Financial Performance and Trends in the Telecom Industry

Applied Value

Q4 2021

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Applied Value Telecommunications Practice

Telecommunication has been a core practice area for Applied Value since our inception in 1997. Over the last 20+ years, we have supported a wide range of clients across the telecommunications value chain and across continents.

We generate client value and provide tangible results by applying an unbiased perspective, having a hands-on approach, and recognizing the importance of delivering value fast.

About this report

This report tracks the financial performance of major players in the telecommunications industry ranging from operators to infrastructure OEMs and mobile device makers.

We hope that you find this report insightful, and we welcome feedback or opportunities for further discussions.

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Applied Value’s telecom report tracks the financial performance of major players in the industry

Operators

- américa móvil
- AT&T
- STC
- BCE
- ooredoo
- SK telecom
- verizon
- BT
- airtel
- NTT
- swisscom
- telenor
- TELE2
- Deutsche Telekom
- TURKCELL
- orange
- Telia Company
- AIS
- MILLICOM THE DIGITAL LIFESTYLE tigo
- TELUS
- اتصالات etisalat
- elisa
- kt
- Telefónica
- proximus
- KDDI

Infrastructure OEMs

- NOKIA
- ERICSSON
- HUAWEI
- ZTE

Device OEMs

- Apple
- SAMSUNG
- Xiaomi
- HUAWEI
- Lenovo

Contents

Executive summary

Key takeaways per segment

Operators

1. The operator segment Q4'21 revenue fell by 6% YoY leading to an average industry decline of 3% in FY2021. Both America Movil and SK Telecom experienced an 11% YoY revenue reduction in Q4.
2. Yearly average NOPAT and EBITDA margins increased by 0.5pp. and 1.7pp. respectively in LTM. LATAM operators improved EBITDA the most during Q4'21 by 15pp. YoY, followed by MEA , Europe and APAC operators. Global and North American operators EBITDA margin fell by 3pp. and 1pp. during within the same period.
3. ROIC for operators averaged at 8.1% in LTM, a 0.3pp. increase from 2020.

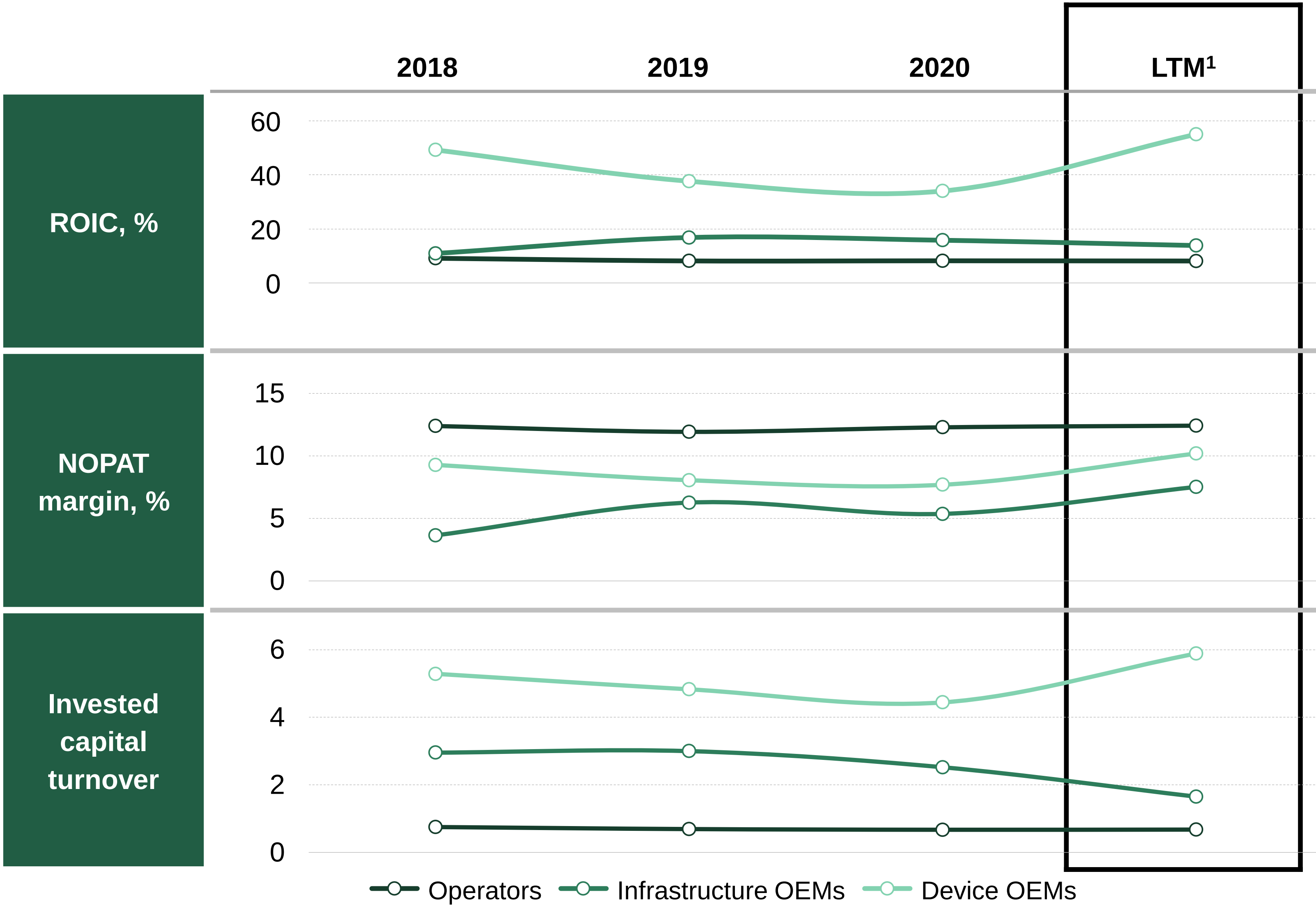
Infrastructure OEMs

1. Infrastructure OEM's yearly revenue fell by 16% YoY on average in LTM, mainly driven by Huawei's 23% revenue decline in the period. Among all selected infrastructure OEMs, only ZTE showed positive revenue development of 16%.
2. Ericsson obtained the highest NOPAT margin and capital turnover ratio, as a result, achieved 15pp. increase in ROIC over LTM and it is the only company that created value for shareholders as ROIC (23.4%) exceeded WACC (15%) in LTM.
3. Huawei's 2.8pp. drop in CTR over LTM led to a continuous decline in it's ROIC – down by 15pp. since 2020.

Device OEMs

1. Selected global device OEMs revenues increased by 17% YoY in LTM. Lenovo and Apple had the strongest revenue development over the period, growing by 39% and 38% respectively.
2. Global smartphone shipments were down by 6% YoY in Q4'21, while improvements were seen in global wearable and PC shipments, increasing by 10% and 3%.
3. Apple outperformed industry peers with higher-than-average NOPAT margin and CTR, it's ROIC had improved by 189pp. to 292.3%.

Financial overview (1/2): Yearly performance



Change 2018 – LTM
Device OEMs
+5.8pp.
Infra OEMs
+2.9pp.
Operator
-1.0pp.
Operator
0.0 pp.
Device OEMs
+0.9pp.
Infra OEMs
+3.9pp.
Device OEMs
+0.60
Infra OEMs
-1.30
Operator
-0.10

Notes: 1. LTM refers to Q1’21 – Q4’21 for most companies included in the report. LTM analysis of Huawei based on the period of Q4’20 – Q3’21; ROIC (Return on Invested Capital), NOPAT (Net Operating Profit After Tax); Deviations due to different selection of operators and restated company financials. Telecom report data is based on fiscal years and calendar quarters.

Financial overview (2/2): Quarterly performance

	Segment	Q4'21	Q3'21	Q2'21	Q1'21
Sales Y-o-Y (% change)	**Operators**	-6.0%	-0.5%	6.3%	8.6%
	Infrastructure OEMs	0.4%	-20.6%	-20.2%	-1.0%
	Device OEMs	8.6%	10.0%	19.1%	34.7%
NOPAT Y-o-Y (p.p. change)	**Operators**	0.0 pp.	0.1 pp.	0.7 pp.	0.2 pp.
	Infrastructure OEMs	-1.4 pp.	1.7 pp.	1.5 pp.	1.5 pp.
	Device OEMs	0.5 pp.	2.2 pp.	1.9 pp.	3.4 pp.
EBITDA Y-o-Y (p.p. change)	**Operators**	2.3 pp.	-0.3 pp.	-0.7 pp.	0.1 pp.
	Infrastructure OEMs	-2.5 pp.	2.9 pp.	1.9 pp.	2.0 pp.
	Device OEMs	-0.2 pp.	3.3 pp.	2.4 pp.	4.1 pp.

Notes: Telecom report data is based on fiscal years and calendar quarters; NOPAT: Net Operating Profit After Tax
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

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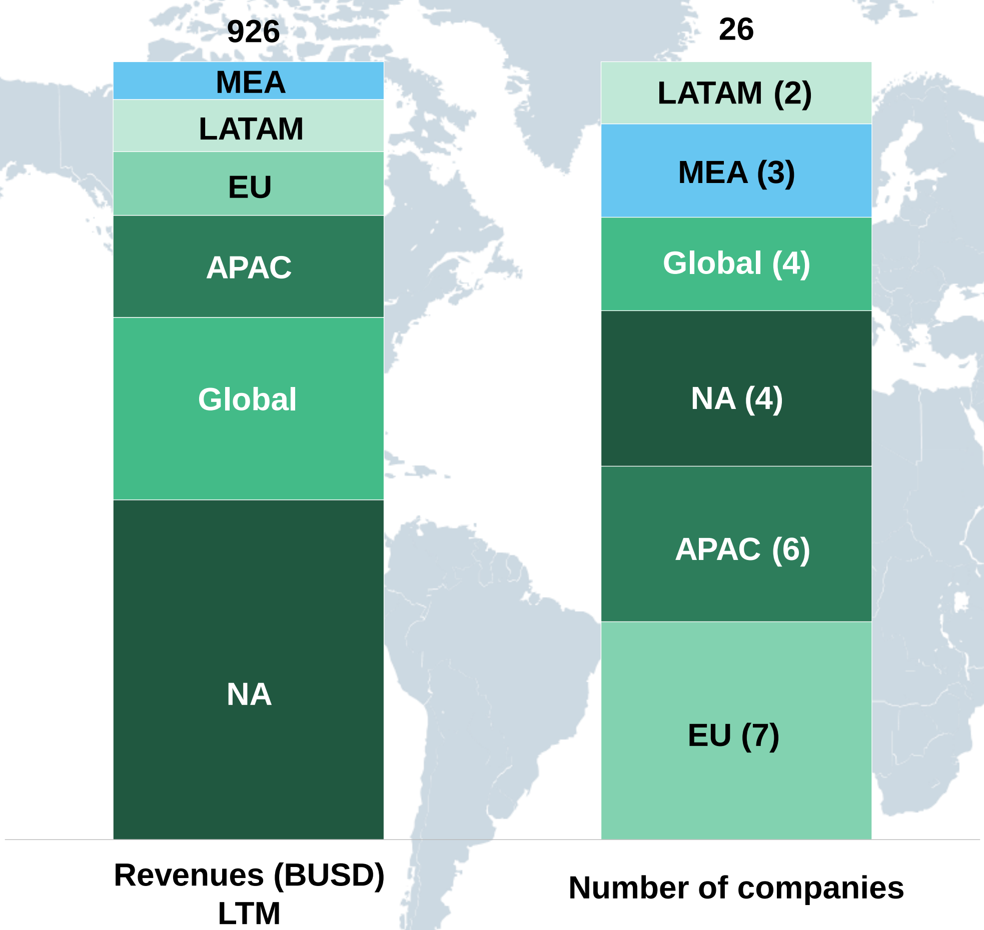
The Q4‘21 report covers 26 of the largest operators globally, accounting for nearly 1 trillion USD in revenues

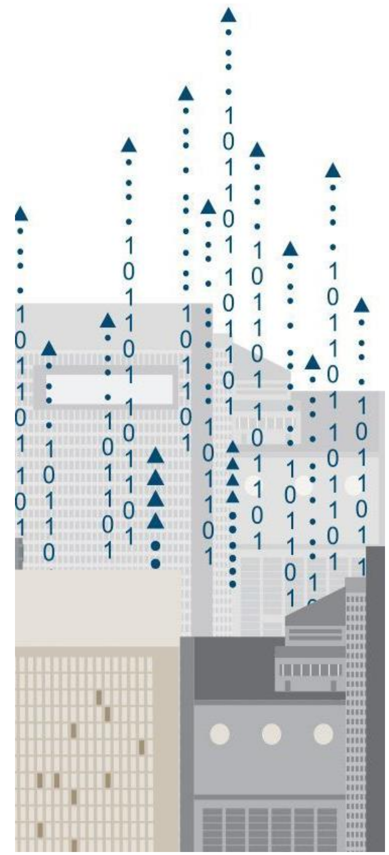
Report overview
Revenue in BUSD, and company breakdown by regions



Note: Global operator refers to those with transregional business establishments.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Key takeaways from the operator segment

Key takeaways



Creating Shareholder Value

1. The ROIC of selected operators averaged at 8.1% during LTM – an increase by 0.4pp. compared to FY2020, driven by an over 0.4 pp. increase in NOPAT margin.
2. KDDI recorded the highest ROIC in the peer group at 17%, followed by STC (15%) and Elisa (14%). Ooredoo improved ROIC most significantly by 2.9pp. in LTM comparing to LTM-1 as a result of improved operating performance.

Revenue Performance

1. Except for MEA, all other regions experienced negative YoY revenue development. LATAM suffered most significantly by 14% YoY.
2. Millicom had the most significant revenue improvement YoY of 24%, owing to Guatemala consolidation, robust subscriber growth of 3M+ new subscribers and strong service revenue growth in LATAM countries.

Margin Performance

1. Averaged yearly EBITDA margins for selected operators stabilized at around 33%, while NOPAT margins flattened at around 12.4%.
2. America Movil (+24% YoY) achieved highest EBITDA improvement in Q4’21 comparing to the peer group, whereas Verizon experienced 12% YoY decline due to a 40% raise in selling, general and admin expenses.

Capital Expenditure

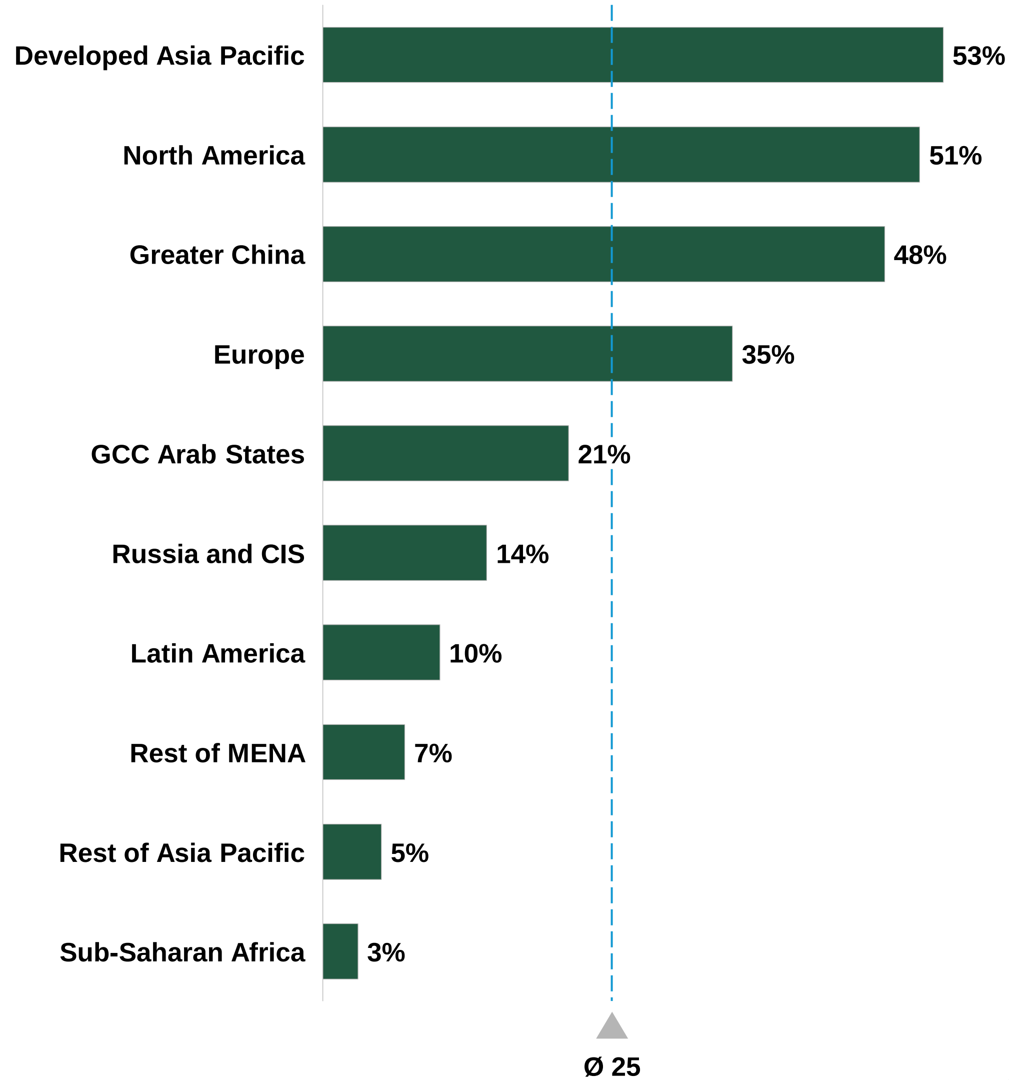
1. Quarterly CAPEX over sales for selected operators averaged at 18% in Q4’21. MEA operators cut back on CAPEX by 18.6% from 2018 to LTM, while LATAM operators increased in CAPEX during the same period, from 14.9% to 16.5%.
2. More than half of the operators experienced YoY CAPEX growth. American Movil placed top of the peer group with a CAPEX over sales increase by 22% YoY.

Q4’21 events across the operator segment

Industry & operator news

Lower Churn Rate	**Churn rate** for major telcos was low in 2021. Developing AI- and big data-driven solutions is increasingly key for telcos to grow customer loyalty and retention and thus, profitability.
UK 5G Coverage	3 Major UK operators have all doubled their **5G coverage** in 2021 with EE increased by 120%, O2 expanded by 260% and 150% for Three. Vodafone also broadened its coverage by 90%.
5G Core	In 2021, almost all operators had migrated to **standalone 5G core** from previous non-standalone implementation which reused 4G core. This movement sets the cornerstone for more advanced 5G services.
Oct-2021	**Telia** launched the first commercial 5G SA core network in Finland, which brought low latency and network slicing capabilities to the area.
Nov-2021	**Ericsson** announced the acquisition of communications specialist, Vonage, for $6.2B in order to enhance cloud services presence. The deal is expected to close in the first half of 2022.
Dec-2021	**Verizon** partnered with **Google Cloud** to bring compute and storage services to local network edge in order to support real-time enterprise applications and bring the cloud services closer to mobile and connected devices.

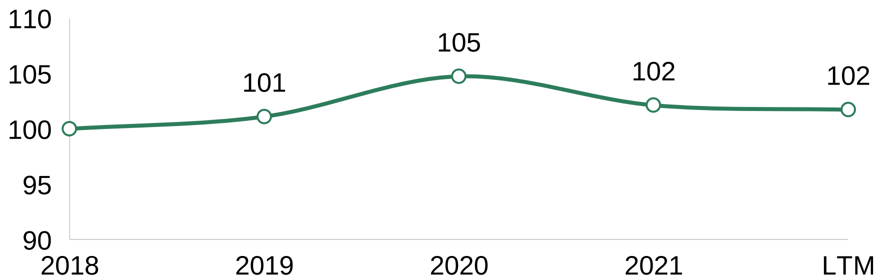
5G adoption in 2025



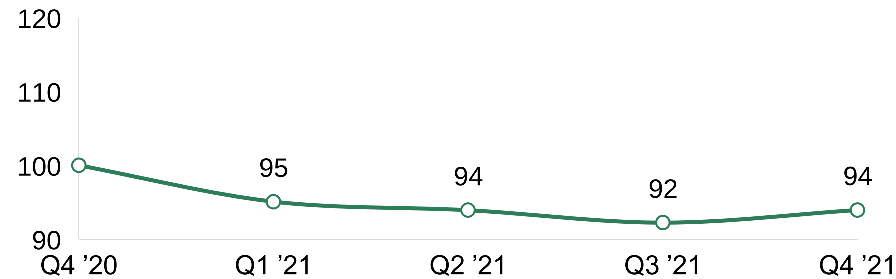
Source: Press & News, GSMA, Applied Value Analysis.

There was a hit on telecom operators in 2021 where the indexed quarterly revenues fell in the first 3 quarters, which however started to recover in Q4

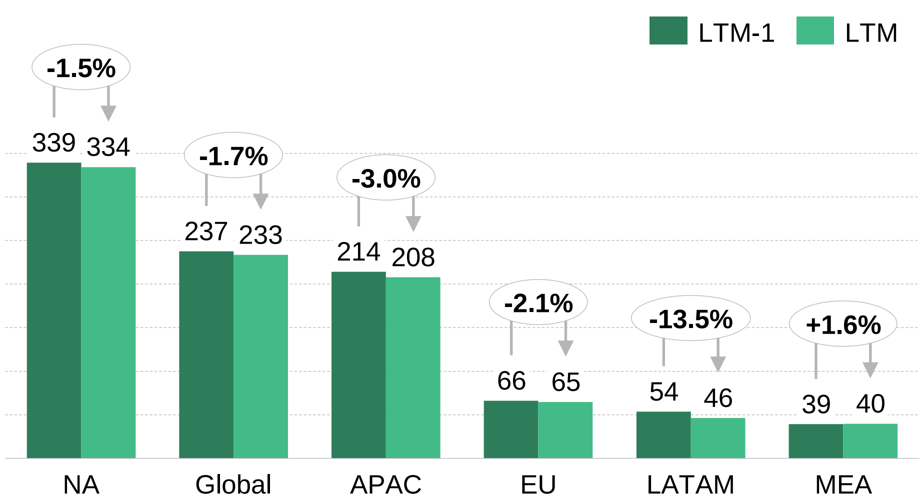
Indexed Yearly revenues
2018 - LTM (index 2018=100)



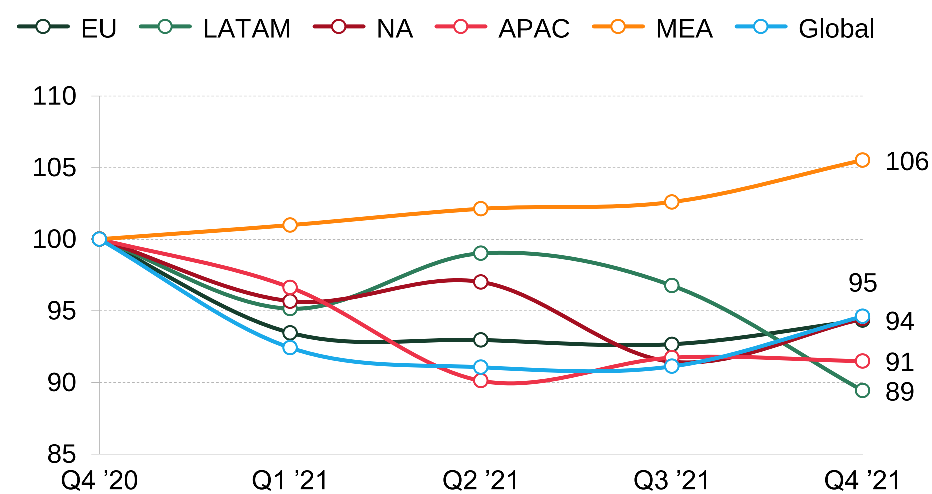
Indexed Quarterly revenues
Q4'20 – Q4'21 (index Q4'20=100)



Yearly revenues by region
LTM-1 (Q1'20 – Q4'20), to LTM (Q1'21 – Q4'21), BUSD



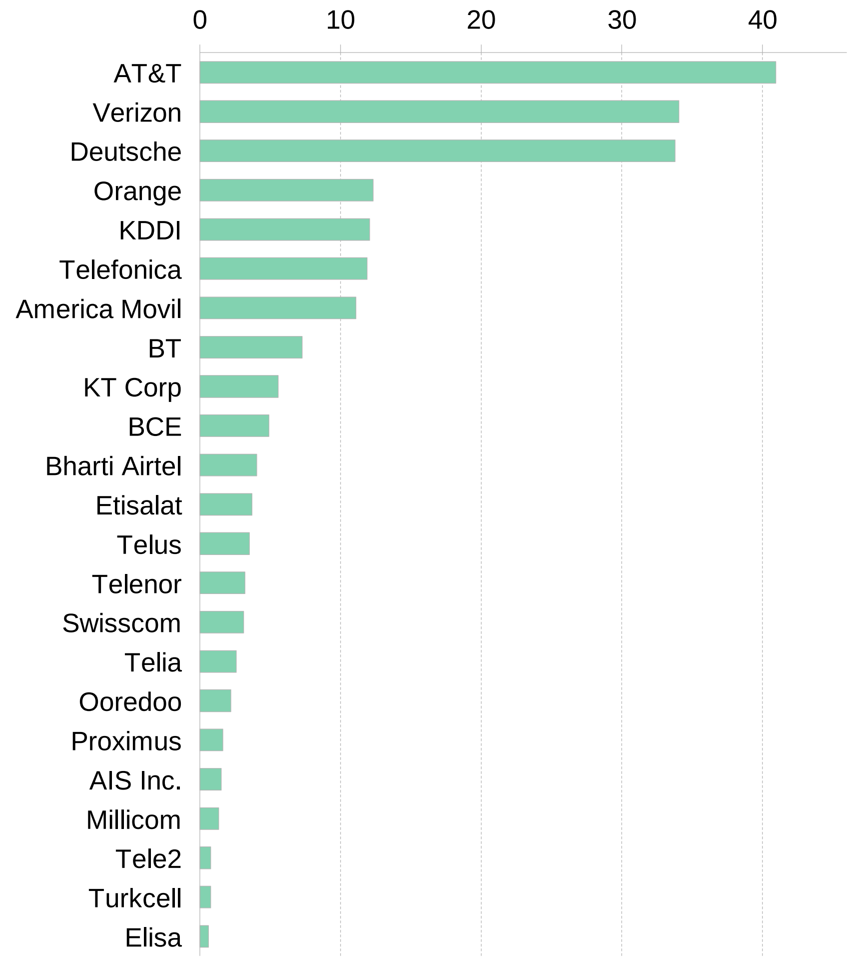
Indexed Quarterly revenues by region
Q4'20 – Q4'21 (index Q4'20=100)



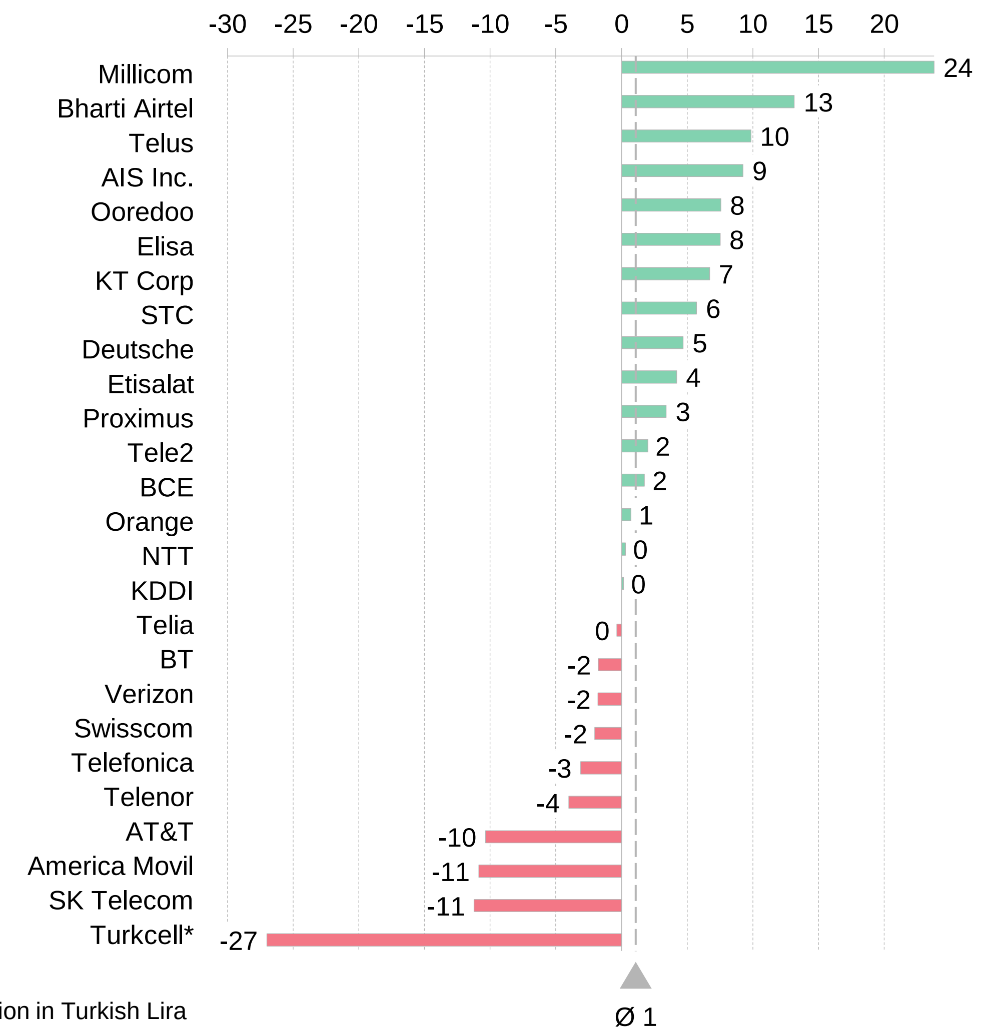
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Most operators reported positive YoY revenue development; Millicom's revenue had solid growth of 24% driven by consolidation of Guatemala

Revenue by operator
Q4'21 BUSD



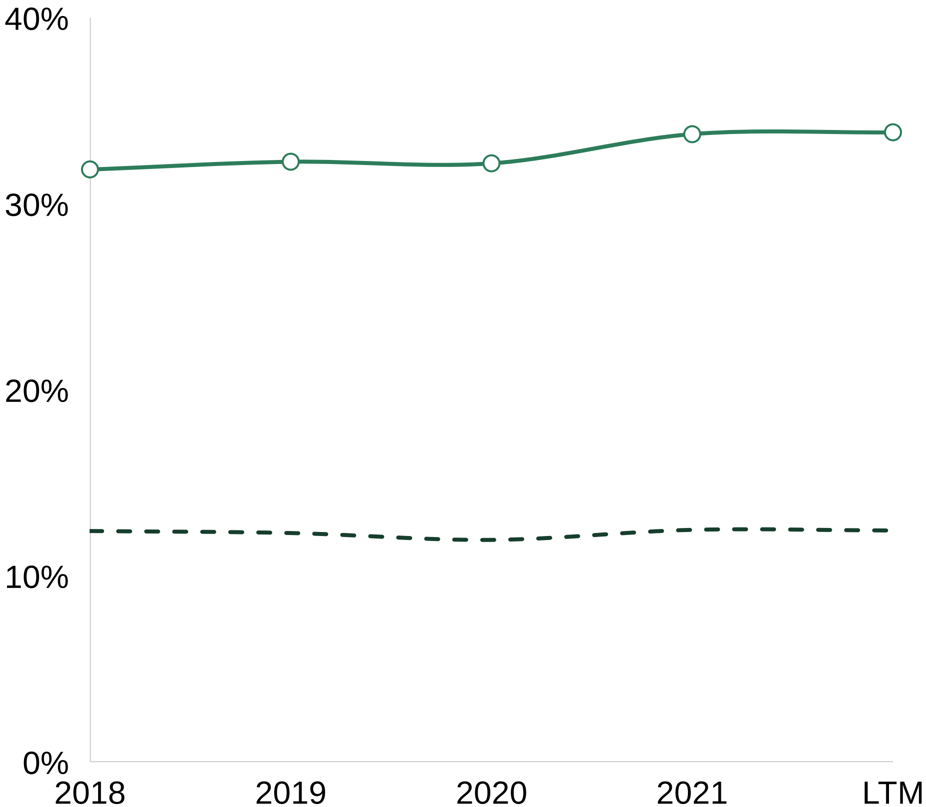
Revenue development by operator
Delta (Q4'21 vs. Q4'20), %, filing currency



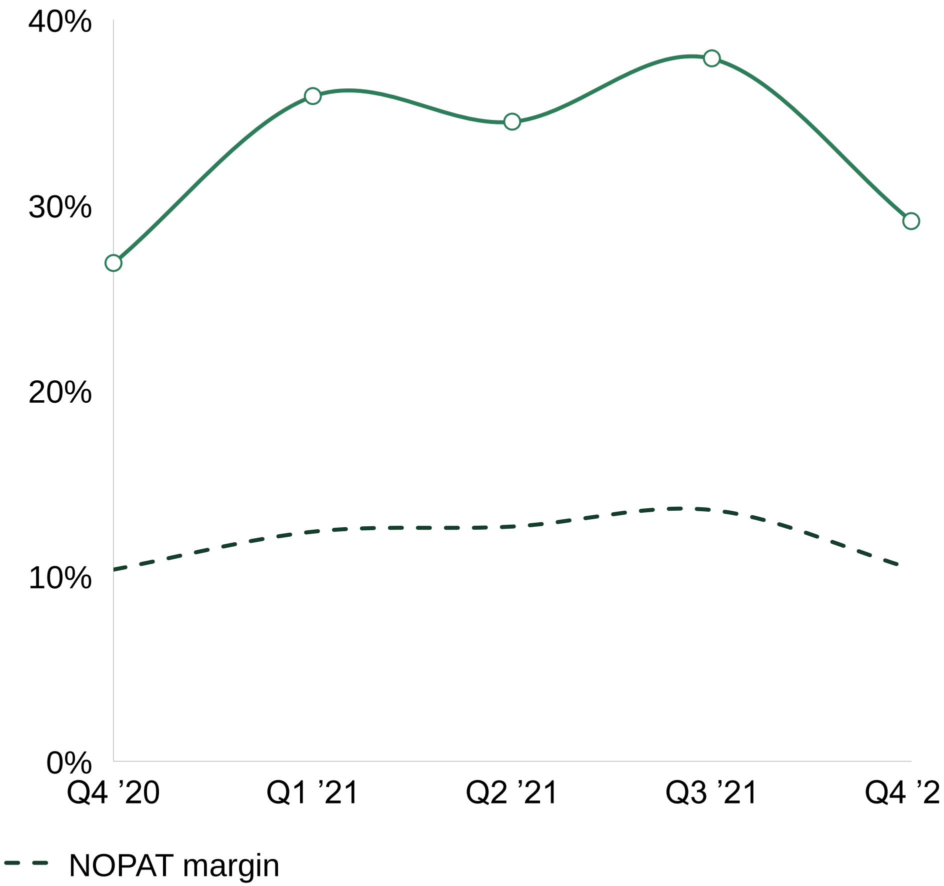
Note: Turkcell revenue development calculated in USD to equalize inflation in Turkish Lira
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Both quarterly EBITDA margin and NOPAT experienced seasonality and declined to 10.4% and 29.1% respectively in Q4’21

Yearly profitability development
2018 - LTM, %



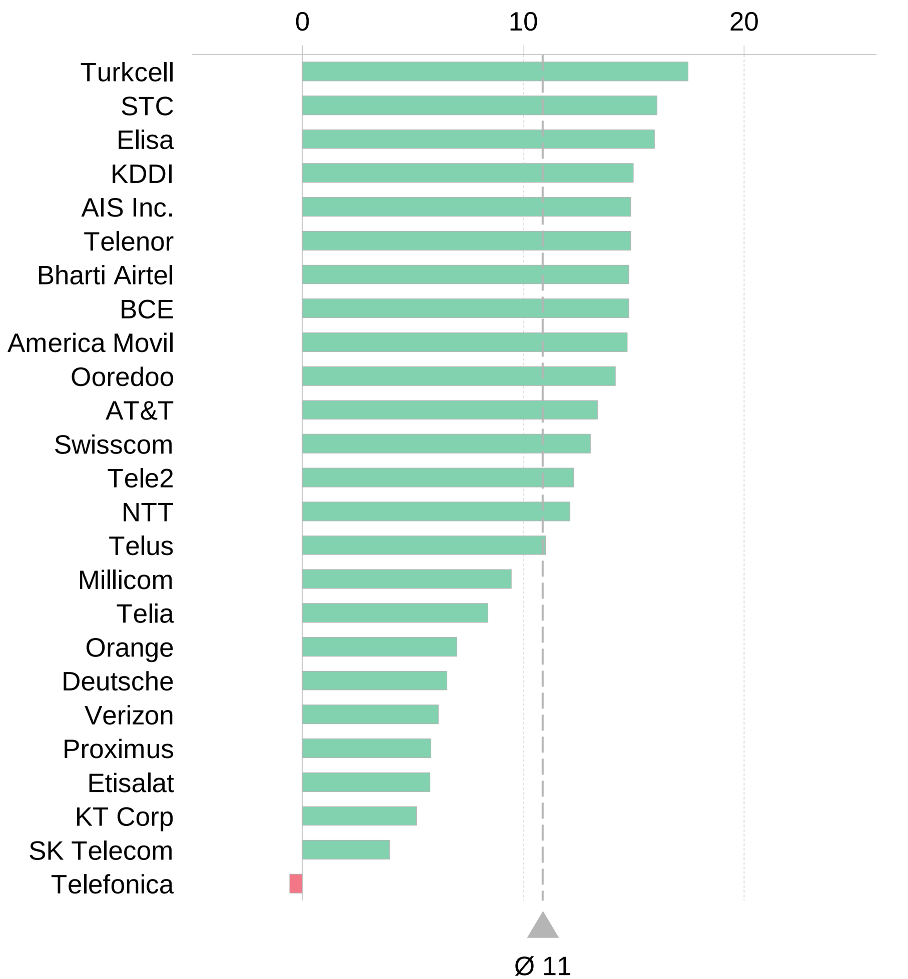
Quarterly profitability development
Q4’20 – Q4’21, %



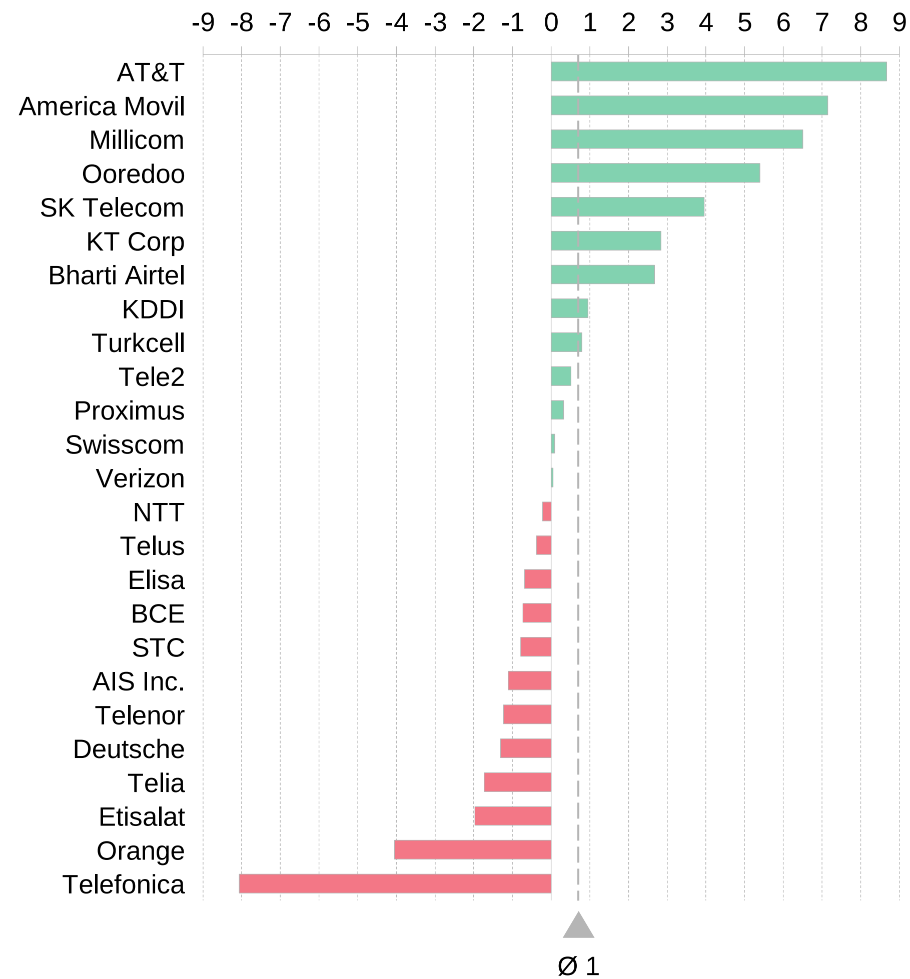
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

NOPAT margins averaged at 11% in Q4; Telefonica experienced negative NOPAT margin due to a negative net income

NOPAT margin by operator
Q4’21, %



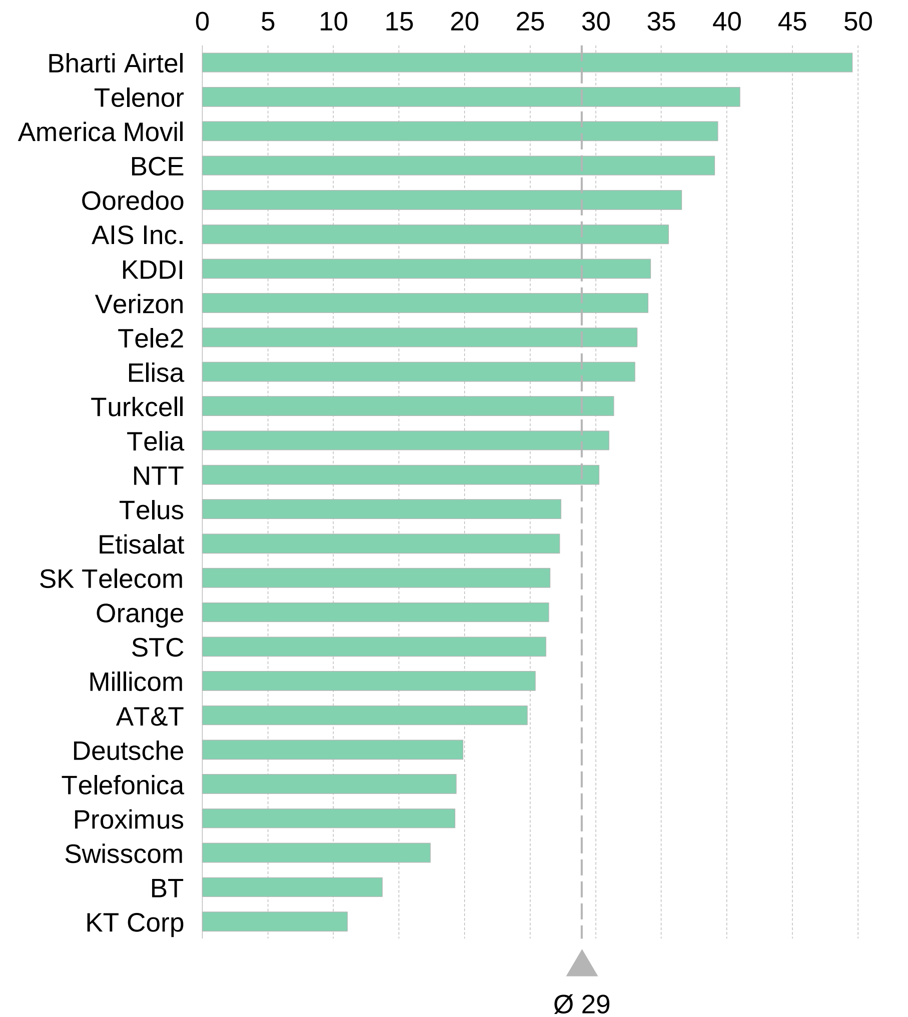
NOPAT margin development by operator
Delta (Q4’21 vs. Q4’20), p.p.



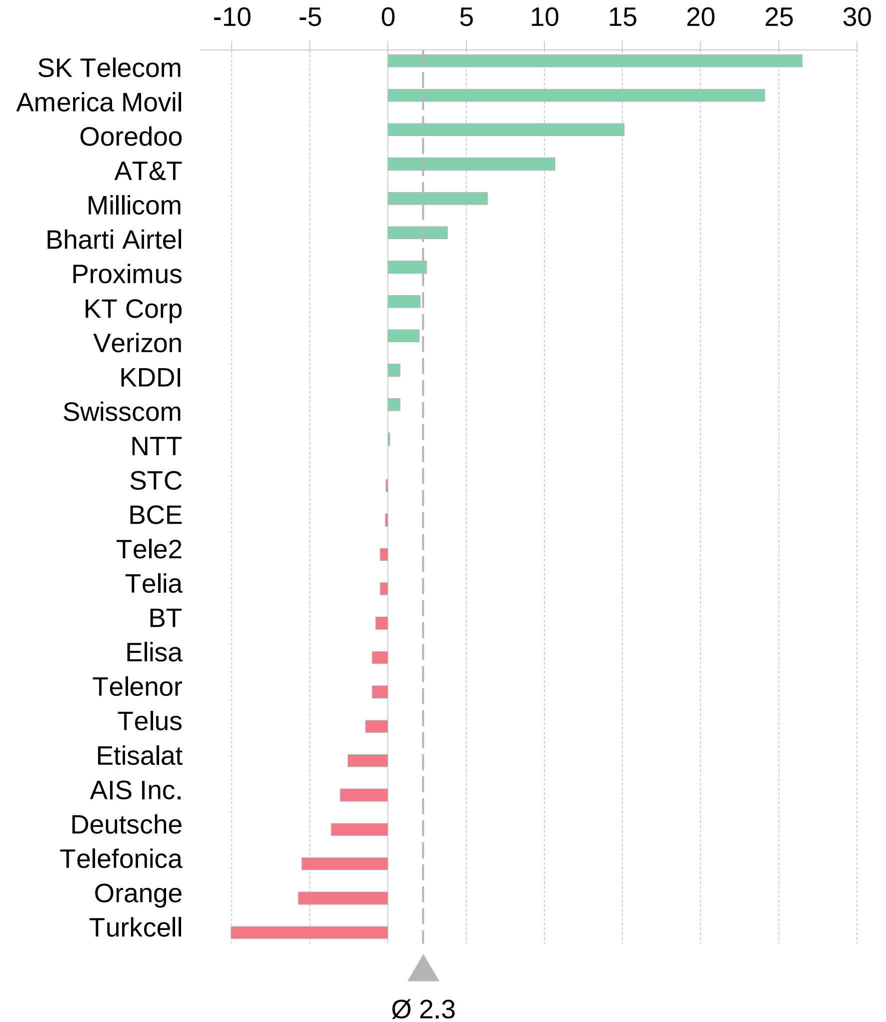
Note: BT is excluded from analysis due to missing data. Tele2 numbers excluding items affecting comparability.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Most operators presented positive YoY EBITDA development; American Movil's high EBITDA included some one-off sales

EBITDA margin by operator
Q4'21, %



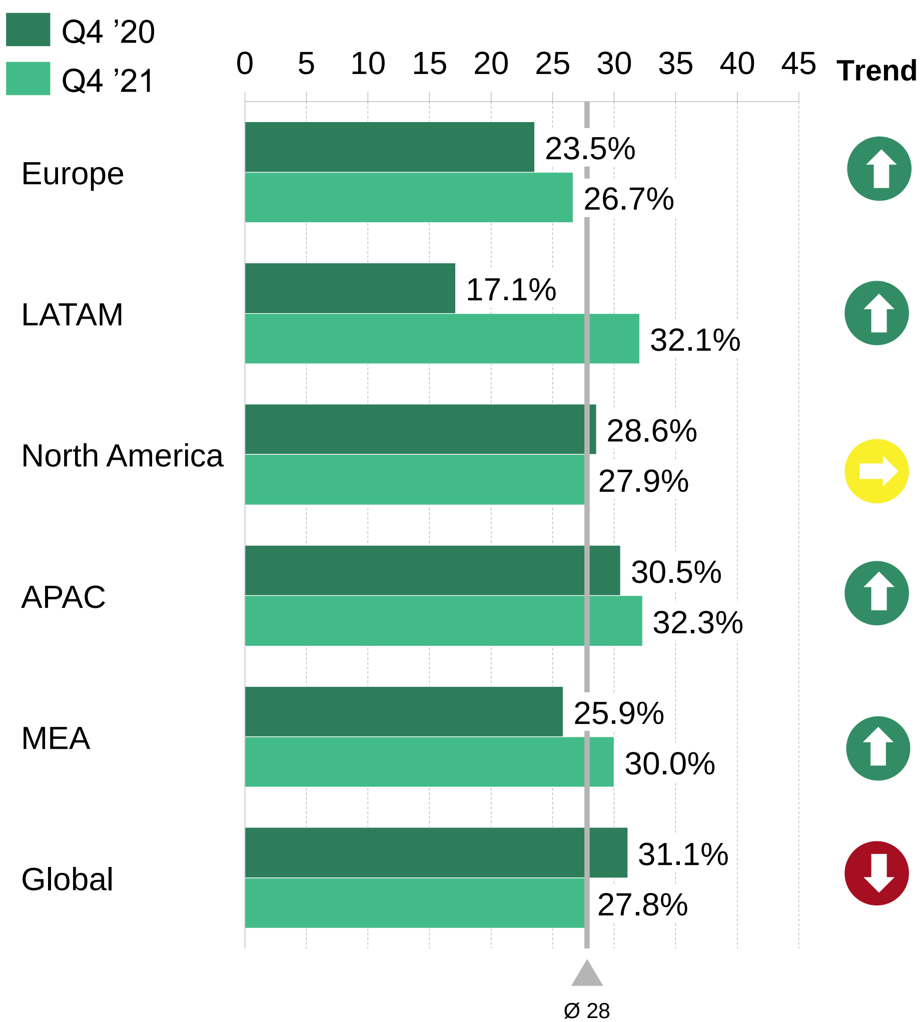
EBITDA margin development by operator
Delta (Q4'21 vs. Q4'20), pp.



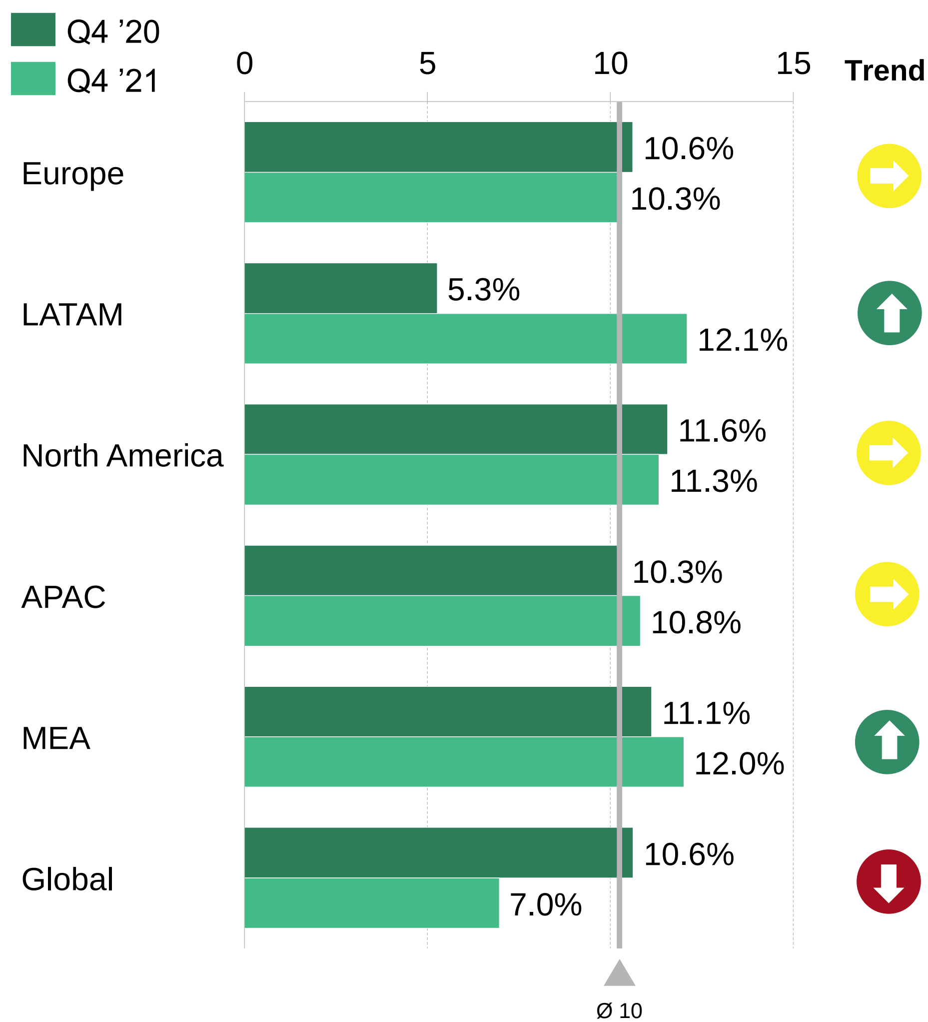
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

LATAM operators EBITDA and NOPAT margin increased significantly, driven by America Movil's cost reduction activities and one-off sales

Average EBITDA margin by region

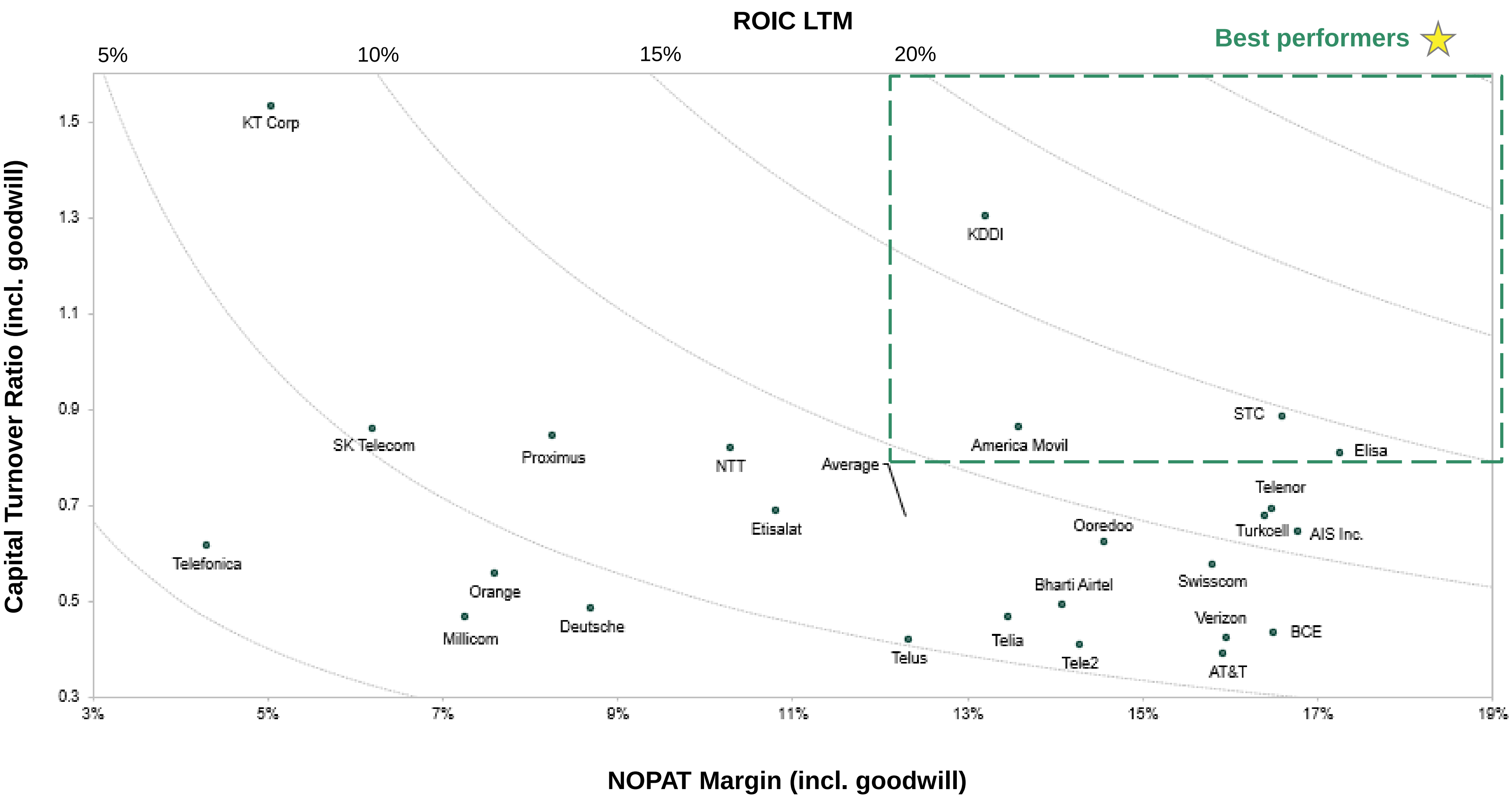


Average NOPAT margin by region



Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

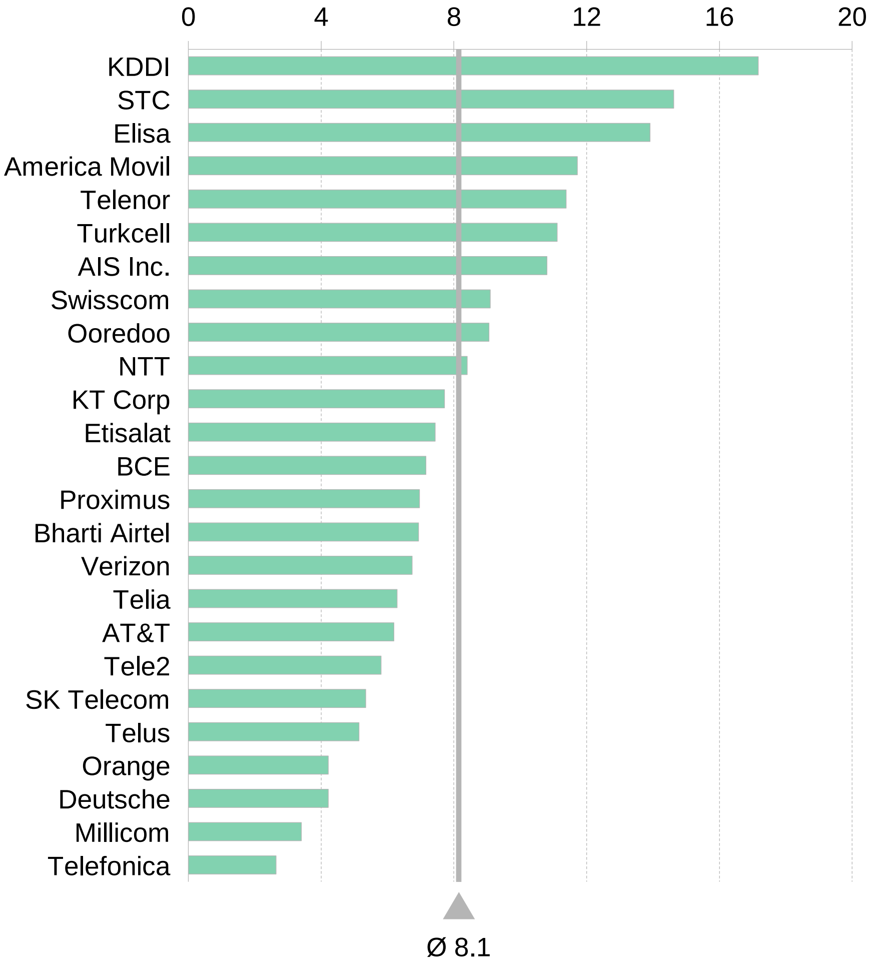
KT Corp achieved the highest CTR but low NOPAT margin; KDDI, STC, Elisa and America Movil are outperformers in the peer group in terms of ROIC



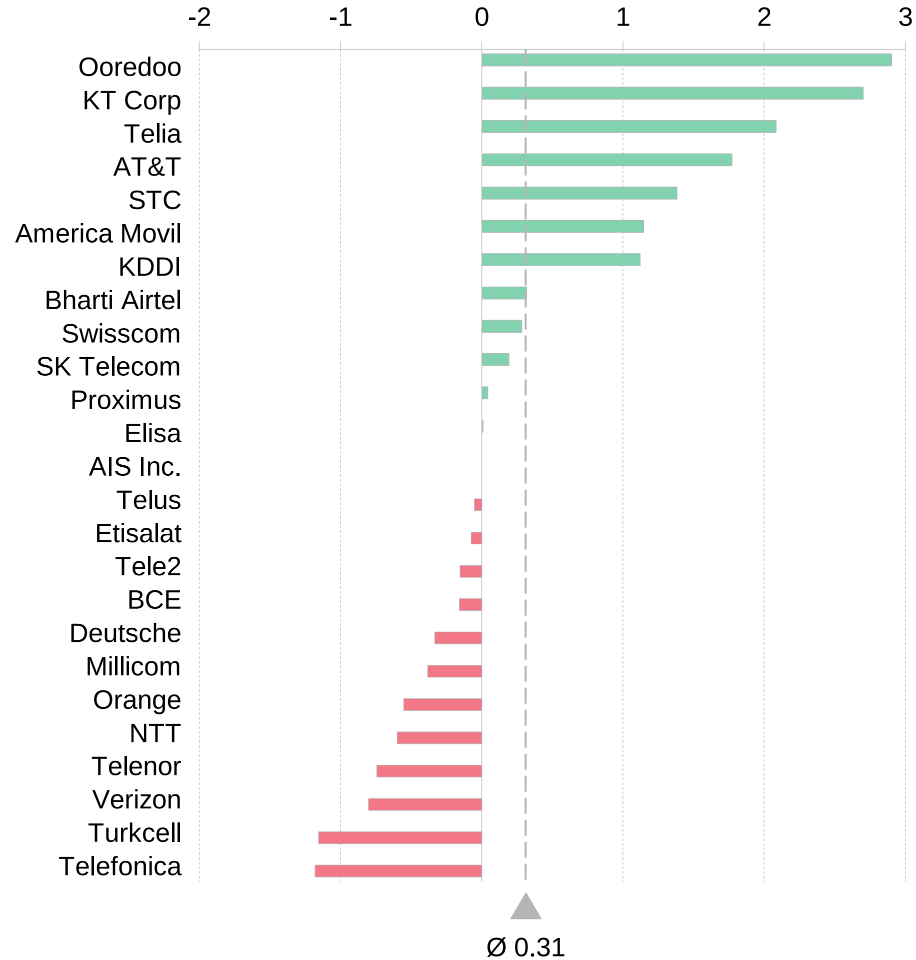
Note: ROIC = Return on Invested Capital (actual return that the company has generated after tax); BT is excluded due to missing data
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

The segment average ROIC increased from 7.8% to 8.1% YoY in LTM; Ooredoo stood out with positive ROIC development of 2.9% during LTM

ROIC by operator
LTM (Q1' 21 – Q4' 21), %



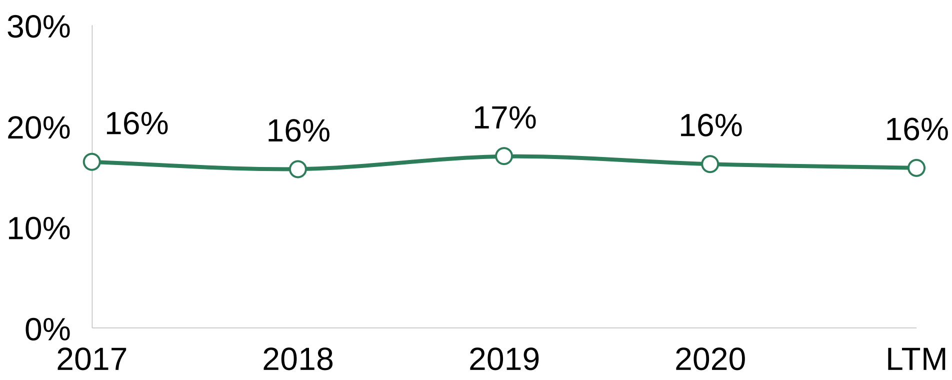
ROIC development by operator
Delta (LTM vs. LTM-1), p.p.



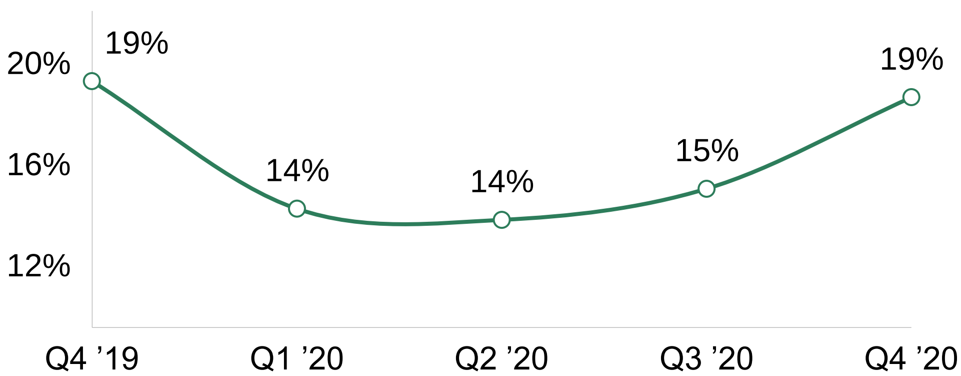
Note: British Telecom excluded from analysis due to missing data.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Yearly CAPEX/Sales had remained virtually unchanged over the last 4 years; Quarterly CAPEX over sales experienced seasonality

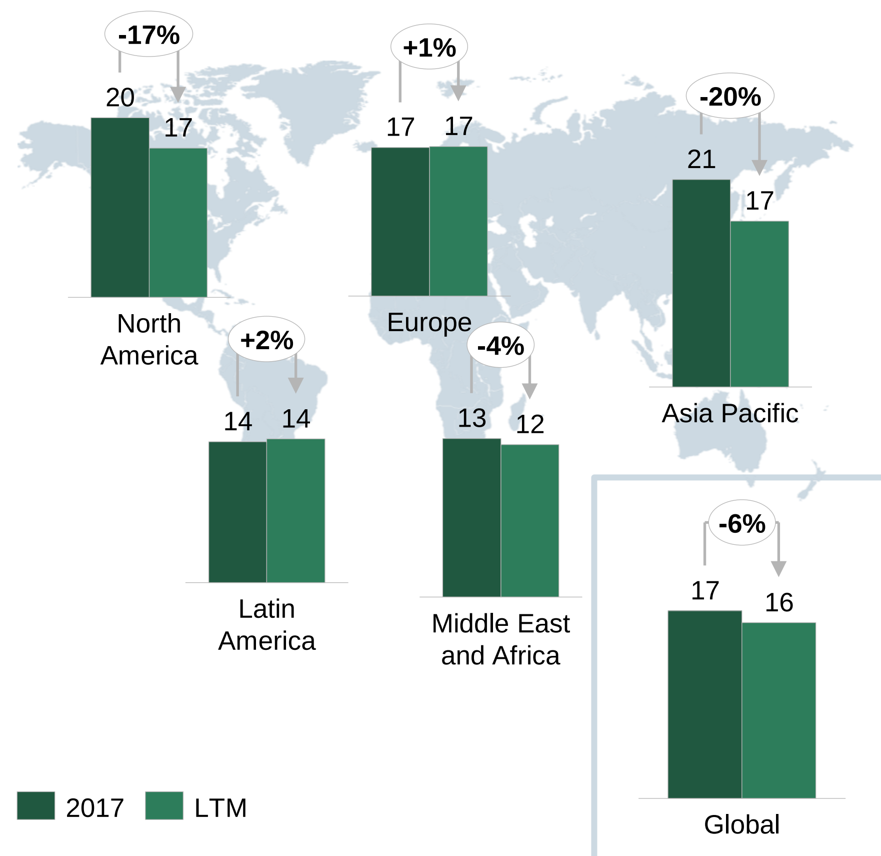
Yearly CAPEX over sales
2018 - LTM, %



Quarterly CAPEX over sales
Q4'20 – Q4'21, %



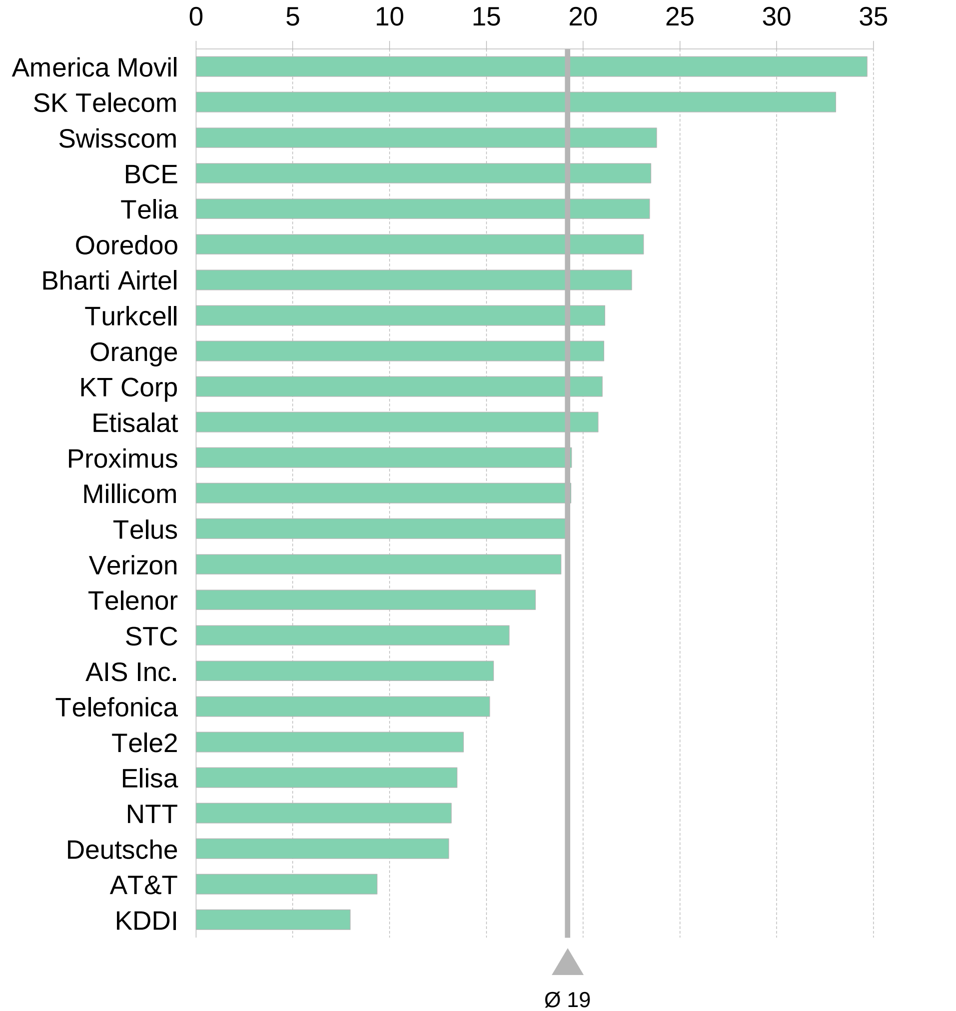
CAPEX over sales by region
2018 vs. LTM, %



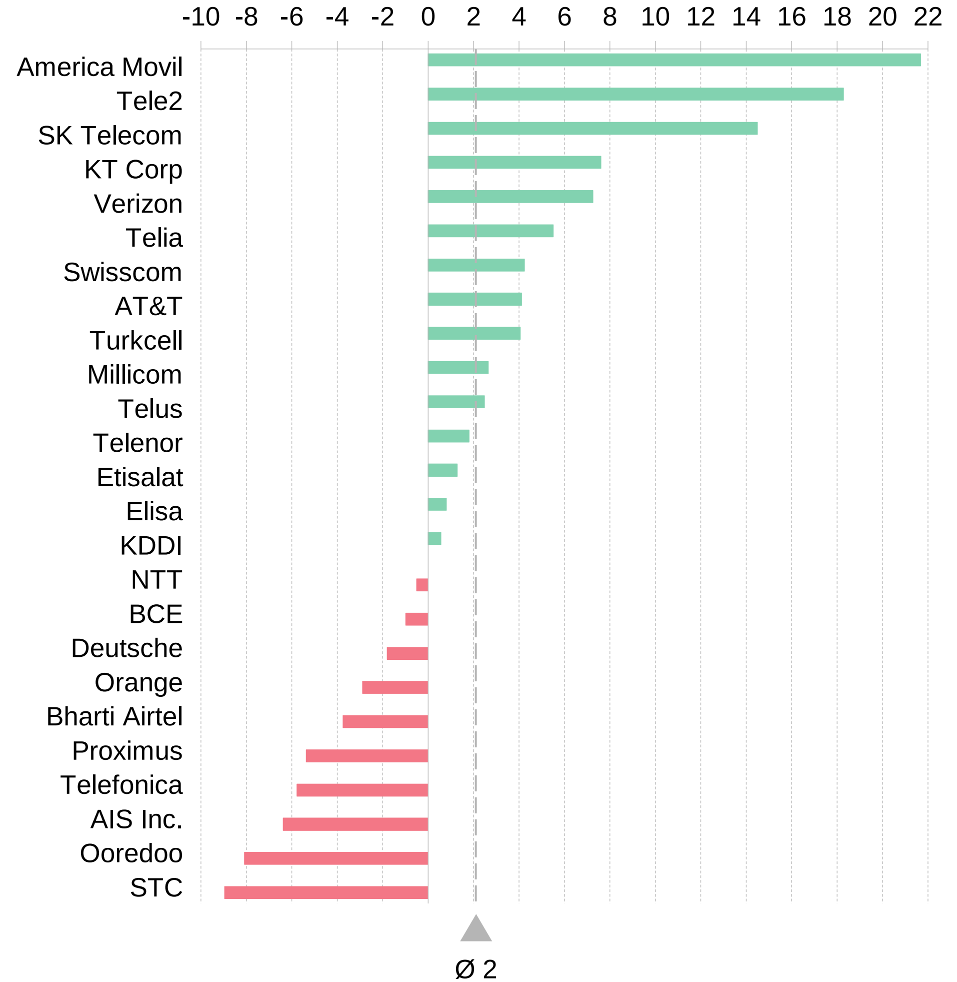
Source: Capital IQ, Annual & quarterly reports, GMT Research, Applied Value Analysis.

America Movil CAPEX amounted to $3,840M in Q4’21, representing 46% of annual capital expenditure, which resulted high CAPEX over sales ratio

CAPEX over sales by operator
Q4’21, %



CAPEX over sales development by operator
Delta (Q4’21 vs. Q4’20), p.p.



Note: British Telecom excluded from analysis due to missing data.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

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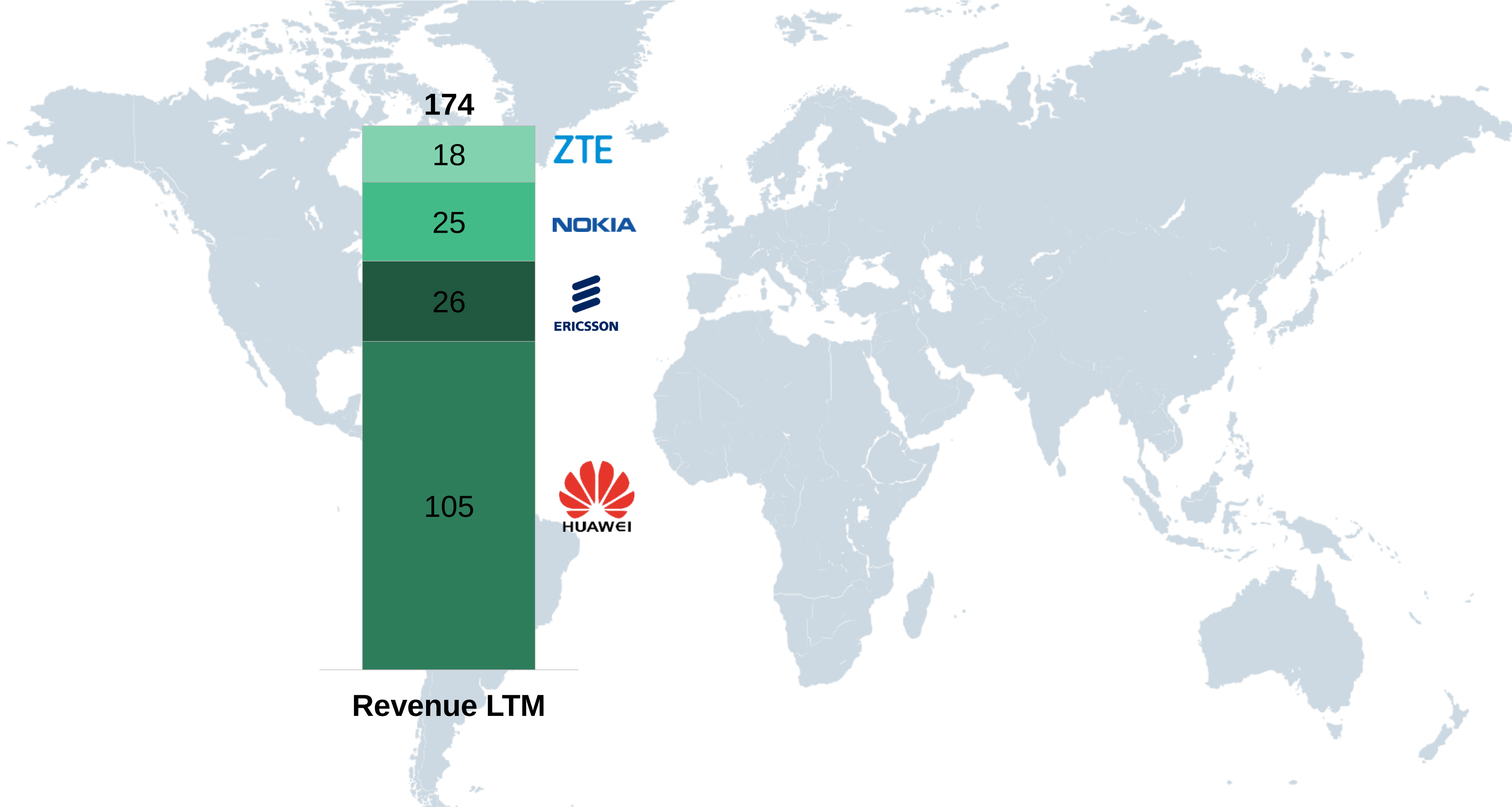
The Q4 2021 Report includes the four major infrastructure players – ZTE, Ericsson, Nokia and Huawei

Report overview
Revenue in BUSD



Notes: Revenue based on group revenue; Revenue LTM of Huawei is based on data from Q4’20 – Q3’21.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Key takeaways from the Infrastructure OEM segment

Key takeaways

Creating Shareholder Value	1. Among all selected OEMs, Ericsson was the only company to create shareholder value over LTM with ROIC equaling 23.3% compared to WACC (15%), this could be explained by a consistent NOPAT margin improvement with a relatively stable CTR. 2. Huawei maintained a relatively stable NOPAT level while CTR dropped significantly due to reduced asset turnover ratio.
Revenue Performance	1. All companies except for ZTE suffered negative revenue development in 2021 compared to 2020. Sanctions on Huawei dragged revenue down by 30% over the year, while ZTE outperformed within the peer group with 11% revenue improvement over LTM compared to FY2020. 2. Nokia and Ericsson's quarterly revenue fell by 9% and 7% YoY respectively. Huawei however started to recover, seeing its Q4 revenue rise by 3% YoY.
Margin Performance	1. Ericsson and ZTE's NOPAT margins have risen steadily since 2018, ending at 11% and 4% 2021. Main drivers for an increase in NOPAT included lower R&D and SG&A spend over sales. 2. Huawei maintained its NOPAT margin at just above 6%. Higher SG&A and R&D over sales ratios contributed to a relatively lower NOPAT margin compared to the peer group.
Capital Efficiency	1. Ericsson managed its capital most efficiently among peers, with 2021 CTR of 2.1, but dropped by 5% compared to 2020. 2. Huawei long inventory days as well as short account payable days led to an 18% decrease in CTR over 2021 vs. 2020. 3. Although ZTE achieved the highest fixed asset turnover ratio and accounts payable days in 2021, long inventory days and account receivable days dragged CTR down by 12% compared to 2020.

Note: Revenue LTM of Huawei is based on data from Q4'20 – Q3'21
Source: Press & News, S&P Capital IQ, Applied Value Analysis

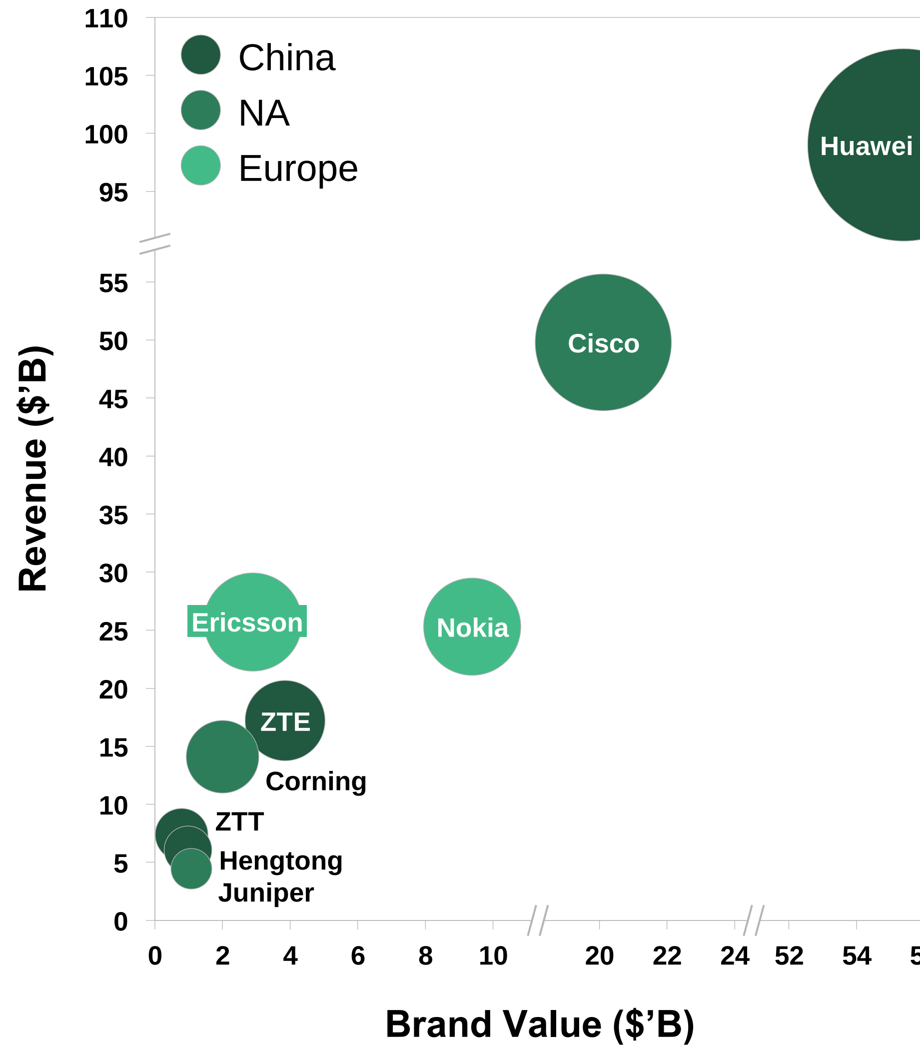
Events across the Infrastructure OEMs sector from the quarter

News and happenings for infrastructure OEMs

Oct-2021	**Huawei** announced Green ICT for Green Development initiative with the aim of achieving green networks and reducing carbon emissions. Huawei also pointed out the need of a collective platform which brings companies together on green development.
Nov-2021	**ZTE** cooperates with Airtel to boost digital transformation in Africa by bringing manufacturers' interconnection and deploying cloud services to this region.
Nov-2021	**Ericsson** announced a partnership with Korean SK Telecom to provide standalone 5G core to facilitate new mobile and enterprise services. It also announced an acquisition of cloud-based communication provider Vonage for a wider global presence and to strengthen its wireless enterprise segment.
Nov-2021	**Laiye and Huawei Cloud** announced partnership to establish digital transformation for some Brazilian startups and technology companies. The alliance will roll out to the rest of Latin America.
Dec-2021	**Nokia** established private standalone 5G wireless network for Volkswagen's main plant in Wolfsburg which covers its production development center and pilot hall. Nokia DAC will reduce latency and provide high-bandwidth for Volkswagen's plants.
Dec-2021	**Telefonica** replaced Huawei 5G equipment with Ericsson's gear as a result of various US-led restrictions. Canadian telcos **Bell and Telus** had already installed Huawei equipment, they approached to the government over possibility of being compensated if legislation ends up banning Huawei from Canada's 5G networks.

Top infrastructure OEMs brand value & revenue

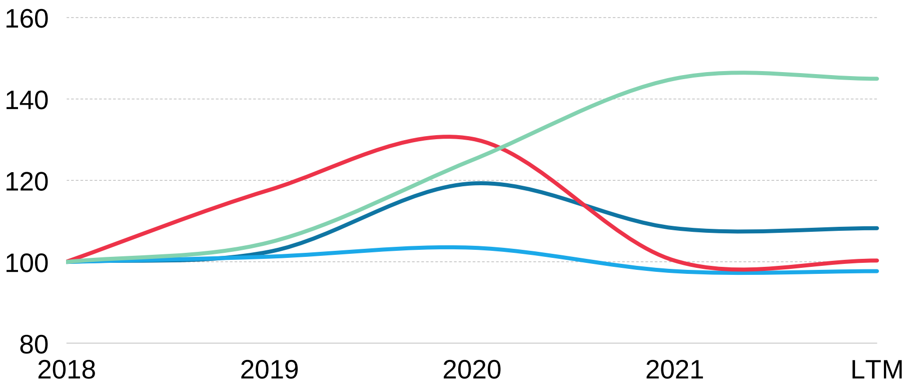
2021 (BUSD)



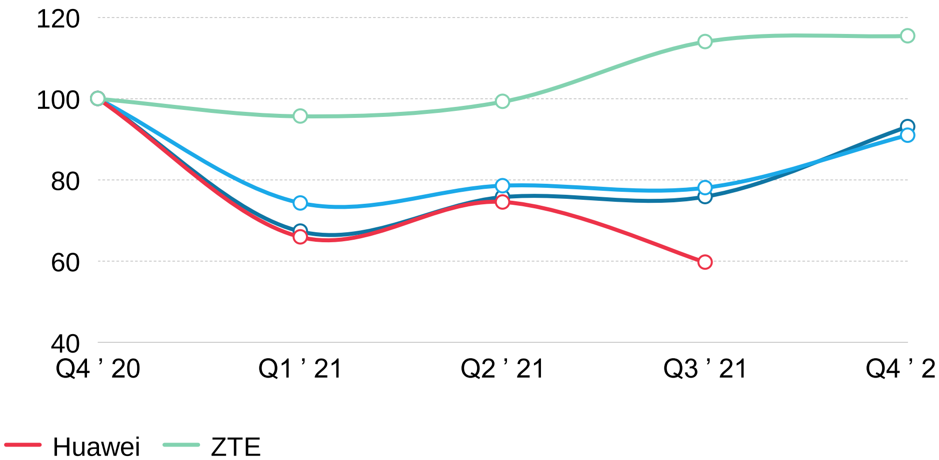
Source: Press &, News, S&P Capital IQ, Applied Value Analysis

All companies except ZTE displayed clear seasonality trends over the past year – increasing sales volume in Q2 and Q4

Indexed Yearly Group Revenues
2018 – LTM (index 2018=100)



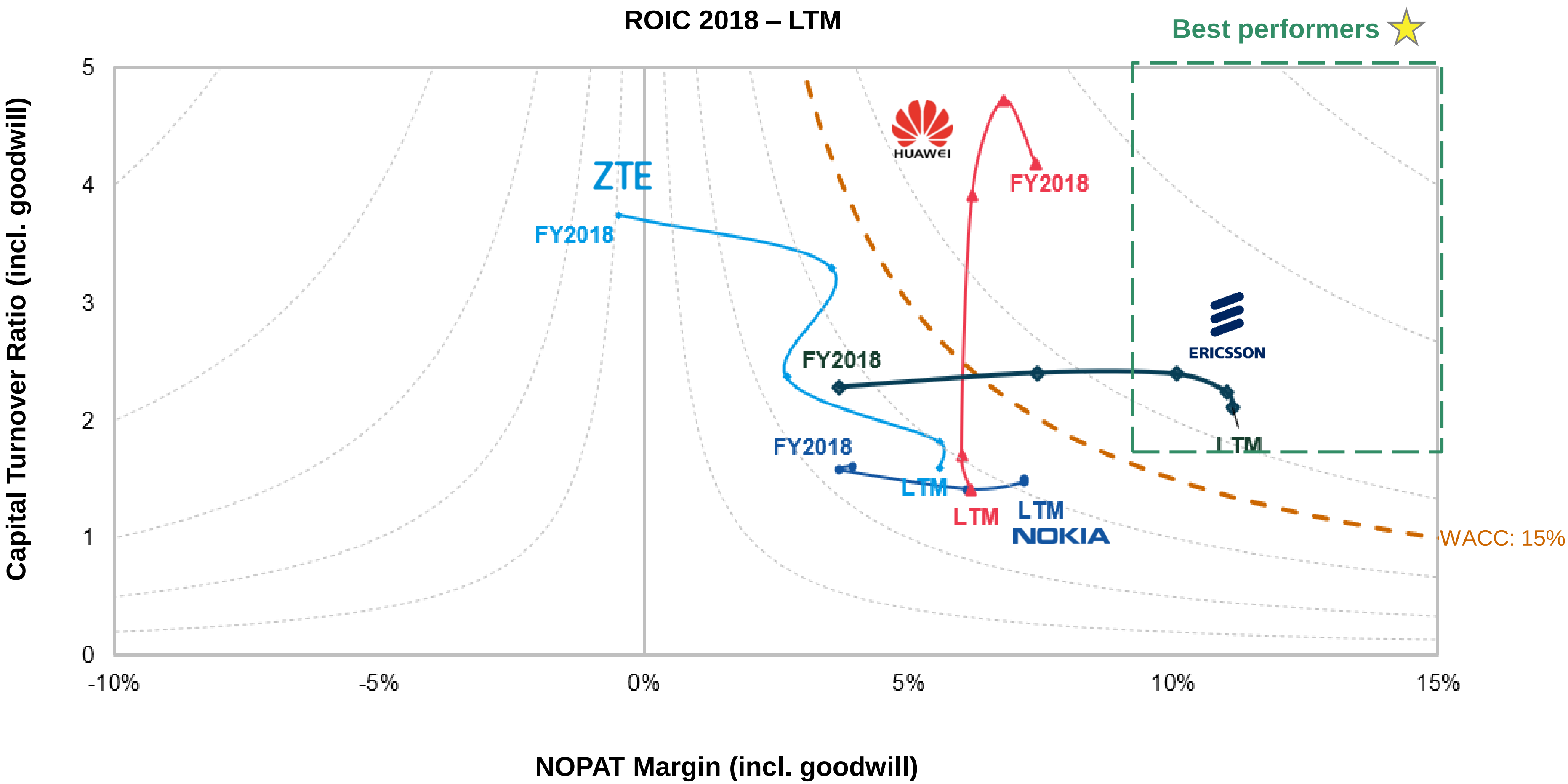
Indexed Quarterly Group revenues
Q4'20– Q4'21 (index Q4'20=100)



- While all other selected infrastructure OEMs experienced different degrees of decline in revenue during Q4'21, ZTE performed strongly with 15% YoY growth rate. FY2021 yearly revenue hit $18,028M – highest single year revenue in ZTE's history, continued digitalization and improved corporate operational quality contributed to the more efficient operating activities and hence, enhanced key financial indicators.
- Huawei is still reeling from the US imposed restrictions and sanctions resulting in revenue decline of 30% in LTM. Although some business segments started to rebound in the end of 2021, Huawei is still unable to generate and sell new products to the US and its allies.
- Nokia net sales dropped by 5% YoY in Q4'21 which is drove a 10% growth in Network Infrastructure and 16% decline in Mobile Network. 2021 has been a transformational year for Nokia, it finally became a key player in the 5G network equipment game, racing against Sweden's Ericsson and China's Huawei.
- Ericsson Group yearly revenue fell by 9% in LTM due to significant market loss in Mainland China. Strong 5G demand in North America and Europe boosted Ericsson's net sales value in Q4. Emerging Business & Other segment increased its sales by 23% driven by Cradlepoint, however Managed Services declined 8% YoY in Q4'21.

Note: Fiscal years are used in the yearly analysis. Revenue LTM of Huawei is based on data from Q4'20 – Q3'21.
Source: S&P Capital IQ, Annual & quarterly reports, Press Release, Economic Times, Applied Value Analysis.

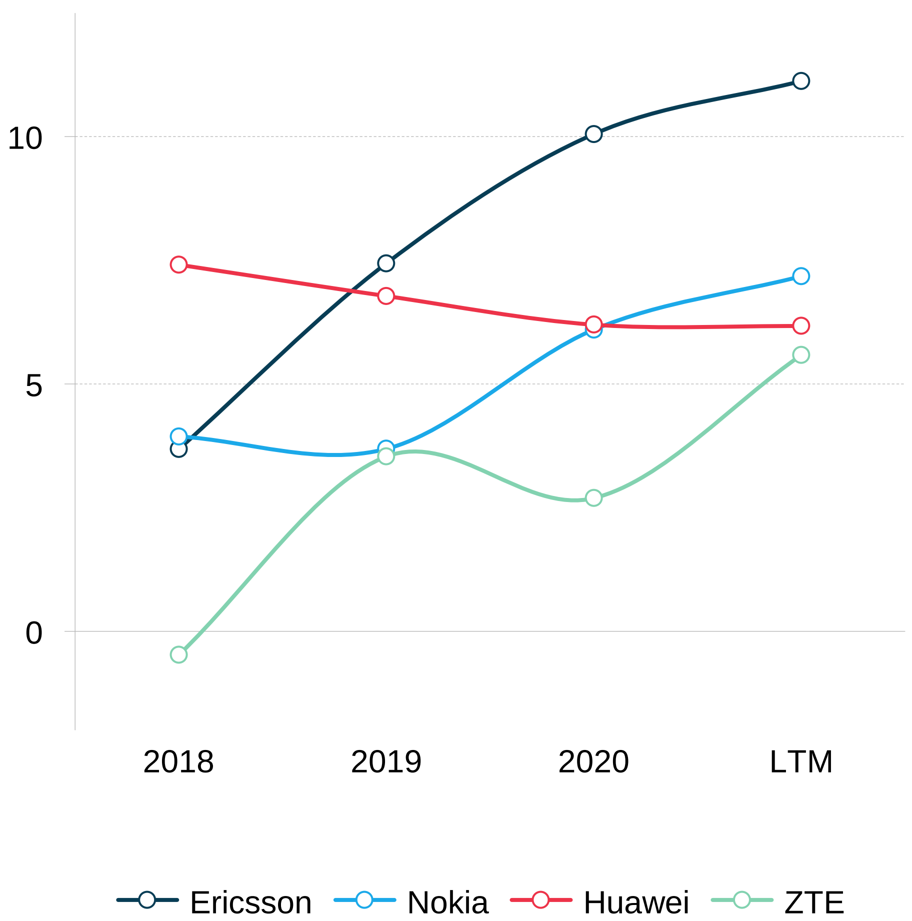
Within the peer group, only Ericsson managed to achieve a ROIC above the industry average WACC of 15%; Huawei's CTR dropped significantly

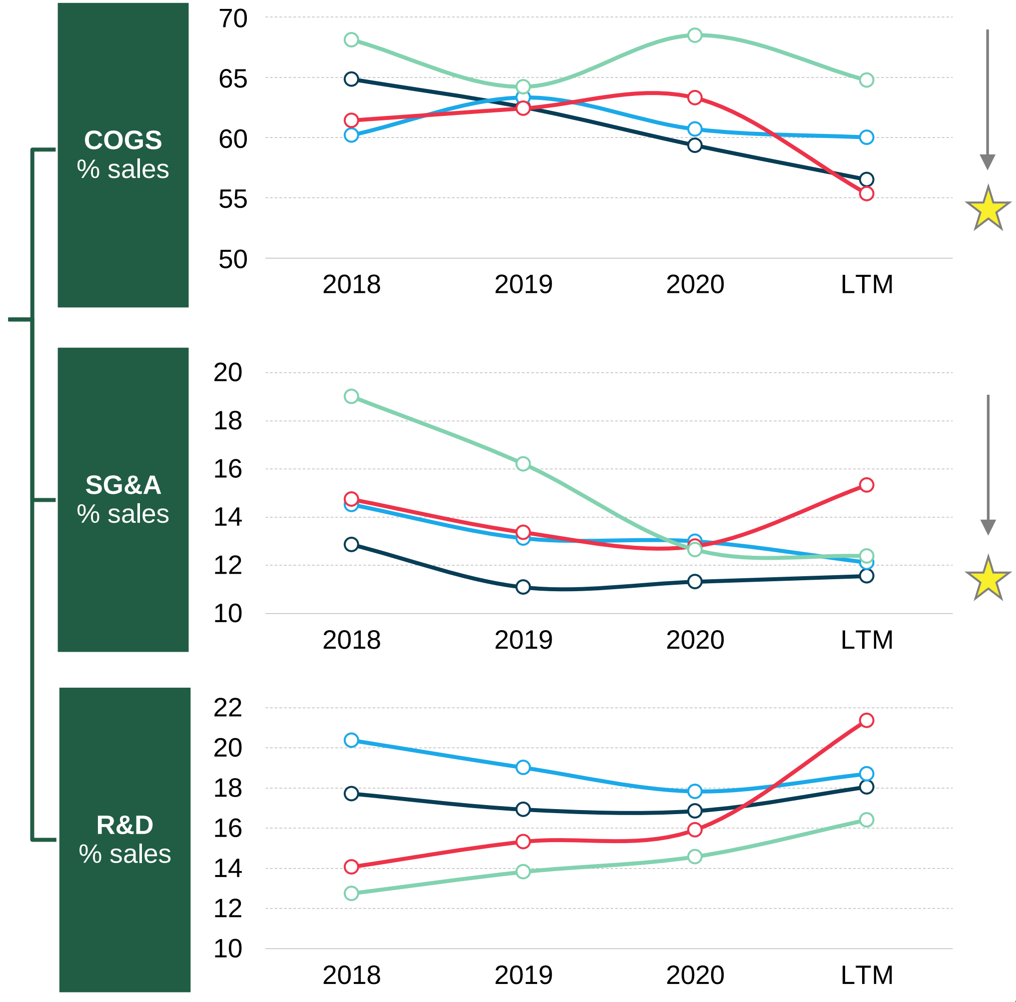


Note: Fiscal years are used in the yearly analysis. Huawei reports annually. LTM ROIC analysis of Huawei is based on data from Q4'20 – Q3'21.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Ericsson contained highest NOPAT margin in the peer group; Huawei raised SG&A and R&D spending in Q4'21 resulted lowered NOPAT margin

NOPAT margin, %

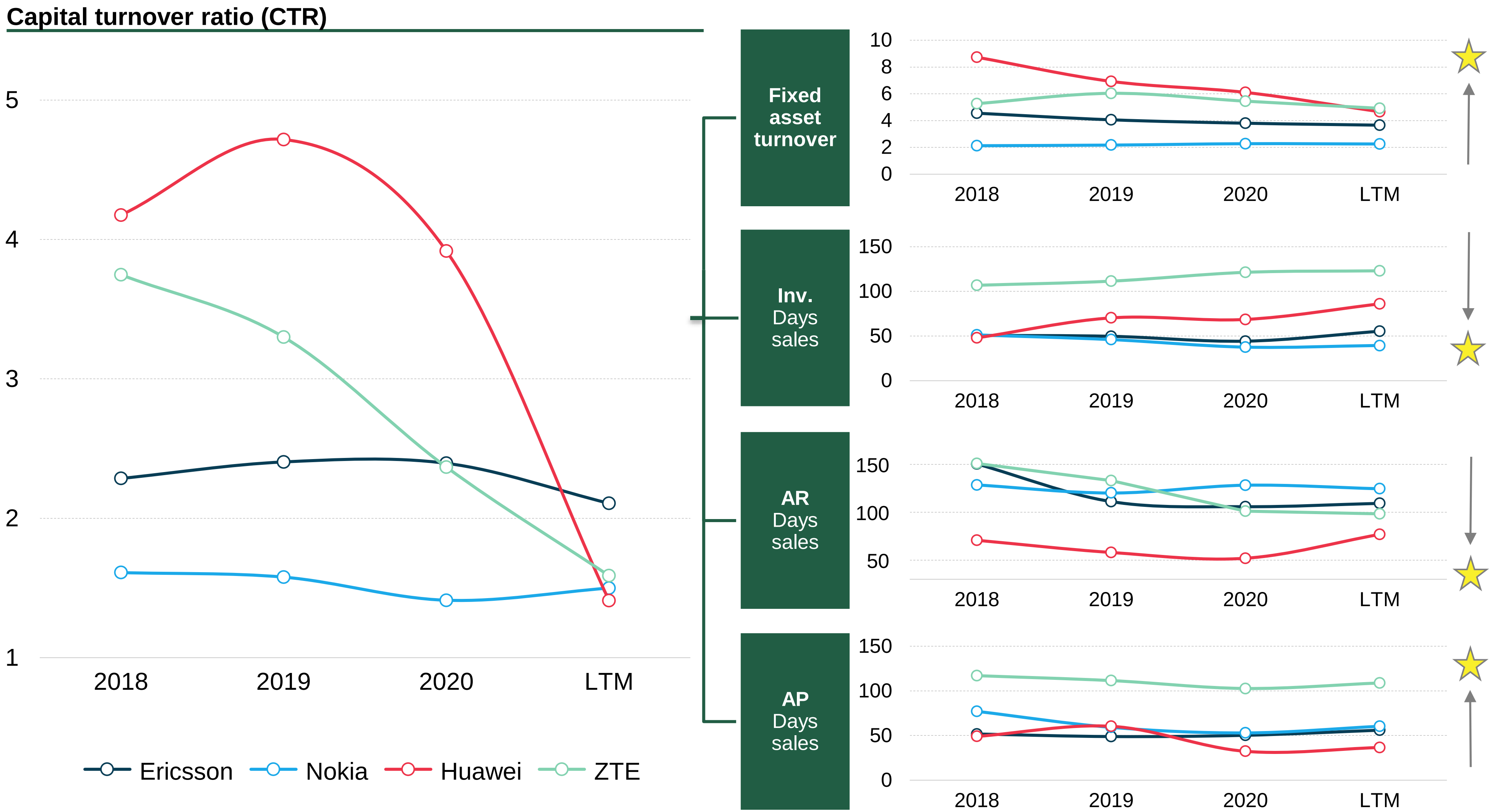




Note: Fiscal years are used in the yearly analysis. LTM analysis of Huawei is based on data from Q4'20 – Q3'21.

Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

All companies except Nokia experienced CTR decline over LTM



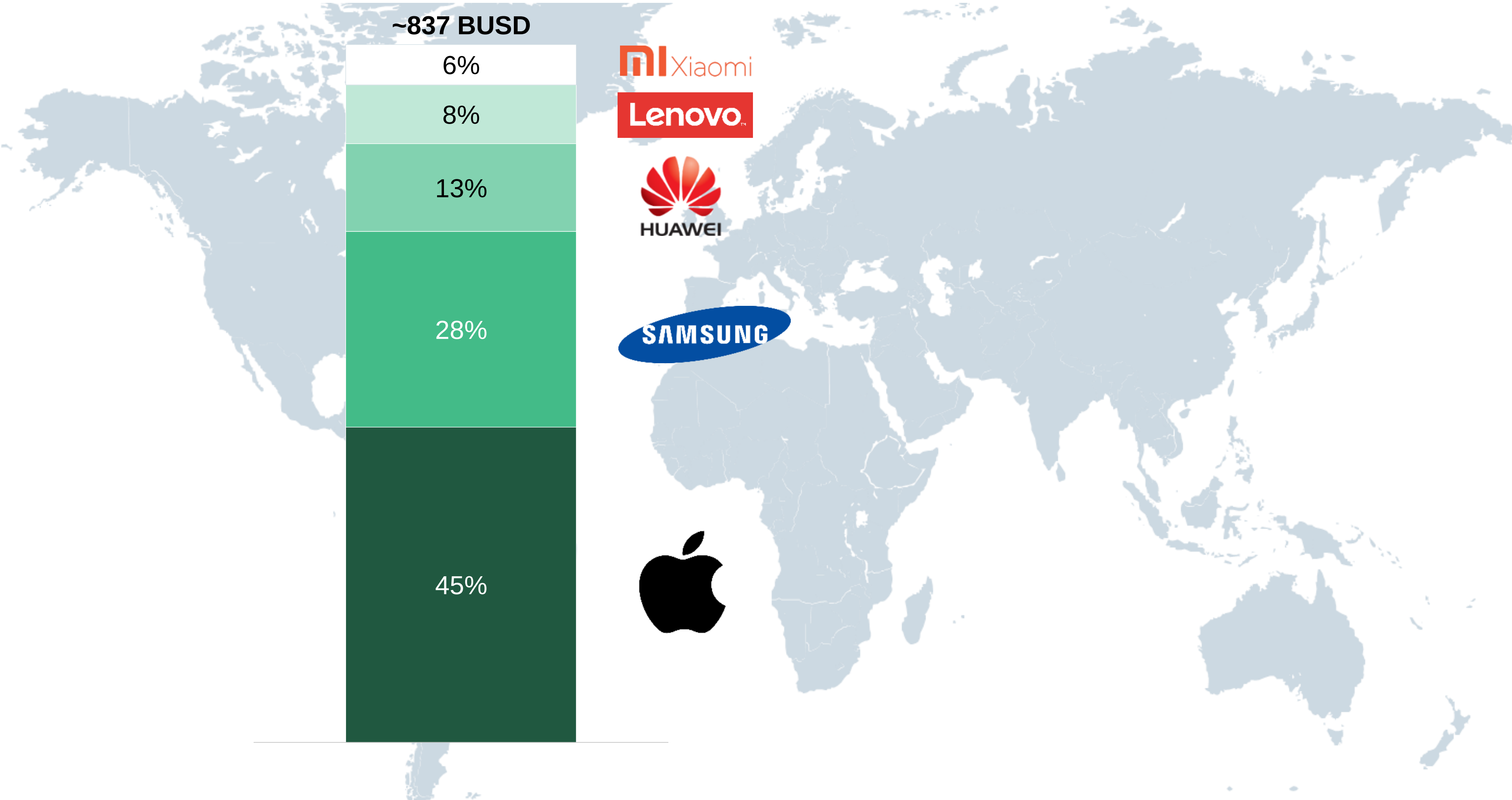
Note: Fiscal years are used in the yearly analysis. LTM analysis of Huawei and ZTE are based on data from Q4'20 – Q3'21.

Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Contents

The Q4 2021 report includes five major device manufacturers

Report overview
Revenue in BUSD, LTM



Note: Revenue based on group revenue
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Key takeaways from the Device OEM segment

Key takeaways

Creating Shareholder Value

1. Except for Huawei, all other selected device OEMs obtained higher ROIC than WACC in LTM indicating value creation for shareholders.
2. Apple outperformed selected peers with a ROIC increase of 189pp. over LTM compared to FY2020, reaching 292%, driven by more than a doubled CTR of 13.0 and 1pp. rise in NOPAT margin.
3. Lenovo’s ROIC was mainly driven by a higher CTR, whereas Samsung’s raised NOPAT margin contributed to higher ROIC over LTM comparing with FY2020.

Revenue Performance

1. Lenovo, Samsung, Xiaomi and Apple all achieved positive YoY revenue growth in Q4’21 by more than 10%.
2. The launch of iPhone 13 series boosted Apples sales to $378B in FY2021, representing 38% YoY growth. Lenovo and Xiaomi revenue also grew by 39% and 29% YoY, respectively.

Margin Performance

1. Apple led the peer group in terms of yearly NOPAT margin – 28% increase YoY to 22.6% in LTM, followed by Samsung with 21.5% YoY increase.
2. Xiaomi and Lenovo also managed their operational activities well in 2021 with 1.8pp. and 1.5pp. increase in NOPAT margin while both companies focused on innovation and IoT development.

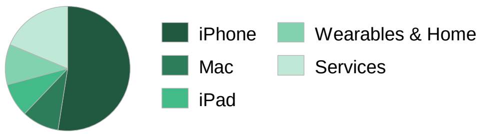
Capital Efficiency

1. Apple started to recover from 2020 with continuous improvements in CTR. Its capital turnover ratio outperformed peers and reached pre-pandemic level of 13.0 over LTM, this influenced ROIC to rise by 123pp. Lenovo also improved its CTR to 8.8 in LTM.
2. Huawei CTR dropped from 3.9 to 1.4 in LTM, which directly dragged ROIC down by 22pp. comparing to 2020.

Note: Analysis on Huawei and Xiaomi are based on Q4’20 – Q3’21
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

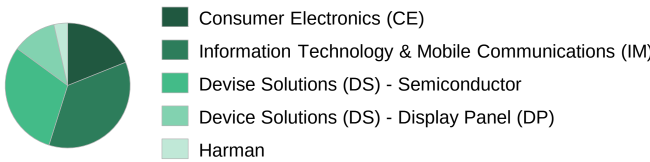
Business Segments of Device OEMs

Company | **Business segments and revenue shares over LTM, (Q1'21 – Q4'21) %** | **Description**



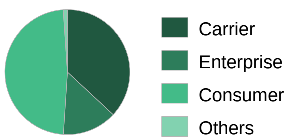
- iPhone: Mobile Phones
- Services: iTunes Store, iCloud, Apple Pay, other services
- Mac: Laptops & Personal Computers
- iPad: Tablets
- Wearables & Home: Apple Watch, Apple branded accessories for Apple products

SAMSUNG



- Information Technology & Mobile Communications: Mobile Phones, Communication systems and computers
- Device Solutions: Semiconductor Business and display panels
- Consumer Electronics: TVs, monitors, printers, air conditioners and refrigerators
- Harman: Infotainment, connected solutions for automakers, and consumers

HUAWEI

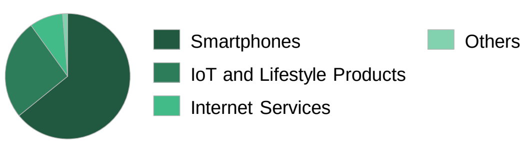


- Carrier: Building telecommunications networks and services
- Enterprise: Equipment, software and services to enterprise customers
- Consumer: Manufacturing of electronic communication services (e.g. phones)
- Others: Communication services not applicable to above descriptions

Lenovo

- IDG: Personal computer and smart devices, and mobile businesses
- DCG: Provide data center solutions
- SSG: Deliver enhanced services capabilities and new solutions

Xiaomi

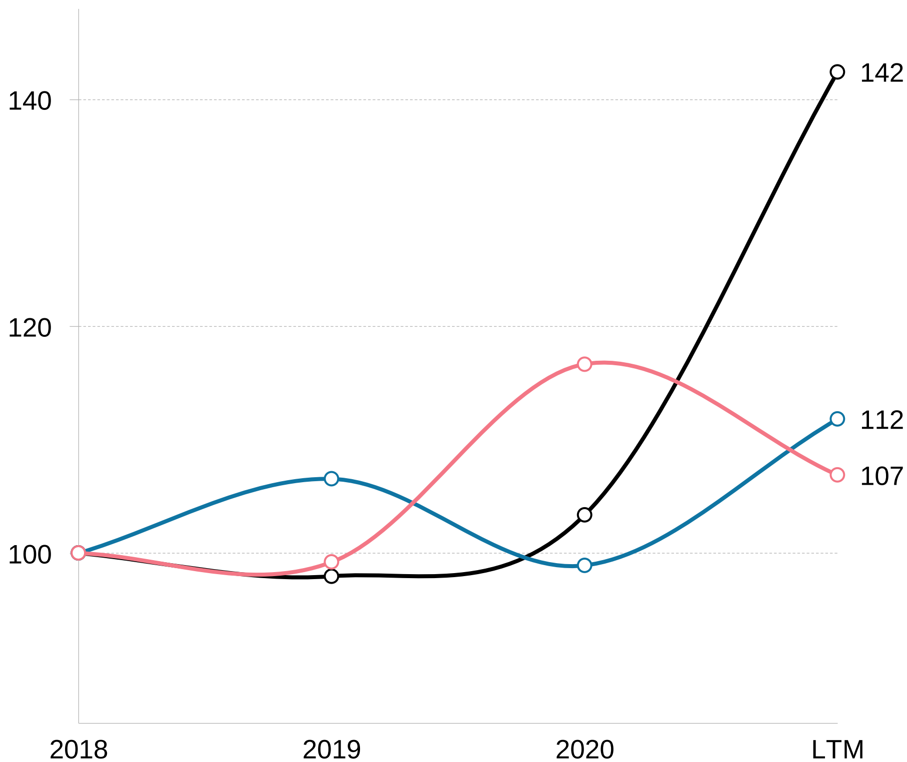


- Smartphones: Mobile devices, Smartphone, Tablet
- IoT & Lifestyle products: Smart TVs, scoters, vacuum cleaners, cameras, etc.
- Internet Services: Preloaded apps, services and advertisements
- Other: Miscellaneous additional services and products

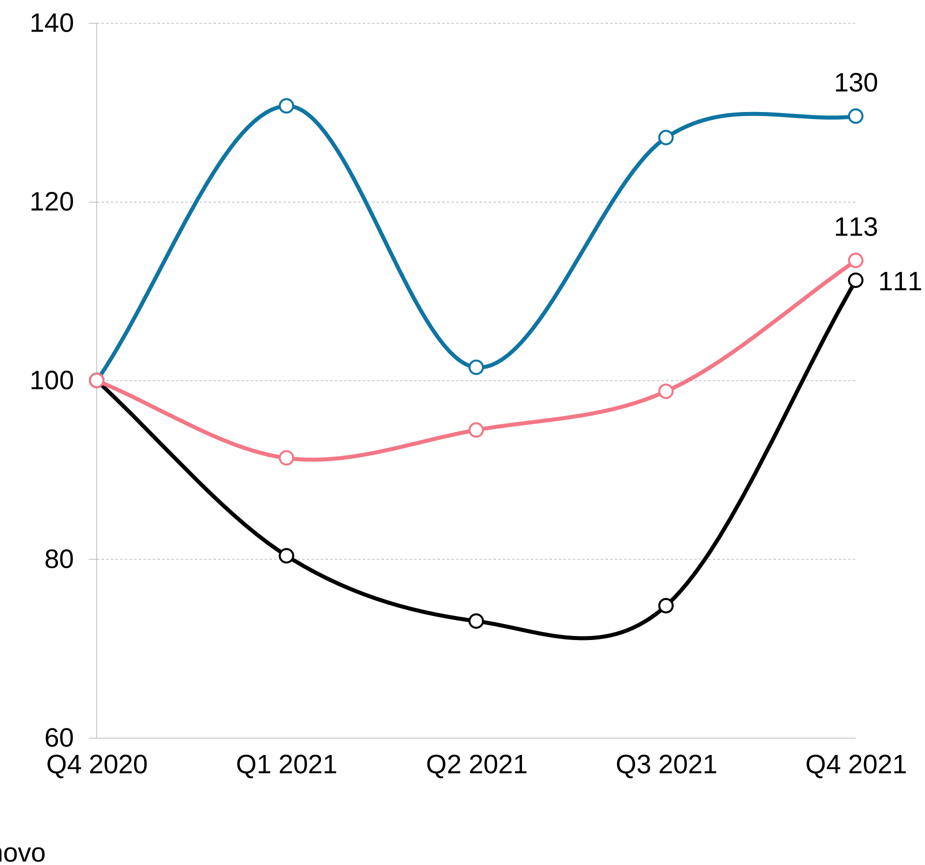
Note: Apple (for the fiscal year ended 25/Dec/2021); Huawei and Xiaomi (Q4'20 – Q3'21); Samsung and Lenovo (Q1'21-Q4'21).
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Apple stood out in the peer group during LTM, with 33% increase in revenue comparing with FY2020

Segment Yearly revenue development
2018 - LTM (index 2018=100)



Segment quarterly revenue development
Q4'20 – Q4'21 (index Q4'20=100)



Note: Included segments per company: Samsung (Information technology and mobile communication); Apple (All segments); Lenovo (Intelligent Devices Group). Xiaomi and Huawei are excluded from analysis due to missing data

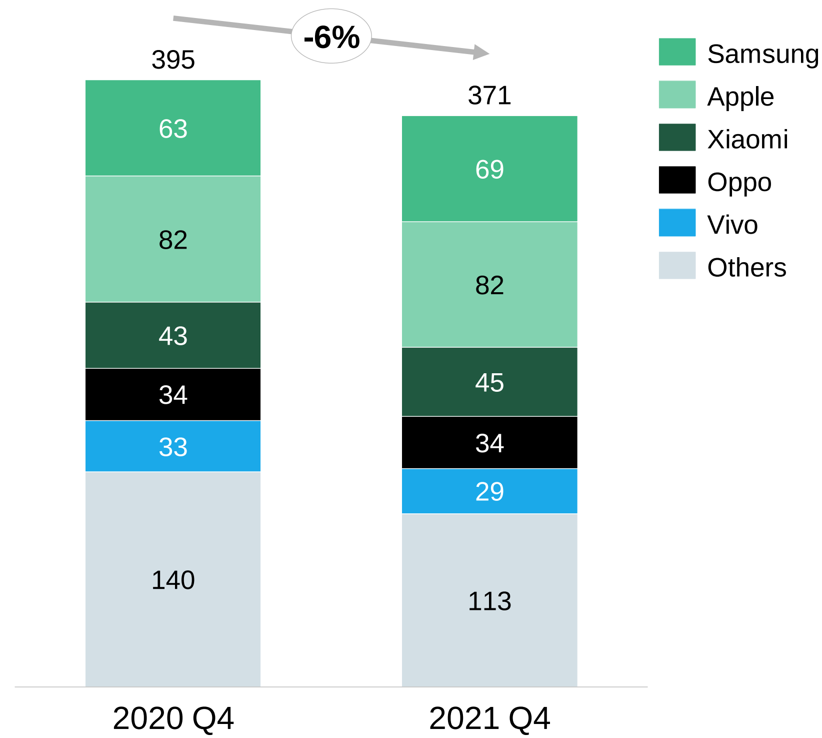
Source: S&P Capital IQ, Annual/Quarterly/Half Year Reports.

Events across the Device OEMs sector from the last quarter

News and happenings for Device OEMs

Oct-2021	Indian government may start to pressure **Oppo and Vivo** to stop operating through Chinese distribution partners and leverage domestic companies instead.
Nov-2021	**Samsung**'s November security update brought the latest Android security patch to Galaxy-branded smartphones and fixed several common vulnerabilities on devices.
Dec-2021	Global smartphone ASP raised by 12% YoY to $322 in Q4'21, driven by higher share of 5G devices, and **Apple** led the market in terms of revenues. Affordable 5G smartphone OEMs like **Vivo, Oppo, Xiaomi and Realme** fulfilled emerging market demand in 5G devices.
Dec-2021	**Realme** grew by 280% in 2021 and became the fastest growing smartphone brand in Europe, followed by Oppo and Xiaomi (70% and 43% respectively). Realme GT Series were launched in 2021, reflecting Realme started to enter premium segment.
Dec-2021	Russia handset shipments fell by 7% YoY in 2021. **Samsung, Xiaomi and Apple** led the Russian market with approximately 30%, 23% and 13% market share. Due to the conflict between Russia and Ukraine, Russian handset market is expected to shrink further.

Global smartphone shipments
Million units

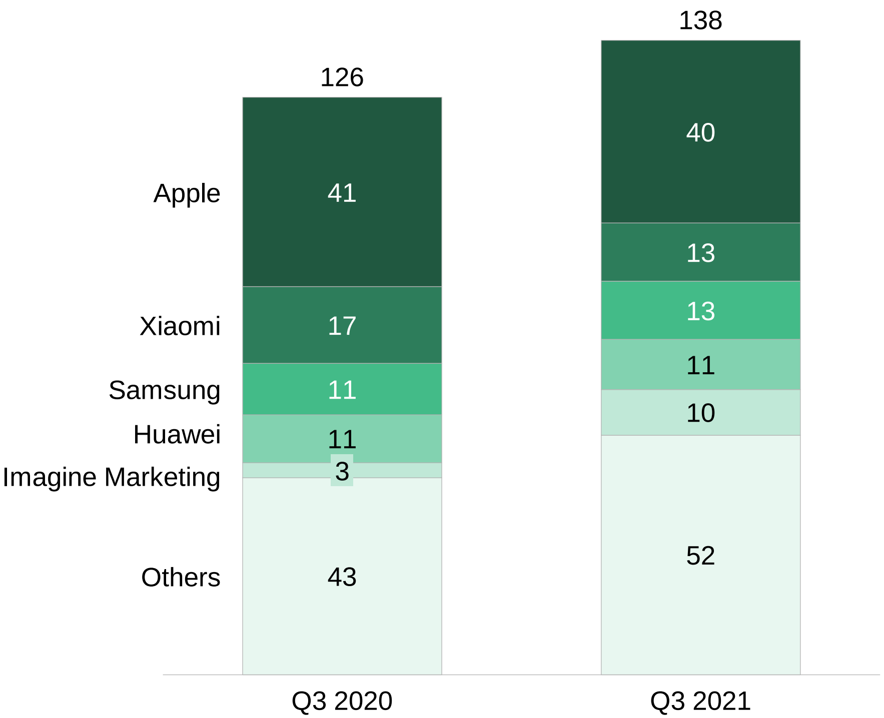


Global smartphone shipments declined by 6% YoY in Q4'21, reached to 371M units. **Samsung** continued to hold the leading position in global smartphone shipments in 2021, while **Apple** surpassed Samsung in Q4'21 with 82M units of shipment. Top 5 brands gained markets shares as Huawei suffered share loss in 2021, while LG exited from the market.

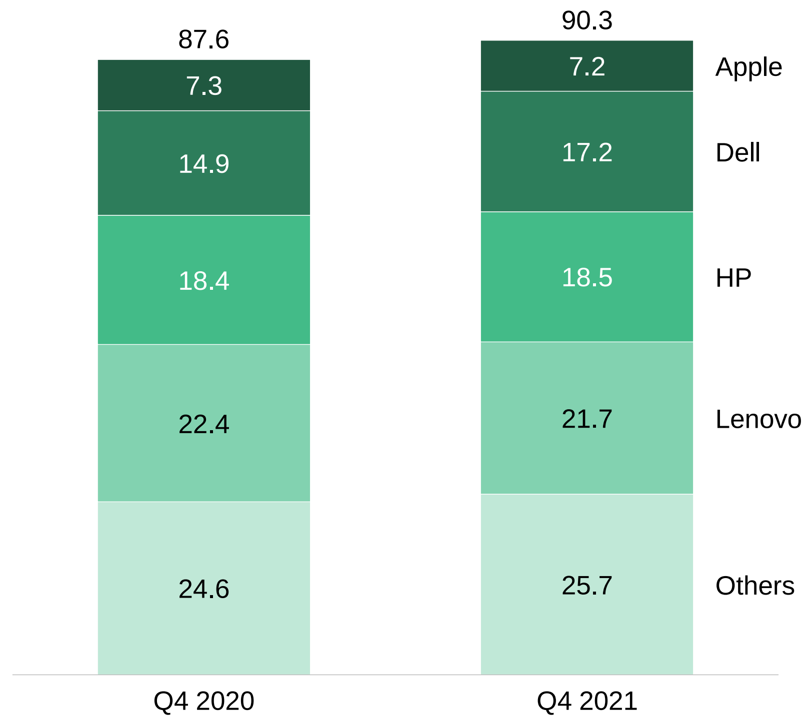
Source: Counterpoint Research, Annual & quarterly reports, Applied Value Analysis.

Global PC shipments increased for the 7th consecutive quarter; Global wearables shipments increased by 10% to 138.3M units

Global wearables shipments
Million units



Global PC shipments
Million units

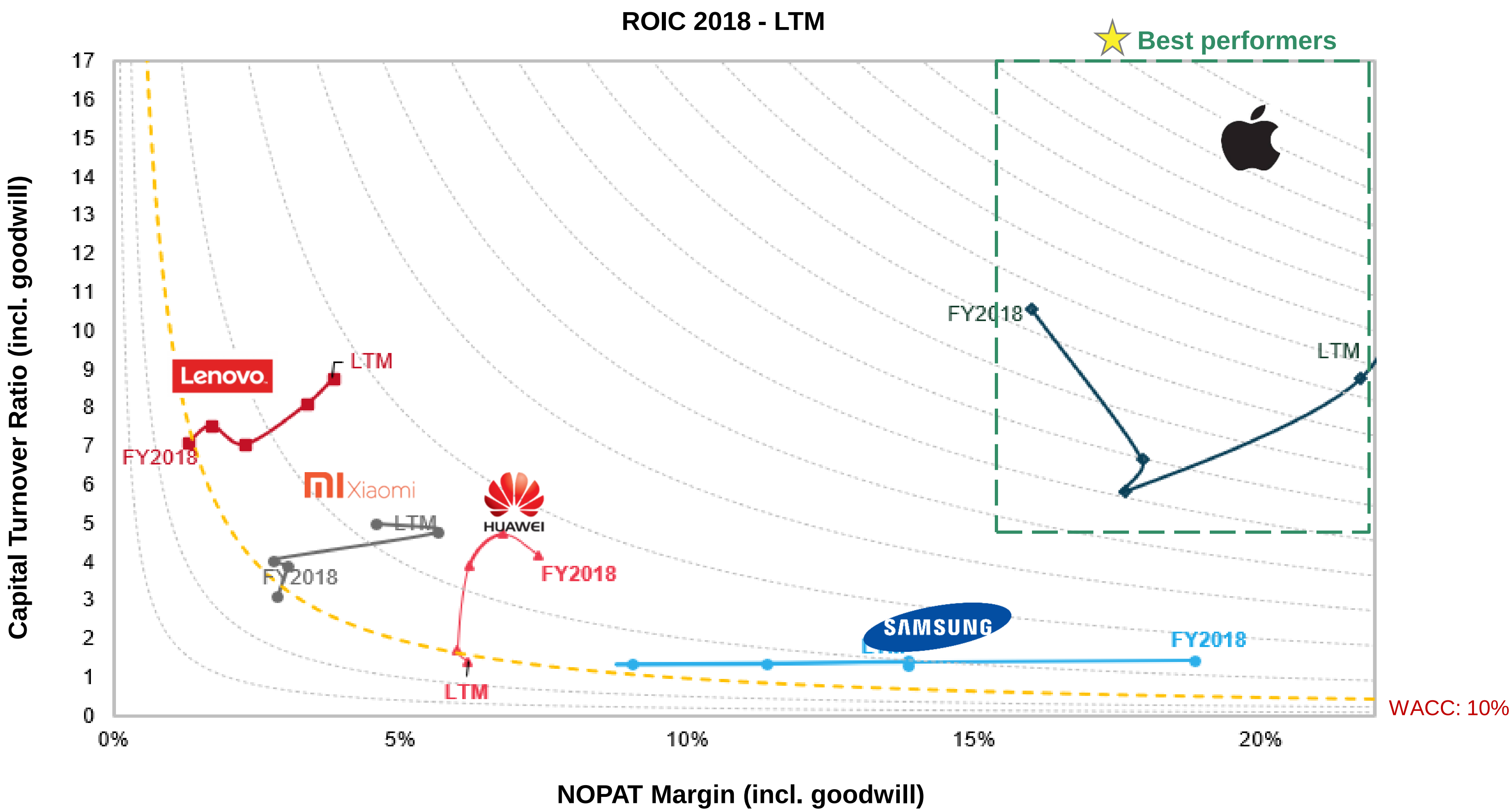


Global wearables shipments grew by nearly 10% YoY in Q3'21, largely driven by 26.5% YoY growth on hearables in this quarter. Health and fitness tracking related wearable market have been attracted many consumers due to the global pandemic. However, semiconductor shortages started to bring challenges to wearable products like smartwatches and wristbands.

Although supply chain disruptions pressured the global PC market, growth momentum continues, and PC market grew by 3.1% YoY. Lenovo held its leading position with 24% of market share and hit highest-ever unit sales of 21.7M. Dell's shipment units grew by 15% YoY as its commercial/premium products strategy took place and offered strong momentum to PC shipments growth.

Note: Global wearables shipments Q4'21 data is missing.
Source: IDC, Counterpoint Research and Applied Value Analysis.

Apple outperformed peers and ROIC was recovered in LTM, mainly driven by improved CTR which reached 13.0

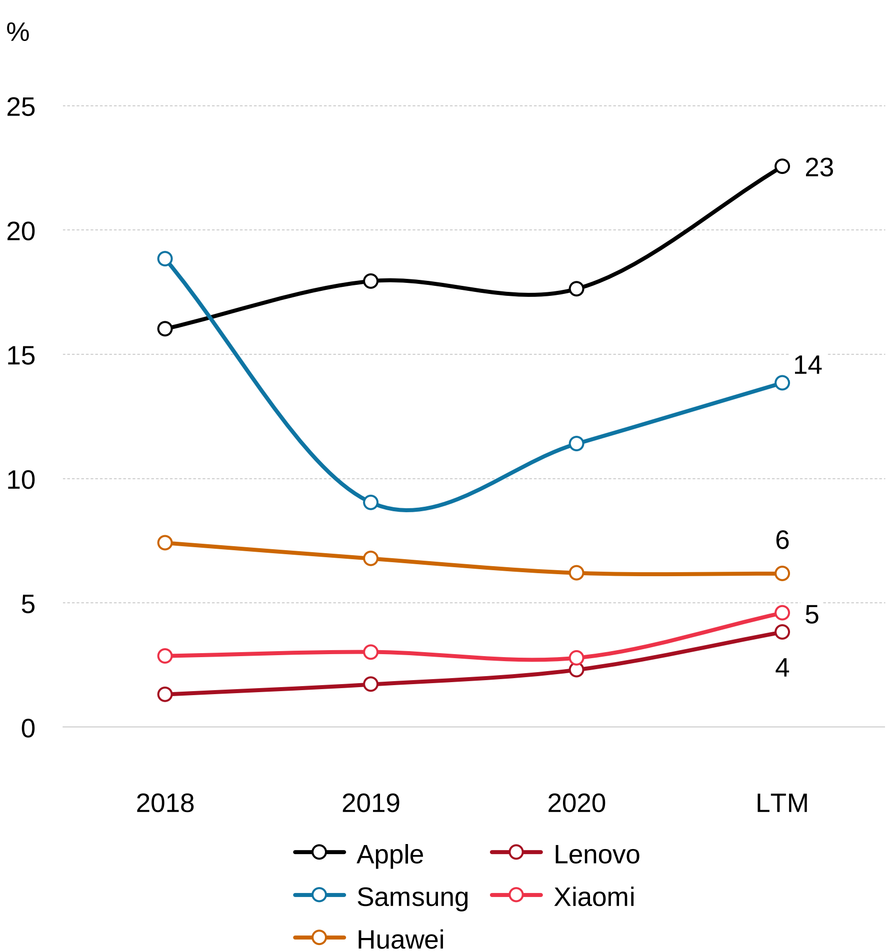


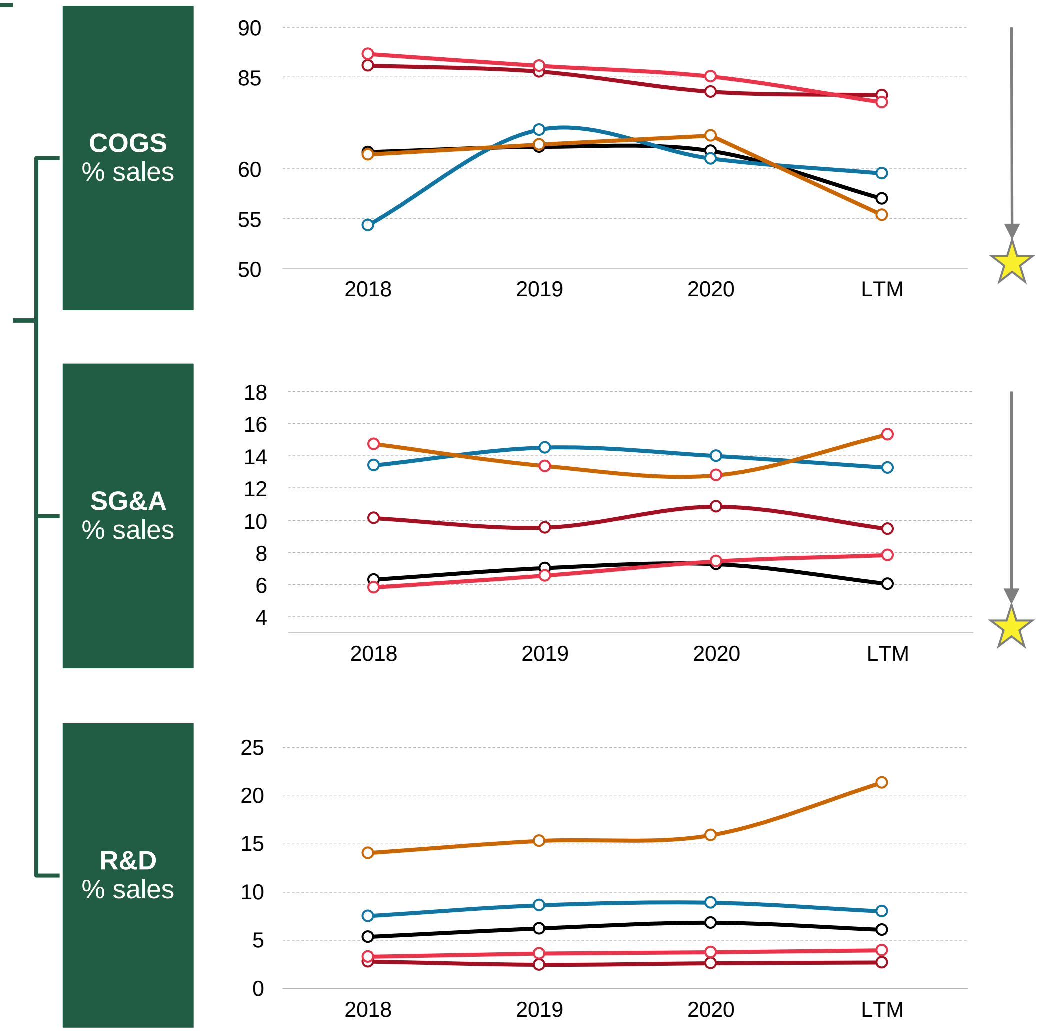
Note: Fiscal years are used in the yearly analysis. LTM analysis of Huawei is based on data from Q4’20 – Q3’21.

Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Apple NOPAT margin reached 23% in LTM, NOPAT margin improvements are seen for all OEMs except for Huawei in LTM

NOPAT margin, %

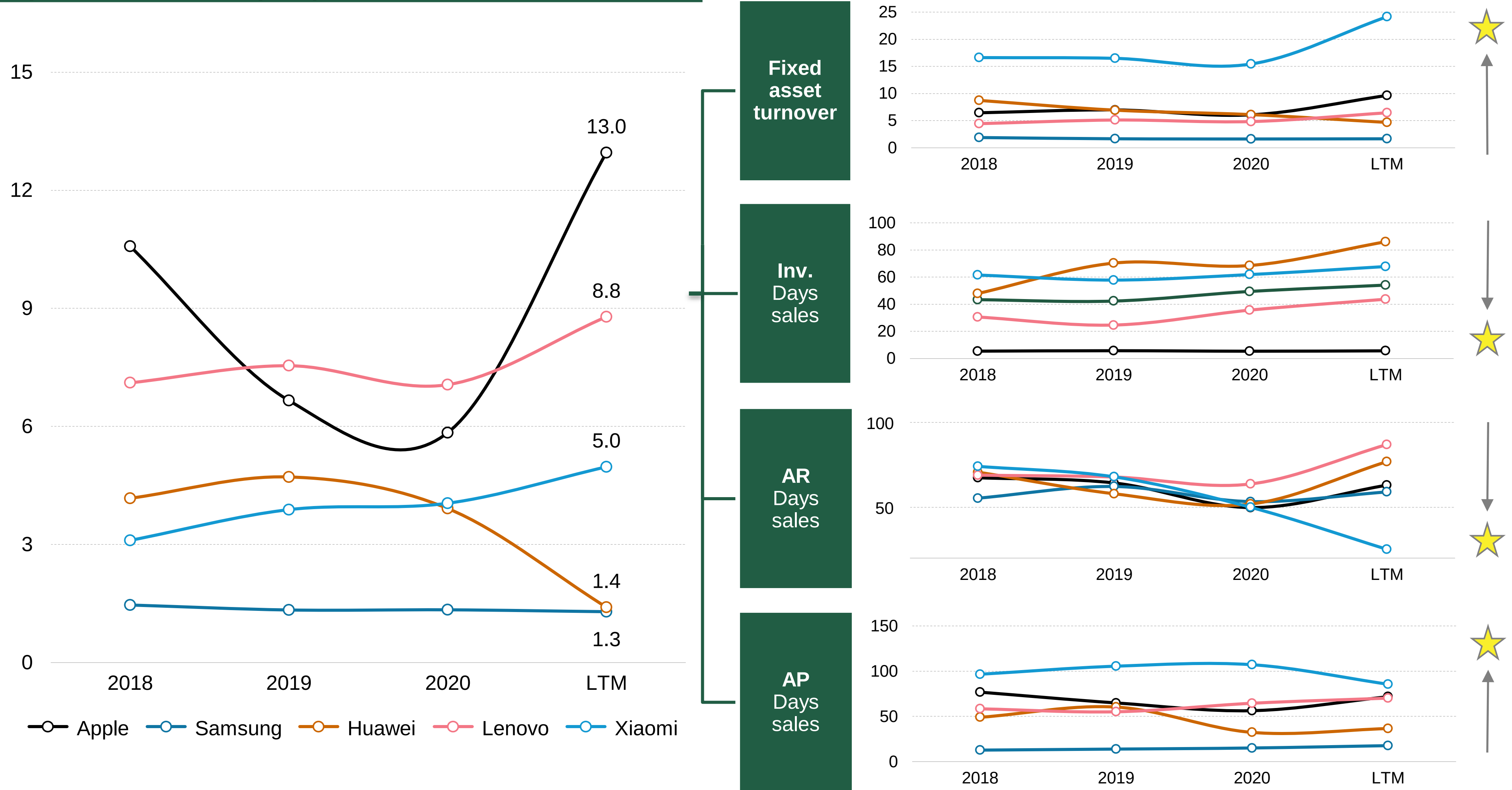




Note: Fiscal years are used in the yearly analysis. LTM analysis of Huawei and Xiaomi are based on data from Q4’20 – Q3’21.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Apple CTR improved massively during LTM to 13.0, in contrast, Huawei CTR fell from 3.9 in FY2020 to 1.4 in LTM driven by higher inventory days

Capital turnover ratio (CTR)



Note: Fiscal years are used in the yearly analysis. LTM analysis of Huawei and Xiaomi are based on data from Q4'20 – Q3'21.
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

Contents

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