We are creators and makers of technology

- One of the world’s largest semiconductor companies
- 48,000 employees of which 8,400 in R&D
- $12.8 B revenues in 2021
- Over 80 sales & marketing offices serving over 200,000 customers across the globe
- 13 manufacturing sites
- Signatory of the United Nations Global Compact (UNGC)
- Member of the Responsible Business Alliance (RBA)

As of December 31, 2021
Silicon Carbide vertical integration targeting > 40% substrate in-sourcing by 2024

**ST-SiC substrate plant**

Norrköping

150 mm volume production

200 mm with industrial quality and yields

**New SiC integrated plant**

Starting pilot production in 2023
How did the SiC activity start?

Prof. Erik Janzén (1954 – 2017)

1997 - 2002

- 40 PhDs
- 700 Publications
- 23 Patents
- Know-How
- Processes
- Equipment
- Companies
SiC substrate manufacturing processes

- Crystal growth
  - $T > 2000^\circ C$
  - In house process
  - Simulation

- Wafering
  - Slicing/Splitting
  - Polishing
  - Cleaning

- Characterisation
  - Defect density
  - Flatness
  - Resistivity

- Full in house wafer production and characterisation capability including SiC epitaxy
STMicroelectronics Silicon Carbide AB

- 2019 ST new owner of Norstel AB
- 2019 Investment in center of excellence in Norrköping
  - Adding more furnaces for crystal growth
  - Adding equipment for 200 mm processing and plant modernization
- 2020 Regular delivery for device production for car maker
- 2020 Restart semi-insulating crystal growth activity
- 2021 First 200 mm substrates

**STMicroelectronics Silicon Carbide:**
Industrialization and R&D center for SiC material
24/7 operations for crystal growth and 2 shift in wafering operations and maintenance
Today 70 persons and recruitment on-going to add more engineers