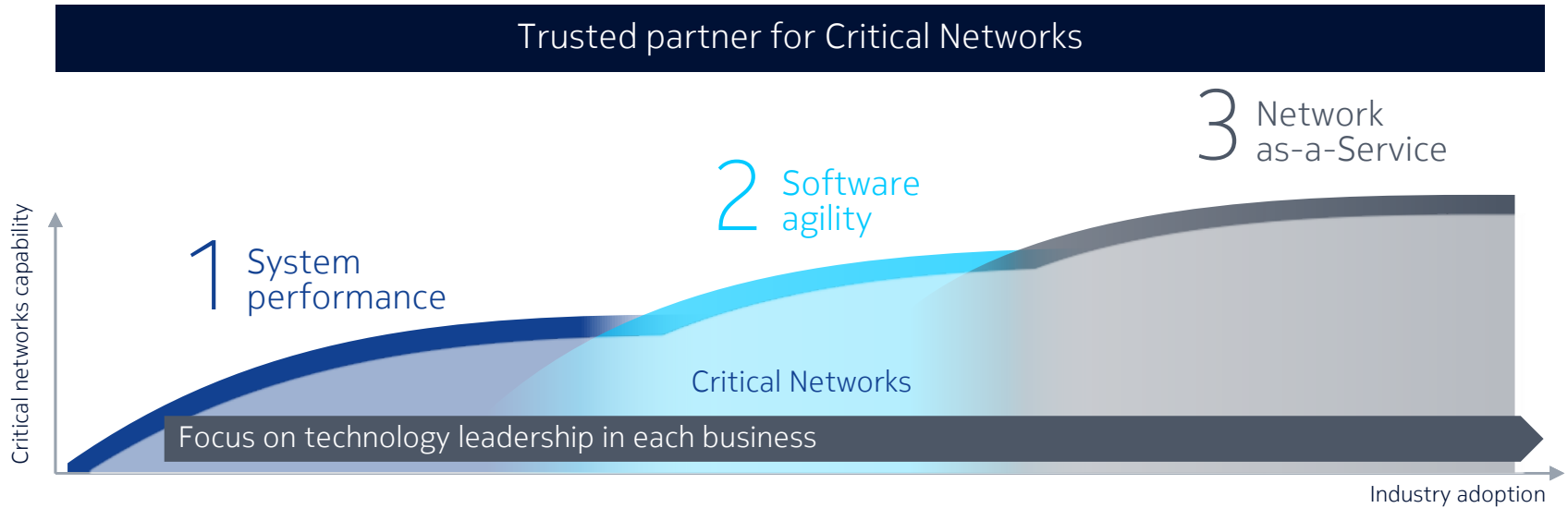


Nokia's strategic commitments shape these technology waves

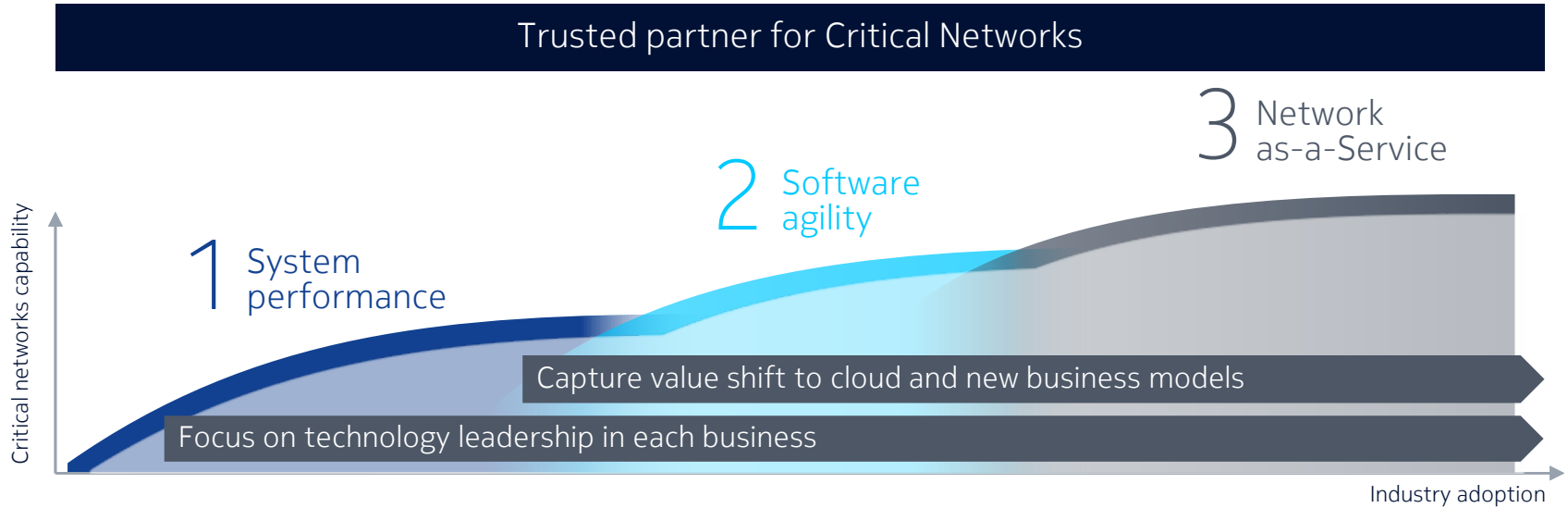
Trusted partner for Critical Networks



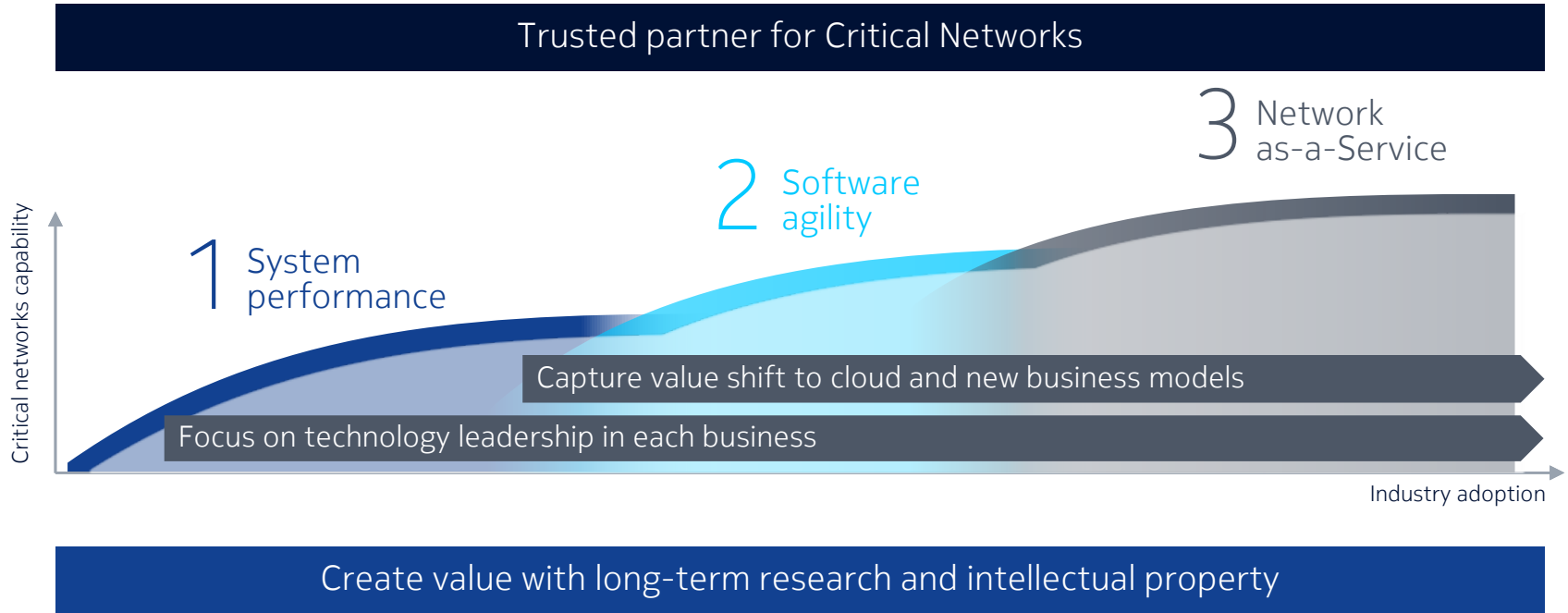
Nokia's strategic commitments shape these technology waves



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Nokia's strategic commitments shape these technology waves

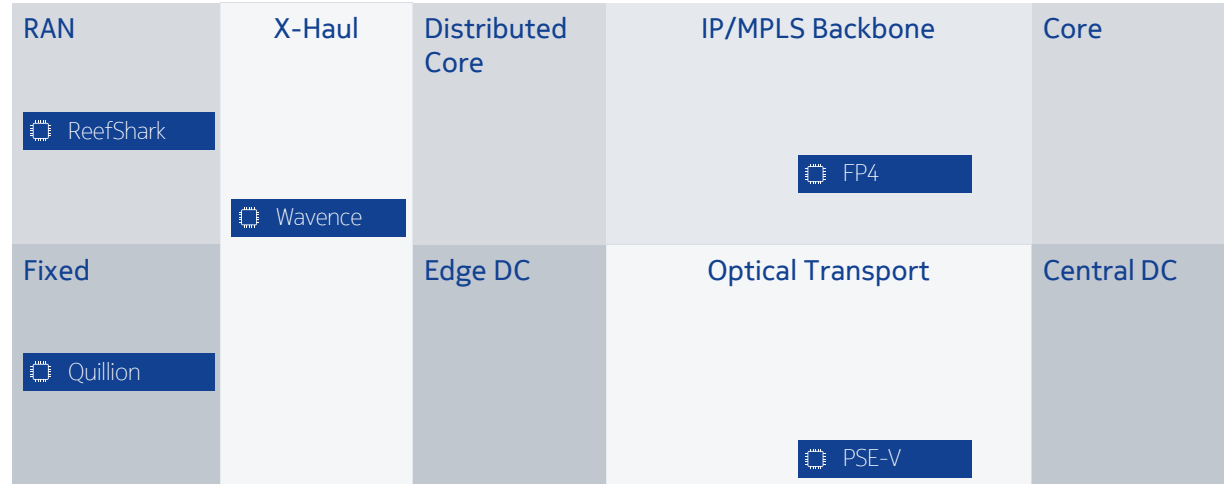


1. System performance

Deliver technology leadership through best of breed products at lowest TCO

Custom Chips

- Increased throughput
- Density and power efficiency
- Custom features



1. System performance

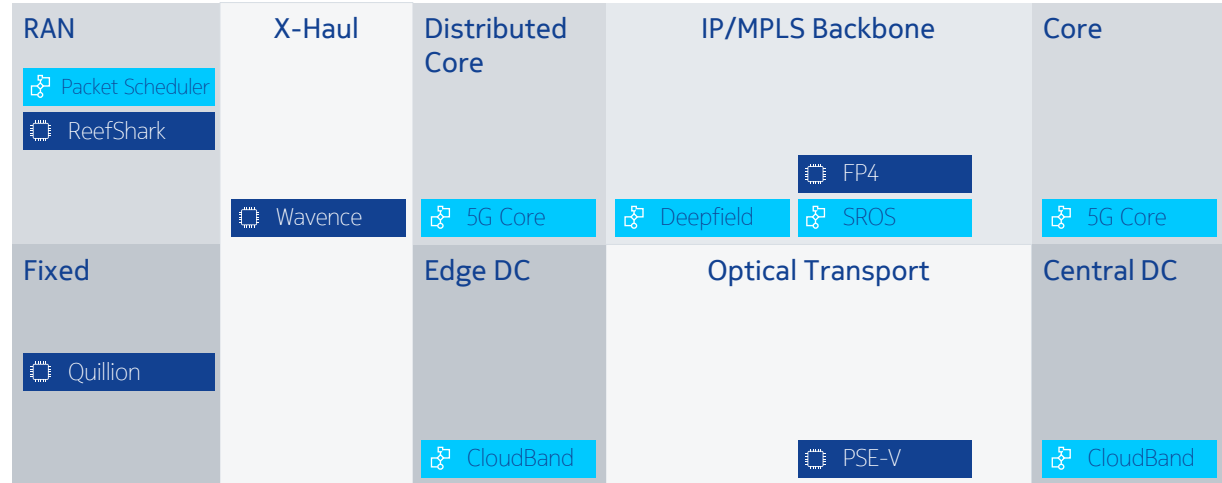
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Advanced Software

- Optimize performance
- High reliability
- Specialized algorithms



1. System performance

Deliver technology leadership through best of breed products at lowest TCO

Custom Chips

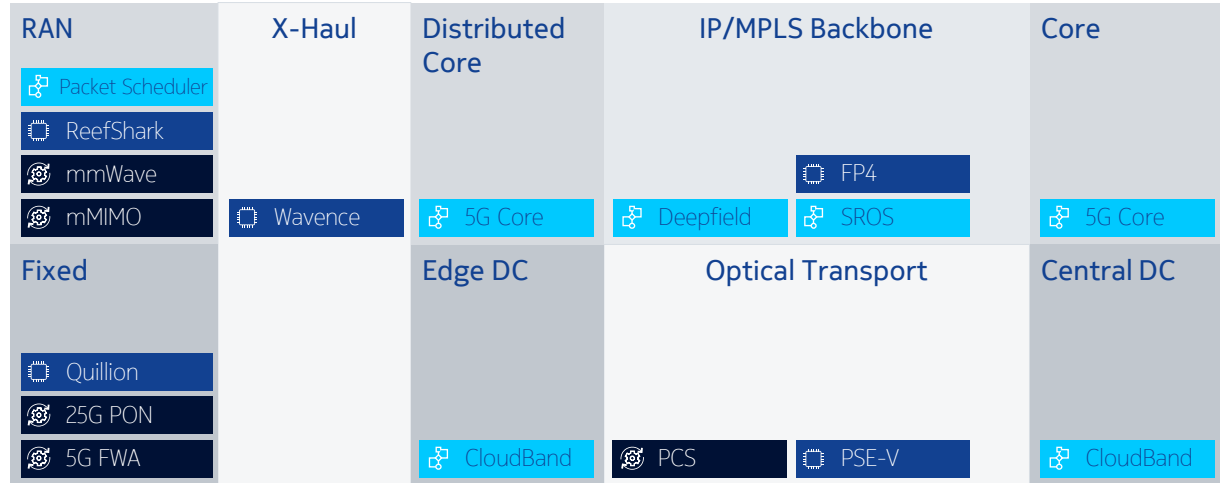
- Increased throughput
- Density and power efficiency
- Custom features

Advanced Software

- Optimize performance
- High reliability
- Specialized algorithms

Spectrum Optimization

- Maximize spectrum utilization
- Leverage spatial reuse
- Optimize fiber link capacity

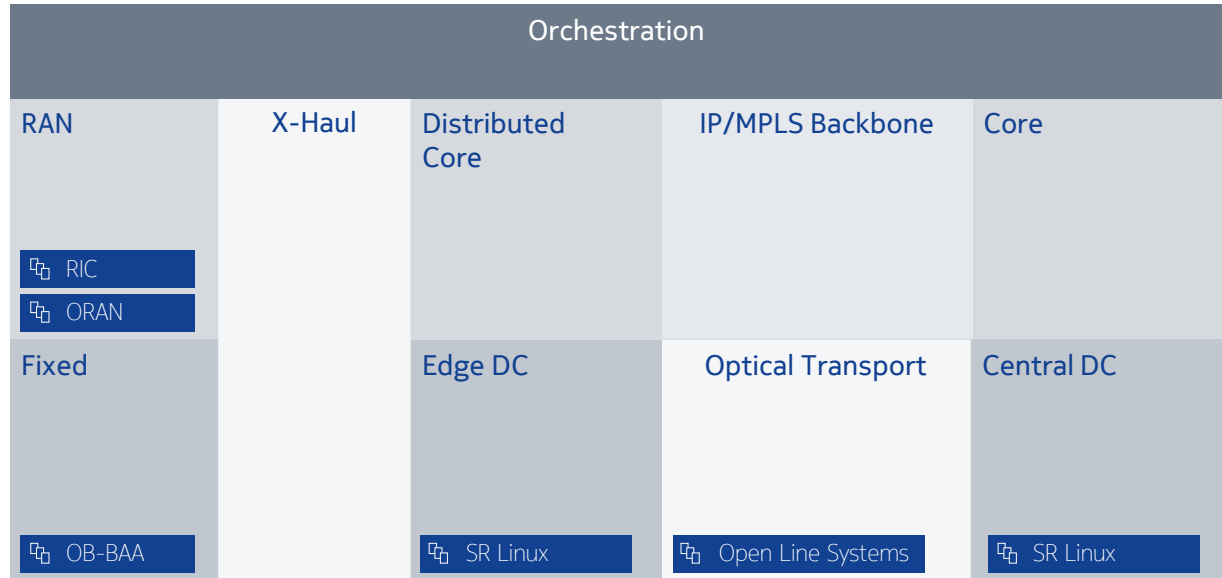


2. Software agility

Technology leadership through cloud & automation with business value at the intersection of CSPs, Webscales and Connected Industries

Openness

- Open architectures & interfaces
- Leverage webscale ecosystem



2. Software agility

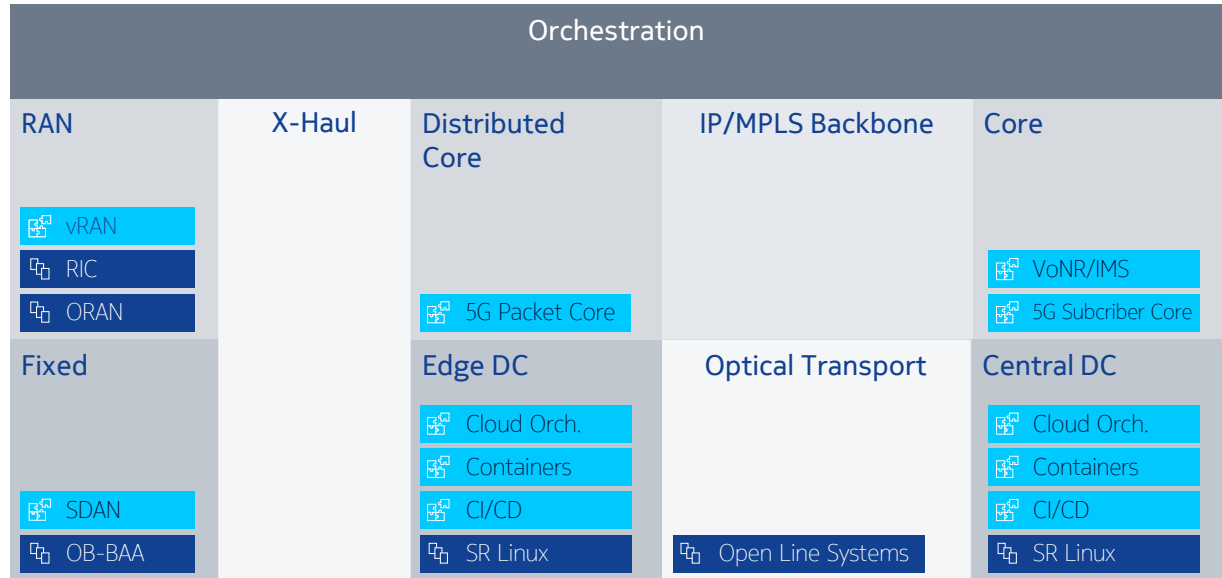
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Cloud Native

- Elastically scalable, resilient, stateless
- Cloud-agnostic software



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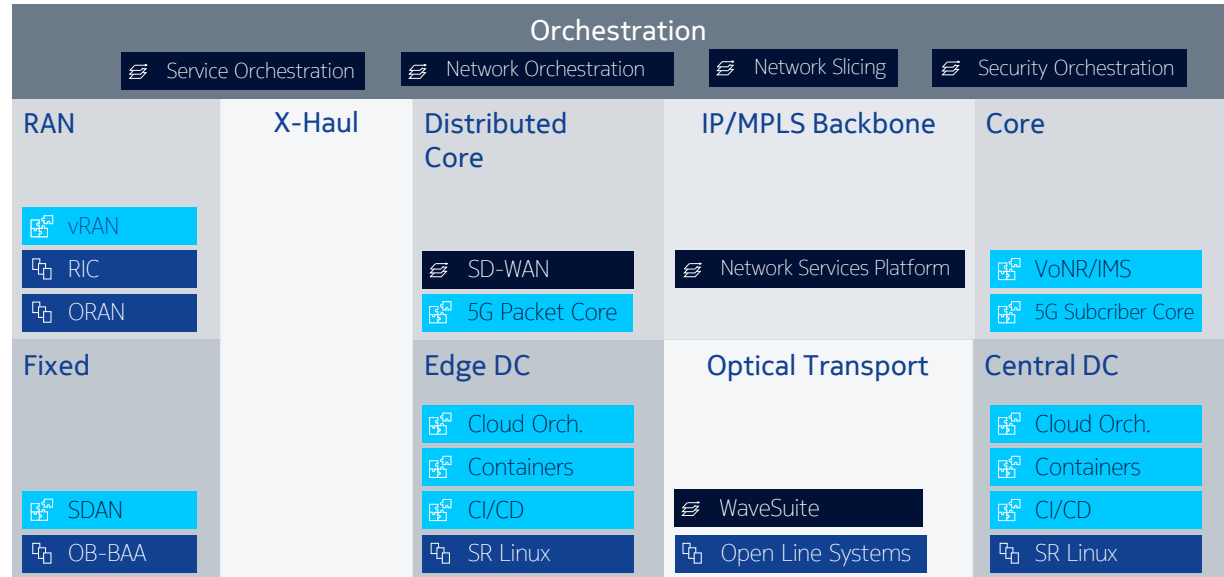
- Open architectures & interfaces
- Leverage webscale ecosystem

Cloud Native

- Elastically scalable, resilient, stateless
- Cloud-agnostic software

Network & Service Automation

- Multi-vendor, multi-domain orchestration
- AI/ML enabled

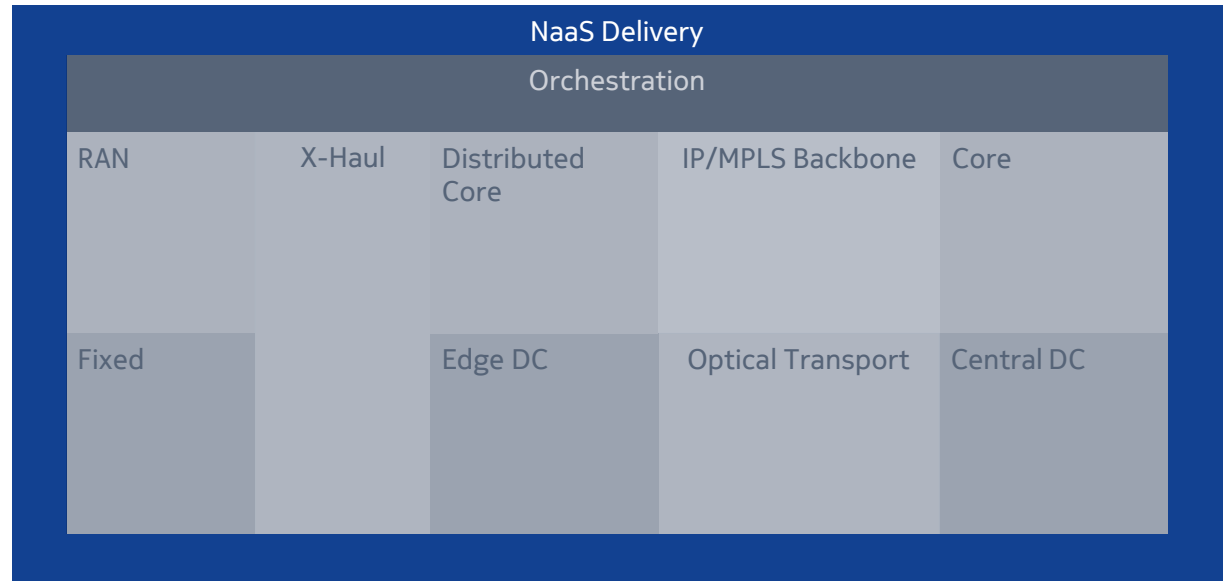


3. Network-as-a-Service

Business model evolution for simple and elastic consumption underpinned by aaS technologies

⇕⇕ NaaS Delivery

- Intent driven APIs
- Operational automation
- Built in security

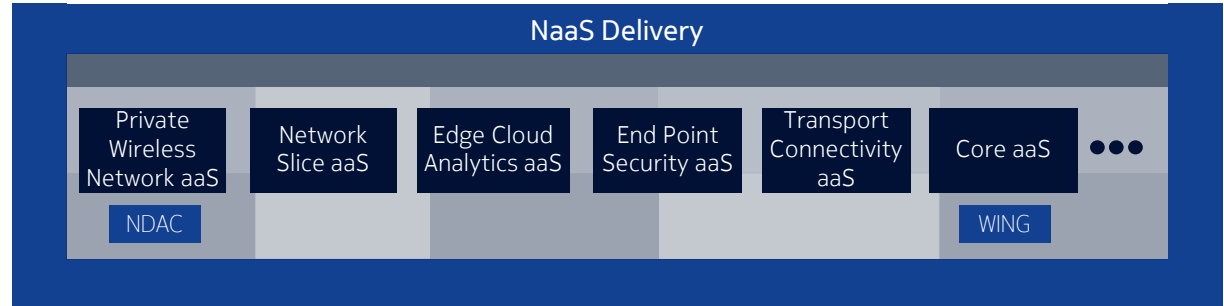


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3. Network-as-a-Service

Business model evolution for simple and elastic consumption underpinned by aaS technologies

Industrial Outcomes aaS

- Rapid 'mash-up' service innovation
- Dynamic scalability
- Low asset/operations overhead
- Predictable opex

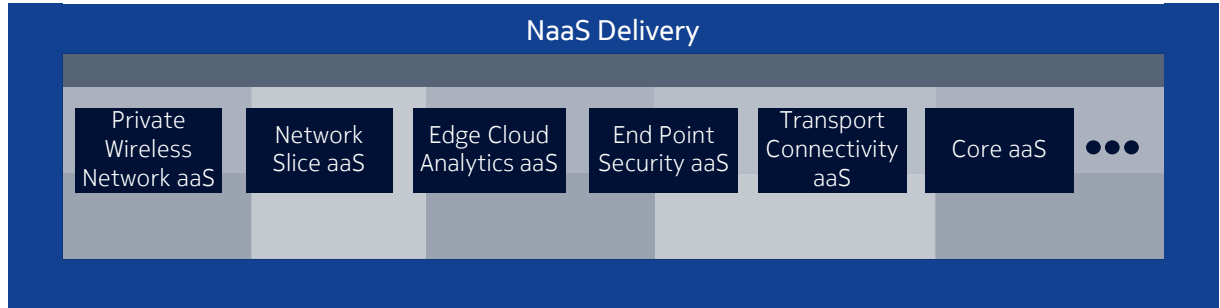
Industrial Outcomes aaS

The image shows four distinct use cases for Industrial Outcomes as a Service (aaS). Each use case is represented by a photograph and a corresponding label in a blue box below it. From left to right: 1. A worker in a white hard hat and uniform using a handheld device in a warehouse, labeled 'Precision Asset Tracking aaS'. 2. A worker in a red safety vest and white hard hat operating a drone, labeled 'Drone Surveillance aaS'. 3. A woman in a blue shirt looking at a large digital model of a factory on a screen, labeled 'Digital Twin aaS'. 4. A woman in a dark suit working at a laptop in an office setting, labeled 'Work From Home aaS'. Three blue dots are positioned to the right of the 'Work From Home aaS' label.

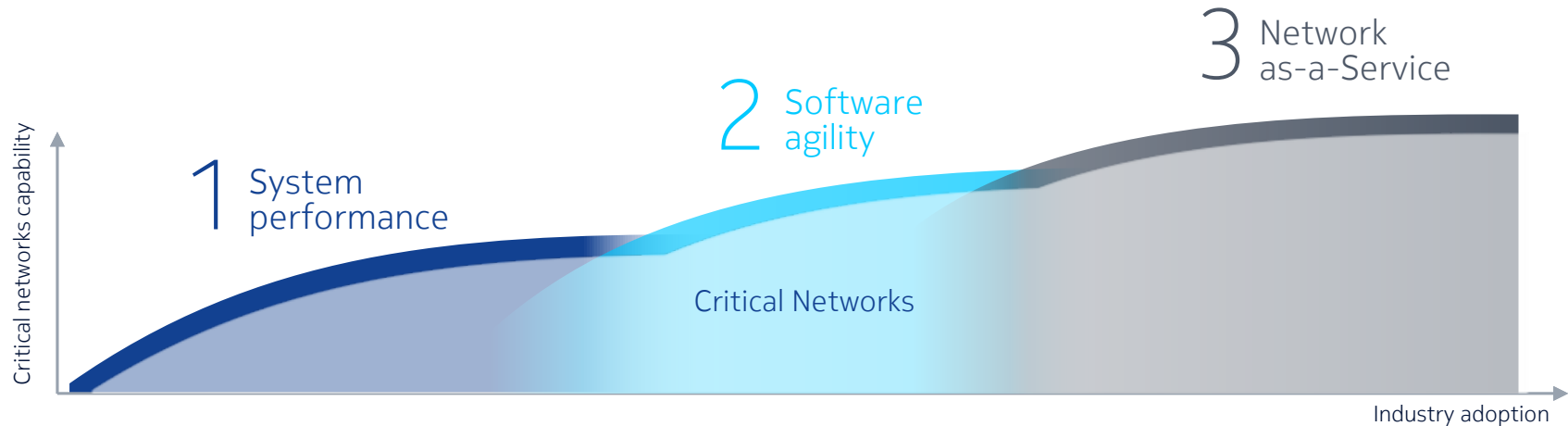
- Precision Asset Tracking aaS
- Drone Surveillance aaS
- Digital Twin aaS
- Work From Home aaS

NaaS Delivery

- Intent driven APIs
- Operational automation
- Built in security



Strong business groups leveraging strengths of each wave



Mobile Networks: Performance renewal and capitalizing on virtualization, cloud agility and open ecosystems

Network Infrastructure: Leading system performance and driving automation transformation

Cloud & Network Services: Cloud native evolution underway and evolving to aaS

Nokia Technologies: Delivering value with intellectual property

NOKIA