



LIGHTWORKS
PASSION FOR LIGHT



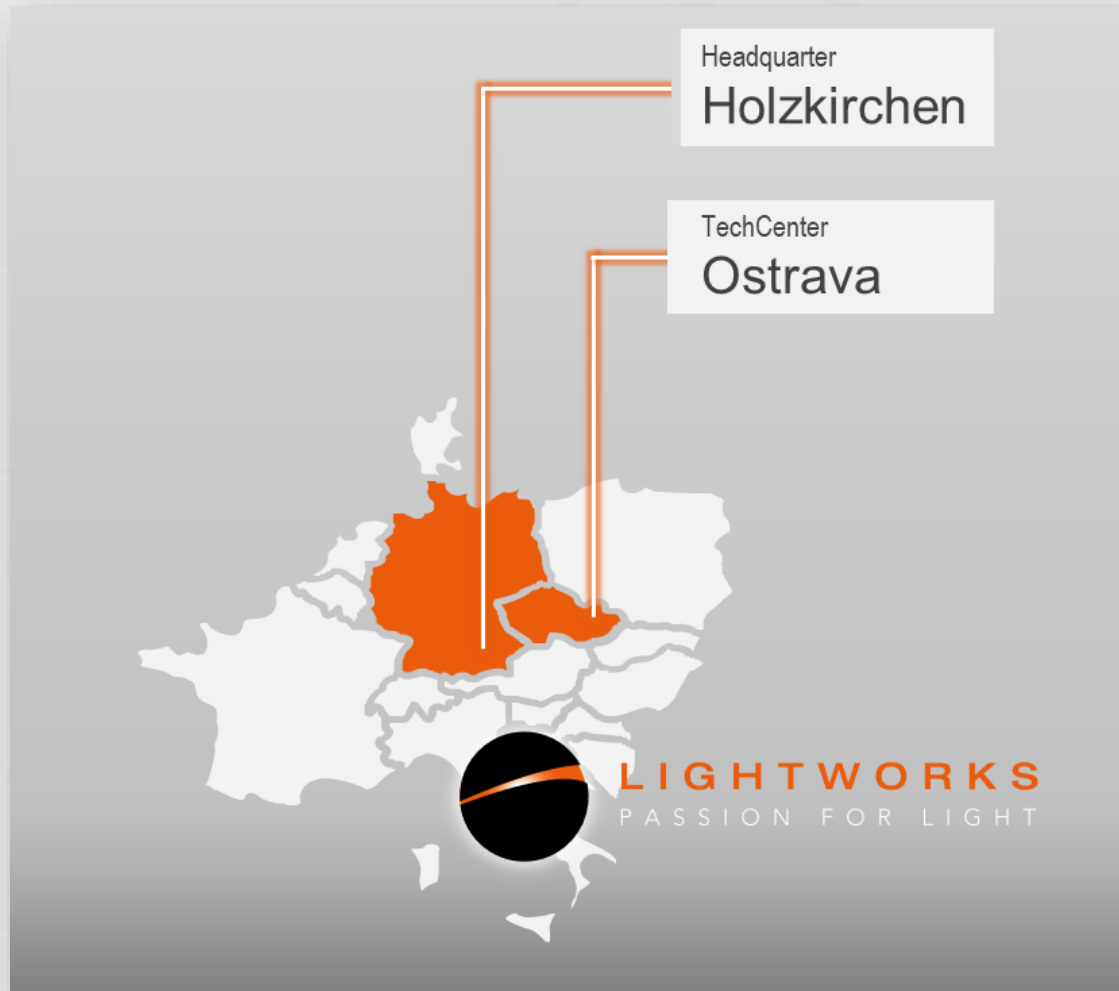
EPIC ONLINE TECHNOLOGY MEETING ON MICRO-LED FOR AUTOMOTIVE LIGHTING



Lightworks GmbH, Holzkirchen / Germany, 21.09.2020

EPIC Online Technology Meeting on Micro-LED for Automotive Lighting

The role of Lightworks GmbH in automotive lighting industry



Company foundation in 2011



25 employees



Operative project management



Optical system development



Lighting system integration



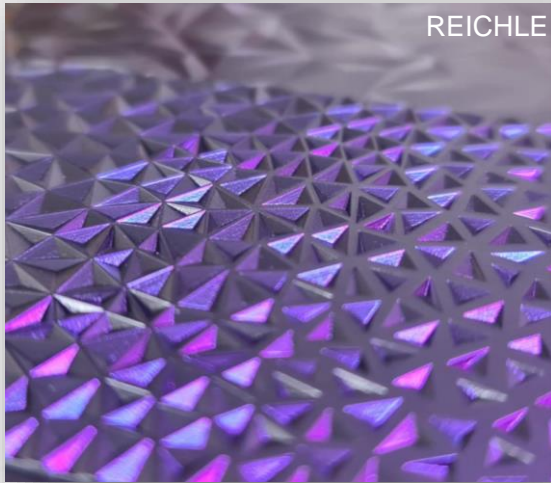
Electronic light function design



Over 230 lighting projects in the last 3 years

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Advanced integrational approaches for interior and exterior lighting



Lightworks know-how and key technologies



Light source

*Supporting the selection of appropriate light sources:
e.g. ISELED, RGB-LED, IR-LED, OLED, LASER*



Lighting components

*Identifying the best light strategy for customer needs by using:
e.g. Light Guides, Refractors, Lenses, MLAs, Surface Blades*



Optical materials

*Defining suitable material combinations based on functional
requirements: e.g. Clear, Diffuse, Functional, Multi-Components*



Simulation and Visualization

*Verifying optical system via lighting simulation, raytracing and
visualizing of optical results in photo-realistic rendering*

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Opportunities for Micro-LED applications in interior lighting



Less package requirements



Intelligent light management



New dimensions of creative freedom



Minimal design & Shy-tech approaches



Unexpected effects & New level of user experiences



Implementation of functional and ambient lighting

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Use-Cases for Micro-LED applications in interior lighting: VR integration environment BMW X5 (G05)



