The latest breakthrough explained

# 5th Generation Technology

Learn how 5G is changing the world of communication

# 5G Technology: What You Need to Know

Understand how
the new network works

# 5G Defined

5G is short for 5th generation mobile network. The latest global wireless standard following 1G to 4G networks, 5G technology enhances communication through seamless virtual connections: people, machines, objects, devices.

## Before 5G Technology

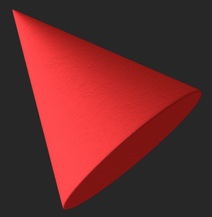
- The pre-5G internet experience was slower and limited to certain spectrum types.
- New services that rely heavily on communications were not entirely supported by previous mobile network generations.
- There were significantly more issues and limitations to availability and reliability.

## With 5G Technology

- 5G technology's design includes an impressive increase in network efficiency and traffic capacity.
- It is designed to support all spectrum types, bands, and deployment models.
- 5G guarantees high speeds that will greatly impact every industry.

# Mobile Networks and 5G Technology

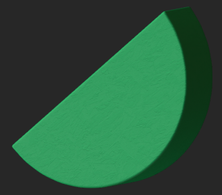
## 1G



### 1980s

A network limited to only voice call capabilities

## 2G



### 1990s

GSM, GPRS, and EDGE advancements

## 3G

### 2000s

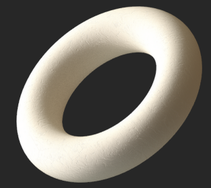
Allowed faster communication, web browsing, and video streaming in smartphones

## 4G

### 2010s

Greatly impacted the requirements set by IMT-Advanced standards

## 5G



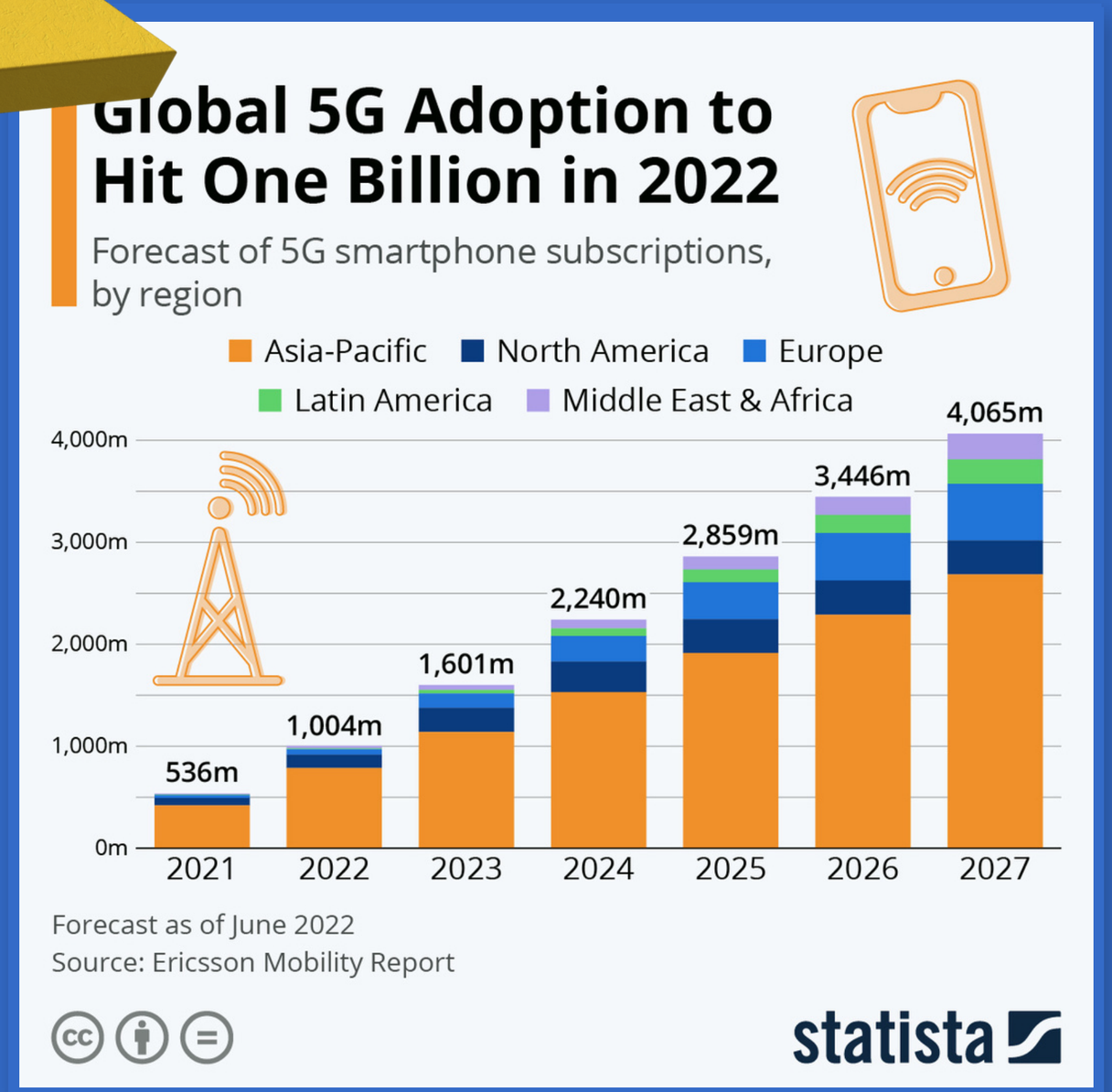
### Current

Significantly faster speeds with lower requirements to support IoT devices

# 5G Technology Adoption in the World

## As of January 2022

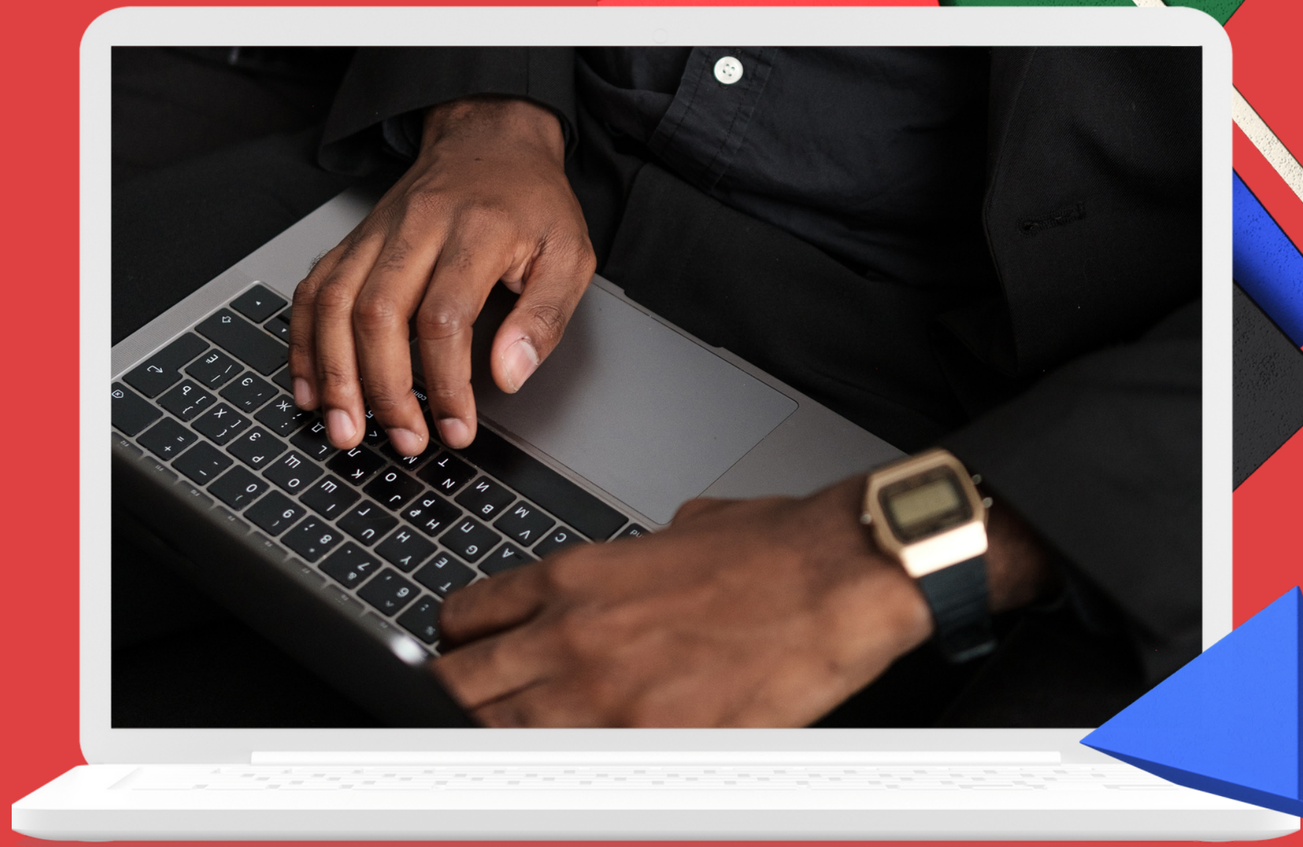
5G technology adoption continues to rise in more countries and cities.



# Why 5G Is Better Than 4G

## The next generation of wireless technology that will transform life significantly

5G technology guarantees a faster and smoother transmission of data, no matter how high the amount. Users can look forward to faster downloads and better support for more connected devices.



# The Benefits of 5G Technology

# How Businesses Can Benefit From 5G

Businesses need the strongest support for their operations in order to improve their processes, produce better results, and remain at the top of their game.

### NO NETWORK ISSUES

5G will bring a connection speed that's significantly faster than 4G. This means more data transfer in less time, promising results without delay.

### LOWER LATENCY

Lower latency will improve the safety and functionality of IoT devices, allowing real-time viewing and guaranteeing zero lags in operations.

### GREATER DATA CAPACITY

5G can support more devices and allow simultaneous data transfer because of its larger spectrum band.

# Benefits of 5G on Our Daily Lives

It may take years before we experience the full potential of 5G but that doesn't mean we can't enjoy what it can already offer us.

## ELEVATED STREAMING EXPERIENCE

Nothing says great entertainment quite like uninterrupted streaming. Thanks to 5G, we can enjoy unlimited data capacity, short lag times, and multisensory digital content.

## BETTER COVERAGE FOR SMARTPHONES

No more difficulty getting connected -- 5G brings better signal to places that were once difficult to reach. Enjoy stronger connections and better communication with 5G.

## ROAD SAFETY

Self-driving cars will soon become the new norm. But motorists can also enjoy better data processing between vehicles and networks - that means safety on the road and improved traffic management.

# Other Benefits of 5G Tech

The connectivity that 5G offers will also boost aspects of various industries

| Industry | Impact Brought By 5G |
| --- | --- |
| Healthcare | 5G can support real-time transfer of patients' crucial data and vital signs, such as heart rate, respiratory rate, blood pressure, and oxygen saturation, among others |
| Transportation/ Automotive | 5G can help monitor vehicle health and streamline route planning, traffic data, and transportation systems. |
| Energy | 5G can help automate energy-related operations, thus improving efficiency and staff safety |

Highlight two or more cells, right-click then choose "Merge Cells" to organize your table according to your needs!

# Does 5G technology really pose these risks?

## Health risks from using 5G, debunked

As popular as 5G is becoming, many believe it is a source of both cancer and COVID-19. Radiation associated with 5G is believed to cause cancer and at the same time weaken the immune system, making it susceptible to the spread of COVID-19. Experts believe both are highly unlikely, that there is no proven link between COVID-19 infections, cancer, and 5G networks.

As exciting and appealing as 5G technology is, there are a few cons to it such as its impact on battery life, high costs for rollout, and imbalance in upload and download speeds.

# Trends and the Future of Telecommunications

Artificial intelligence that keeps behind-the-scenes operations rolling faster will guarantee business optimization like never before.

RPA or robotic process automation will significantly reduce error rates and boost customer service/operational efficiency.

Cloud technology will allow telecoms to operate with more efficiency as this guarantees scalability and cost effectiveness, allowing them to adjust better to market demands.

The IoT or the Internet of Things is a technology that helps ensure minimal downtime for data centers and base stations. The telecom industry will continue to develop their own services to improve IoT technology.

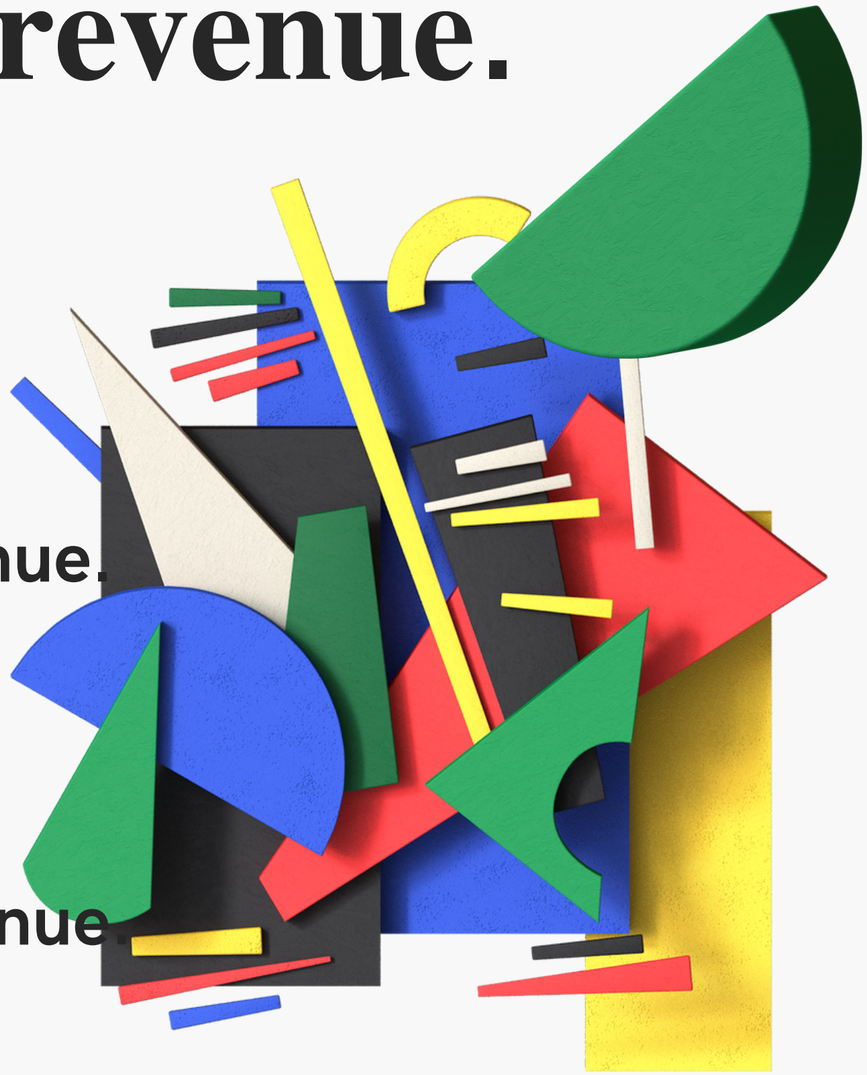
In-house software development is crucial in ramping up security and productivity. New softwares (with new tools and services that shift security efforts) will prevent any technological breach leading to systemwide failures.

# Wavecon Ltd Analyze Dashboard & Insights

# Impact of 5G Launch on revenue.

## Overall, revenue of WAVECON has slightly decrease by 0.50% i.e

Total Revenue Before 5G Launch: 16.0 billion
Total Revenue After 5G Launch: 15.9 billion

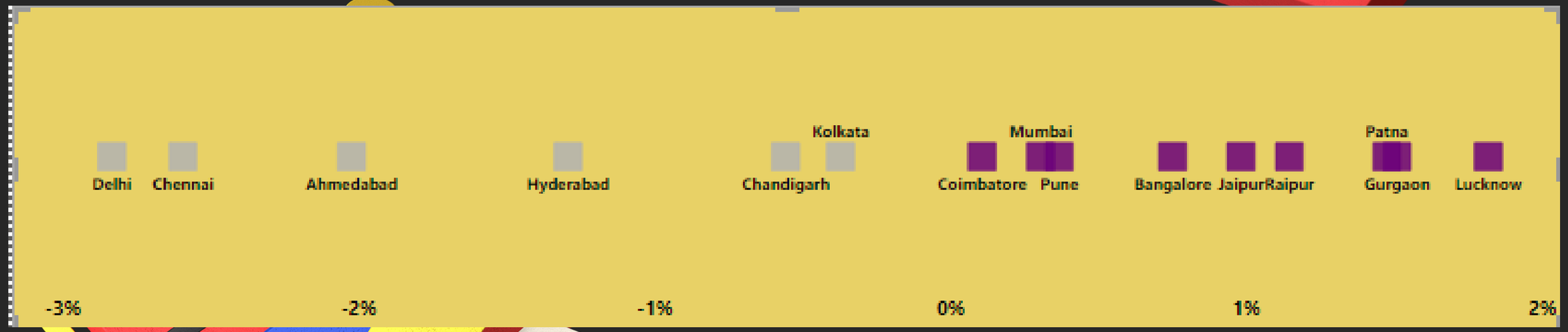


## 60 % of the states have seen an increase in revenue.

Lucknow
Gurgaon
Patna
Raipur
Jaipur
Bangalore
Pune
Mumbai
Coimbatore

## 40 % of the states have seen an decrease in revenue.

Kolkata
Chandigarh
Hyderabad
Ahmedabad
Chennai
Delhi




The squares in purple represent the states with the highest revenue, while the squares in gray represent the states with lower revenue

# Underperforming KPI after 5G Launch

The most significant **reduction** among all KPIs has been observed in **Total Active Users (TAU)**

After the implementation of 5G, Total Active Users (TAU) has experienced an **8.28% reduction** in active users

The Total Active Users (TAU) has **decreased by 7 million** since the implementation of 5G. This could be attributed to the limited availability of 5G-enabled phones among the population in India, which is expected to change in the coming years as more people switch to 5G-enabled devices

Since the implementation of 5G, only **20%** of cities, namely **Chennai, Pune, and Lucknow**, have observed an increase in Total Active Users (TAU).

Pune has experienced the most substantial increase in Total Active Users (TAU) since its 5G launch, with a growth of **18.06%**

| City Name | Total_Users | Before_5G | After_5G | Chg% |
|---|---|---|---|---|
| Ahmedabad | 10M | 5M | 4M | -18.9% |
| Bangalore | 18M | 10M | 8M | -13.9% |
| Chandigarh | 3M | 2M | 2M | -5.0% |
| Chennai | 15M | 7M | 7M | 0.4% |
| Coimbatore | 4M | 2M | 2M | -9.3% |
| Delhi | 20M | 11M | 9M | -17.6% |
| Gurgaon | 3M | 1M | 1M | -13.1% |
| Hyderabad | 12M | 6M | 6M | -7.5% |
| Jaipur | 7M | 4M | 3M | -5.5% |
| Kolkata | 20M | 10M | 10M | -4.7% |
| Lucknow | 6M | 3M | 3M | 2.6% |
| Mumbai | 23M | 13M | 11M | -14.4% |
| Patna | 5M | 3M | 2M | -16.1% |
| Pune | 14M | 6M | 8M | 18.1% |
| Raipur | 2M | 1M | 1M | -16.7% |
| **Total** | **162M** | **84M** | **77M** | **-8.3%** |

# Underperforming Plans and it's Suggestions

P1 is the only well-performing plan, with its revenue **increasing by 33%** following the 5G expansion.

Both **P2 and P3** have maintained stable revenue post 5G expansion, showing no significant changes

Plans **P4-P7** have been adversely affected by the 5G expansion, experiencing a decline in their revenue.

**Plan P7** has witnessed a substantial revenue decrease of almost 430 million, indicating the need for its discontinuation.

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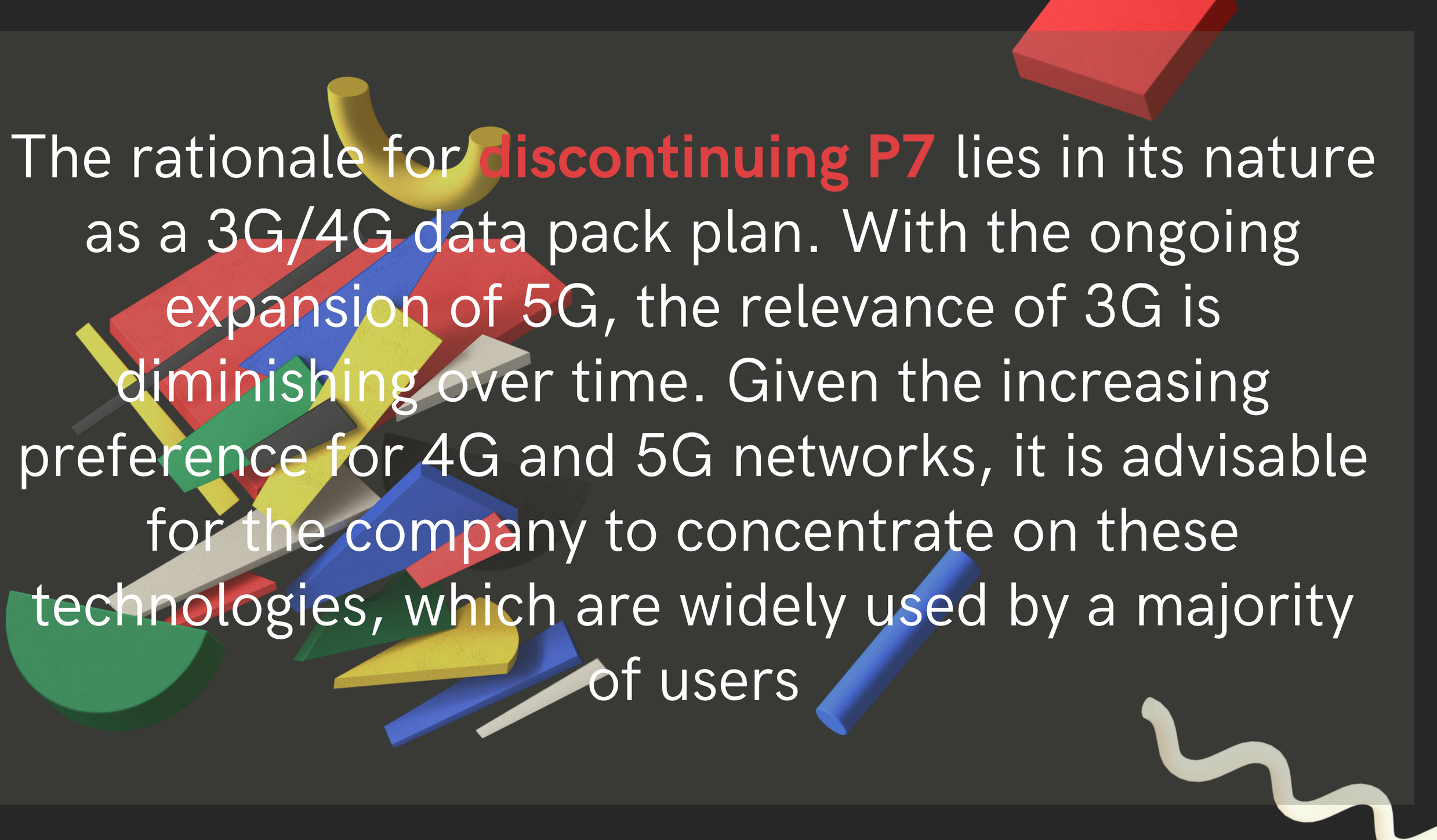

The rationale for **discontinuing P7** lies in its nature as a 3G/4G data pack plan. With the ongoing expansion of 5G, the relevance of 3G is diminishing over time. Given the increasing preference for 4G and 5G networks, it is advisable for the company to concentrate on these technologies, which are widely used by a majority of users

# Thank You

## How To Reach Me ?

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