



# Financial Performance and Trends in the Telecom Industry

Applied Value

Q2 2022

**Applied Value**  
Kungsgatan 2  
111 43 Stockholm, Sweden  
Phone: +46(0)8 562 787 00

[www.appliedvaluegroup.com](http://www.appliedvaluegroup.com)

## 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.

### Principal Contacts

#### **Niklas Schultz**

Telecom Practice Lead

Applied Value

Phone: +46 (0) 734 390 812

[niklas.schultz@appliedvalue.com](mailto:niklas.schultz@appliedvalue.com)



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

## Operators

## Infrastructure OEMs

## Device OEMs



NOKIA



ZTE



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## Executive Summary

1. Operators
  2. Infrastructure OEMs
  3. Device OEMs
- About Applied Value



# Executive summary

## Key takeaways per segment

### Operators

1. The operator segment Q2'22 revenue fell by ~6% YoY, driven by ~9% YoY decline in EU and global operators. Turkcell outperformed its peers in Q2'22 with 46.0% YoY revenue growth driven by expanded subscriber level as well as price adjustment.
2. Averaged yearly NOPAT and EBITDA margin for selected operators ended at 12.6% and 31.8% respectively in LTM. LATAM operators' profitability improved the most during Q2'22 with ~3% YoY rise in both NOPAT margin and EBITDA margin.
3. ROIC for operators averaged at 8.0% in LTM – 0.3pp. rise from 2021, STC lead the peer group with ROIC equal to 17.8%.

### Infrastructure OEMs

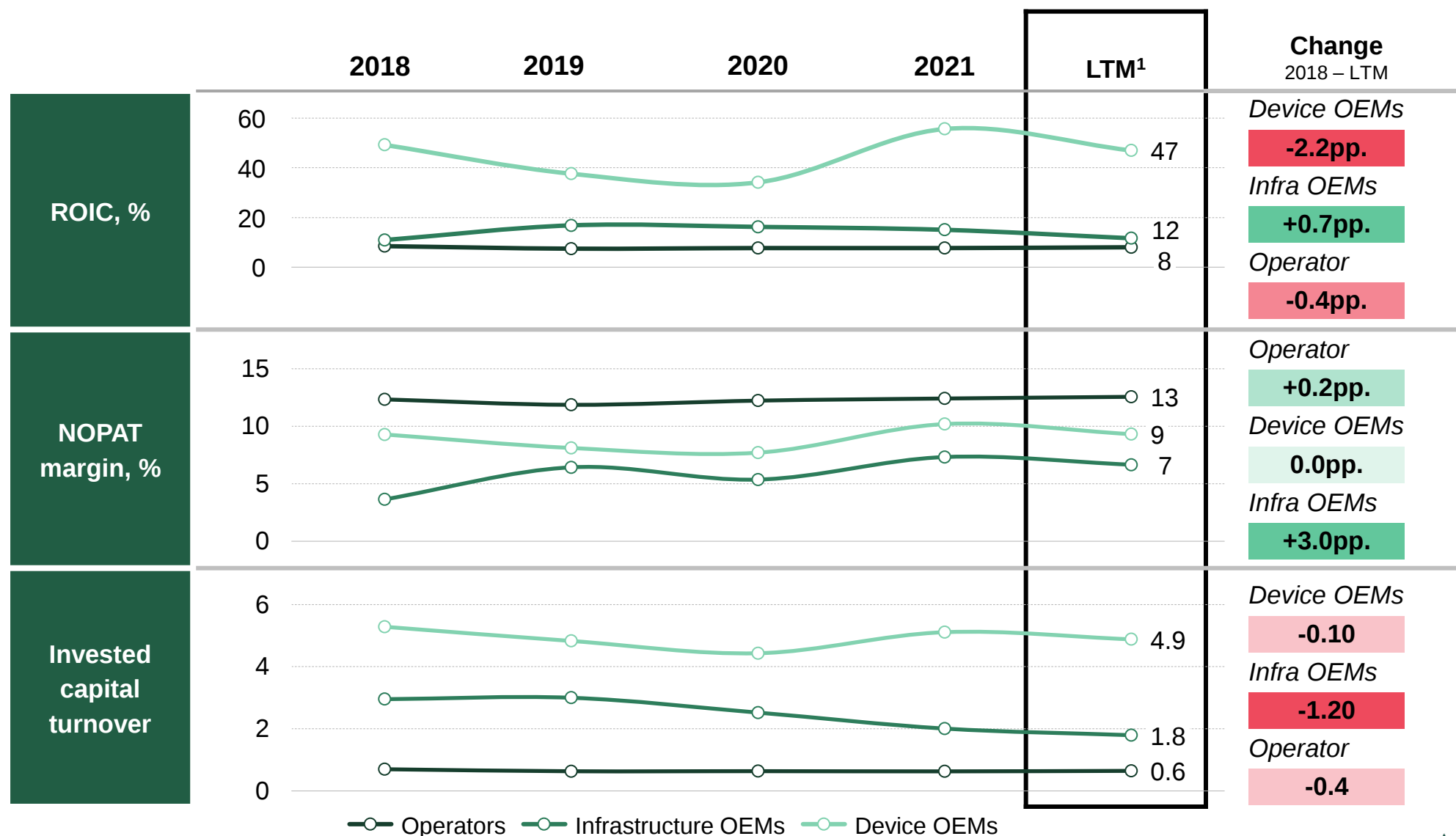
1. Infrastructure OEM yearly revenue declined by ~3% in LTM comparing with FY2021 caused by fragile economy and sanctions on ZTE and Huawei. Ericsson is the only OEM that achieve positive revenue improvement among selected OEMs of 4.7%.
2. Average NOPAT in LTM for selected infrastructure OEMs recorded at 6.7%, Ericsson obtained the highest NOPAT margin of 10.2%, representing a 6.5pp. rise since 2018.
3. Although CTR for ZTE dropped by 2.3 in LTM since FY2018, its ROIC rose by 7.8pp. to 6.0% because of its solid profitability from Operator Network segment despite restrictions from Western countries.

### Device OEMs

1. The overall quarterly revenue for selected device OEMs has flattened in Q2'22 comparing with one year ago. After three years of steady growth, Lenovo's yearly revenue saw a ~58% rise since FY2018, however, Q2'22 revenue is leveled with a year ago at around \$17B.
2. Global shipments for smartphone, wearables and PC were pressured in the reported quarter due to weakened demand as inflation spikes, recession fears and bearish consumption sentiment.
3. Over LTM, Apple and Lenovo achieved ROIC of ~162% and ~36% that beat the industry average WACC of 15%.



# Financial overview (1/2): Yearly performance



Notes: 1. LTM refers to Q3'21 – Q2'22 for most companies included in the report; 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             | Q2 '22   | Q1 '22   | Q4 '21   | Q3 '21   |
|------------------------------------------------|---------------------|----------|----------|----------|----------|
| <b>Sales</b><br><b>Y-o-Y</b><br>(% change)     | Operators           | -5.6%    | -1.6%    | 0.5%     | 1.1%     |
|                                                | Infrastructure OEMs | -1.0%    | -5.2%    | -11.1%   | -20.6%   |
|                                                | Device OEMs         | 0.6%     | 6.1%     | 8.8%     | 10.0%    |
| <b>NOPAT</b><br><b>Y-o-Y</b><br>(p.p. change)  | Operators           | -0.8 pp. | 0.5 pp.  | 0.8 pp.  | 0.1 pp.  |
|                                                | Infrastructure OEMs | -1.0 pp. | -1.0 pp. | -1.5 pp. | 1.9 pp.  |
|                                                | Device OEMs         | -1.7 pp. | -1.2 pp. | 1.7 pp.  | 2.2 pp.  |
| <b>EBITDA</b><br><b>Y-o-Y</b><br>(p.p. change) | Operators           | -2.8 pp. | -1.8 pp. | 0.7 pp.  | -0.8 pp. |
|                                                | Infrastructure OEMs | -1.8 pp. | -1.0 pp. | -1.5 pp. | 3.2 pp.  |
|                                                | Device OEMs         | -2.1 pp. | -1.0 pp. | 2.2 pp.  | 3.5 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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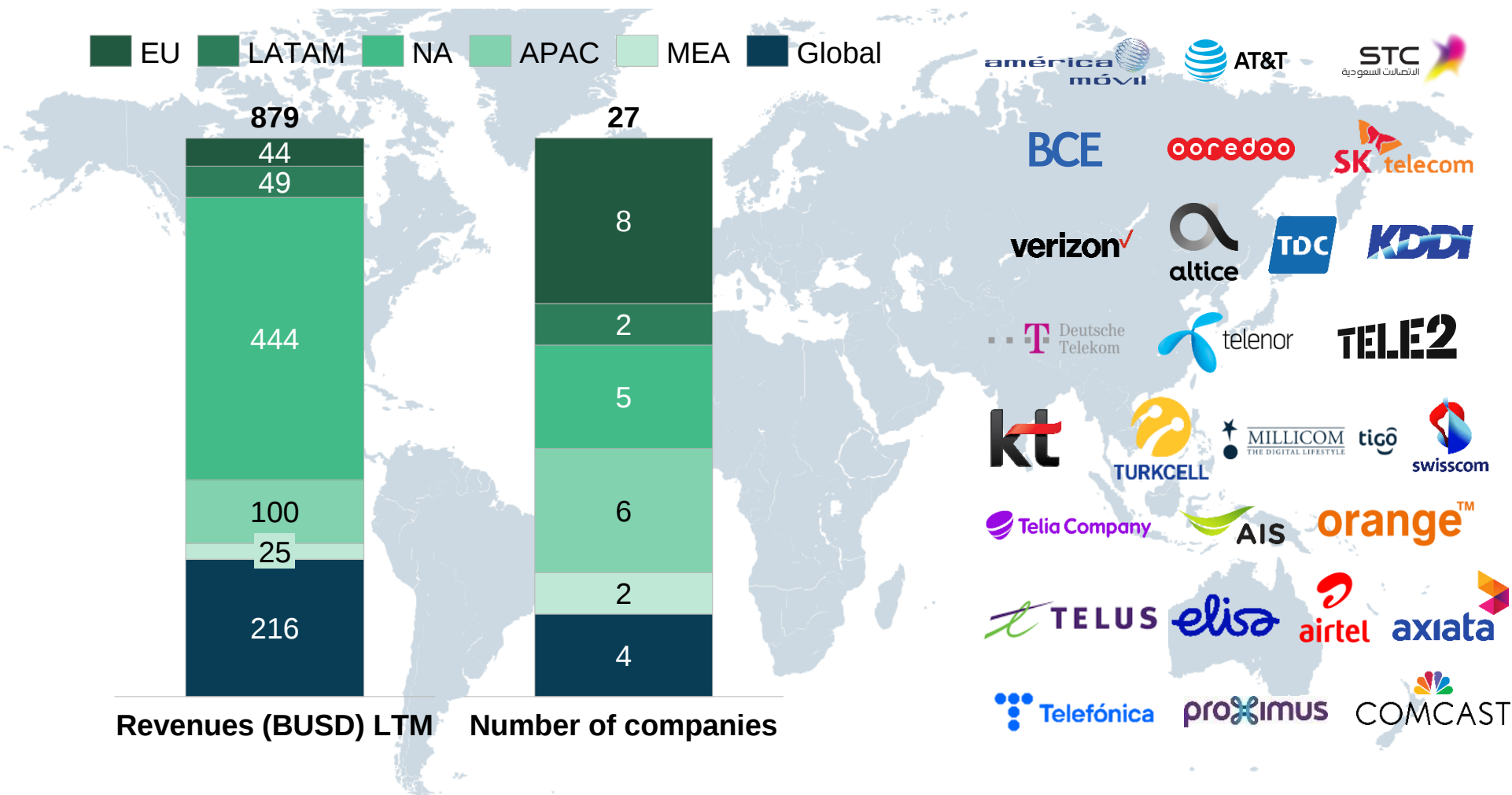
About Applied Value



# The Q2'22 report covers 27 of the largest operators globally, total LTM revenue summed up to ~\$879B

## Report overview

Revenue in BUSD, and company breakdown by regions



Note: Global operator refers to those with transregional business establishments.

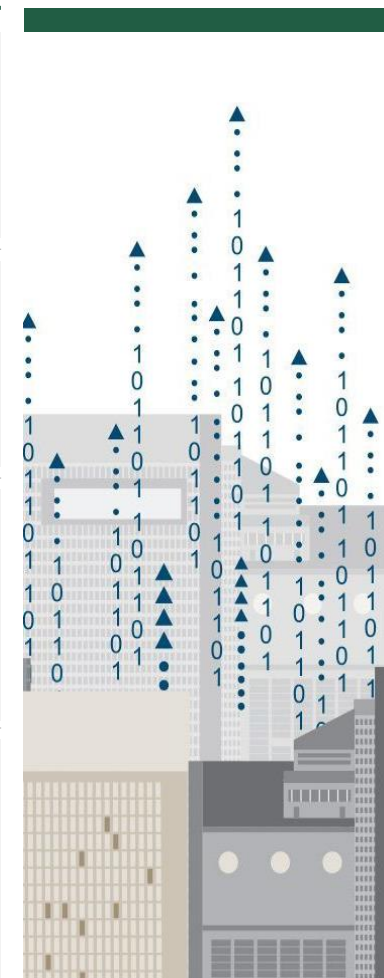
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.



# Key takeaways from the operator segment

## Key takeaways

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Creating Shareholder Value</b> | <ol style="list-style-type: none"> <li>1. The ROIC for selected operators slightly increased and averaged at 7.9% during LTM, driven by improved NOPAT margin.</li> <li>2. STC recorded the highest ROIC of 17.8% in LTM with over 4pp. increase from LTM-1, the company's strong ability in generating profits lowers financial risks and thus, provides better return to shareholders.</li> </ol>                                                                                            |
| <b>Revenue Performance</b>        | <ol style="list-style-type: none"> <li>1. LATAM is the only region with positive YoY revenue development (~7%) in Q2'22; in contrast, both EU and global operators' quarterly revenue fell by ~9% YoY.</li> <li>2. Significant revenue improvement was seen from Turkcell ~46% YoY in Q2'22. The main growth driver being expanded subscriber base and positive price adjustments, but also rising inflation rates in Turkey.</li> </ol>                                                       |
| <b>Margin Performance</b>         | <ol style="list-style-type: none"> <li>1. Averaged LTM EBITDA and NOPAT margins ended at 31.8% and 12.6% for selected operators. EBITDA% in Q2'22 was lowered by 3pp. YoY, driven by 6pp. loss in EU.</li> <li>2. AT&amp;T achieved the highest NOPAT margin in the peer group of 19.5% in Q2'22 due to stronger revenue growth coupled with ongoing cost-reduction initiatives. BCE maintained its EBITDA margin at 44.3% as a consequence of solid sales from its Service sector.</li> </ol> |
| <b>Capital Expenditure</b>        | <ol style="list-style-type: none"> <li>1. CAPEX over sales for selected operators in LTM averaged at 16.5% with 3pp. increase in Europe and 2pp. rise in LATAM.</li> <li>2. The Malaysian telecom company Axiata obtained the highest CAPEX/Sales of 27.0% in Q2'22 in response to its acceleration in expansion in Bangladesh and Indonesia. AT&amp;T CAPEX/Sales rose by 7pp. as incremental investments were made in this quarter for future subscriber growth.</li> </ol>                  |



## Q2'22 events across the operator segment

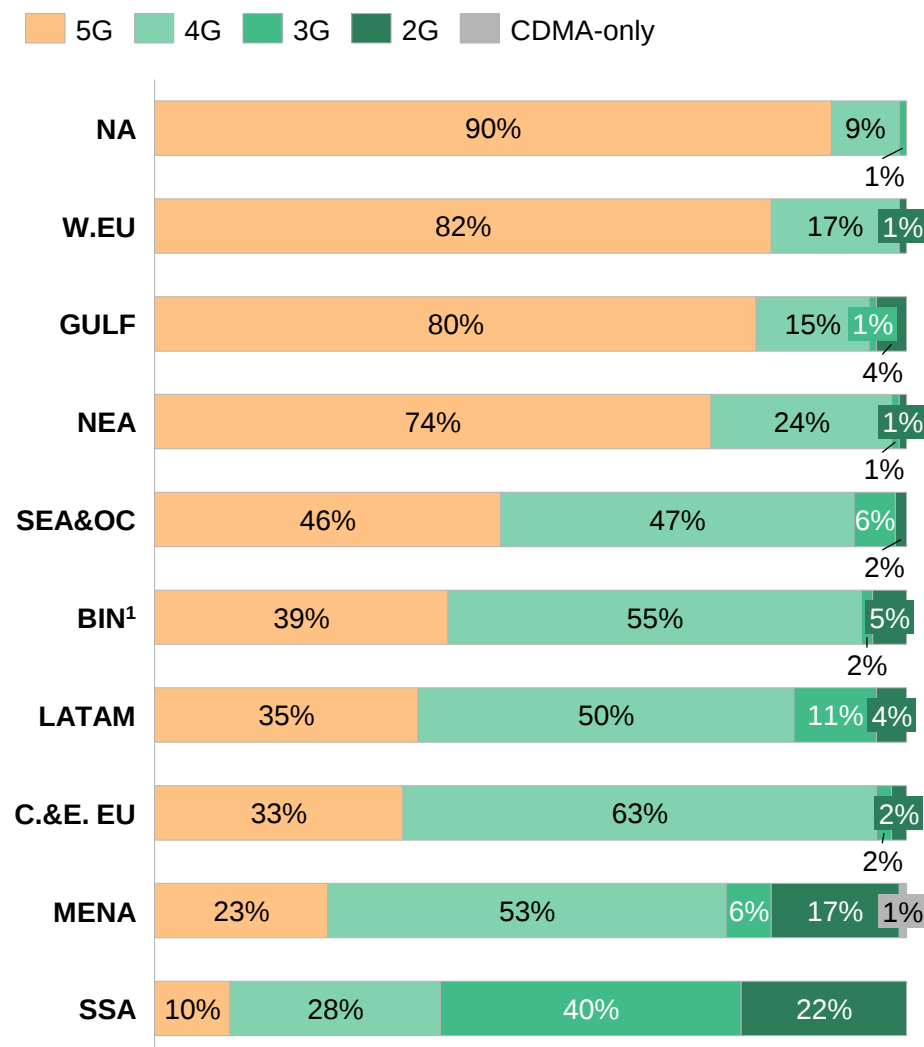
### Industry & operator news

|                              |                                                                                                                                                                                                                                                                                                                      |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5G Coverage</b>           | 5G adaptation rate is faster than any previous mobile generations. Study shows global 5G subscription will reach to over 4.4B by the end of 2027 with <b>North America leading the race</b> – 5G will account for 90% of subscriptions in NA, followed by Western Europe (82%), Gulf (80%) and Northeast Asia (74%). |
| <b>Fixed Wireless Access</b> | FWA is now playing a crucial role in delivery of broadband services, FWA connections are projected to exceed 100M in 2022.                                                                                                                                                                                           |
| <b>Apr-2022</b>              | <b>BCE's</b> subsidiary <b>Bell</b> launched the fastest internet speeds in Canada with download and upload speeds of 3Gbps.                                                                                                                                                                                         |
| <b>Apr-2022</b>              | <b>América Móvil's</b> rollout on 5G network in Mexico is on track with planned FY2022 CAPEX reaching \$8B, the company expects 5G resulting in improved ARPU.                                                                                                                                                       |
| <b>Apr-2022</b>              | <b>Tele2</b> and <b>Deutsche Telekom</b> closed their sale of T-Mobile Netherlands at pre-agreed value of \$5.7B.                                                                                                                                                                                                    |
| <b>May-2022</b>              | <b>Altice's</b> subsidiary, <b>Optimum</b> introduced the fastest residential fiber internet service – 5 Gig Fiber Internet in New York Tri-State Area.                                                                                                                                                              |
| <b>Jun-2022</b>              | <b>Telia Norway</b> is selected by Norwegian Defense Materiel Agency as a partner to collaborate on developing tactical private 5G networks.                                                                                                                                                                         |

Note: BIN refers to Bhutan, India and Nepal

Source: Press & News, Ericsson Mobility Report, Applied Value Analysis.

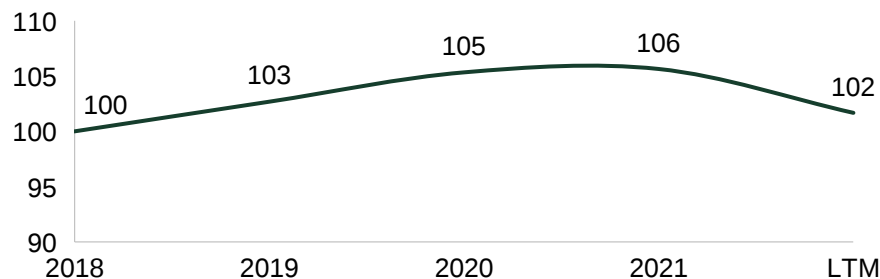
### Mobile subscriptions by region and technology, 2027



# By region, only LATAM operators achieved revenue growth in LTM by ~2% comparing with LTM-1 driven by stable sales over last 9 months

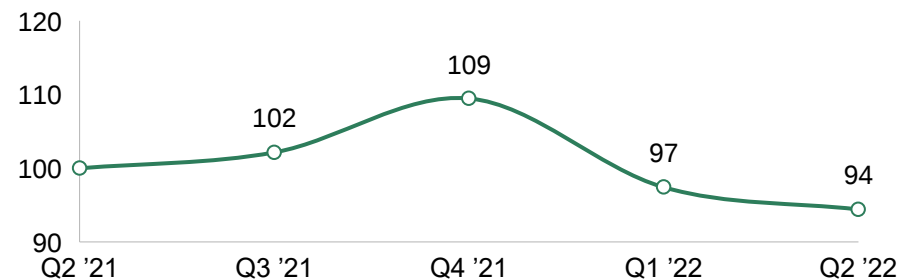
## Indexed Yearly revenues

2018 - LTM (index 2018=100)



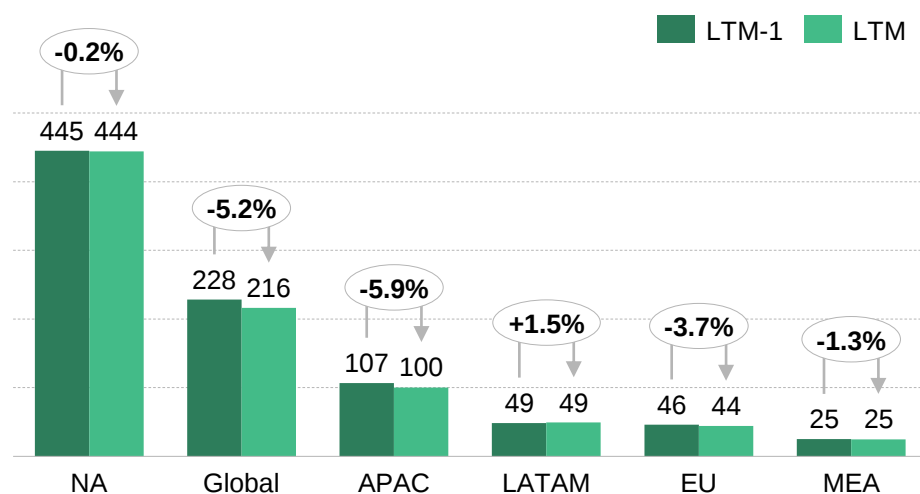
## Indexed Quarterly revenues

Q2'21 – Q2'22 (index Q2'21=100)



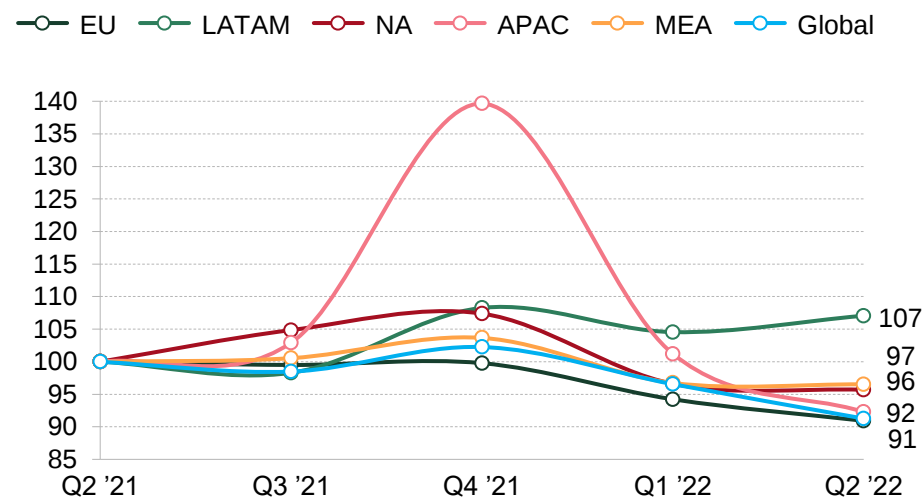
## Yearly revenues by region

LTM-1 (Q3'20 – Q2'21), to LTM (Q3'21 – Q2'22), BUSD



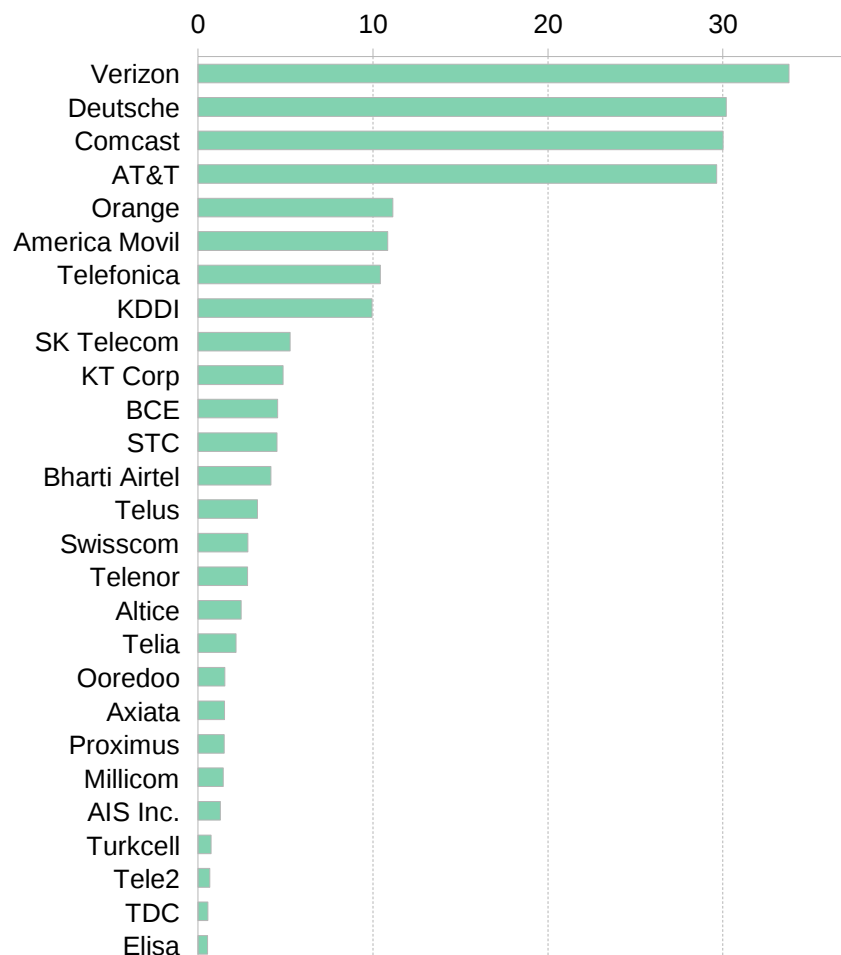
## Indexed Quarterly revenues by region

Q2'21 – Q2'22 (index Q2'21=100)

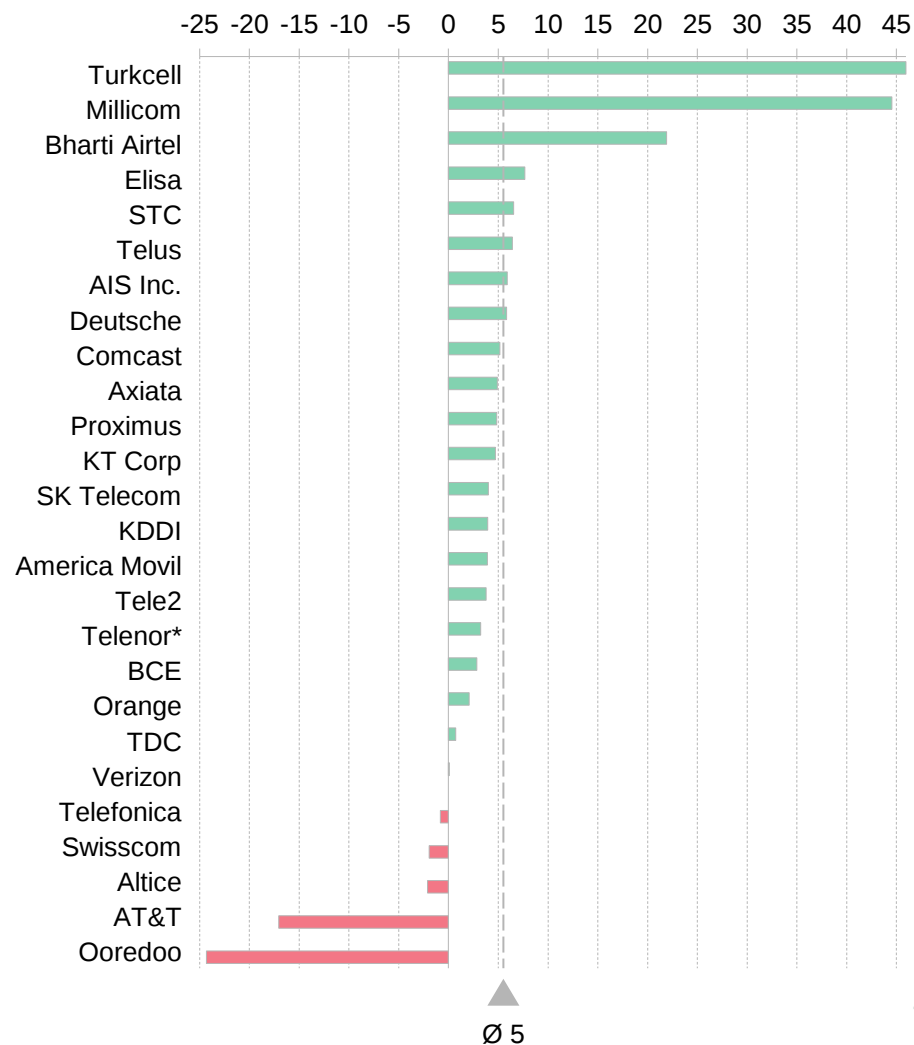


# Turkcell Q2'22 revenue up by ~46% YoY as a result of ~33% rise in ARPU and 2 million of net-add new subscribers from mobile segment

Revenue by operator  
Q2'22 BUSD

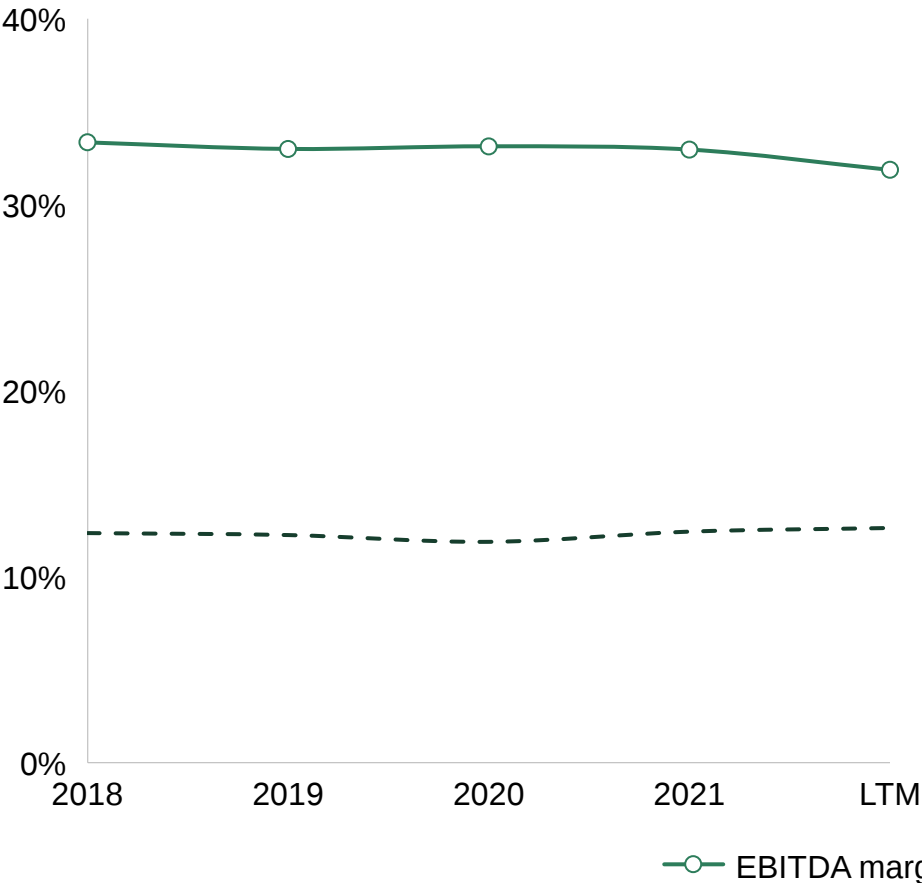


Revenue development by operator  
Delta (Q2'22 vs. Q2'21), %, filing currency

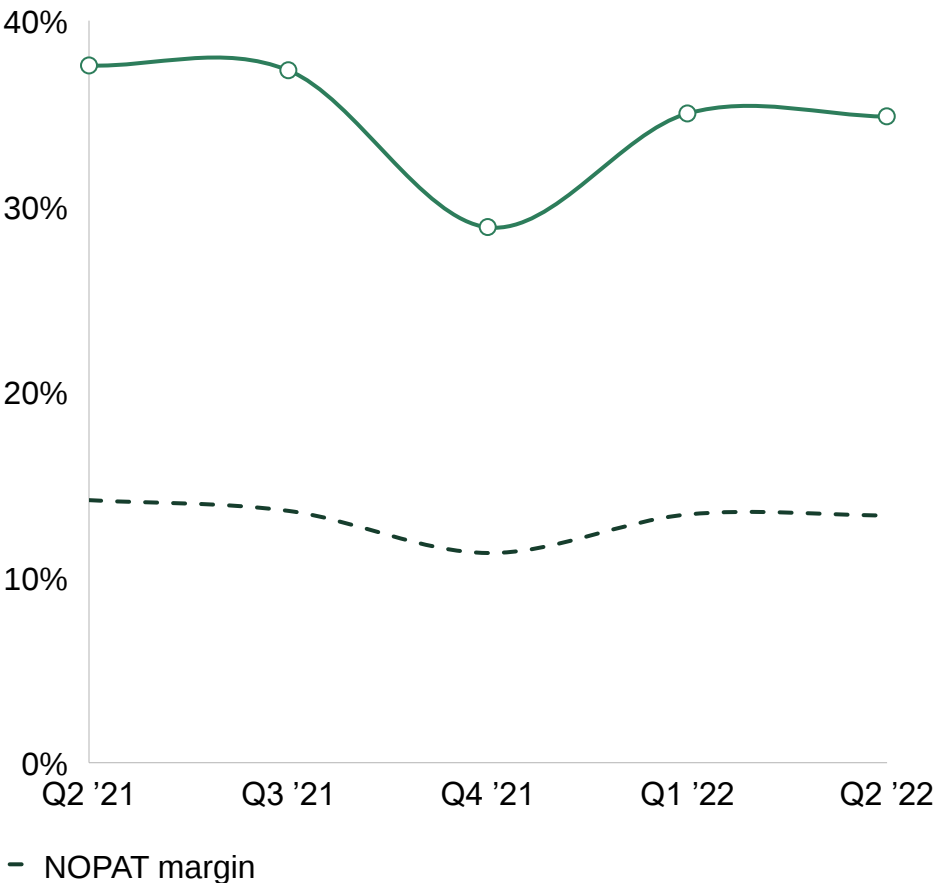


# Yearly EBITDA margin for selected operators in LTM fell to 4-year low at ~32%, NOPAT margin rose to ~13% in LTM

Yearly profitability development  
2018 - LTM, %



Quarterly profitability development  
Q2'21 – Q2'22, %

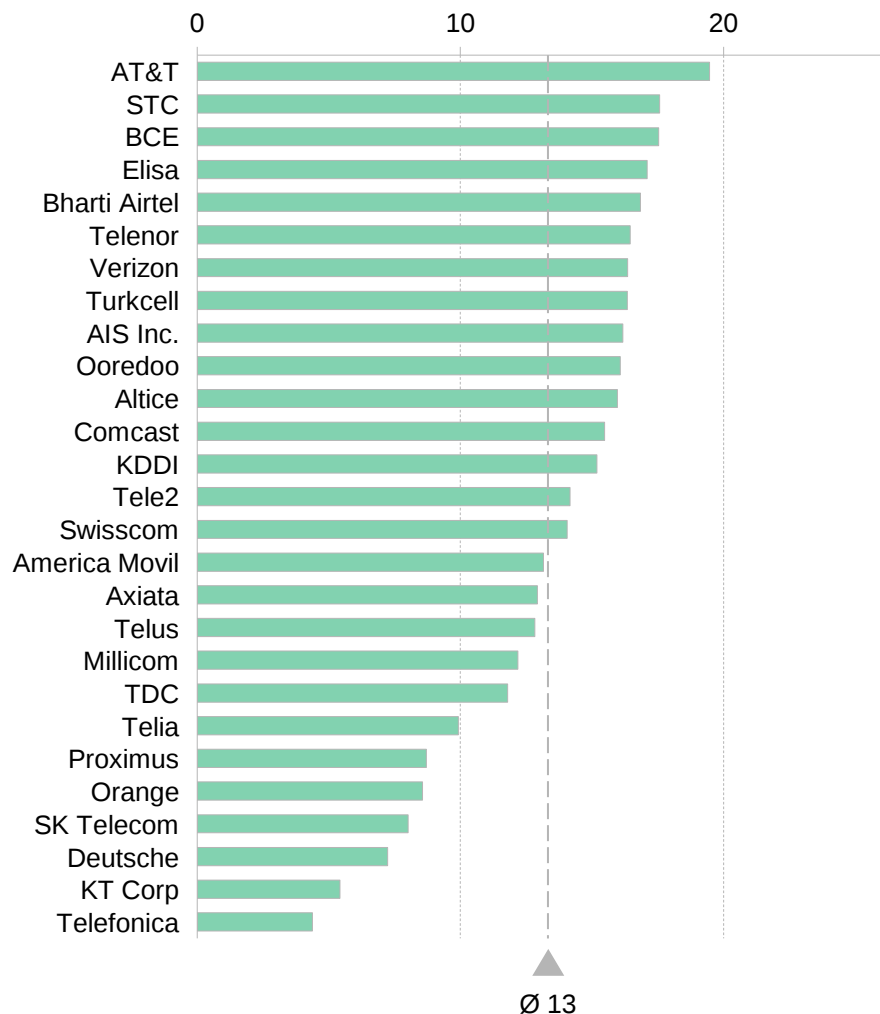


Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

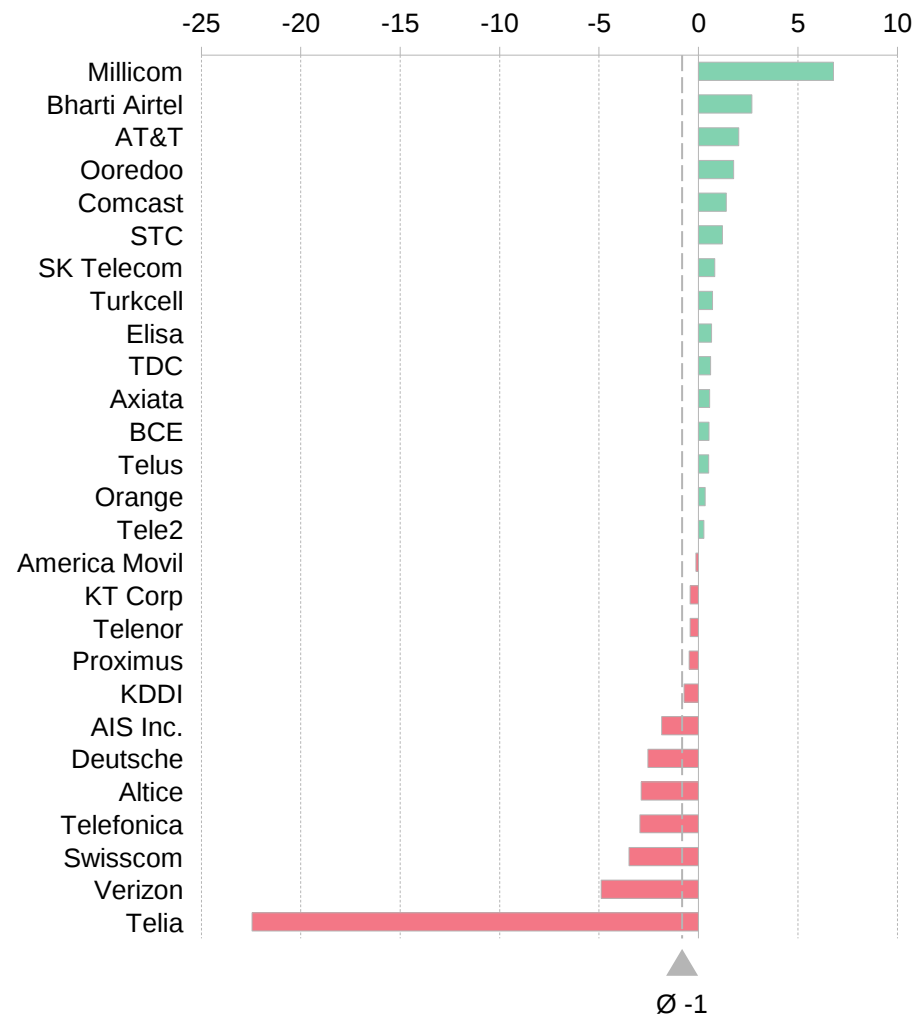


# NOPAT% averaged at ~13% in Q2'22; Telia suffered ~22% YoY drop as its disposal of Telia Carrier and Alerta had drove up Q2'21 operating income

**NOPAT margin by operator**  
Q2'22, %

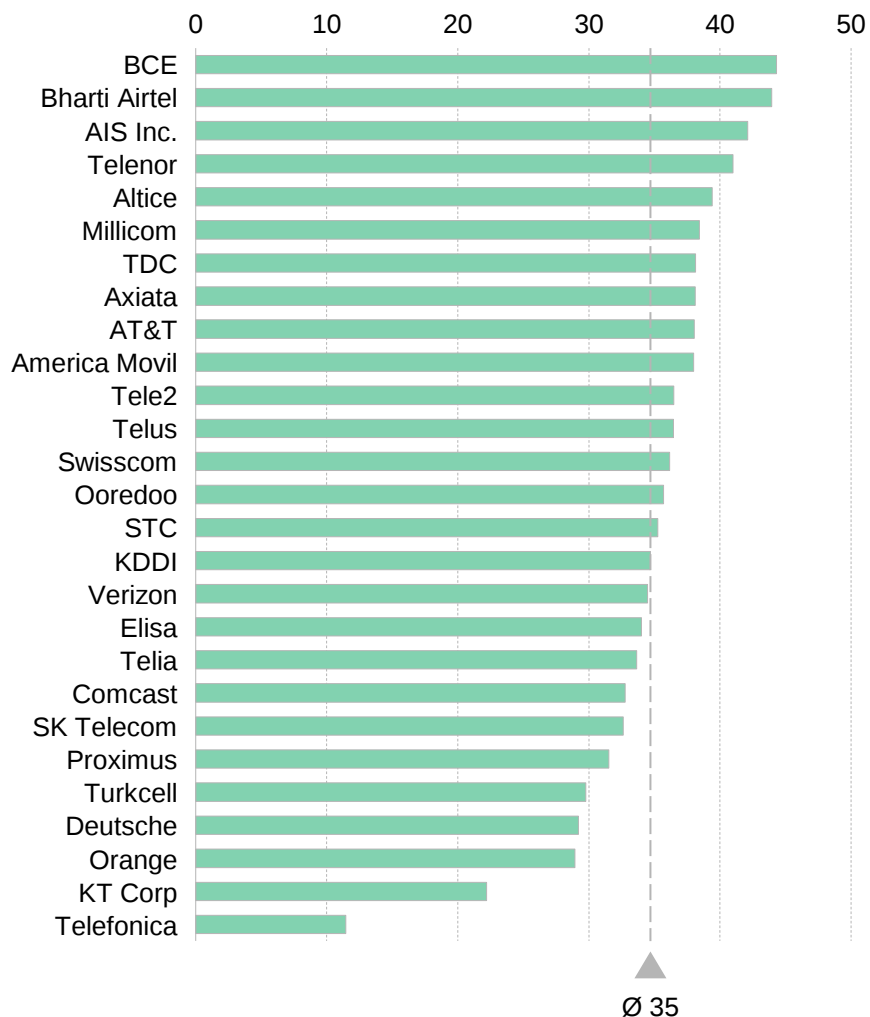


**NOPAT margin development by operator**  
Delta (Q2'22 vs. Q2'21), p.p.

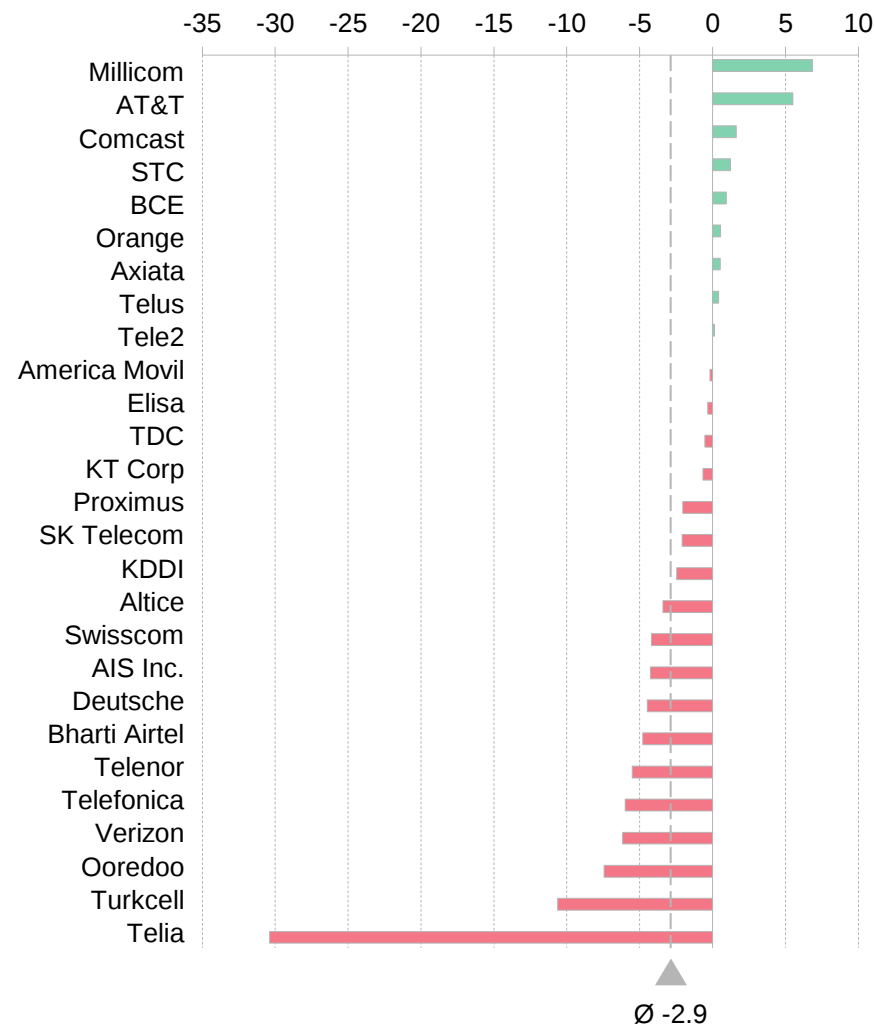


# Average EBITDA margin recorded at ~35% for selected operators in Q2'22; Millicom and AT&T EBITDA% developed by ~7% and ~6%, respectively

EBITDA margin by operator  
Q2'22, %

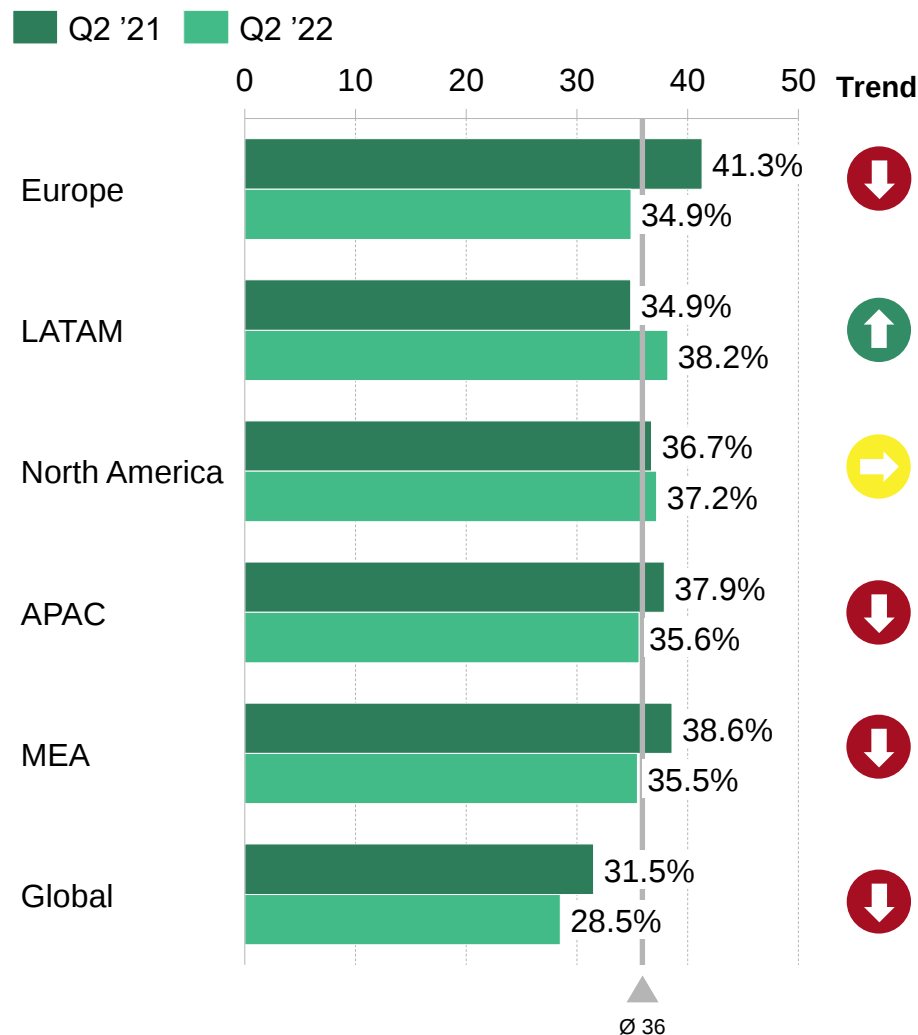


EBITDA margin development by operator  
Delta (Q2'22 vs. Q2'21), pp.

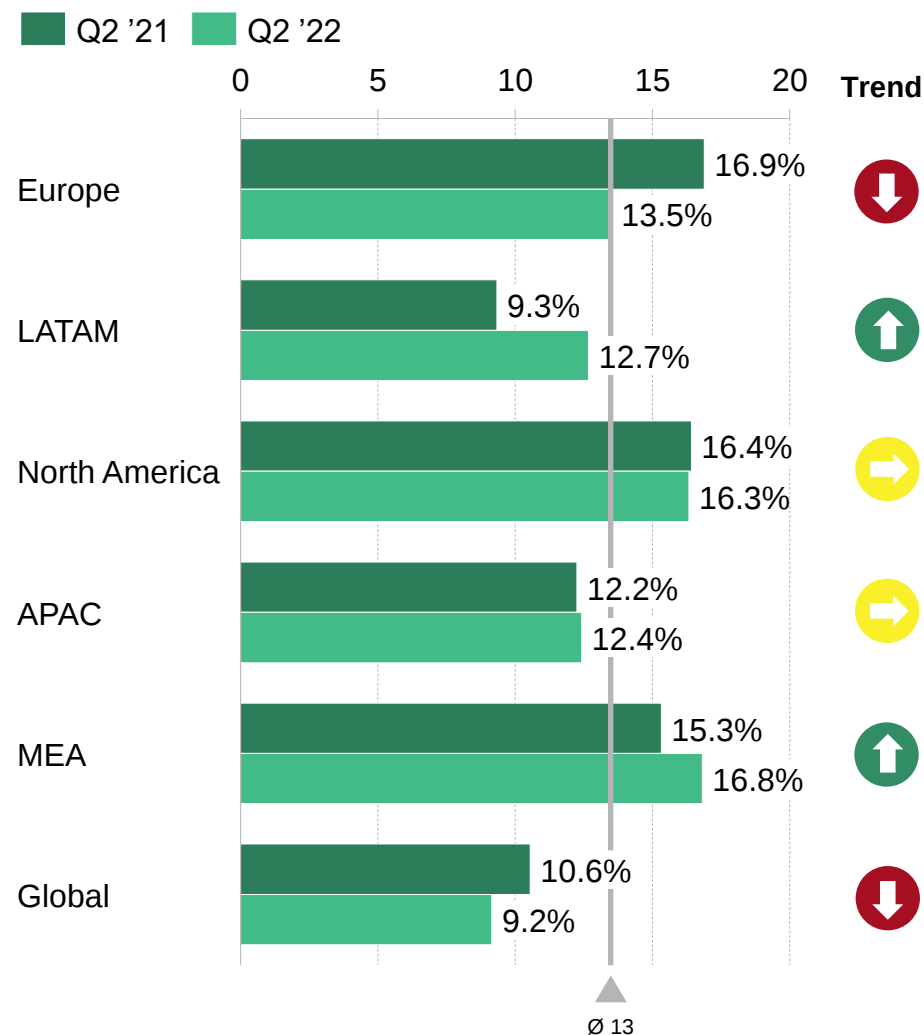


# LATAM NOPAT margin increased most significantly across regions as Millicom NOPAT% rose from ~5% in Q2'21 to ~12% in Q2'22

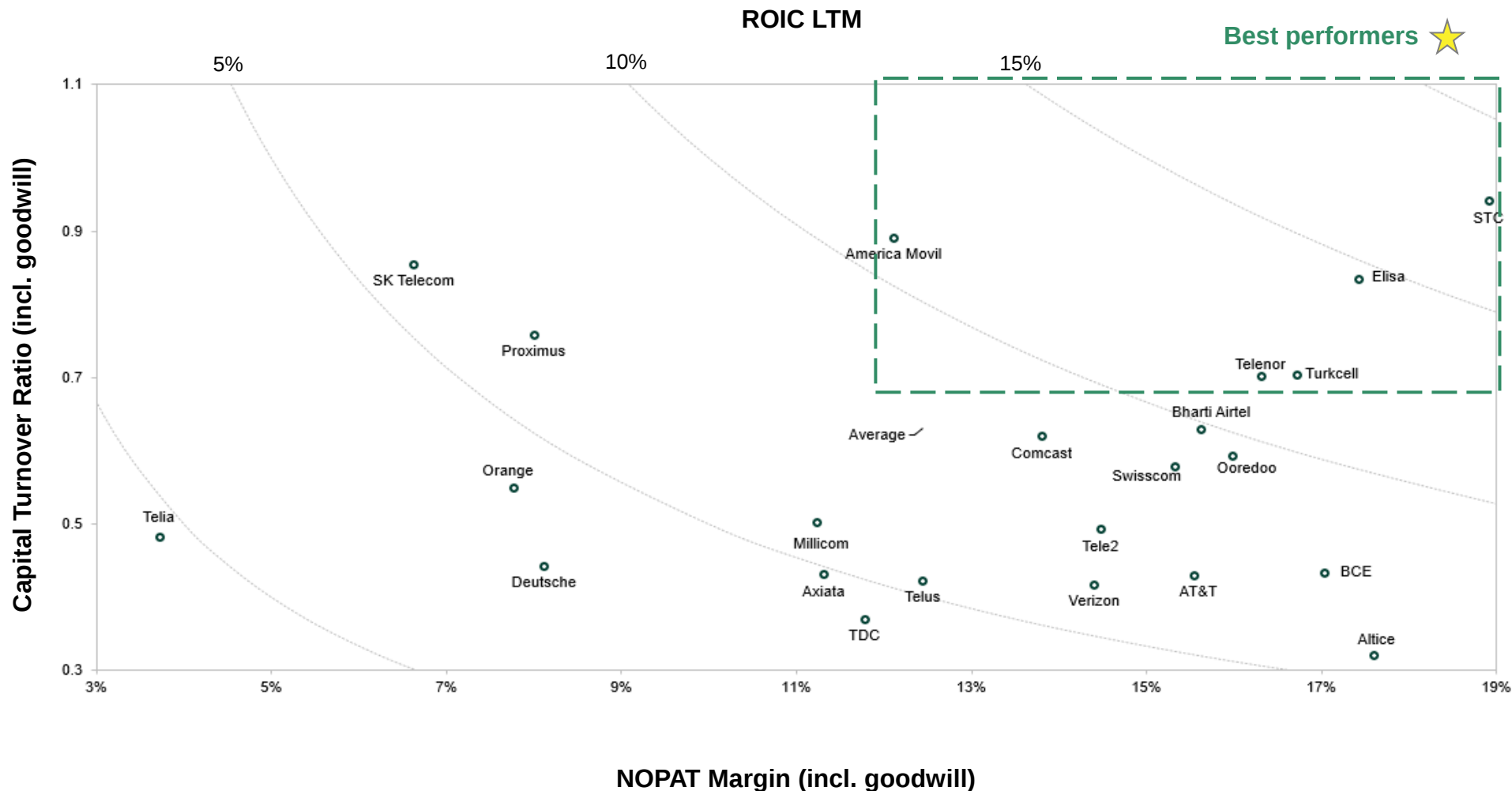
## Average EBITDA margin by region



## Average NOPAT margin by region



**Selected operators ROIC is averaged at 7.9% with STC being the top performer of ~18% as it obtained notable growth in NOPAT margin**



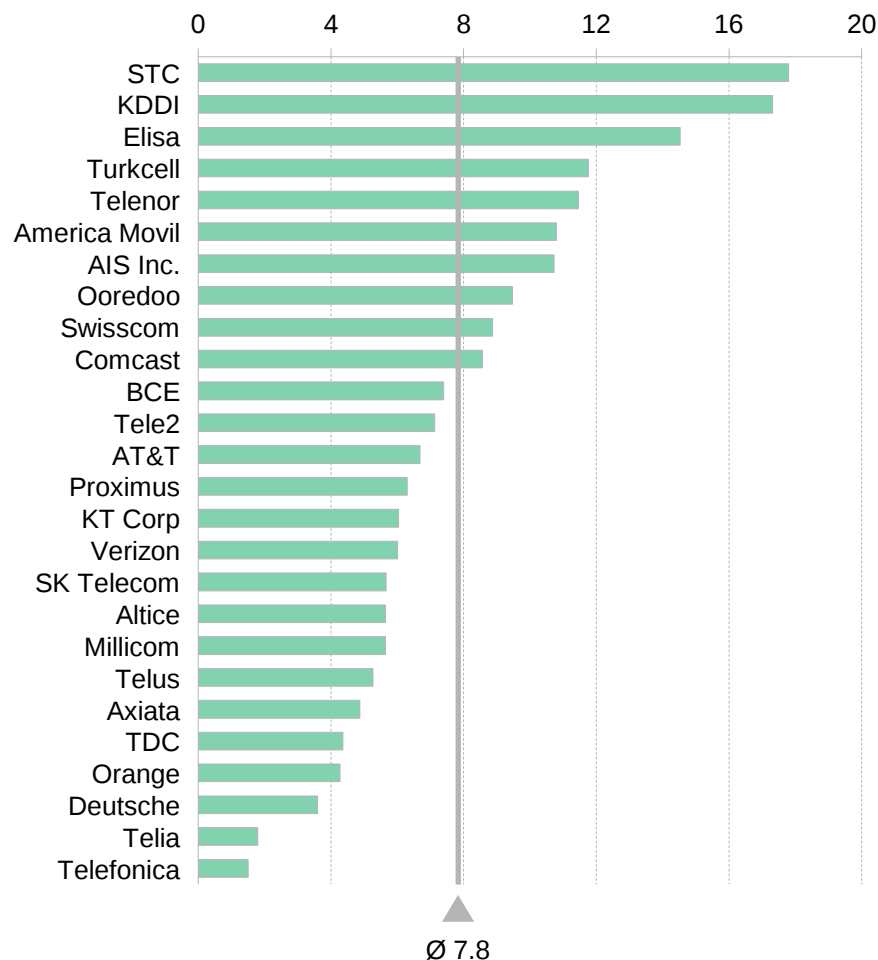
Note: ROIC = Return on Invested Capital (actual return that the company has generated after tax);  
Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.



# Segment averaged ROIC rose by 0.3pp. in LTM; STC outperformed peers with ROIC grew by 4.1pp., driven by increased CTR and 2pp. rise in NOPAT%

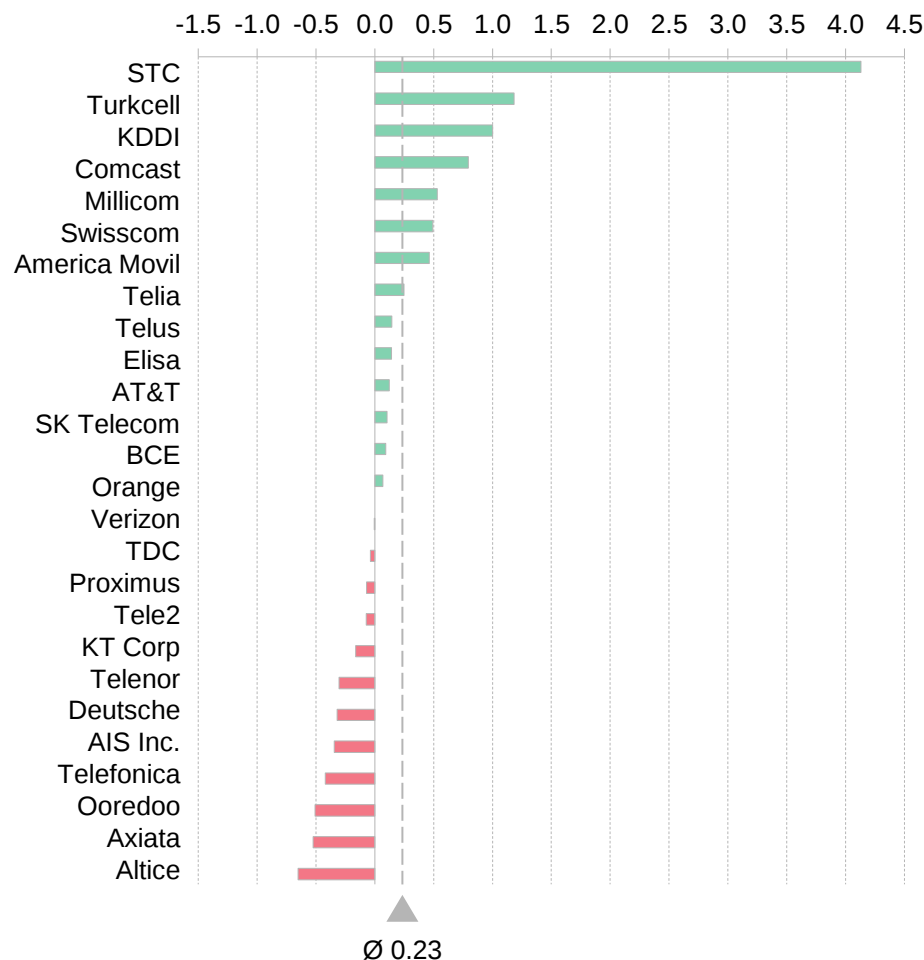
## ROIC by operator

LTM (Q3' 21 – Q2' 22), %



## ROIC development by operator

Delta (LTM vs. LTM-1), p.p.



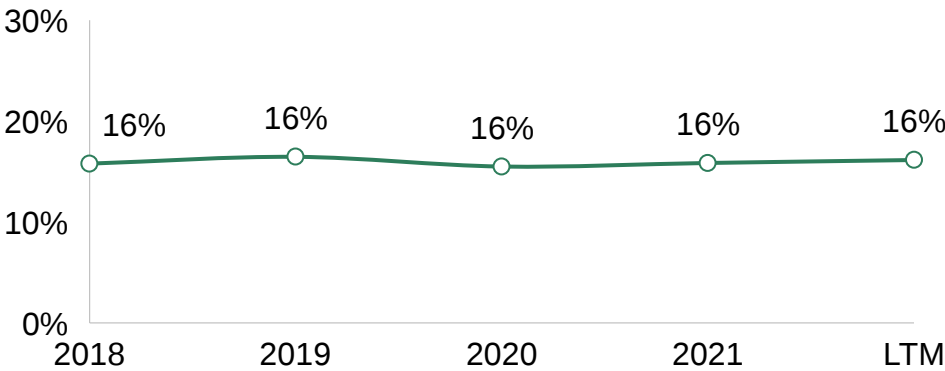
Note: Bharti Airtel is excluded due to missing data

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

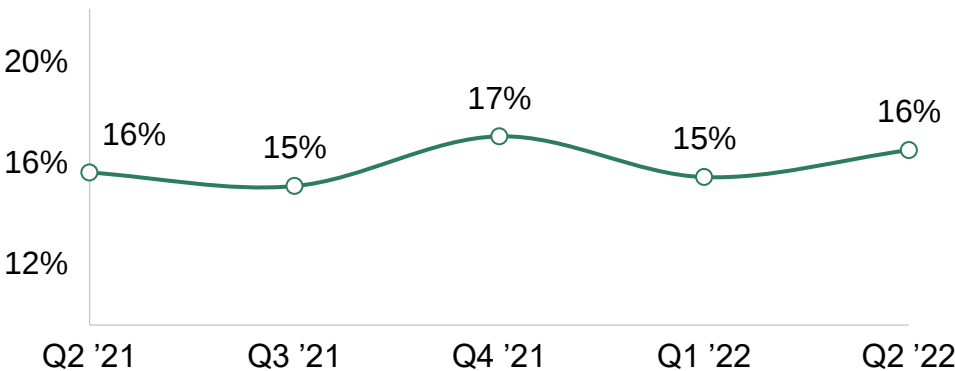


# Yearly CAPEX/Sales remained virtually unchanged over last 4 years; NA and MEA operators CAPEX/Sales fell ~23% and ~21% in LTM comparing with 2018

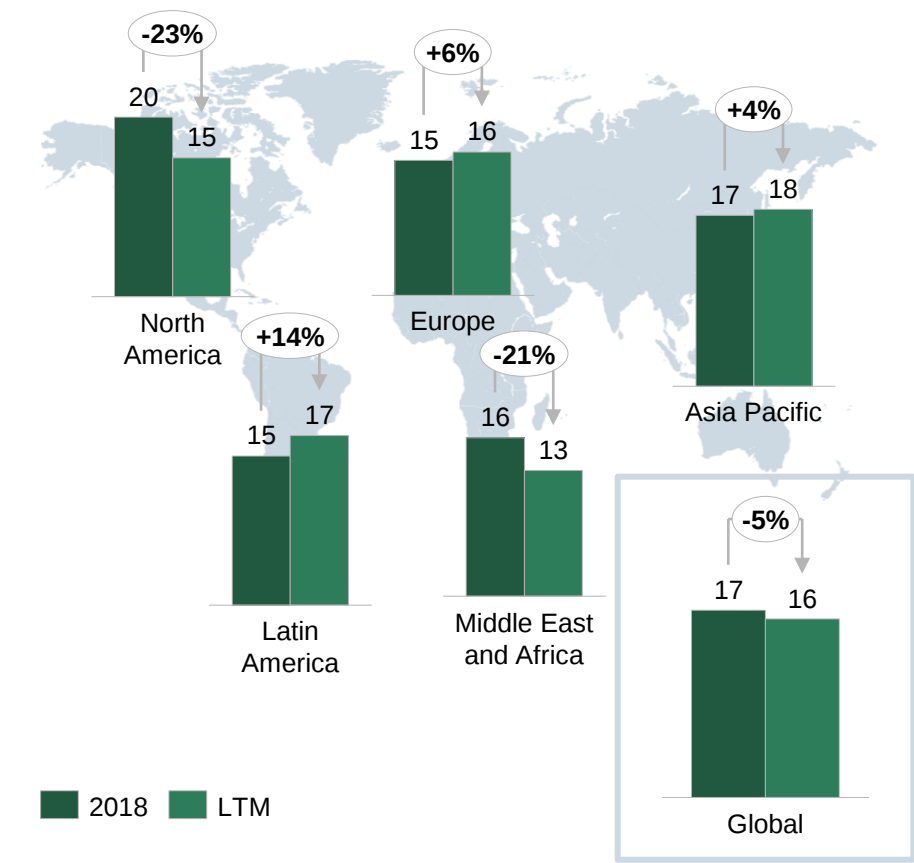
Yearly CAPEX over sales  
2018 - LTM, %



Quarterly CAPEX over sales  
Q2'21 – Q2'22, %

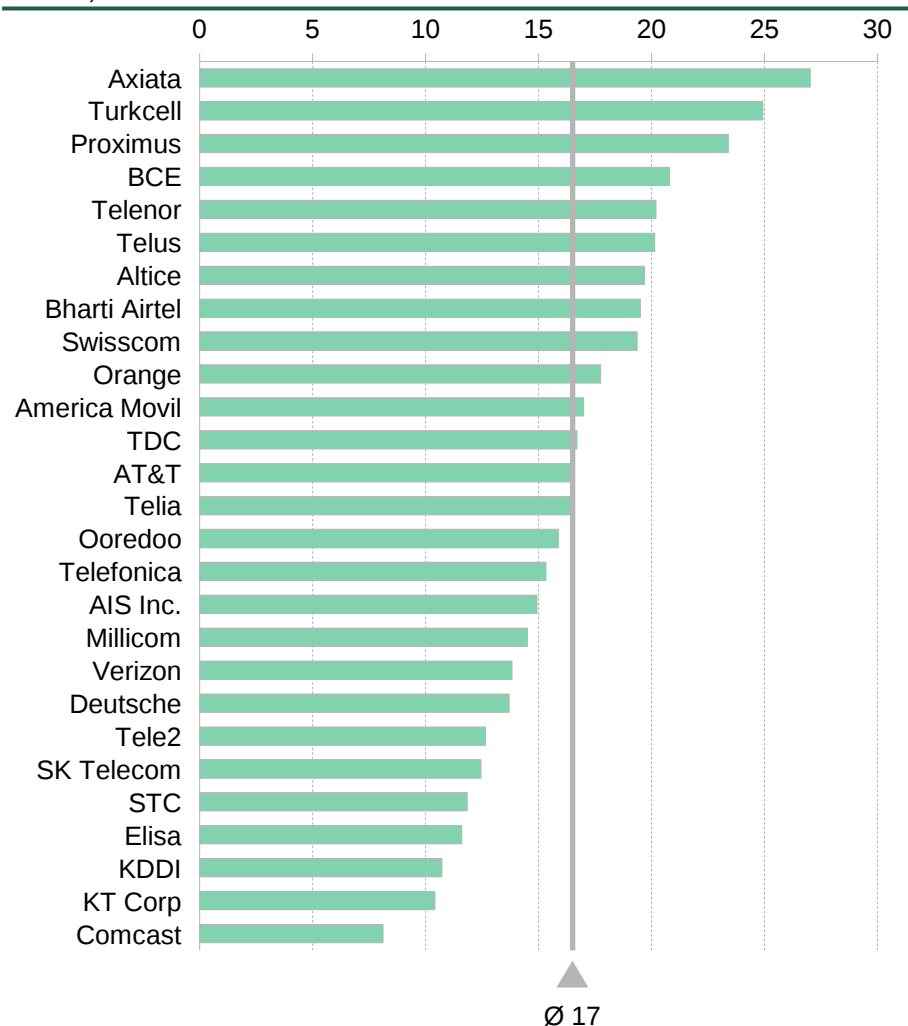


CAPEX over sales by region  
2018 vs. LTM, %

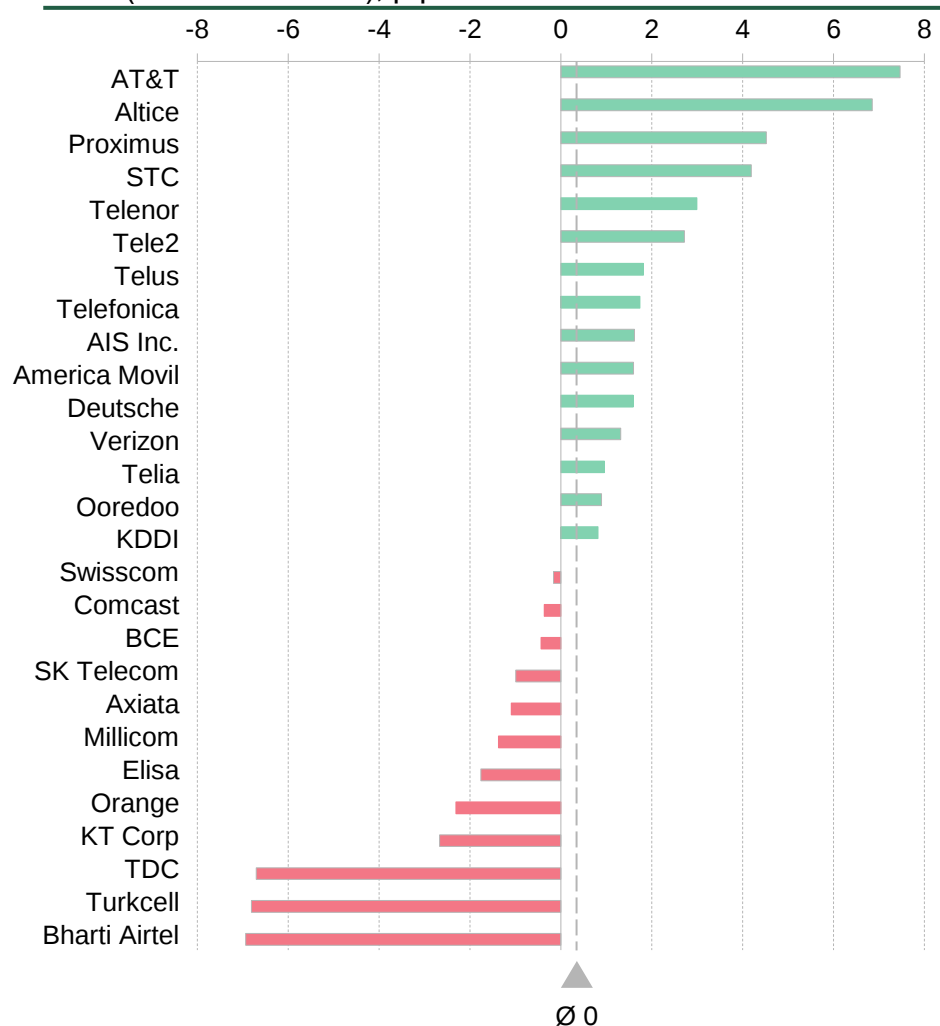


# Though Axiata CAPEX/sales experienced a decline of 1pp. YoY in Q2'22, it is still higher than peers ended at ~27%

**CAPEX over sales by operator**  
Q2'22, %



**CAPEX over sales development by operator**  
Delta (Q2'22 vs. Q2'21), p.p.



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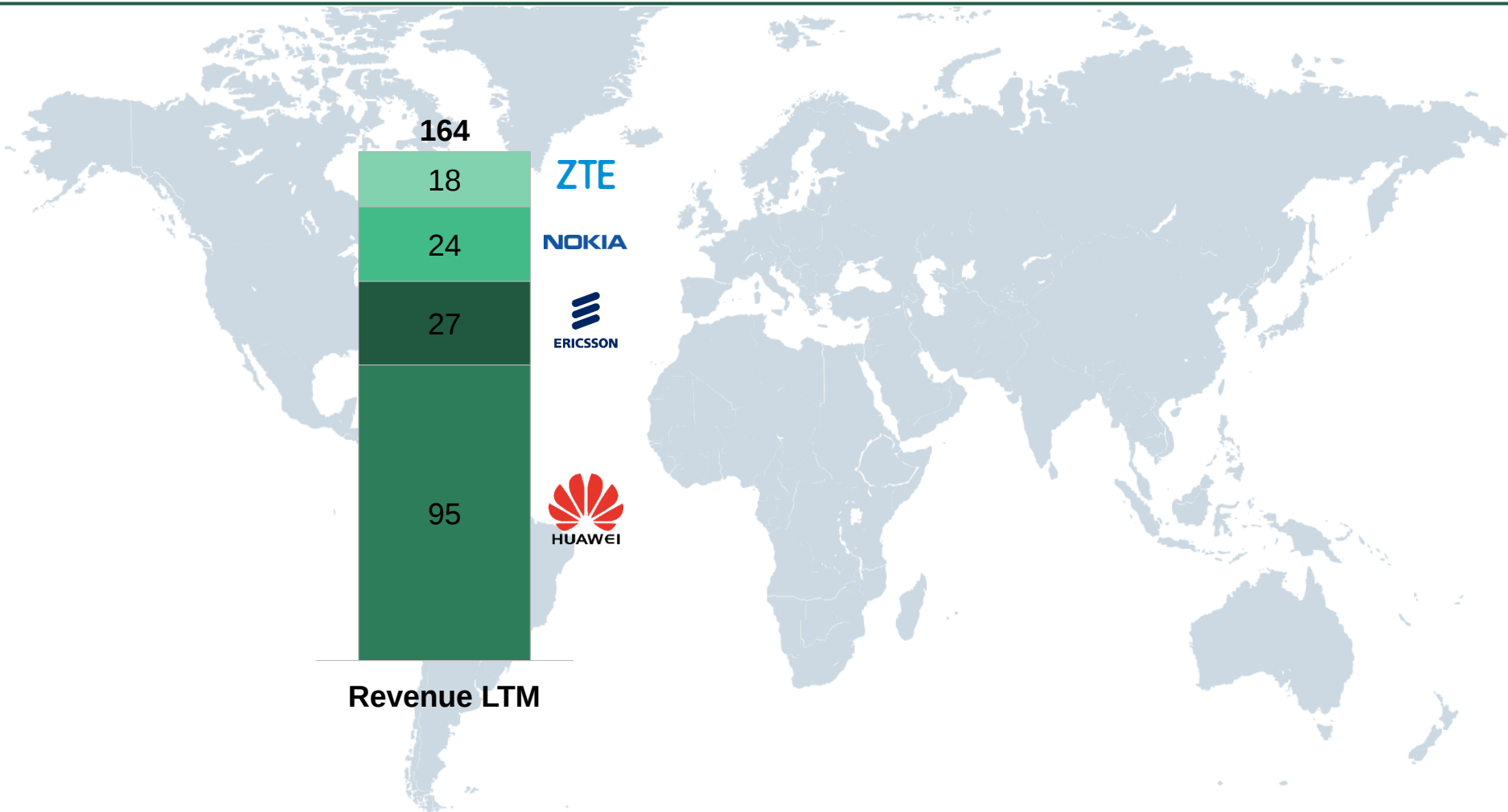
3. Device OEMs

About Applied Value



# The Q2 2022 Report includes four major infrastructure players – Huawei, Ericsson, Nokia, and ZTE, revenue summed up to \$164B in LTM

Report overview  
Revenue in BUSD



Notes: Revenue based on group revenue  
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 achieved highest ROIC over LTM of ~15%, driven by high NOPAT margin.
2. Huawei maintained a high CTR level in LTM, yet lowered NOPAT margin drags ROIC down to ~13% as a result of weakened demand and woes brought by US technology restrictions.

### Revenue Performance

1. Total revenue for selected infrastructure OEMs in Q2'22 summed to \$164B, a ~3% drop comparing with FY2021. Ericsson was the only OEM to improve LTM revenue growth; ~5% compared to FY2021.
2. ZTE continued to outperform its peers in Q2'22 with revenue improvement of ~15% YoY driven by a strong Operator Network sector, while other OEMs all experienced decline.

### Margin Performance

1. LTM NOPAT margin for selected infrastructure OEMs averaged at 6.7%. Huawei's NOPAT% dropped for the 4<sup>th</sup> consecutive year as sanctions continue, ended at 5.4% LTM; in contrast, ZTE NOPAT has steadily risen in the past years to 4.0% in LTM.
2. ZTE has solidified its position over LTM, especially in building efficient digital infrastructure and achieving flexible digital capabilities which has resulted in positive YoY growth in operating profit and thus higher NOPAT%.

### Capital Efficiency

1. Huawei has reduced its invested capital in the past two years, and has obtained the highest capital turnover ratio among selected OEMs of 2.4 in LTM which implicates Huawei has relatively more efficiently utilized its invested capital.
2. Ericsson and ZTE CTR showed decline of 0.7 and 0.4 respectively comparing with FY2021 as a result of lowered fixed asset turnover and longer inventory days.

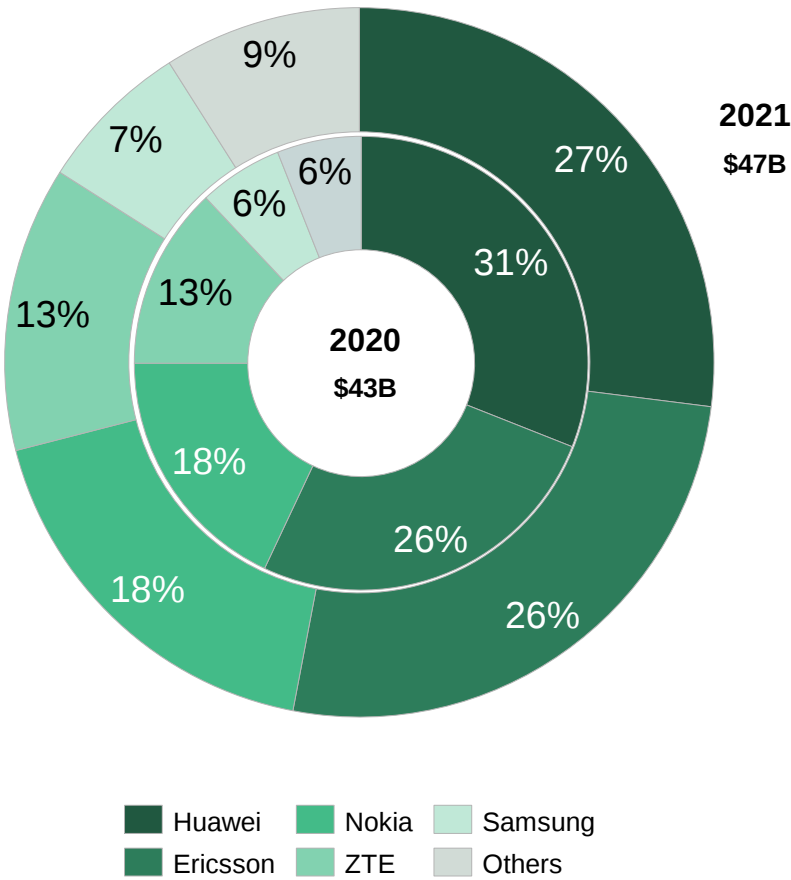


# Events across the Infrastructure OEMs sector from the quarter

## News and happenings for infrastructure OEMs

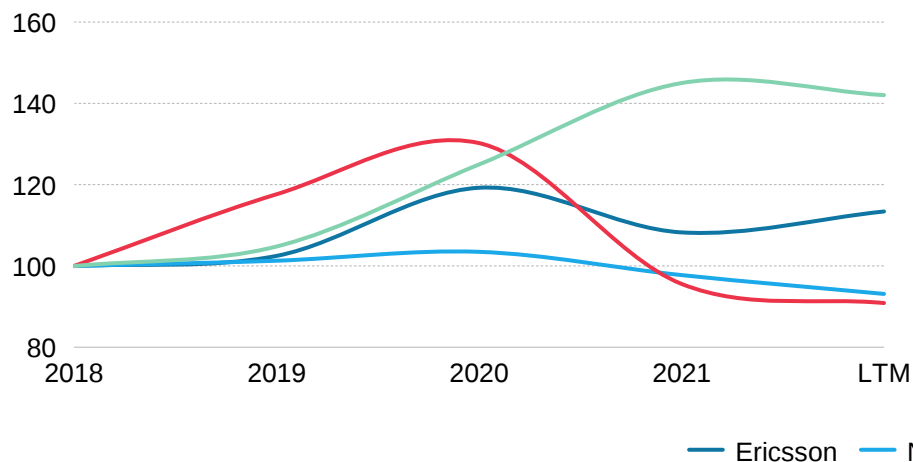
|          |                                                                                                                                                                                                                                                                                                                                                             |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Apr-2022 | <b>Nokia</b> and <b>Ericsson</b> announced to wind down their business activities in Russia gradually after the conflict between Russia and Ukraine. Ericsson used to take ~20% of Russian telecom equipment market share and signed contracts with top Russian mobile operators – <b>MTS</b> and <b>Tele2</b> in providing base stations and tech support. |
| Apr-2022 | <b>Huawei</b> is the only major international telecom infrastructure equipment provider in Russia after Nokia and Ericsson’s suspension of businesses. The Russian state-owned infrastructure provider – <b>Rostec</b> is expected to support domestic mobile operators that had previously hugely relied on international infrastructures.                 |
| May-2022 | Canada government announced ban on Chinese 5G network infrastructures <b>ZTE</b> and <b>Huawei</b> . Canadian telcos are no longer allowed to use equipment made by these two infrastructures. This decision will be costly for both Canadian consumers and smaller telcos.                                                                                 |
| May-2022 | The UK telco giant <b>BT</b> announced a partnership with <b>Ericsson</b> to supply commercial 5G private networks. During the same month, <b>T-Mobile</b> also stated Ericsson’s industry-leading RAN and Core equipment will be used to power its 5G Advanced Network Solutions.                                                                          |
| Jun-2022 | <b>Nokia</b> signed a 10-year extension with <b>Orange Polska</b> to modernize existing radio network infrastructure and enhance 5G capabilities. The deal will cover ~50% of Orange’s network in northern Poland.                                                                                                                                          |

## Top infrastructure OEMs market share, 2021 vs. 2020

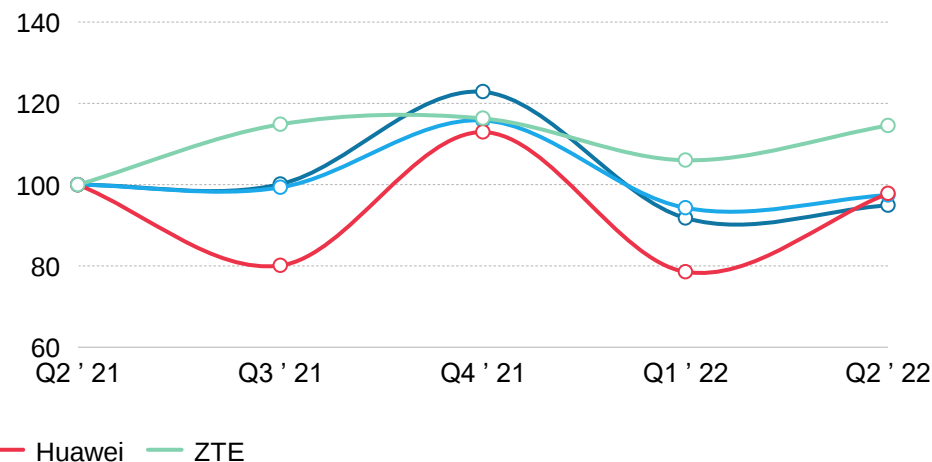


# Selected network equipment providers shown positive YoY revenue growth as 5G momentum continues in EU and NA

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



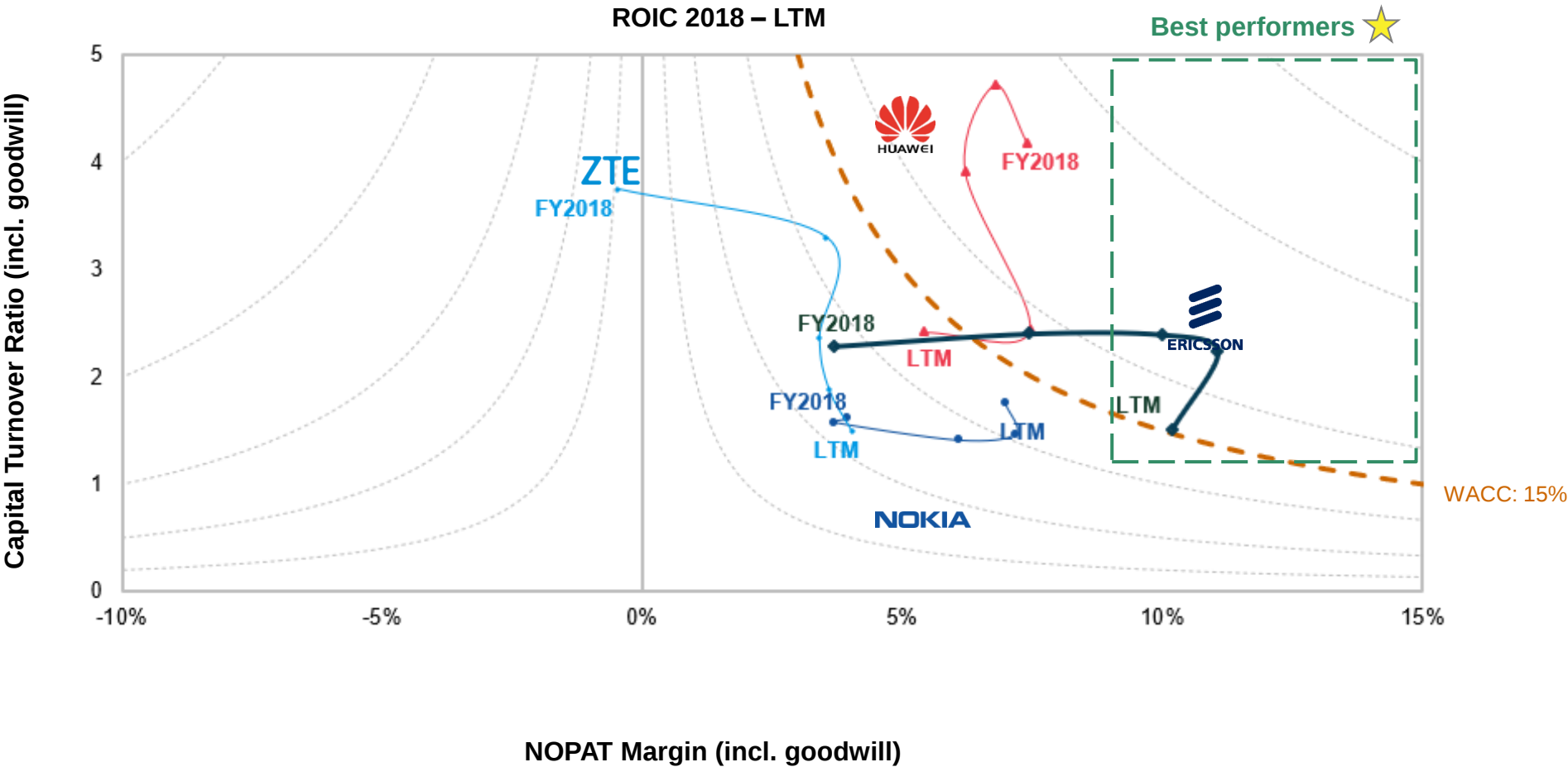
**Indexed Quarterly Group revenues**  
Q2'21– Q2'22 (index Q2'21=100)



- ZTE outperformed peers in LTM with revenue improved by ~42% comparing with 2018. Quarterly revenue increased ~15% YoY, driven by a strong domestic operator network business. ZTE has deeply engaged in expanding large-scale 5G network through digitalization constructions in China, as well as exploring high-value overseas markets for new infrastructure construction and industrial digital transformation.
- Huawei is still bearing with the imposed restrictions and sanctions resulting in continued revenue decline, ~9% drop in LTM comparing to FY2018. However, recovery in revenue could be seen in Q2'22 driven by solid performance from Enterprise business during H1'22, resulting in a 28% YoY increase compared to H1'21.
- Nokia beat market expectation by recording €5.9B in net sales according to its Q2'22 report with Network Infrastructure business being the key driver, resulting in a ~21% YoY rise in revenue comparing with Q2'21.
- Ericsson revenue also performed well in Q2'22, recorded at SEK62.5B, as 5G momentum continued in Europe and North America. The Network business revenue showed a ~6% YoY increase in the quarter as a result of its bullish 5G strategy.



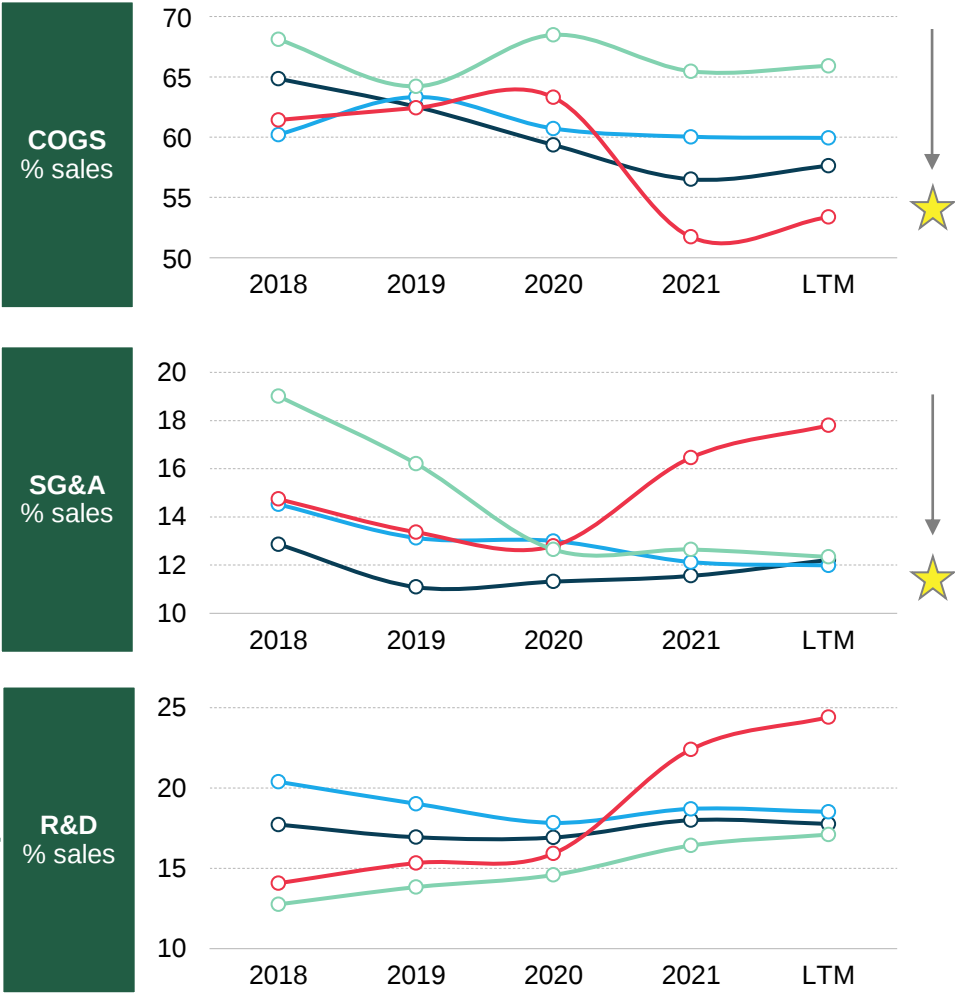
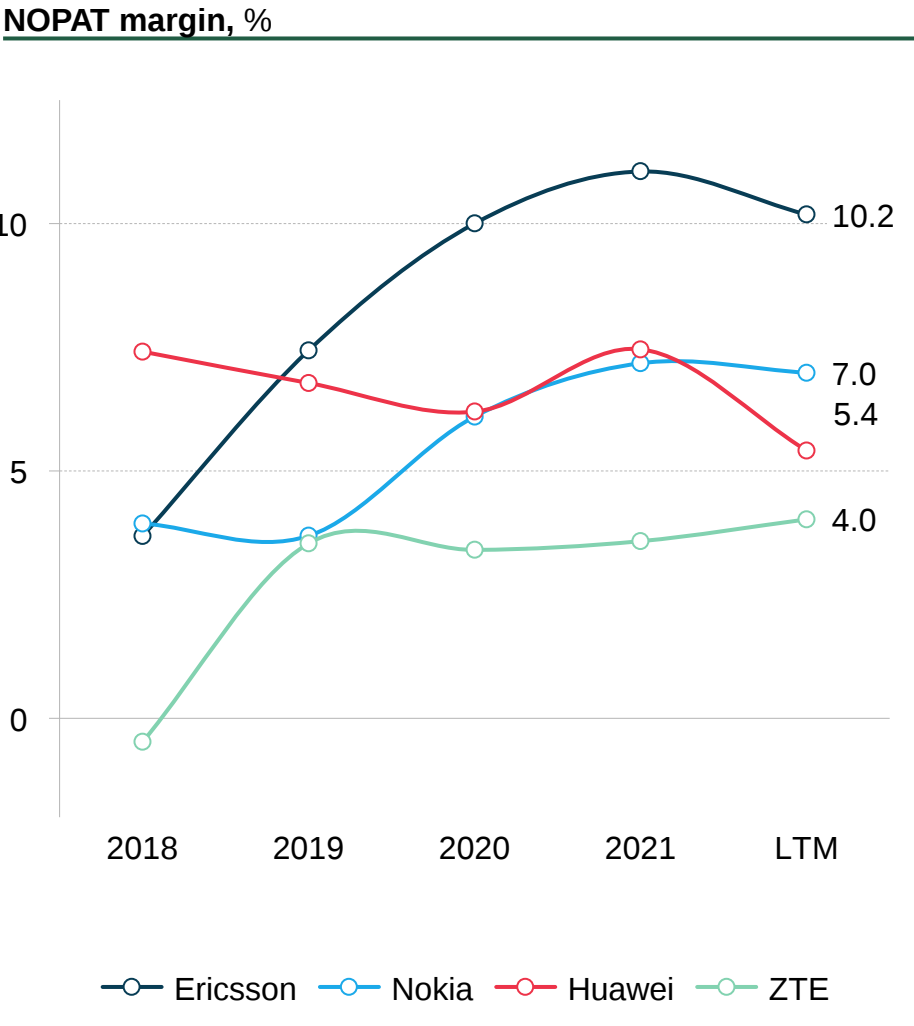
# Ericsson managed to achieve higher-than-WACC ROIC of 15.4% in LTM despite drop in CTR



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



# Ericsson retained highest NOPAT margin in the peer group driven by low cost of sales and SG&A expenses

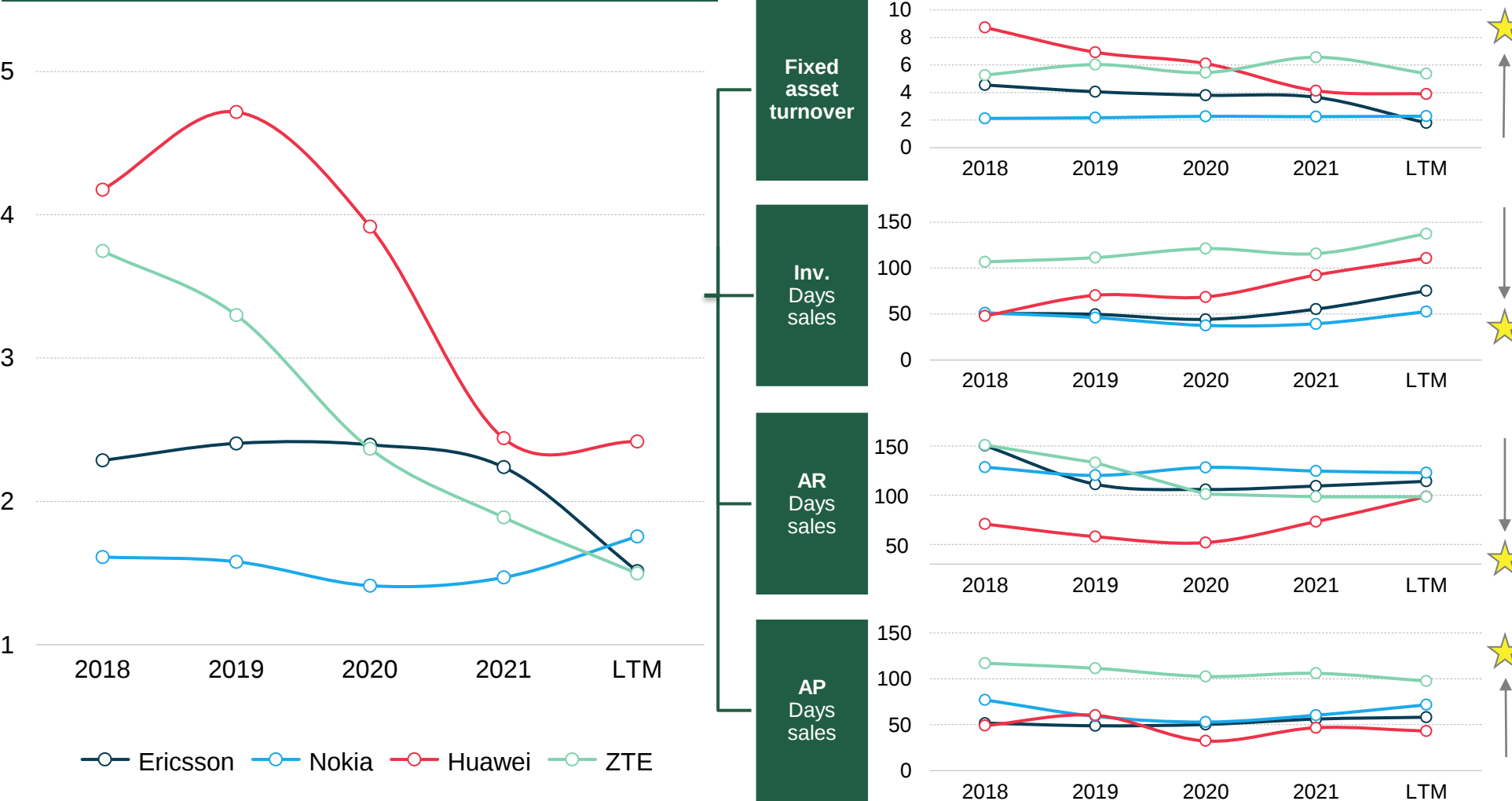


Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.



# ZTE and Ericsson CTR ratio declined in LTM due to decreased fixed asset turnover and longer AR days, while Huawei's CTR remained flattened at 2.4

Capital turnover ratio (CTR)



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



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1. Operators

2. Infrastructure OEMs

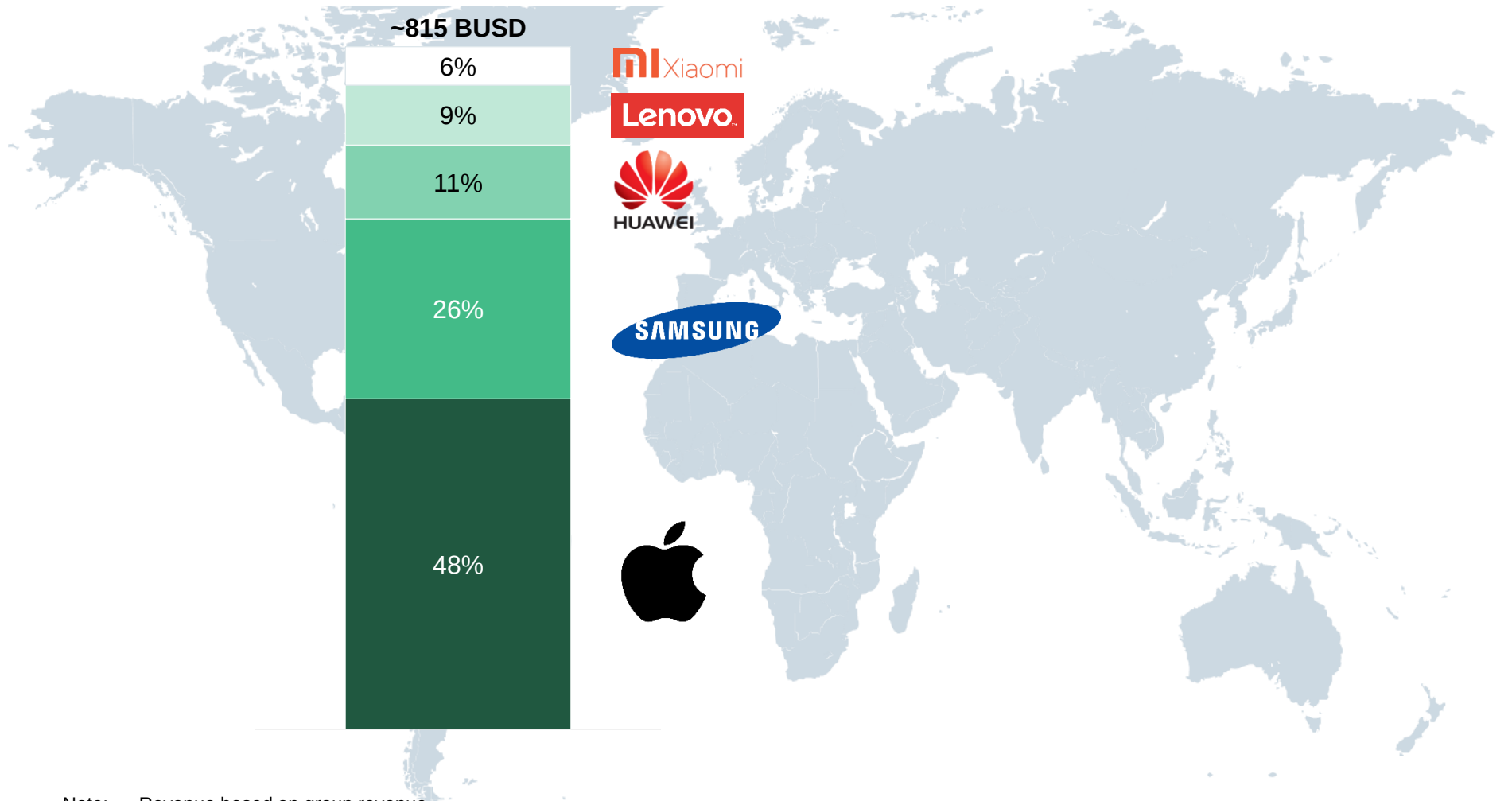
**3. Device OEMs**

About Applied Value



# The Q2 2022 report includes five major device manufacturers with total LTM revenue reached to \$815B

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

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Creating Shareholder Value</b> | <ol style="list-style-type: none"> <li>1. Apple's consistently high NOPAT margin coupled with leading capital turnover ratio led to stable high ROIC of ~162% in LTM.</li> <li>2. Notable improvement in Lenovo's LTM ROIC of ~27% could be explained by 2.5 rise in CTR since FY 2018 as Lenovo has raised its fixed asset turnover compounded with longer account payable days.</li> <li>3. Huawei's ROIC fell by 15 pp. in LTM compared to 2018 driven by both a declining NOPAT margin and CTR due to Western countries' technology sanctions.</li> </ol>               |
| <b>Revenue Performance</b>        | <ol style="list-style-type: none"> <li>1. The overall quarterly revenue for selected device OEMs has flattened in Q2'22 comparing with one year ago, recorded at &lt;1% increase YOY.</li> <li>2. Samsung obtained the highest group revenue rise of ~6% YoY in Q2'22, driven by strong Device eXperience segment sales with revenue growth of ~23%.</li> <li>3. Xiaomi's 23% sales decline in Q2'22 is largely due to bearish Chinese smartphone market, alongside with this, oversea sales declined as both input costs and fuel prices spiked in the quarter.</li> </ol> |
| <b>Margin Performance</b>         | <ol style="list-style-type: none"> <li>1. Average NOPAT margin for selected device OEMs ended at 9.3% in LTM, Apple led the peer group with NOPAT% reaching 22.1%.</li> <li>2. Apple's profit had beat market estimates in Q2 amid high inflation in the US, boosted by strong sales from iPad and Mac businesses.</li> </ol>                                                                                                                                                                                                                                               |
| <b>Capital Efficiency</b>         | <ol style="list-style-type: none"> <li>1. CTR for selected companies averaged at 4.9 in LTM. Lenovo and Apple outperformed peers and reached to 9.6 and 7.3 respectively, which strengthened ROIC at relatively high levels.</li> <li>2. Samsung and Xiaomi experienced declines in their CTR to 1.0 and 4.1 respectively, driven by long inventory days and low fixed asset turnover ratio.</li> </ol>                                                                                                                                                                     |



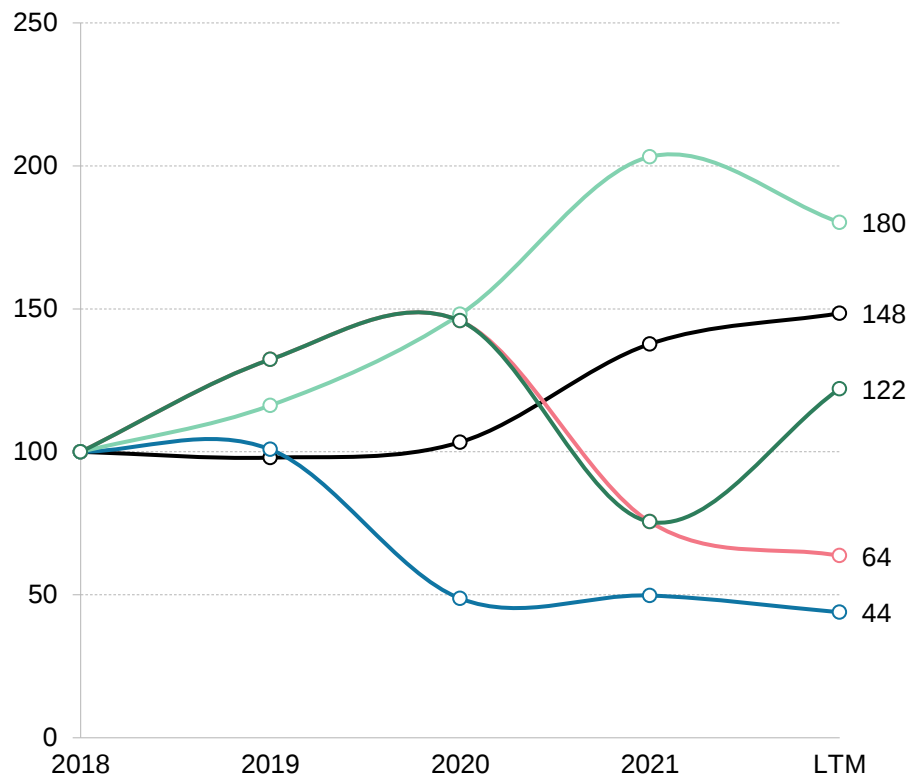
# Business Segments of Device OEMs

| Company                                                                             | Business segments and revenue shares over LTM, (Q3'21 – Q2'22) %                                                                                                                                                                                                                           | Description                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |  <ul style="list-style-type: none"> <li>iPhone</li> <li>Mac</li> <li>iPad</li> <li>Wearables, Home and Accessories</li> <li>Services</li> </ul>                                                           | <ul style="list-style-type: none"> <li><u>iPhone</u>: Mobile Phones</li> <li><u>Services</u>: iTunes Store, iCloud, Apple Pay, other services</li> <li><u>Mac</u>: Laptops &amp; Personal Computers</li> <li><u>iPad</u>: Tablets</li> <li><u>Wearables, Home and Accessories</u>: Apple Watch, Apple branded accessories for Apple products</li> </ul>                                 |
|    |  <ul style="list-style-type: none"> <li>Device Experience (DX) - VD / DA</li> <li>Device Experience (DX) - Mobile Experience (MX) / Networks</li> <li>DS Division</li> <li>SDC</li> <li>Harman</li> </ul> | <ul style="list-style-type: none"> <li><u>DX</u>: Mobile and consumer electronics businesses</li> <li><u>Device Solutions</u>: Semiconductor Business and display panels</li> <li><u>Consumer Electronics</u>: TVs, monitors, printers, air conditioners and refrigerators</li> <li><u>Harman</u>: Infotainment, connected solutions for automakers, and consumers</li> </ul>           |
|    |  <ul style="list-style-type: none"> <li>Carrier</li> <li>Enterprise</li> <li>Consumer</li> <li>Other items</li> </ul>                                                                                     | <ul style="list-style-type: none"> <li><u>Carrier</u>: Building telecommunications networks and services</li> <li><u>Enterprise</u>: Equipment, software and services to enterprise customers</li> <li><u>Consumer</u>: Manufacturing of electronic communication services (e.g. phones)</li> <li><u>Others</u>: Communication services not applicable to above descriptions</li> </ul> |
|   |  <ul style="list-style-type: none"> <li>Solutions and Services Group (SSG)</li> <li>Intelligent Devices Group (IDG)</li> <li>Infrastructure Solutions Group (ISG)</li> </ul>                             | <ul style="list-style-type: none"> <li><u>IDG</u>: Personal computer and smart devices, and mobile businesses</li> <li><u>DCG</u>: Provide data center solutions</li> <li><u>SSG</u>: Deliver enhanced services capabilities and new solutions</li> </ul>                                                                                                                               |
|  |  <ul style="list-style-type: none"> <li>Smartphones</li> <li>IoT and Lifestyle Products</li> <li>Internet Services</li> <li>Others</li> </ul>                                                           | <ul style="list-style-type: none"> <li><u>Smartphones</u>: Mobile devices, Smartphone, Tablet</li> <li><u>IoT &amp; Lifestyle products</u>: Smart TVs, scooters, vacuum cleaners, cameras, etc.</li> <li><u>Internet Services</u>: Preloaded apps, services and advertisements</li> <li><u>Other</u>: Miscellaneous additional services and products</li> </ul>                         |

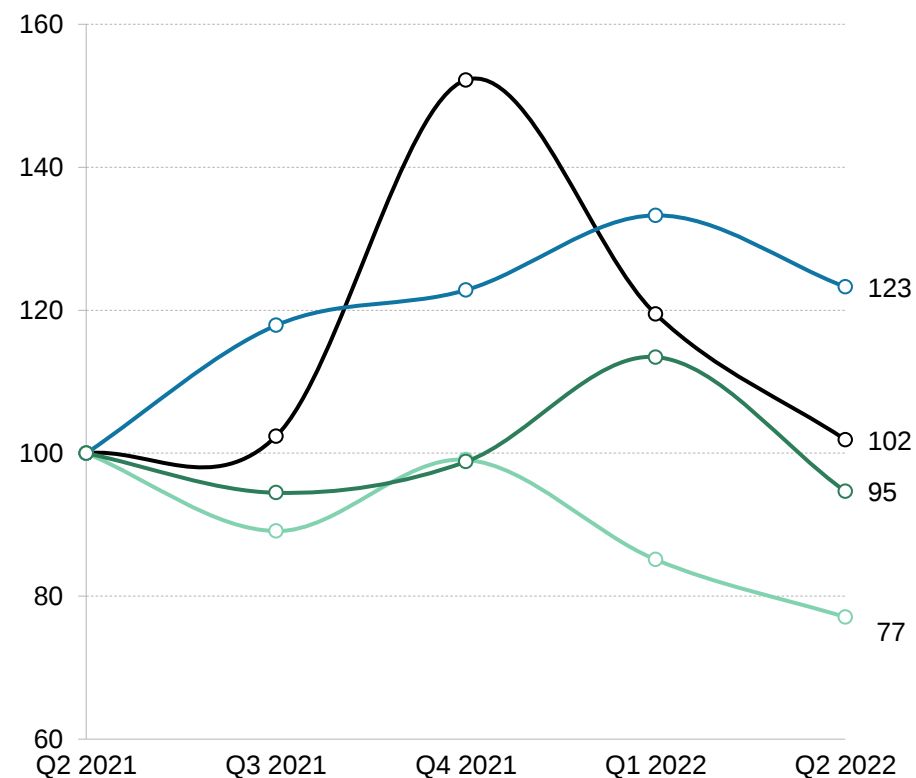


# Xiaomi stood out in the peer group's LTM revenue – 80% rise compared with FY2018, despite 23% YoY decline in quarterly revenue

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



**Segment quarterly revenue development**  
Q2'21 – Q2'22 (index Q1'21=100)



—○— Apple —○— Samsung —○— Huawei —○— Xiaomi —○— Lenovo

Note: Included segments per company: Samsung (DX); Apple and Xiaomi (All segments); Lenovo (IDG); Huawei (Consumer Business);

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

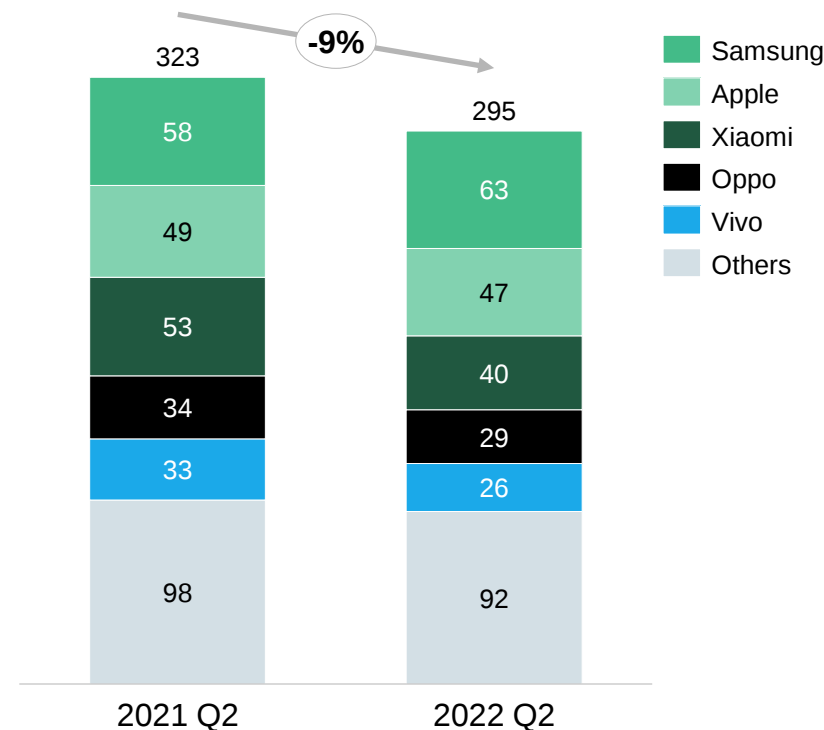


# Events across the Device OEMs sector from the last quarter

## News and happenings for Device OEMs

|          |                                                                                                                                                                                                                                                                                              |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Apr-2022 | <b>Samsung's</b> strategy in bundling wearables (especially hearables) with smartphones allowed it to take ~10% of global wearables market share.                                                                                                                                            |
| Apr-2022 | After Samsung and Apple's suspension from Russia in March, <b>Acer</b> also officially exited, leaving <b>Lenovo</b> and <b>Asus</b> to become the only two major global PC suppliers in the region.                                                                                         |
| May-2022 | The trio factors: conflict between Russia and Ukraine, rising inflation, and growing restrictions in China, hit device OEMs sector hard, specifically, <b>Xiaomi</b> , <b>Vivo</b> and <b>Oppo</b> who saw declining smartphone orders of ~20%.                                              |
| May-2022 | <b>Samsung</b> announced cutting down smartphone production by 30M units during 2022 due to high uncertainties on economic environments as well as persistent supply chain constraints.                                                                                                      |
| Jun-2022 | Global device OEMs have been looking for alternative production hubs in recent years. <b>Xiaomi</b> already delivered its first batch of smartphones that are made in Vietnam. Xiaomi's Vietnam facility is designed to produce devices with a focus on exporting to Southeast Asia markets. |

## Global smartphone shipments Million units



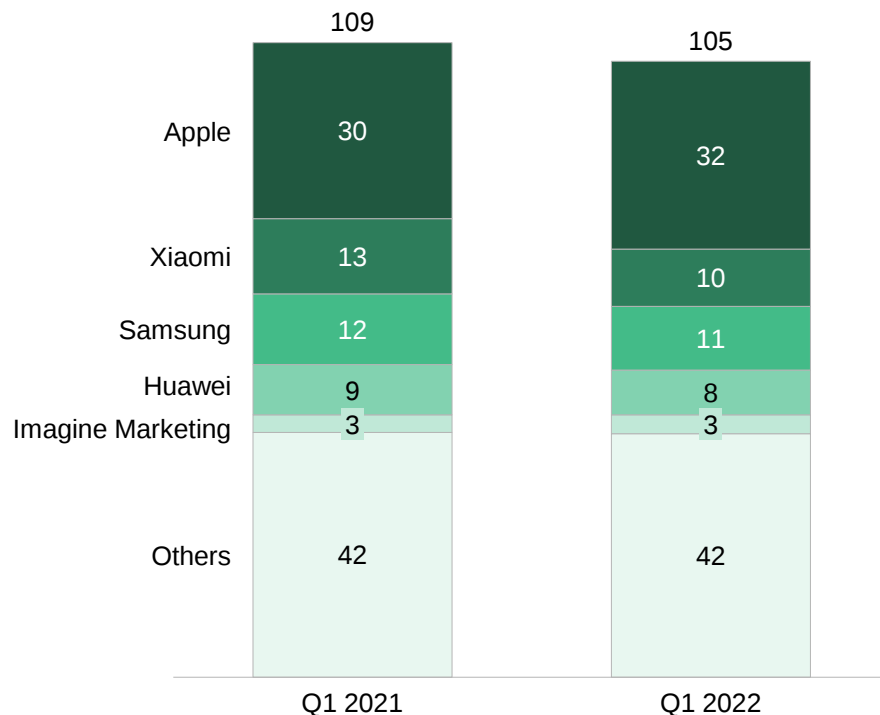
Global smartphone shipments declined by 9% YoY and 10% QoQ in Q2'22, ending at 295M units – the first time shipments dropped below 300M units since Q2'20. **Samsung** was the only brand positive YoY increase of 8% among top 5 smartphone brands. **Apple** shipments declined by 5% YoY to 47M units in Q2'22. Xiaomi, Oppo and Vivo's double-digit YoY decline in shipment are mainly due to Chinese lockdowns.



# Global PC shipments had declined significantly by ~11% due to weakened demand and lockdowns in China, while wearables shipments also fell by ~4%

## Global wearables shipments

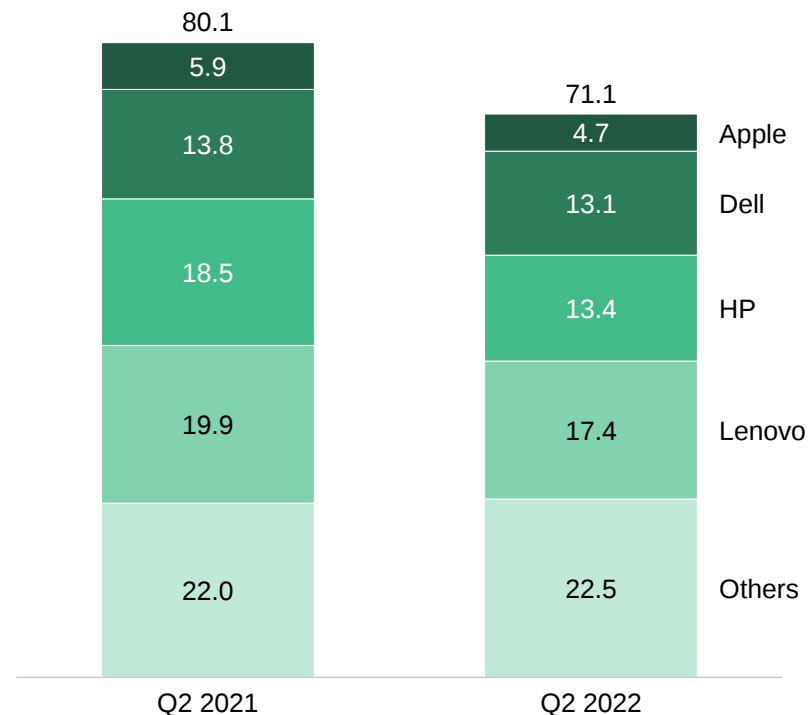
Million units



Global wearables market was challenged during Q1'22, shipments fell to 105M units, demand declined as inflation rose, coupled with fears over recession and increased expenses on non-tech goods. Apple has managed to grow by 6.6% YoY in Q1'22 as Apple Watch SE showed brilliant resilience of over 2M shipments in total. Shipments for Imagine Marketing also rose 6.7% YoY thanks to enlarged market share in India, however, India's wearables market shows a sign of saturation which may negatively impact Imagine Marketing's future sales.

## Global PC shipments

Million units



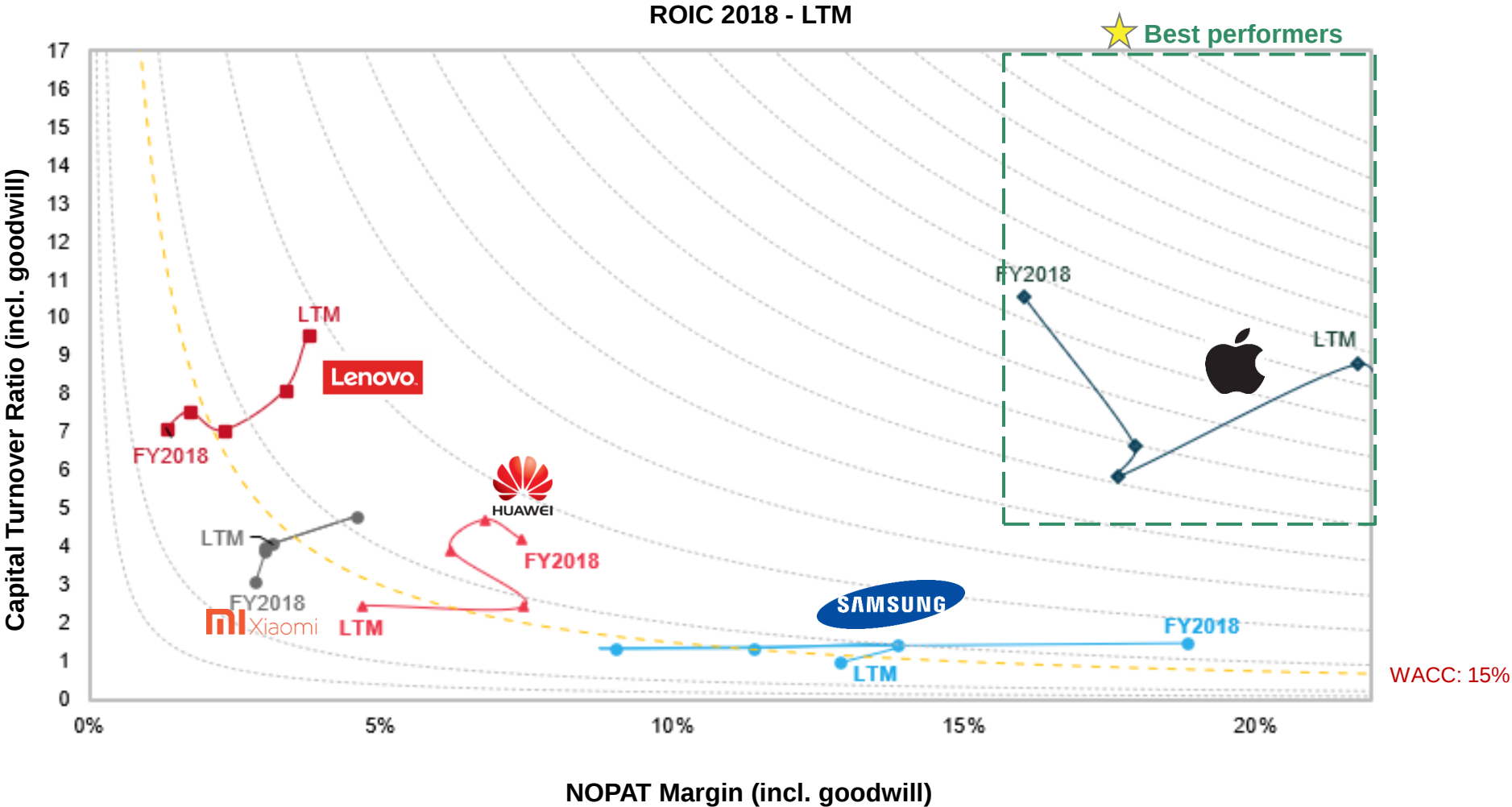
Significant drop in global PC shipments of 11.1% YoY was shown in Q2'22, ending at 71M units – most notable YoY decline since Q2'13. The macroeconomic turbulence adversely impacted worldwide consumption sentiment and wide-spread lockdowns in China hit global PC supply chain hard. Lenovo kept its leading position in PC market with 24.4% of market share, yet quarterly shipment fell by 12.7% in Q2'22. HP shipment declined the most by ~27% YoY.

Note: Global wearables shipments Q2'22 data is missing.

Source: IDC, Counterpoint Research and Applied Value Analysis.



# Apple has maintained its leading position in ROIC during LTM, supported by outperformed NOPAT margin and high CTR

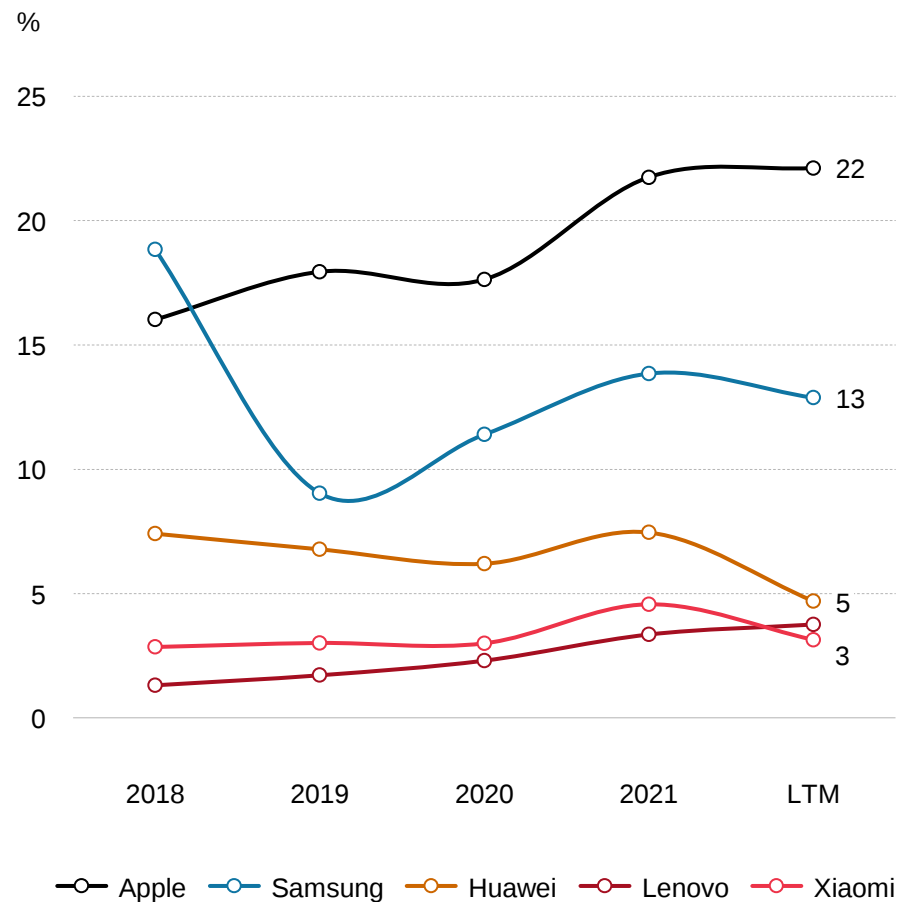


Source: S&P Capital IQ, Annual & quarterly reports, Applied Value Analysis.

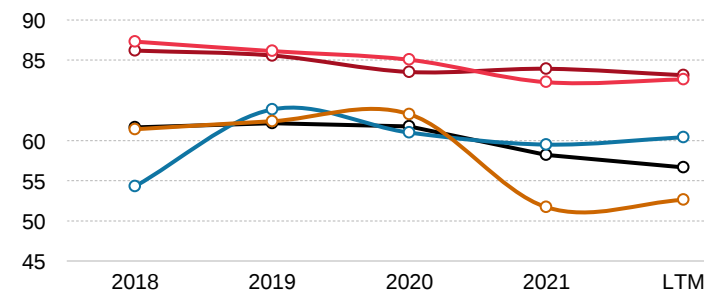


# Apple NOPAT margin reached to ~22% in LTM whereas Huawei dropped most notably by 0.4pp.

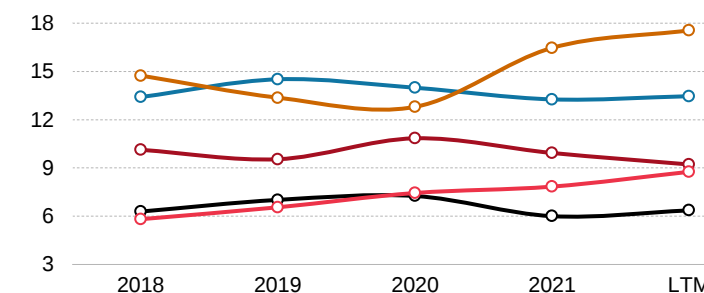
## NOPAT margin, %



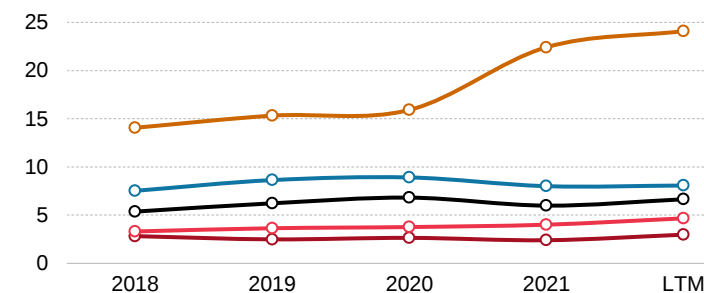
### COGS % sales



### SG&A % sales

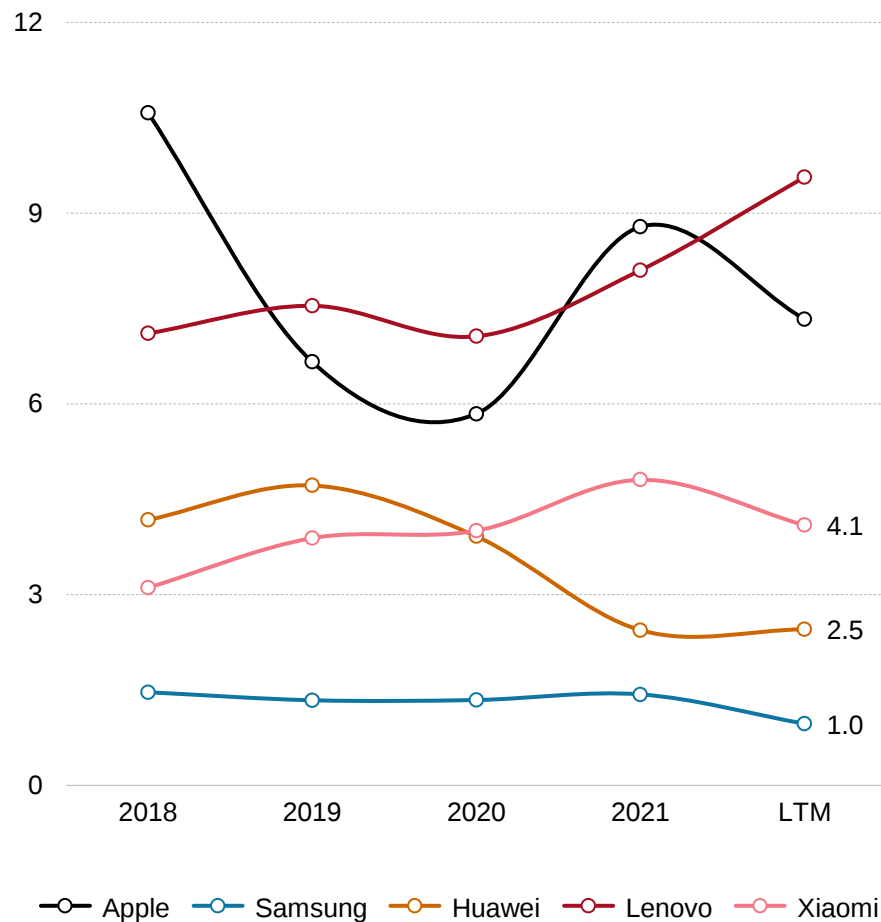


### R&D % sales

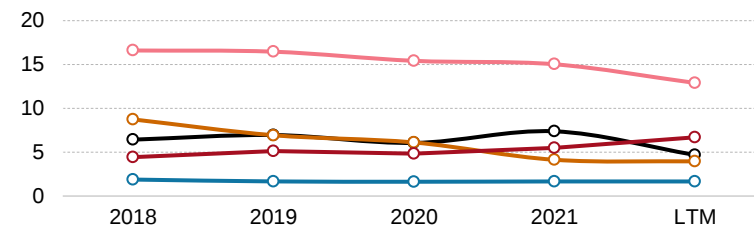


# Lenovo CTR raised steadily during past two years, recorded 9.6 in LTM and had outperformed peers, driven by effective fixed asset turnover

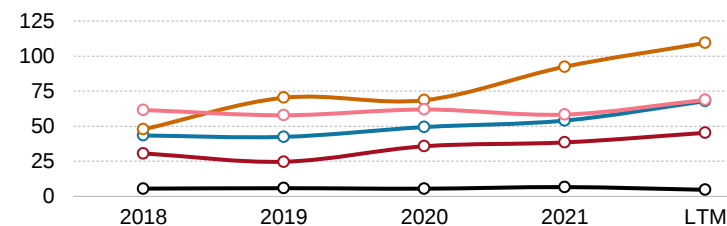
## Capital turnover ratio (CTR)



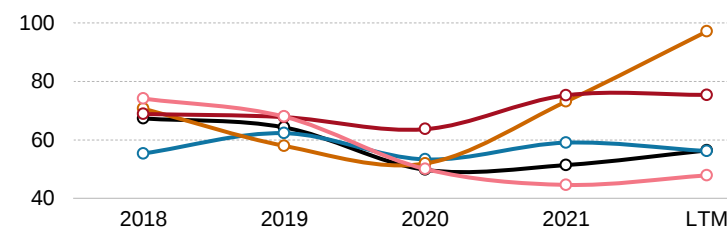
### Fixed asset turnover



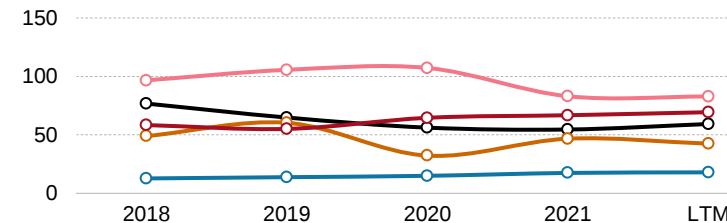
### Inv. Days sales



### AR Days sales



### AP Days sales



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Executive Summary

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**About Applied Value**



# Applied Value is a management consulting & investment firm founded on the principles of lean growth and entrepreneurship

1997

Background as an internal change agent in the **Kinnevik Group**...

  
K I N N E V I K

...today, a hands-on consultancy supporting clients **across industries**

2022

## Industries of Expertise

- Telecom & Media
- Chemicals & Process
- Industrials & Engineering
- Consumer Goods
- Automotive



Applied Value Group

  
Investments

  
Management Consulting

  
Social Impact

Selected portfolio companies



  
APPLIED VALUE



  
ROI driven

  
Fact-based

  
Practical over theoretical

  
Hands-On

  
Global perspectives

# Our Lean Growth framework is based on Focus, Simplicity, Speed – guiding principles to raise client performance

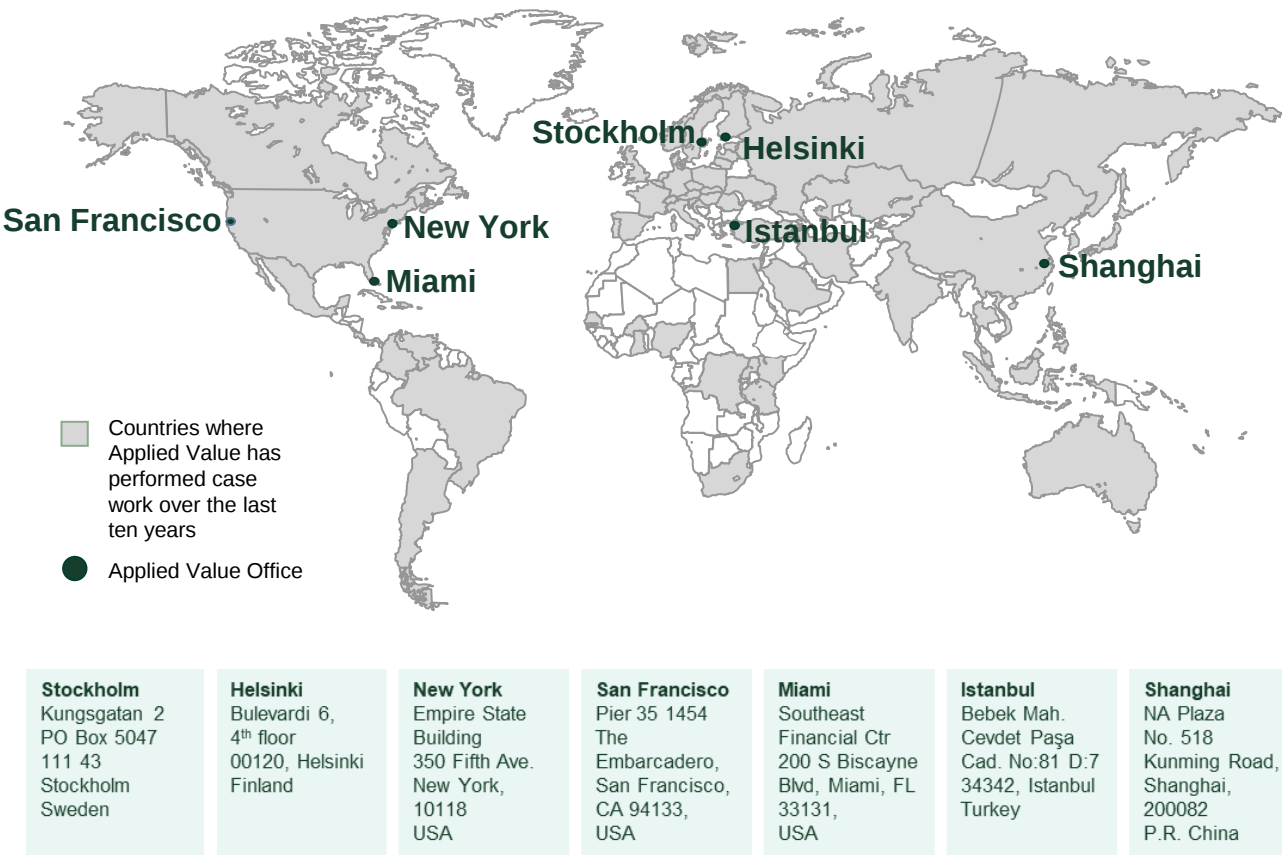


# Applied Value challenges and supports repeat global clients across industries from eight offices

## Selected Clients



## Applied Value Offices and Footprint





APPLIED VALUE GROUP