

# Bosch Advanced Ceramics



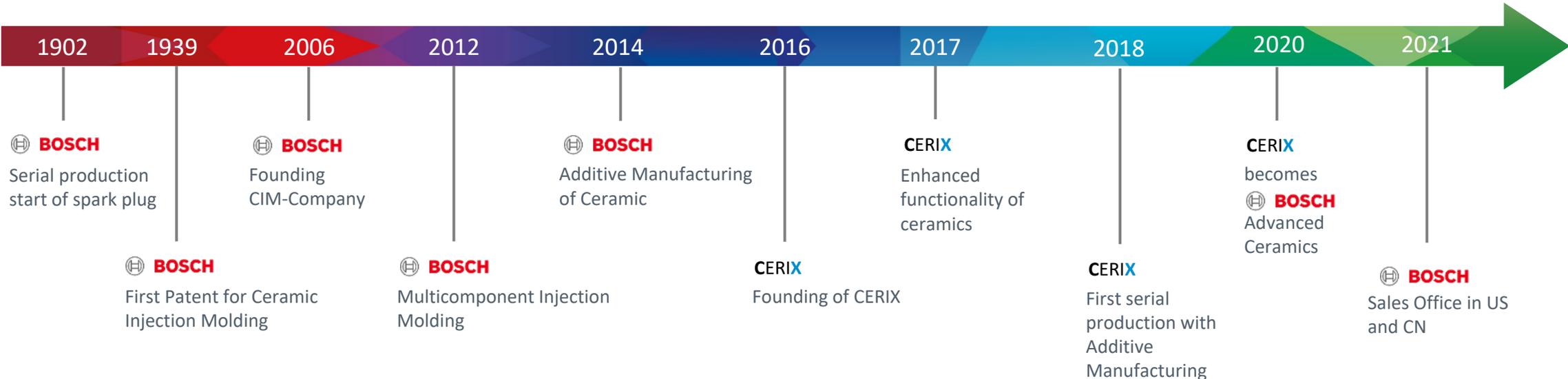
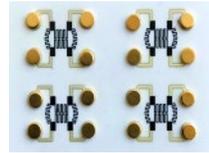
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CTO

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# Bosch Advanced Ceramics History

From classical ceramic production towards innovations in technical ceramics.



# Bosch Advanced Ceramics

## Our Technology Portfolio

### Ceramic Injection Molding (CIM)

Precise serial production of complex parts

- + Core competence since more than 100 years
- + Highly automated production for large quantities



### Additive Manufacturing of ceramics

For functional prototypes and small to medium series

- + Complex Geometries
- + Shortened Time-To-Market
- + In series production



### Hard Machining & Laser Processing

Realization of challenging tolerances and filigree geometries

- + Finest structures with all-time precision



### Functional Coatings

Integration of electrical functions

- + Enhanced functionalization
- + PVD, CVD, Screen-printing, Inkjet printing

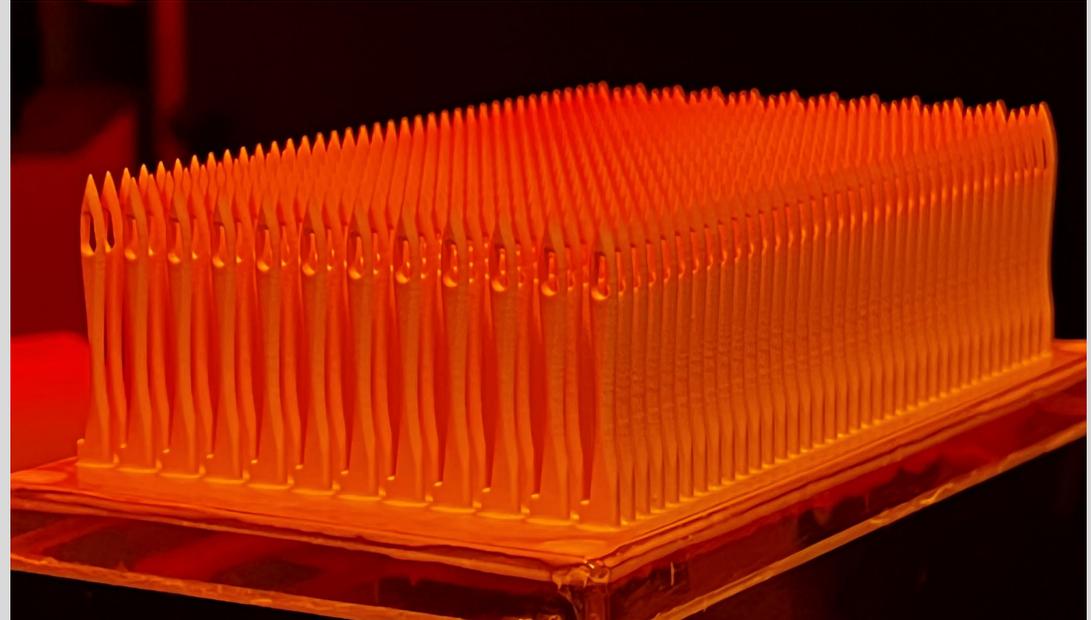


creating & adding value to ceramic parts

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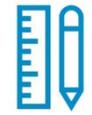
## Use Case – Ceramic Needle

- **Ceramic Needle for textile industry**
- **444 parts in one run**
- **Tolerance of  $\pm 0,05\text{mm}$  / 0.002 inch**
- **Thickness of 1mm / 0.04 inch**



# Bosch Advanced Ceramics

## Creating Value with Ceramics Additive Manufacturing

 Freedom of design

 Flexibility

 Cost efficient

 High precision

 Time-To-Market reduced

 Material properties

 No tooling cost

 Industrial manufacturing

