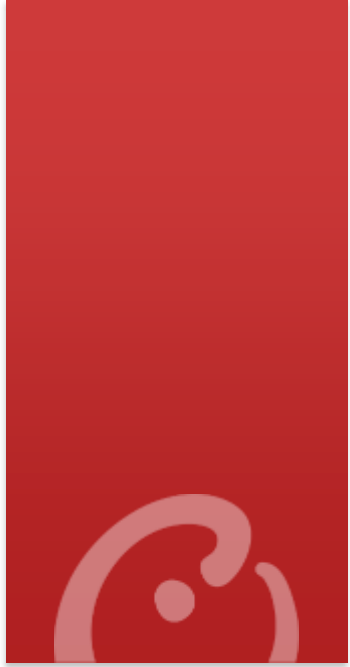# Counterpoint

# Software and Security Updates
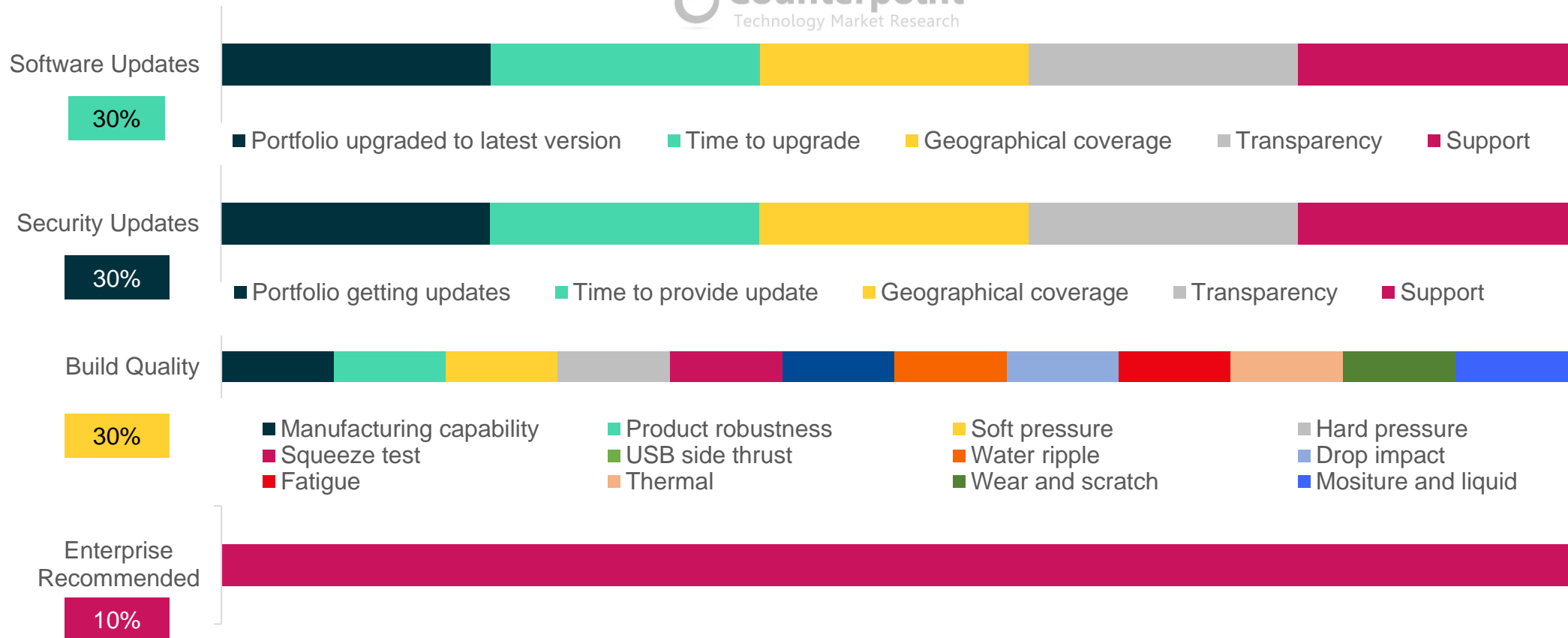
27th October 2020

- Background

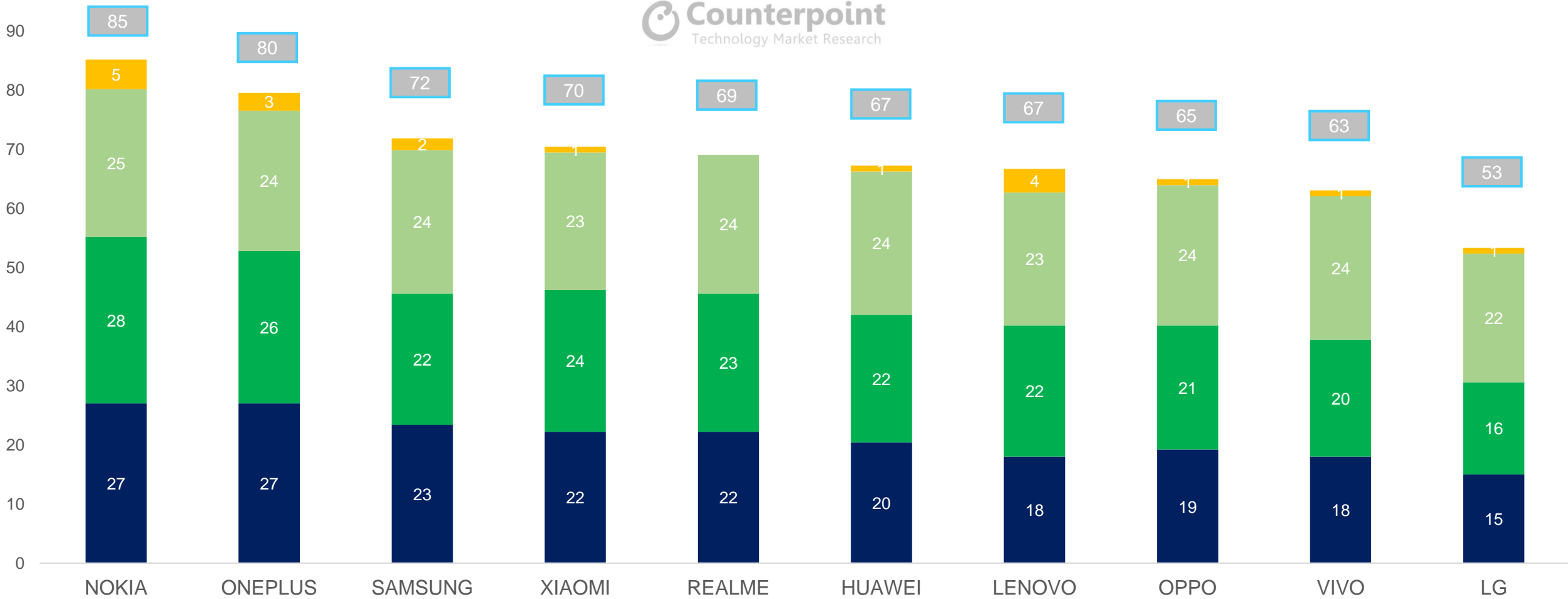# Counterpoint Research Trust Rankings

- Counterpoint Research analyzed the importance of various factors that are relevant yet ignored and are crucial in gaining trust from the end consumers.
- We allocated four main pillars contributing to the overall Trust Rankings and they are:
  - Timely Software Updates.
  - Timely Security Updates.
  - Build Quality.
  - Enterprise/Business Recommended Smartphones.
- All these pillars are further categorized into various criteria and a weightage has been assigned to each of the pillars. For example, Timely Software updates (30%), Security updates (30%), Build Quality (30%) and Enterprise/Business recommended (10%).
- Each OEM was evaluated on a scale of 100 with cumulative numbers added to determine what we call as an overall "Trust rankings"



**Software Updates** — 30%
- ■ Portfolio upgraded to latest version
- ■ Time to upgrade
- ■ Geographical coverage
- ■ Transparency
- ■ Support

**Security Updates** — 30%
- ■ Portfolio getting updates
- ■ Time to provide update
- ■ Geographical coverage
- ■ Transparency
- ■ Support

**Build Quality** — 30%
- ■ Manufacturing capability
- ■ Product robustness
- ■ Soft pressure
- ■ Hard pressure
- ■ Squeeze test
- ■ USB side thrust
- ■ Water ripple
- ■ Drop impact
- ■ Fatigue
- ■ Thermal
- ■ Wear and scratch
- ■ Moisture and liquid

**Enterprise Recommended** — 10%

# Nokia Phones Leads in Trust Rankings based on Software /Security Updates and Build Quality

## Smartphone Trust Rankings - Based on Software/Security Updates and Build Quality

■ Software Updates   ■ Security Updates   ■ Build Quality   ■ Enterprise Recommended



| | NOKIA | ONEPLUS | SAMSUNG | XIAOMI | REALME | HUAWEI | LENOVO | OPPO | VIVO | LG |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 85 | 80 | 72 | 70 | 69 | 67 | 67 | 65 | 63 | 53 |
| Enterprise Recommended | 5 | 3 | 2 | 1 | | 1 | 4 | 1 | 1 | 1 |
| Build Quality | 25 | 24 | 24 | 23 | 24 | 24 | 23 | 24 | 24 | 22 |
| Security Updates | 28 | 26 | 22 | 24 | 23 | 22 | 22 | 21 | 20 | 16 |
| Software Updates | 27 | 27 | 23 | 22 | 22 | 20 | 18 | 19 | 18 | 15 |

*Lenovo Includes Motorola     *Analysis include top 10 Android OEMs providing software and security updates

Source: Counterpoint Research Software and Security Updates Research Sept 2020

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- Four Pillars of Trust Rankings
    1) Security Updates

# Security Risks are Highly Disruptive When They Do Occur

- The frequency of releasing security patches varies from one smartphone maker to the next. Only a handful of smartphone brands roll out monthly security updates. Most make them available less frequently - either bi-monthly, quarterly, or even less often
- Security is essential to prevent malicious attacks that can cripple smartphones and leave users vulnerable to having personal information stolen.
- Few consumers in our research mention regular security updates as a highly desirable feature. This may be because consumers assume that their smartphones will be updated, or that they don't understand the implications of poor security. Or maybe it's because attacks are relatively rare. But they can be highly disruptive when they do occur
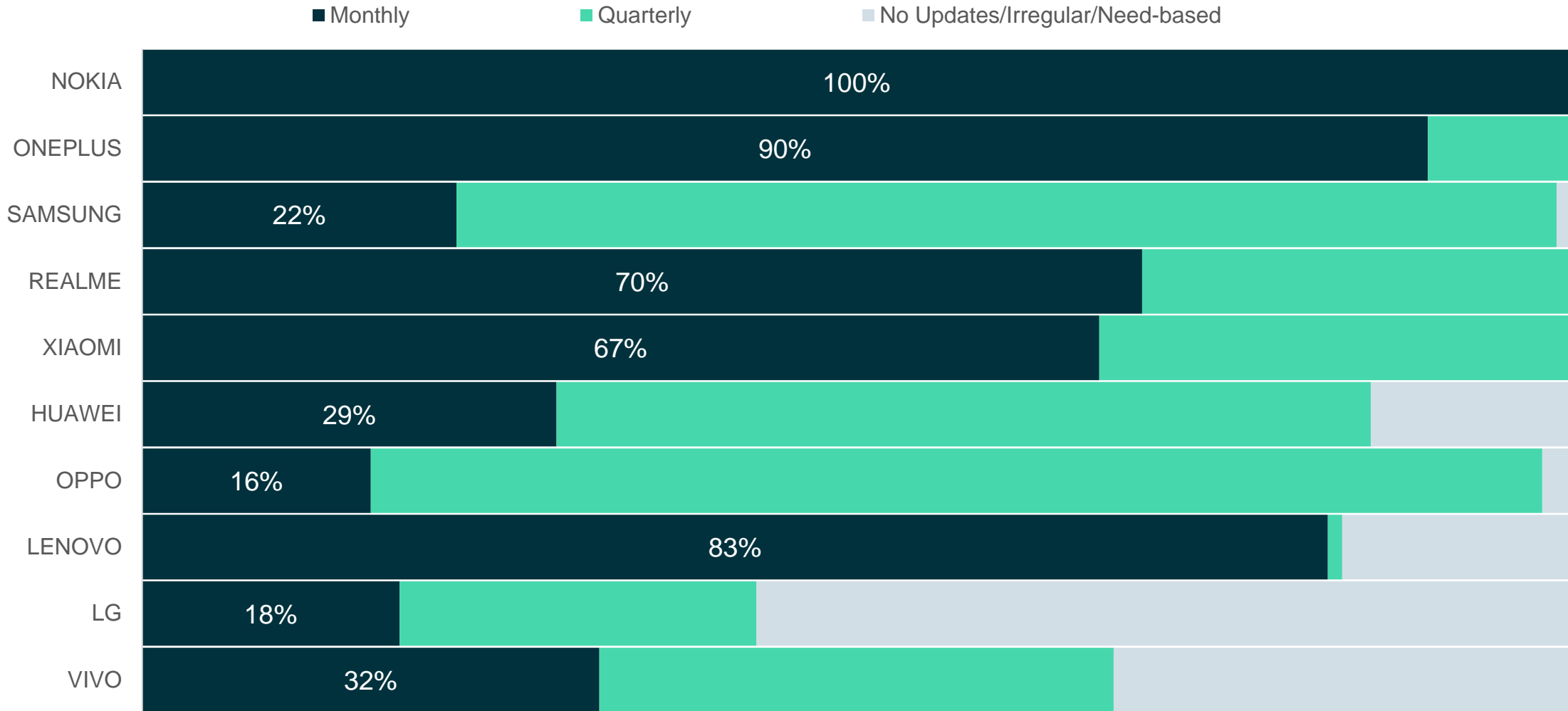
## Android Vulnerabilities Fixes in 2020

| Month | Moderate | High | Critical |
|-------|----------|------|----------|
| JANUARY | 2 | 38 | 2 |
| FEBRUARY | 1 | 23 | 2 |
| MARCH | 3 | 49 | 17 |
| APRIL | 3 | 39 | 13 |
| MAY | 1 | 35 | 3 |
| JUNE | 1 | 28 | 4 |
| JULY | | 17 | 7 |
| AUGUST | | 48 | 6 |
| SEPTEMBER | | 44 | 8 |
| OCTOBER | 1 | 41 | 6 |

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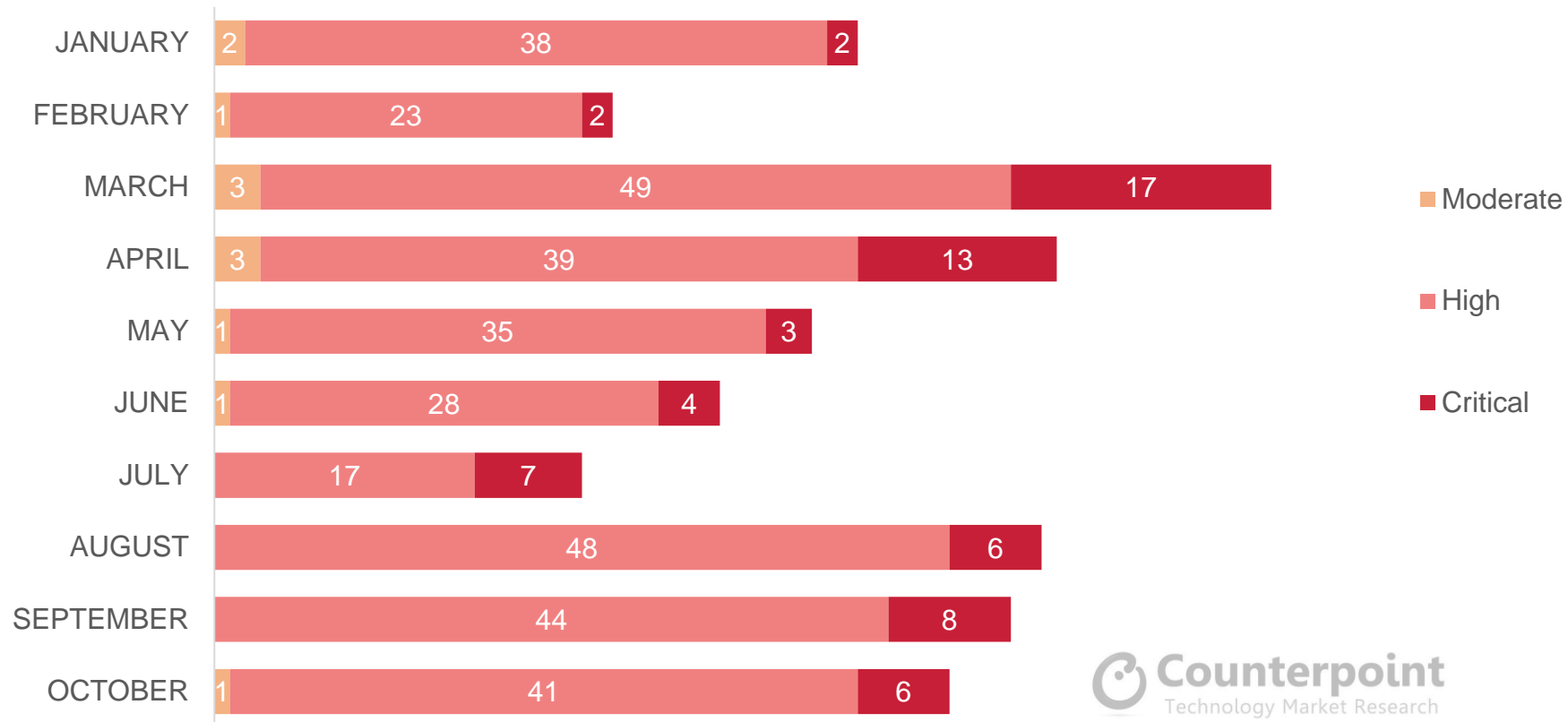
# Nokia Phones Lead in Receiving the Fastest Security Updates

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## Security Patch Frequency Share for Top Manufacturers
## (Cumulative Sales Q3 2019 - Q2 2020)

■ Monthly　　　■ Quarterly　　　■ No Updates/Irregular/Need-based

| | |
|---|---|
| NOKIA | 100% |
| ONEPLUS | 90% |
| SAMSUNG | 22% |
| REALME | 70% |
| XIAOMI | 67% |
| HUAWEI | 29% |
| OPPO | 16% |
| LENOVO | 83% |
| LG | 18% |
| VIVO | 32% |

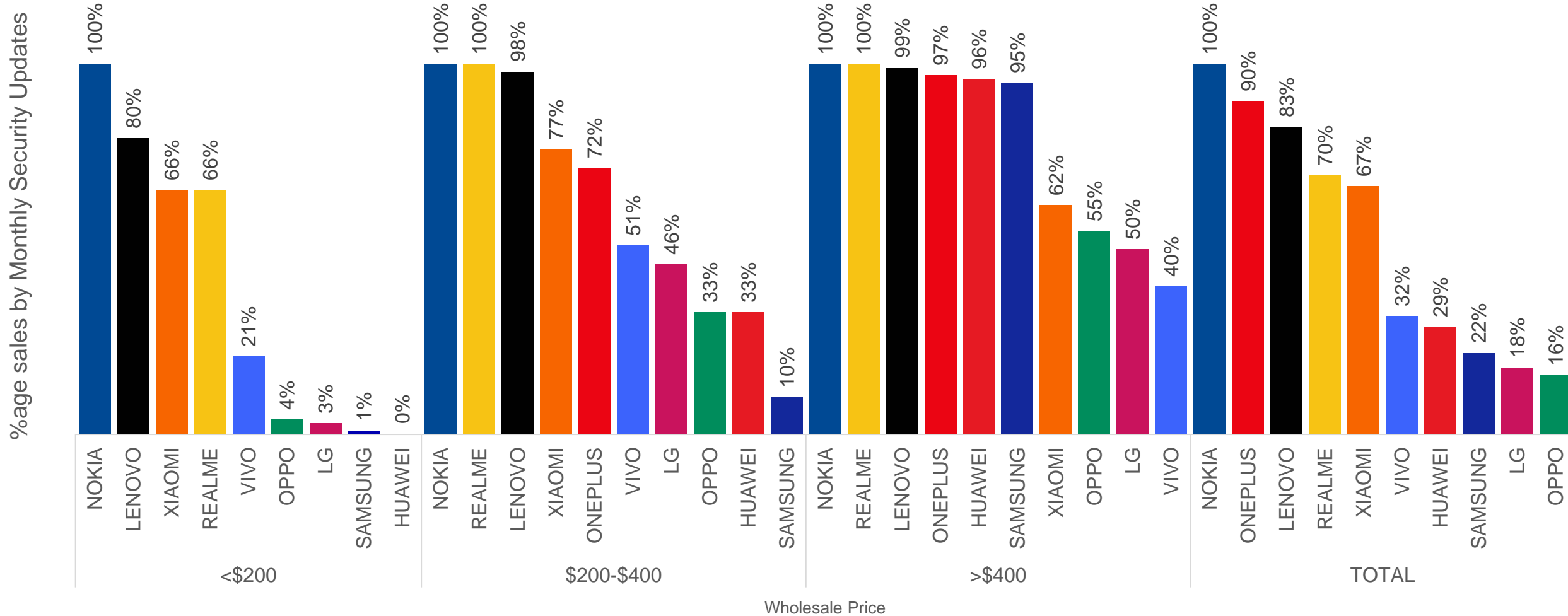* Models older than three years not considered, Android Go variants not part of the study　　　*Lenovo Includes Motorola　　　*Analysis include top 10 Android OEMs providing software and security updates

# Nokia Phones Lead in Receiving Faster Security Updates Across Price Tiers

## Monthly Security Patch Availability by Price Tier by Smartphone OEMs- Q3 2019 - Q2 2020

%age sales by Monthly Security Updates

Wholesale Price

### <$200
- NOKIA: 100%
- LENOVO: 80%
- XIAOMI: 66%
- REALME: 66%
- VIVO: 21%
- OPPO: 4%
- LG: 3%
- SAMSUNG: 1%
- HUAWEI: 0%

### $200-$400
- NOKIA: 100%
- REALME: 100%
- LENOVO: 98%
- XIAOMI: 77%
- ONEPLUS: 72%
- VIVO: 51%
- LG: 46%
- OPPO: 33%
- HUAWEI: 33%
- SAMSUNG: 10%

### >$400
- NOKIA: 100%
- REALME: 100%
- LENOVO: 99%
- ONEPLUS: 97%
- HUAWEI: 96%
- SAMSUNG: 95%
- XIAOMI: 62%
- OPPO: 55%
- LG: 50%
- VIVO: 40%

### TOTAL
- NOKIA: 100%
- ONEPLUS: 90%
- LENOVO: 83%
- REALME: 70%
- XIAOMI: 67%
- VIVO: 32%
- HUAWEI: 29%
- SAMSUNG: 22%
- LG: 18%
- OPPO: 16%

\* Models older than three years not considered, Android Go variants not part of the study      \*Lenovo Includes Motorola      \*Analysis include top 10 Android OEMs providing software and security updates
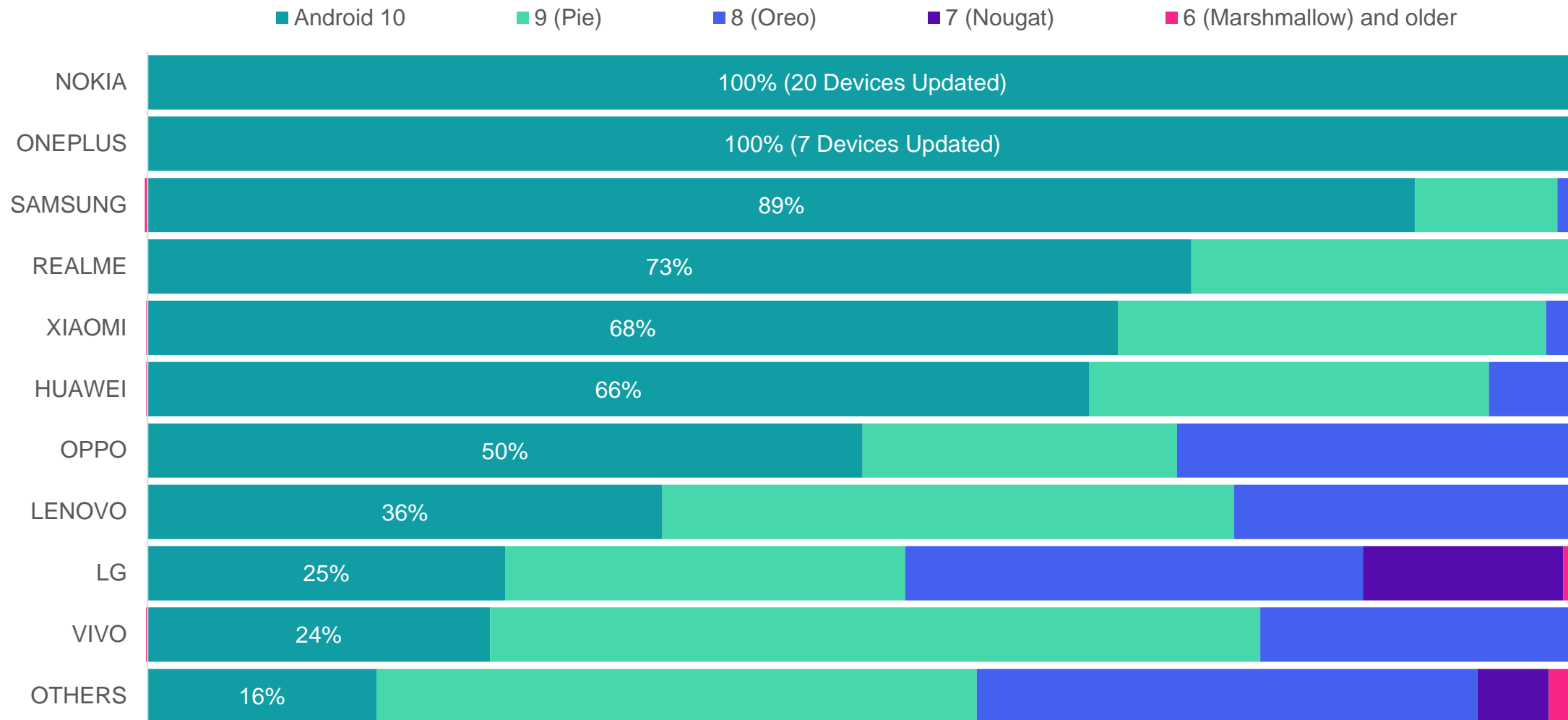
- Four Pillars of Trust Rankings

2) Software Updates

# Nokia & OnePlus Phones Lead in Latest Android Version share within Portfolio

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Android OS Version share within Key OEMs' Portfolio
(Cumulative Sales Q3 2019 - Q2 2020)

■ Android 10    ■ 9 (Pie)    ■ 8 (Oreo)    ■ 7 (Nougat)    ■ 6 (Marshmallow) and older

| OEM | Share |
|---|---|
| NOKIA | 100% (20 Devices Updated) |
| ONEPLUS | 100% (7 Devices Updated) |
| SAMSUNG | 89% |
| REALME | 73% |
| XIAOMI | 68% |
| HUAWEI | 66% |
| OPPO | 50% |
| LENOVO | 36% |
| LG | 25% |
| VIVO | 24% |
| OTHERS | 16% |

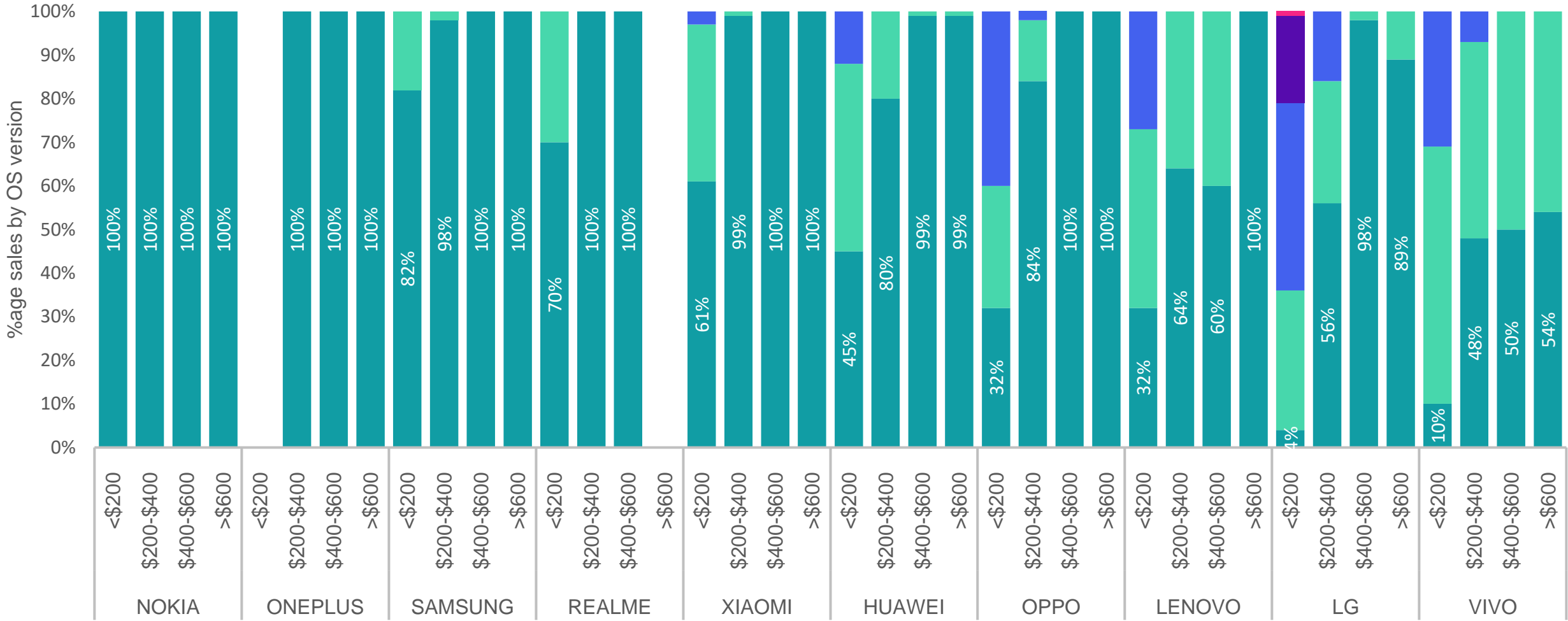\* Models older than three years not considered, Android Go variants not part of the study    \*Lenovo Includes Motorola    \*Analysis include top 10 Android OEMs providing software and security updates

# Nokia Phones Lead in Receiving the Latest Android Version Across Price-Tiers

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## Android OS Version share by Price Band within Key OEMs' Portfolio
## (Cumulative Sales Q3 2019 - Q2 2020)

■ Android 10  ■ 9 (Pie)  ■ 8 (Oreo)  ■ 7 (Nougat)  ■ 6 (Marshmallow) and older



**NOKIA:** 100%, 100%, 100%, 100%
**ONEPLUS:** 100%, 100%, 100%
**SAMSUNG:** 82%, 98%, 100%, 100%
**REALME:** 70%, 100%, 100%
**XIAOMI:** 61%, 99%, 100%, 100%
**HUAWEI:** 45%, 80%, 99%, 99%
**OPPO:** 32%, 84%, 100%, 100%
**LENOVO:** 32%, 64%, 60%, 100%
**LG:** 4%, 56%, 98%, 89%
**VIVO:** 10%, 48%, 50%, 54%

Price bands: <$200, $200-$400, $400-$600, >$600

11

* Models older than three years not considered, Android Go variants not part of the study     *Lenovo Includes Motorola     *Analysis include top 10 Android OEMs providing software and security updates

# Nokia Phones Lead in Receiving Latest Android Version Faster in Sub $200 Segment

Android 10 Availability by Price Tier by Smartphone OEMs - Q3 2019 - Q2 2020
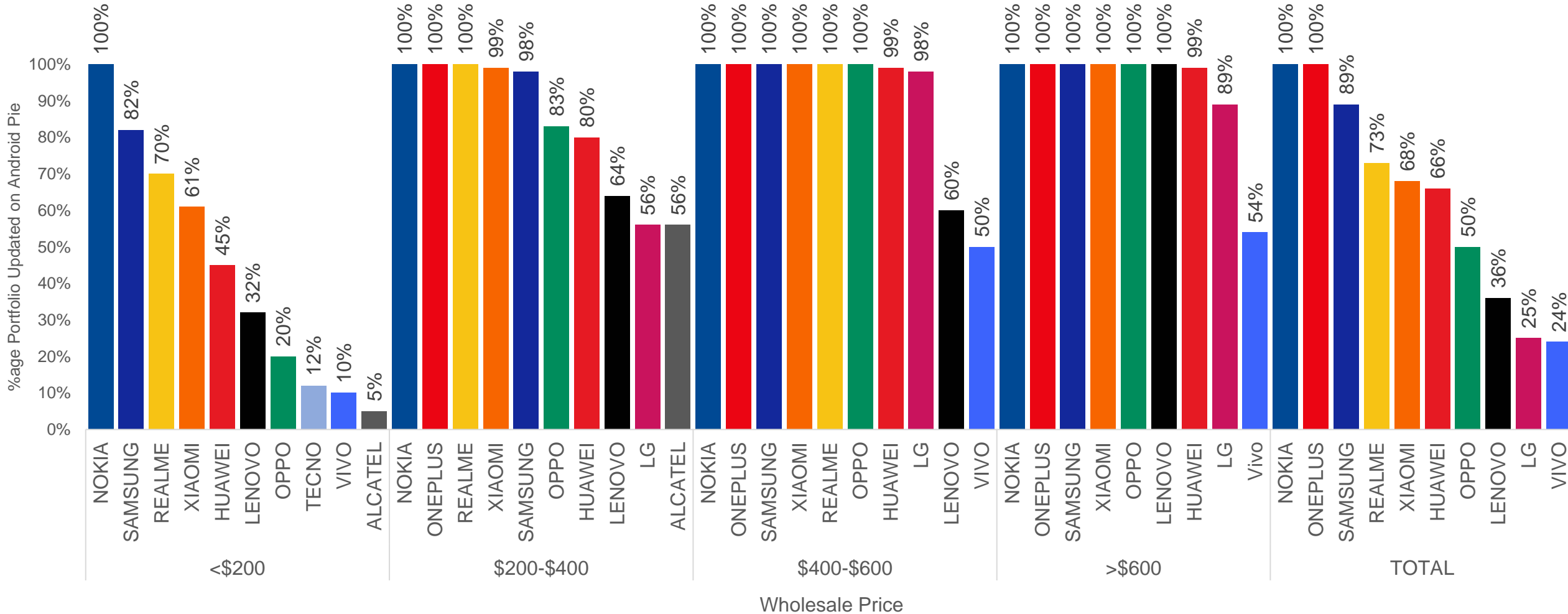


* Models older than three years not considered, Android Go variants not part of the study          *Lenovo Includes Motorola          *Analysis include top 10 Android OEMs providing software and security updates
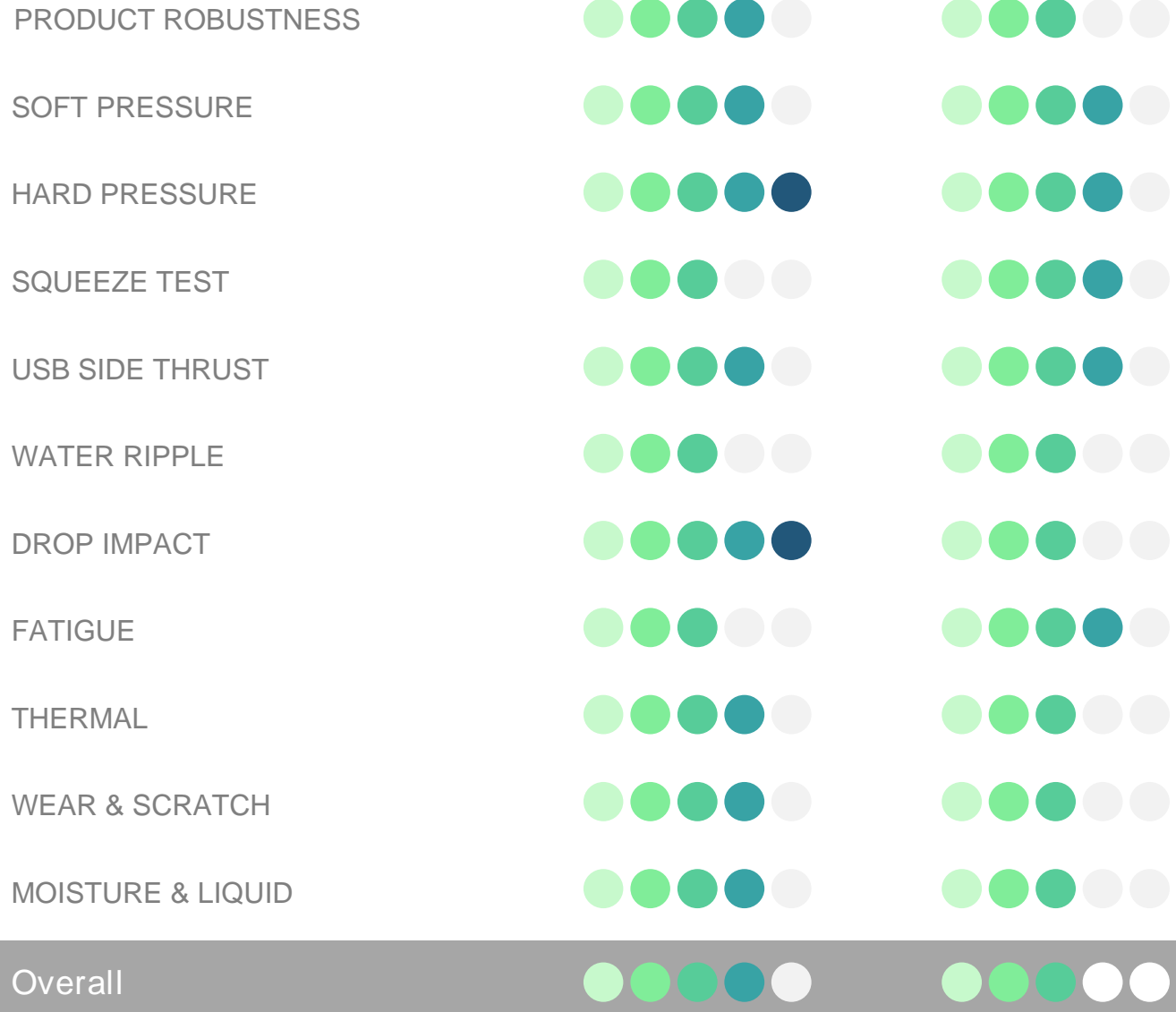
- Four Pillars of Trust Rankings

  3) Build Quality and Testing

# Nokia phones Go Through Tougher Tests Than Industry Average



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Nokia phones
hmd.

Industry Average

PRODUCT ROBUSTNESS

SOFT PRESSURE

HARD PRESSURE

SQUEEZE TEST

USB SIDE THRUST

WATER RIPPLE

DROP IMPACT

FATIGUE

THERMAL

WEAR & SCRATCH

MOISTURE & LIQUID

Overall

- To evaluate the build quality pillar, Counterpoint Research undertook a qualitative survey with the top five ODM/EMS suppliers.
- The Industry average, here, is defined as the average of all qualitative instructions which are required for a certain test. For example, if in a soft pressure test various OEMs have pressure instruction ranging from 20-25KG, then the industry average is taken as 22.5KG
- The build quality pillar was evaluated in terms of different segments like product robustness, force measurement, drop and impact, fatigue, wear and scratch, thermal test, moisture and liquid test and others which included both qualitative and quantitative observations.

*Source: Supply Chain Interviews with ODMs and EMS Aug 2020*
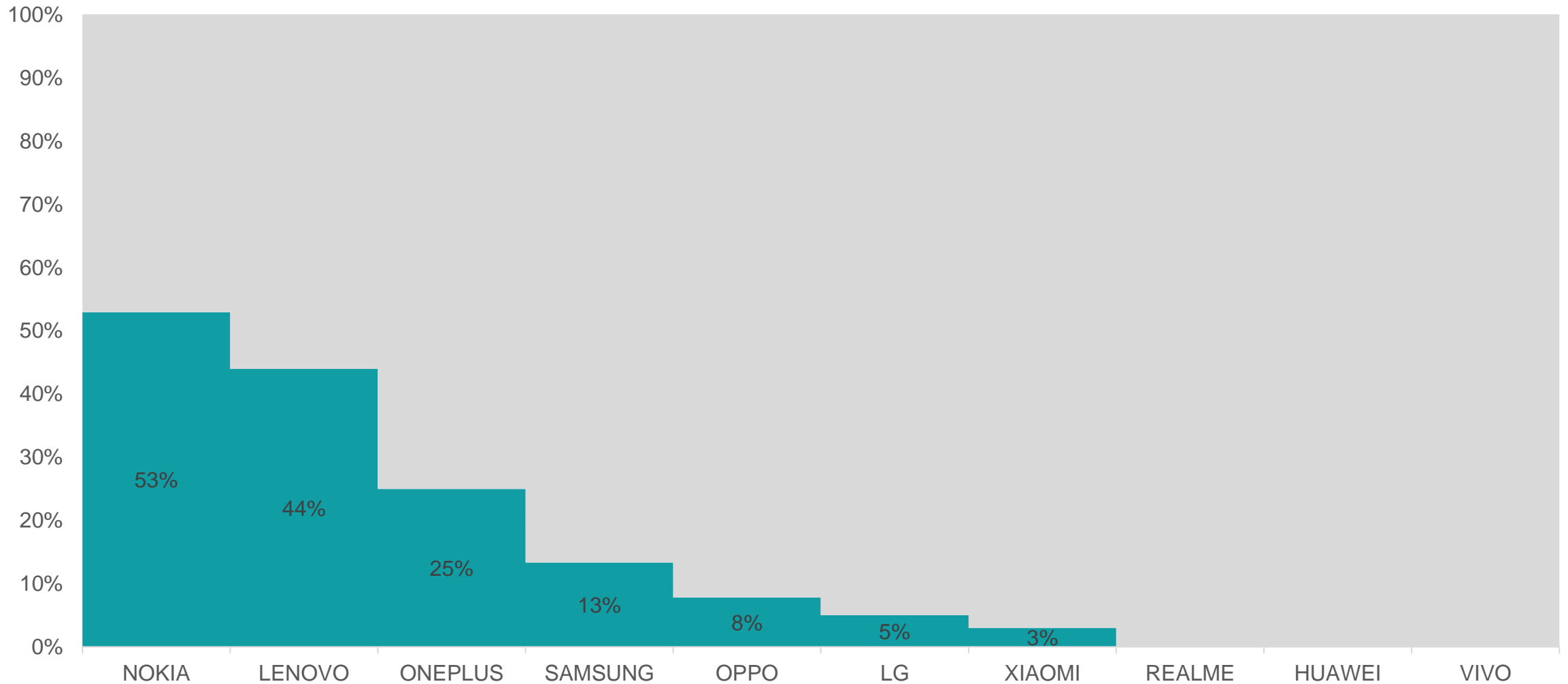
- Four Pillars of Trust Rankings

  4) Enterprise/Business Recommended

# Nokia phones Have the Highest Share of Portfolio Recommended for Enterprises

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### Android Enterprise/Business Recommended Portfolio Share by Key OEMs

■ Android Enterprise/Business Recommended  ■ Others



| | NOKIA | LENOVO | ONEPLUS | SAMSUNG | OPPO | LG | XIAOMI | REALME | HUAWEI | VIVO |
|---|---|---|---|---|---|---|---|---|---|---|
| | 53% | 44% | 25% | 13% | 8% | 5% | 3% | | | |

*Lenovo Includes Motorola

- Key Takeaways

# Key Takeaways

| | |
|---|---|
| **1** | The COVID-19 pandemic highlights our increasing reliance on devices and the consequent importance of keeping smartphones secure and updated. |
| **2** | The replacement cycle of smartphones has already approached 30 months, which means around three years of secure and updated experience throughout the ownership. |
| **3** | We believe that device makers need to step up their efforts to provide regular software and security updates to their users. Except for Nokia phones and OnePlus devices, the performance of the makers of other handsets have been poor. Even during the second year of evaluating the software and security update performance, we have found small improvements within the top 10 OEMs. |
| **4** | Nokia phones are likely to lead this segment as efforts for the handsets have already stepped up in different countries of operations and this will help in building the overall trust for the phones. |
| **5** | OnePlus now has a more comprehensive portfolio and it is doing well in terms of updates (OS & security). Samsung has a huge portfolio but is making greater efforts to keep the OS software up-to-date. Security updates are provided but on a slower cadence than HMD. Xiaomi is doing quite well despite its more low and mid-range portfolio positioning. In addition, new brands like Realme are keeping pace with software and security releases. In summary, HMD's distinctive advantage remains, but the gap between it and most other leading brands is less than it was a year ago |