Modernisation through global scale

Ruza Sabanovic, Group CTO

CMD 20/20
CAPITAL MARKETS DAY

Connecting you to what matters most. Empowering societies

Nordics

- No of Subscribers: **10.0m**
- Data Traffic: **1.7m** (TB/year)
- No of Sites: **32k**
- No of Technical Data Centers (DCs): **13**
- No of IT Applications (Apps): **1,364**

Emerging Asia

- No of Subs: **144.1m**
- Data Traffic: **1.9m**
- No of Sites: **37k**
- No of DCs: **17**
- No of IT Apps: **248**

Developed Asia

- No of Subs: **31.9m**
- Data Traffic: **3.2m**
- No of Sites: **36k**
- No of DCs: **11**
- No of IT Apps: **207**

* Subscribers, traffic & sites for mobile

During the next **30 minutes**...

52,000,000 voice minutes,

7,000,000 SMS,
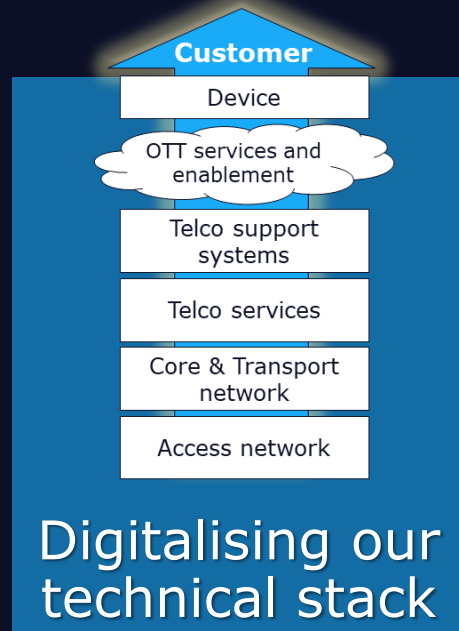
395 TB mobile data, and

656 TB fixed data

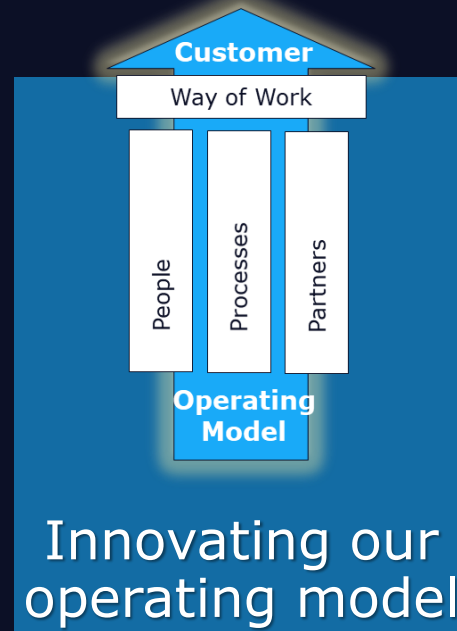...will be consumed by our **186 (+4*)** million subscribers. **87%** of the mobile traffic delivered through our Telenor Hybrid Cloud and accessed through our **~110,000** physical sites.

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3

* Fixed

Modernisation is our culture of continuous improvement to deliver excellent and trusted customer experience

Digitalising our technical stack

- Customer
  - Device
  - OTT services and enablement
  - Telco support systems
  - Telco services
  - Core & Transport network
  - Access network

> "Everything as a Service"

> 5G readiness and legacy sunset

Innovating our operating model

- Customer
  - Way of Work
  - People
  - Processes
  - Partners
  - Operating Model

> Towards "Touch-Free" operations

> Global way of work with partners and selective centralisation

Delivering More for Less

- Customer
  - Capex to Sales
  - Data Consumption
  - Efficient Operator

> Stable capex to sales

> Improved customer experience

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Modernisation is our culture of continuous improvement to deliver excellent and trusted customer experience

Customer
Device

57%

Digitalising our
technical stack

Access network

Customer
Way of Work

72%

Innovating our
operating model

Customer
Capex to

15%

Delivering
More for Less

2019 status, excluding DNA
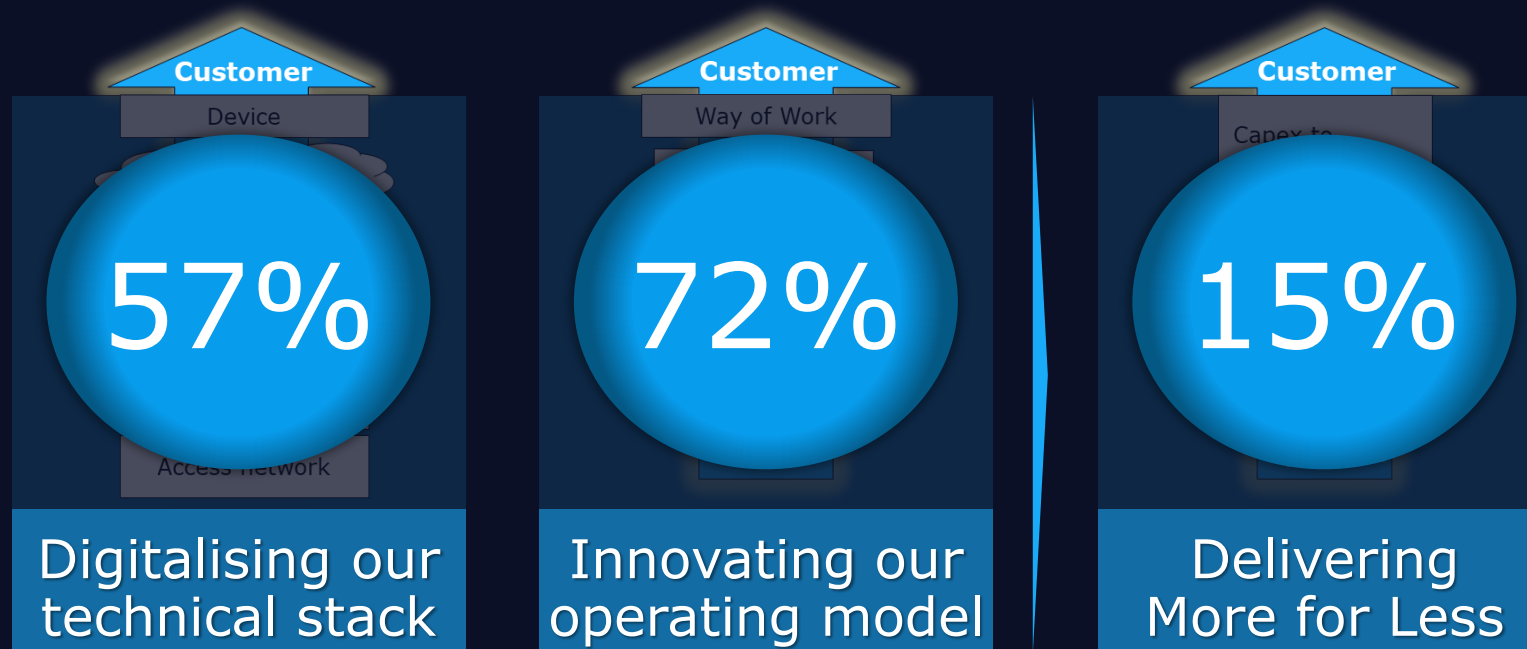
Mindset shift is the core of our modernisation

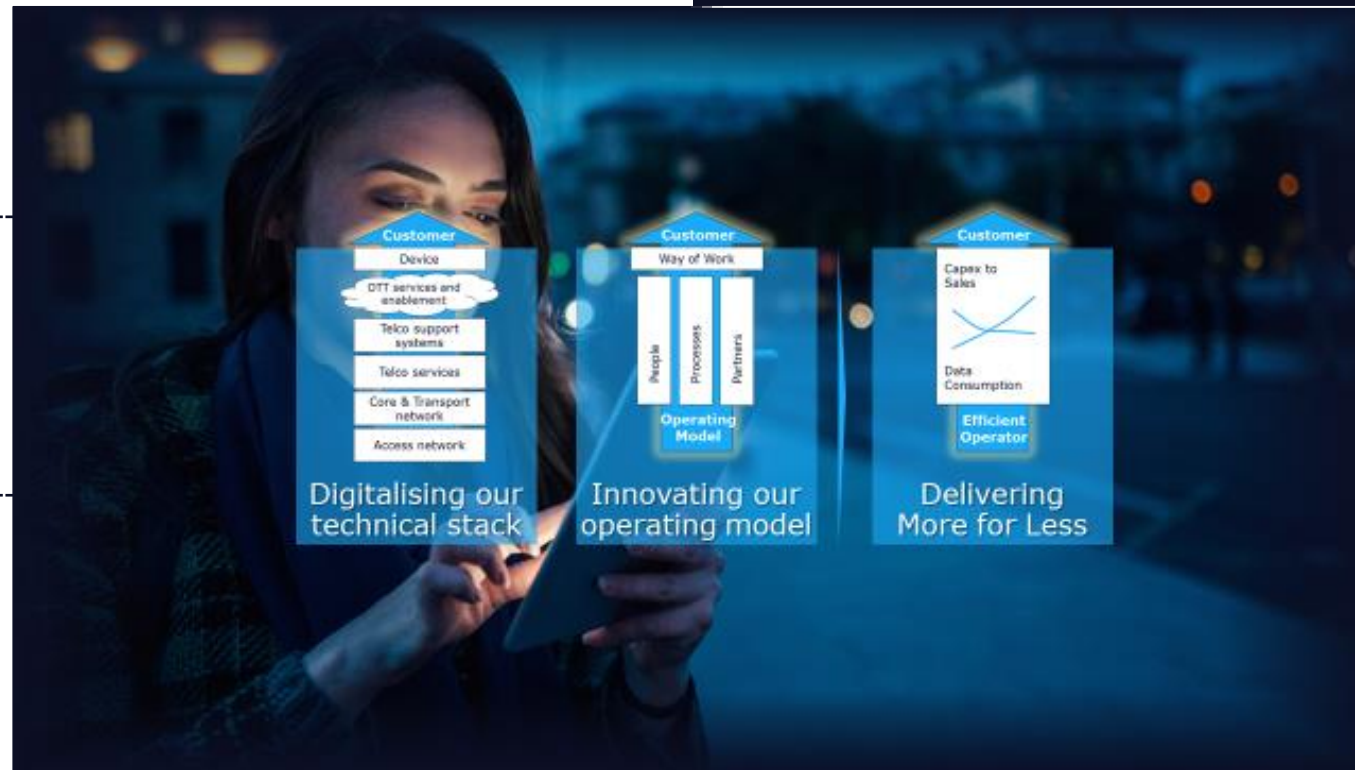**Deliver Excellent & Trusted
Customer Experience**

**Deliver "Everything
as a Service"**

Digital
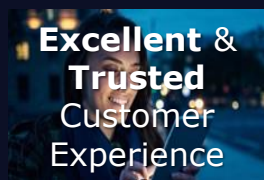
Personalize

Trust

Empower

"Touch Free"
Operations

Data Lake for
1st party data

Privacy & Security
by Design

Cloud First,
5G Ready,
Spectrum Efficiency

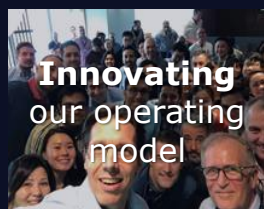# Our relentless focus on results drives modernisation impact

	2017	2019	2020e	2023e
Excellent & **Trusted** Customer Experience				
Network Net Promoter Score (NPS)	Journey starts	19.4	20.1	Enable invest.
We are security - maturity level	Journey starts	2.5	>3	>4
Digitalising our technical stack				
5G enabled radio [1]	0%	8%	~27%	~48%
Cloud: Data Traffic | IT applications	Journey starts	83% | 16%	90% | 38%	100% | 80%
Network Energy Reduction: SCN | Asia	Continuous improvement		Flat | -4%	Leading
Innovating our operating model				
Global Operating Model	45%	72%	81%	90%
NW & IT CDC Capabilities	Journey starts	79% | 33%	80% | 50%	90% | 90%
Centralized Procurement Spend	25%	63%	70%	75%
Delivering **More** for **Less**				
Telenor Capex to Sales	15.4%	15%	~15%	~15%
Average Cost per GB, in NOK	8	4	3	Reduce
4G/5G Spectrum Share [1]	59%	72%	84%	>90%

[1] 2019 onwards DNA included

We unleash the potential of our technology
"Everything as a Service"

Digitalising our technical stack
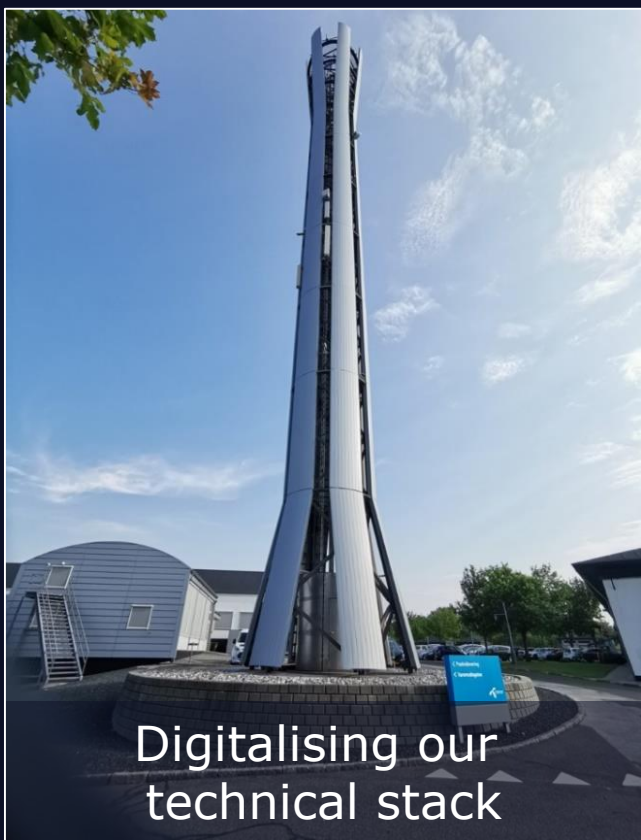
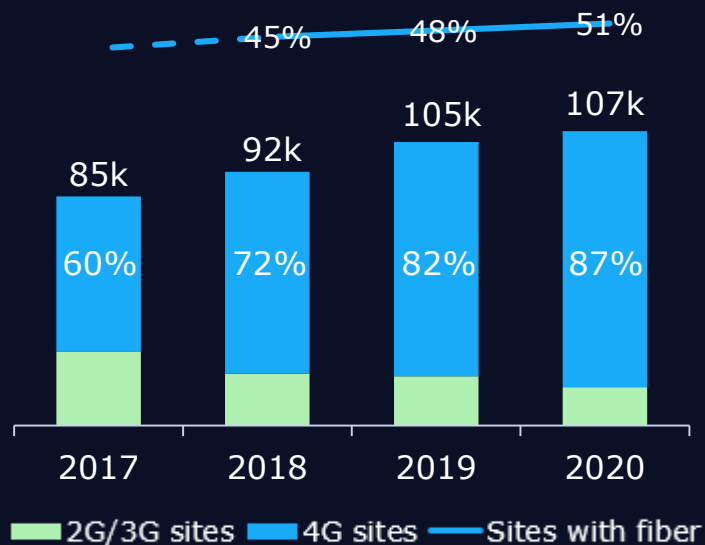|	Benefits	Value
Security	Trust & Protecting Assets	> **5%** ARPU uplift in Telenor Norway > **5.5** million security events managed
APIs	Partners & Simplification	> **216** standardized APIs > **48 million** API calls per day
Analytics	Insights & Fact based	> Operational data lakes in **all business units** enabling personalisation & data driven decisions
Cloud	Speed & Decoupling	> **87%** mobile data traffic > **16%** IT applications public cloud
Access	5G Readiness & Efficiency	> **5G** launched > **>50%** shared or leased passive infra > **3G** and **copper** sunset

# Preparing for 5G – innovation without legacy

Mobile Sites & Fiberisation*

45% 48% 51%

85k	92k	105k	107k
60%	72%	82%	87%
2017	2018	2019	2020

🟩 2G/3G sites 🟦 4G sites — Sites with fiber

~4x logical sites, and
72% total spectrum on 4G

Refarming from 2G/3G to 4G

23k	49k	59k	71k
2017	2018	2019	2020

🟦 Cumulated Mobile Sites Refarmed to 4G
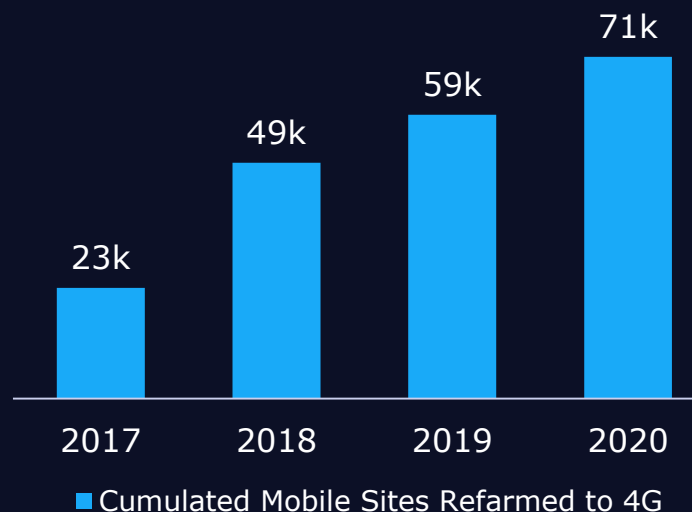
Shifting 2G/3G spectrum to more effective
technologies, and turning off 3G
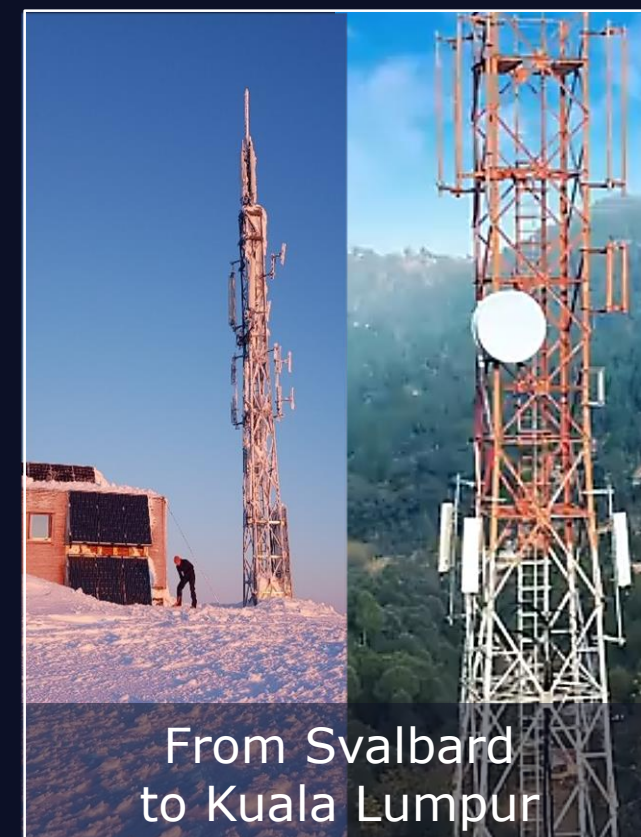
From Svalbard
to Kuala Lumpur

* 2019 & 2020 including DNA

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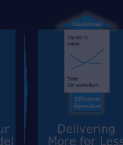
Telenor Hybrid Cloud delivers data to 154m customers
Recognized, open, secure and convergent cloud

> 87% Mobile Data Traffic

> 16% IT on Public Cloud

> Improved agility and 5G readiness

> 40% infrastructure cost reduction

Network Virtualization & SDN Europe

Case Study Pitch Off Award

WINNER: Telenor

Telenor received award for our network cloud and virtualisation achievements

"NFV is delivering cost-efficiencies and a foundation for 5G"

Automation 1st principle drives our touch free operations ambition

2023

Touch Free Operations
- Fully automated and predictive customer centric operations

Cognitive
- Up to 27% energy efficiency
- Predictive improvement of Network NPS
- Dynamic & demand driven license allocation

Common Delivery Center (CDC)
- CDC implemented in 5 Business Units
- Delivering 30% efficiency
- Close to 600 automation use-cases live

Telenor Myanmar
IT & Network Operations

79% Touch Free

> **100%** Real time AI based customer problem diagnosis in Network

> **98%** Automatic incident detection

> **96%** Automatic ticket dispatching & resolution verification

> **71%** Real time automatic root-cause analysis

> **38%** Reduction of manual resolution

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The global way of work is our strength

Innovating our operating model

	Benefits	Value
People	Competence uplift	› **1,300** resources
Processes	Effectiveness	› **6.8 BNOK** TPC savings › **~600** automation use-cases
Partners	Common Delivery Centers	› **79%** Network › **33%** IT
Way of Work	Global capacity	› **25** Global Teams

We Create Together and Always Explore

Technology Resources

>1/3 FTEs upskilled

Year	Value
2017	4700
2018	4000
2019	3900
Mar'20	3500
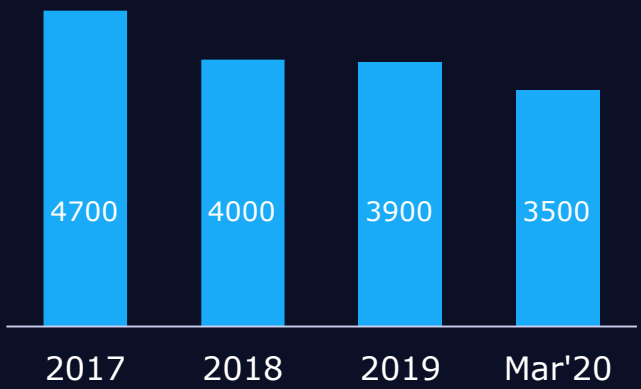
Actively upskilling and leveraging partners' scale

Global Teams

Group has an extended arm through Global Teams

25 Global teams

- Security — 1
- Global Architecture — 2
- Sourcing — 1
- Network sharing — 1
- Demand Management — 13
- Performance Management — 3
- CDC — 2
- Operational efficiency — 2

More than 20% of our technology resources are engaged in Global Teams

Granular Way of Work
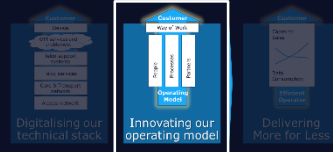
Create Together

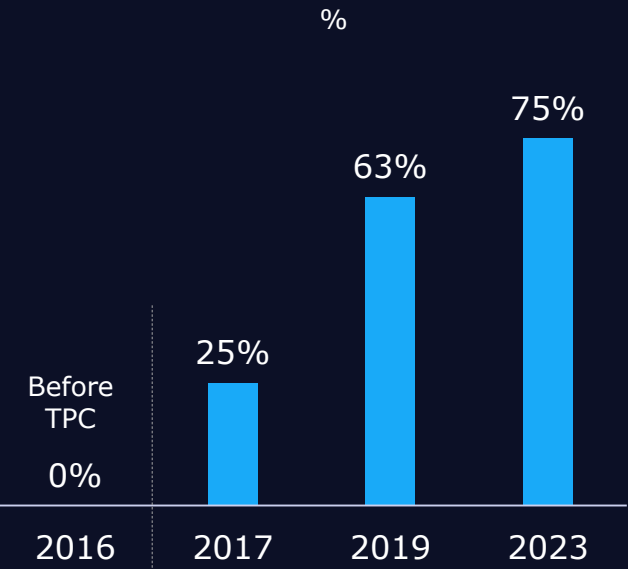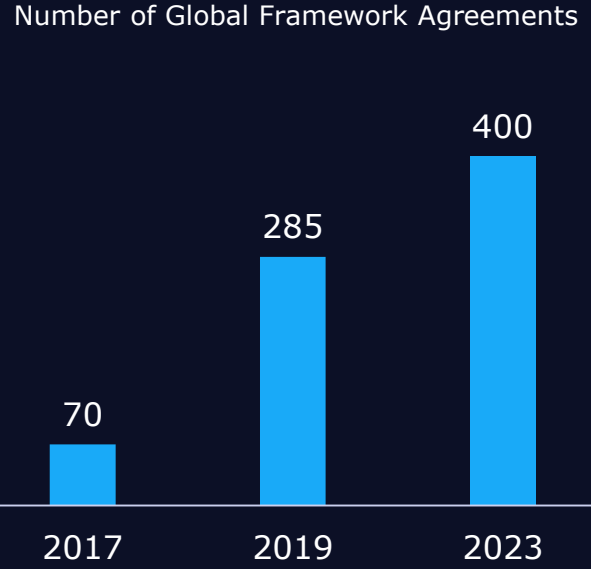Hands-on, closer to the Customer

Site Profitability

Low — High

Value Creation through Customer Centricity

TPC is driving a competitive advantage through scale and efficiency
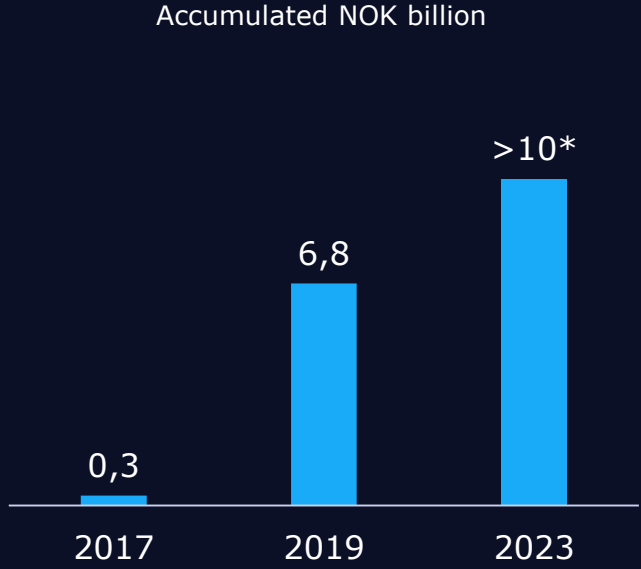
Centrally Managed Spend
%

75%
63%
25%
Before TPC
0%

2016   2017   2019   2023

70% reduced invoice approval cycle time, and 50% touchless invoices

GFAs
Number of Global Framework Agreements

400
285
70

2017   2019   2023

29 active contracts per FTE, and 20% reduction in number of vendors
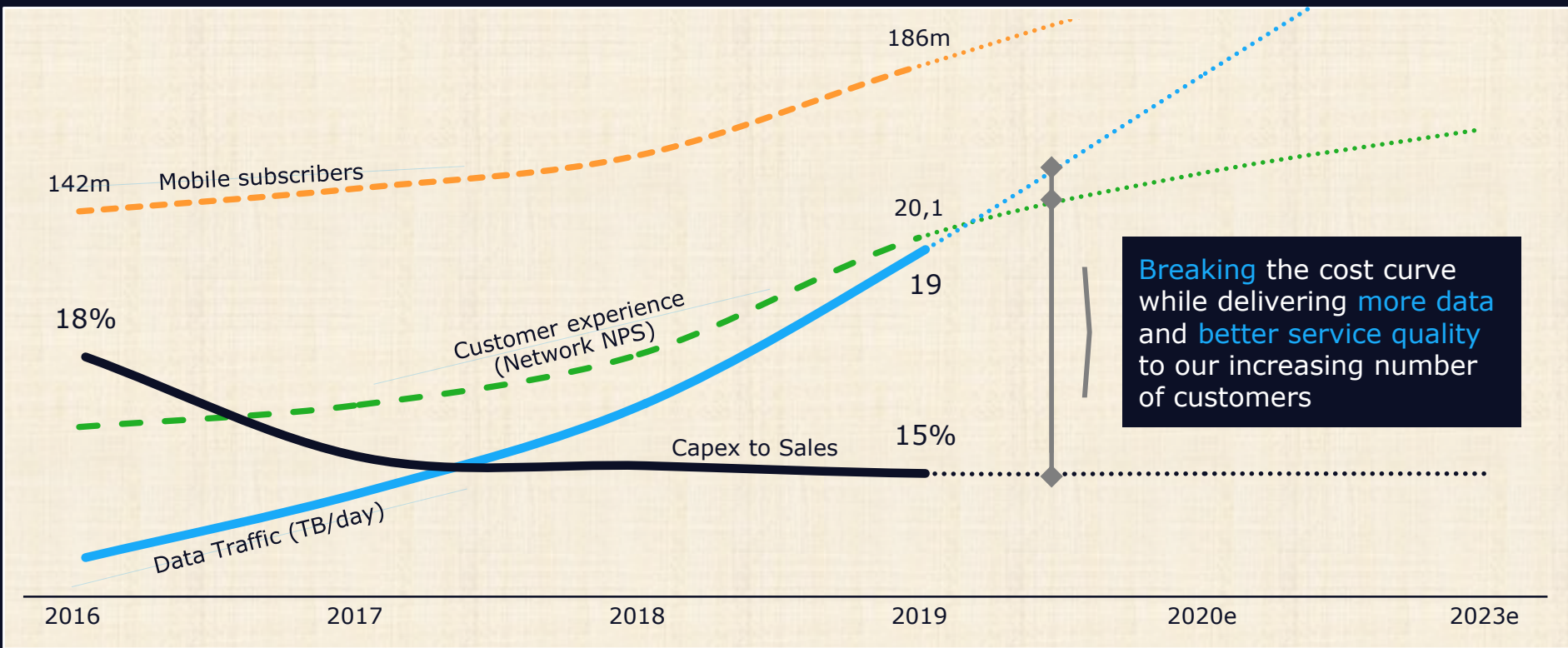
Savings
Accumulated NOK billion

>10*
6,8
0,3

2017   2019   2023

We aim to continue the systematic work and believe that >10BNOK savings in 2023 is possible compared to 2016

[1] Telenor Procurement Center

We are delivering More for Less
By continuously challenging the convention

186m

142m   Mobile subscribers

20,1

Breaking the cost curve while delivering more data and better service quality to our increasing number of customers

18%   Customer experience (Network NPS)

19

Capex to Sales   15%

Data Traffic (TB/day)

2016   2017   2018   2019   2020e   2023e

Our relentless focus on results drives modernisation impact

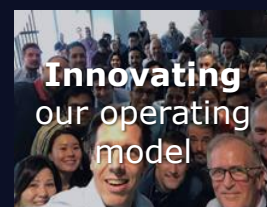|		2017	2019	2020e	2023e
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We are Telenor

96%
Digitalising our technical stack

90%
Innovating our operating model

~15%
Delivering more for less

2023 ambitions