

A low-angle photograph of a modern glass skyscraper. The sun is shining brightly from the upper right, creating a lens flare effect. The word 'SCHOTT' is mounted on the glass facade in large, three-dimensional, metallic letters. The letters are white with a blue outline. The sky is a clear, bright blue with some light clouds.

SCHOTT
glass made of ideas

Materials Ontology Workshop – Brussels – June 29, 2018

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SCHOTT is a leading international technology group in the areas of **specialty glass and glassceramics**. With more than 130 years of outstanding development, materials and technology expertise we offer a broad portfolio of high-quality products and intelligent solutions that contribute to our customers' success.

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Home Appliances



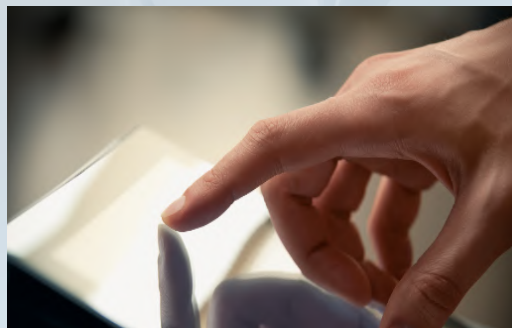
Life Sciences



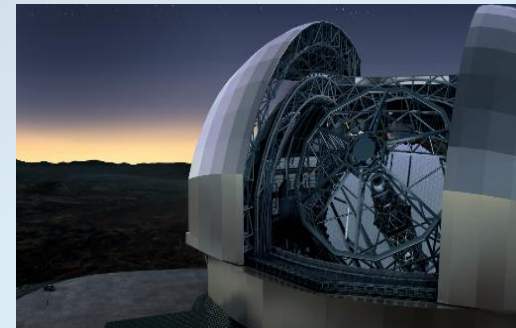
Automotive & Aviation



Pharma



Elektronics



Optics

€ 2.05 bn Global sales

€ 272 m EBIT

€ 154 m Capital expenditures

15,100 Employees, (5,200 in Germany)

34 countries Production sites
& sales offices all over the world

FY 2016/17

Specialty glass – a high-tech material

Glass is made by melting quartz sand and other raw materials

soda-lime glass



< 1,400° C

specialty glass and glass ceramics



1,500° - 1,700° C

Schott's product portfolio comprises 30 technical and 100 optical glasses based on numerous compositions to meet specific customer demands. Specialty glasses consist of up to 15 oxidic components.

Traditionally, material developments are based on test melts and statistical methods – which is time-consuming and costly. In future, new data based methods will become more important to speed up glass development.



Schott R&D is at the very beginning using Big Data and Machine Learning Technologies for Material Developments

We are ...

... just setting up a special-glass ontology for patent screening together with an external partner

... developing data extraction tools for publicly available sources (publications, patents, etc.) based on ontological search algorithms