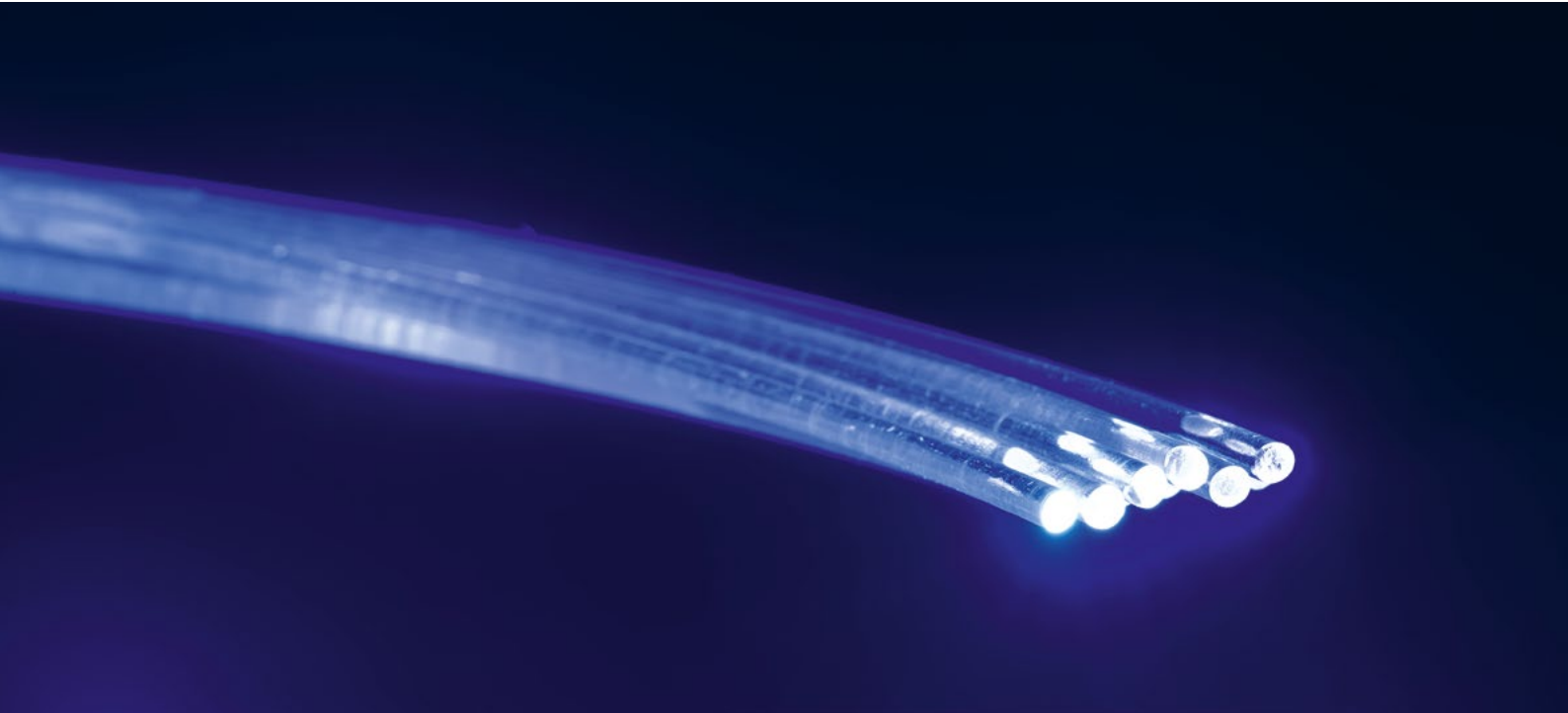




Light simulation: Precision in lighting design

Realistic analysis of optical systems and
special exposure situations

simulations driven by engineering excellence



Efficient light simulation for innovative designs

Realistic analysis, efficient optimisation and sustainable solutions – from light guides to perfect light distribution

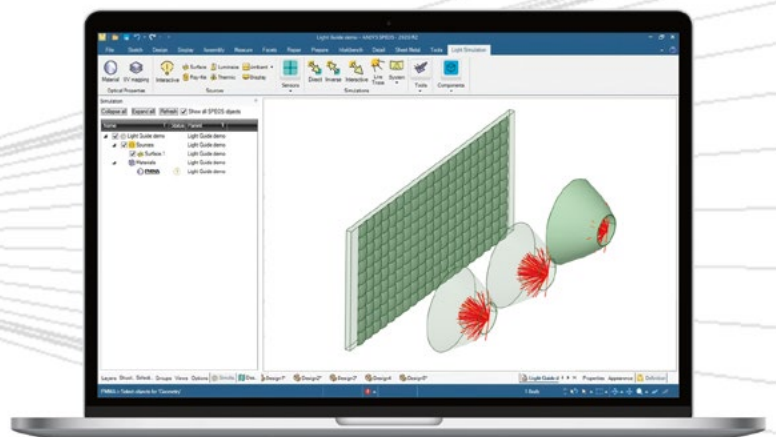
Light simulation has proven to be an essential tool in the world of design and engineering. With the ability to precisely analyse and visualise complex lighting effects, light simulation enables users to make informed decisions about the design and functionality of lighting concepts. The use of light

simulation plays a central role in the design and evaluation of optical systems as it provides precise insights into lighting conditions and enables efficient design optimisation. This leads to time and cost savings compared to traditional methods and promotes innovation and design quality.



Design of reflectors with or without faceted structure

Optimal light guidance and distribution – for smooth or faceted reflector structures.





Your benefits

- **Accuracy of the simulation:** Realistic depiction of different wavelengths of light, not just the visible ones.
- **Efficiency and cost reduction:** Simulation of different scenarios without physical changes, which saves resources.
- **Optimising the design:** Improving optical solutions or/and systems in terms of lighting results, energy efficiency and comfort.
- **Visualisation and presentation:** Photorealistic presentation lighting effects, useful for customer and stakeholder presentations.
- **Supporting sustainability:** Reducing energy usage through optimised lighting. Promoting safety: Improving safety in working environments and machines through optimised visual displays.



Our services

- Concept development for optical systems and light guides
- Optimisation of the geometry of light guides
- Calculation of illuminance, luminance and light distribution
- Simulation of photorealistic images



simulations driven by engineering excellence

Through virtual simulations and precise calculations of physical and technical requirements, we drive our customers' innovations forward. We translate the results of our work into practice-orientated solutions, that enable our customers to achieve excellence in engineering technology.



Dr. Frank Brehmer,
Managing Director ITB

Our services



Component
Strength Analysis



CAD Design



Component
Verification



Electrothermal
Simulation



Flow
Simulation



Light
Simulation

**Are you planning your next project
and want more safety from our
expertise? Then get in touch with us:**

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