Cree Capacity Expansion Announcement

7 May 2019
$1 Billion
for Silicon Carbide and GaN Capacity
The investment is allocated between silicon carbide materials growth and wafer fabrication

$450M

for materials expansion and the creation of a materials **mega factory** as well as build out a **second** crystal growth factory

$450M

to build out an existing building and create an automotive qualified 200mm capable wafer fab

$100M

in other investments associated with growing the business
Additional capacity translates up to a 30x increase ramping through FY2024
Automotive OEMs have committed to EV investment

- **VOLVO**: Announces every new model will run at least part on electric power in 2019.

- **AUDI**: Announces that one third of all Audi models will be electric by 2025.

- **FORD**: Announces all-electric, zero emissions future with 20 vehicles by 2023.

- **VW**: Announces EV versions of all 300 vehicles by 2030.

- **DAIMLER**: Targets 15-25% EV production by 2025; investing $11B.

- **TOYOTA**: More than half its sales will be EV by 2030; investing $13B. 10 full EVs by early 2020s.

- **VW**: Announces EV versions of all 300 vehicles by 2030; investing $11B.

- **GM**: Committed to 25 new EVs by 2025.

- **BMW**: Committed to 25 new EVs by 2025.

$300B of investments announced over the last 18 months.
Communications infrastructure customers are pre-investing significantly for 5G ramp-up

- # of mobile subscribers increasing
- New 5G needed & rolling out

$200B of recently announced investments

- Explosion of data demand
- Significant CAPEX in next years

Source: Ericsson Mobility Report June 2018

USA

China

Korea

Europe

Japan

2018

2019

2020

Key
Large scale trials
Commercial volume

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Cree to invest $1 billion over 5 years to expand its silicon carbide capacity

**WILL YIELD:**

- $30x$ increase in silicon carbide wafer fabrication
- $30x$ increase in silicon carbide and GaN materials production

**WILL LEVERAGE:**

- **EXISTING**
  - 253,000 SQ FT facility
- 200 mm equipment

**WILL DELIVER:**

- State-of-the-art automotive-qualified production facility
- Lower cost of silicon carbide for customers
INCREASING THE SUPPLY OF SILICON CARBIDE WILL:

- Give customers access to the supply they need to drive business growth
- Reduce the cost of silicon carbide for customers, driving its mass adoption
- Introduce overall system-level benefits and innovation gained through the technology's inherent superiority
- Enable customers to overcome the barriers to adoption and accelerate those markets
Summary

• Cree to invest up to $1 billion to expand its silicon carbide and GaN capacity in order to drive the transition from silicon to silicon carbide and GaN and meet the growing market demand driven by EVs, 5G and industrial applications

• This expansion will generate up to a 30-fold increase in silicon carbide wafer fabrication capacity and up to a 30-fold increase in silicon carbide and GaN materials production to meet the expected market growth by 2024

• The five-year investment leverages an existing building and state-of-the-art, mostly refurbished 200mm equipment to build an automotive-qualified production facility