

## Ripple effect is expected by “5G” launch

2019 is called the year of “5G” launch. “5G” is the next-generation mobile telecommunication platform whose commercial service is expected to start in the US and South Korea this year. In Japan, Ministry of Internal Affairs and Communications has started to accept the applications to establish “5G” base stations from Jan 24. Spread of “5G” is expected to create business opportunities in many fields. Not only companies related to communication but also variety of industries is expected to enjoy the ripple effect of “5G”. It is important to watch how companies will make use of these opportunities.

### Point 1

#### “5G” characteristics: high-speed broadband, low latency and multiple simultaneous connectivity

##### Automobile industry is expected to benefit the most

- Characteristics of 5G are high-speed broadband, low latency and multiple simultaneous connectivity. It aims for maximum of 100x higher speed and broader bandwidth than 4G. The services using characteristics of “5G” are (1) high-speed broadband for data transmission used for images of high-definition 8K and security camera, (2) low latency for autonomous car, remote medical system and drone and (3) multiple simultaneous connectivity for IoT (Internet of Things).
- Automobile industry is expected to benefit the most. An autonomous car is remote-controlled by sending the mass information collected via its cameras and radars to the cloud and analyzed by AI on real-time. It cannot work without characteristics of “5G” that are high-speed broadband and low latency. Accordingly we expect that the spread of “5G” would accelerate the development of autonomous cars.

### Point 2

#### Large impacts on communication equipment and terminals

##### “5G” is expected to be the driver of increasing semiconductor demand

- “5G” widely impacts communication related business on communication equipment and terminals. With the start of commercial service of “5G” in the US and South Korea, more than 30 kinds of “5G” smartphone is expected to be sold worldwide. Also, use of glass and resin which is able to transmit radio wave for terminals is likely to increase. It is expected to be a business opportunity for companies manufacturing related materials.
- “5G” is also expected to be the driver for recovery of semiconductor demand, which has dramatically decreased since last October. As “5G” spreads, we expect semiconductor demand would increase due to investment in data centers as “5G” requires high-speed exchange of broadband data.

- As the expectation for ripple effect by “5G” is high, Tokyo Electron announced their plan to spend more than JPY 100bn per year for the next 10 years on R&D. Also, Murata Manufacturing announced that they will issue JPY 100bn worth of straight bond in order to manufacture electrical appliances for “5G”. Companies seem to start preparing for launching “5G” actively. However, the services utilizing “5G” are still at a developing stage. How companies can seize business opportunities by being ahead of development collaborating across the nation and industries are to be assessed.

Note: Above stock names are for illustrative purpose only and do not constitute any investment advice or recommendation.

## ■ Disclaimer

**Please read this disclaimer carefully.**

- This material is for non-Japanese institutional investors only.
- The research and analysis included in this report, and those opinions or judgments as outcomes thereof, are intended to introduce or demonstrate capabilities and expertise of Sumitomo Mitsui Asset Management Company, Ltd. (hereinafter “SMAM”), or to provide information on investment strategies and opportunities. Therefore this material is not intended to offer or solicit investments, provide investment advice or service, or to be considered as disclosure documents under the Financial Instruments and Exchange Law of Japan.
- The expected returns or risks in this report are calculated based upon historical data and/or estimated upon the economic outlook at present, and should be construed no warrant of future returns and risks.
- Past performance is not necessarily indicative of future results.
- The simulated data or returns in this report besides the fund historical returns do not include/reflect any investment management fees, transaction costs, or re-balancing costs, etc.
- The investment products or strategies do not guarantee future results nor guarantee the principal of investments. The investments may suffer losses and the results of investments, including such losses, belong to the client.
- The recipient of this report must make its own independent decisions regarding investments.
- The opinions, outlooks and estimates in this report do not guarantee future trends or results. They constitute SMAM’s judgment as of the date of this material and are subject to change without notice.
- The awards included in this report are based on past achievements and do not guarantee future results.
- The intellectual property and all rights of the benchmarks/indices belong to the publisher and the authorized entities/individuals.
- This material has been prepared by obtaining data from sources which are believed to be reliable but SMAM can not and does not guarantee its completeness or accuracy.
- All rights, titles and interests in this material and any content contained herein are the exclusive properties of SMAM, except as otherwise stated. It is strictly prohibited from using this material for investments, reproducing/copying this material without SMAM’s authorization, or from disclosing this material to a third party.

Registered Number: Kanto Local Finance Bureau (KINSHO) No.399

Member of Japan Investment Advisers Association, The Investment Trusts Association, Japan and

Type II Financial Instruments Firms Association

© Sumitomo Mitsui Asset Management Company, Limited

