

# GLOWWING®

LIGHTS. YOUR WAY.

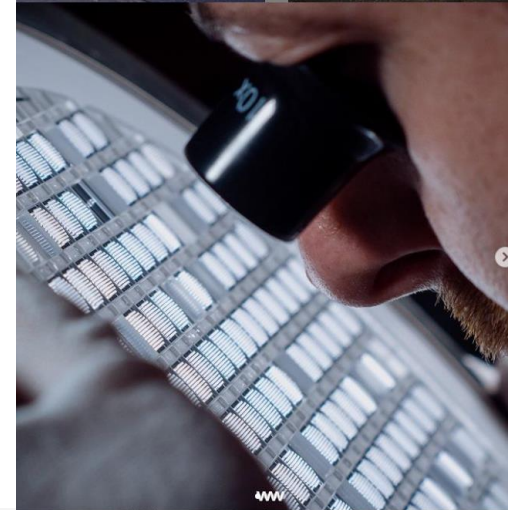
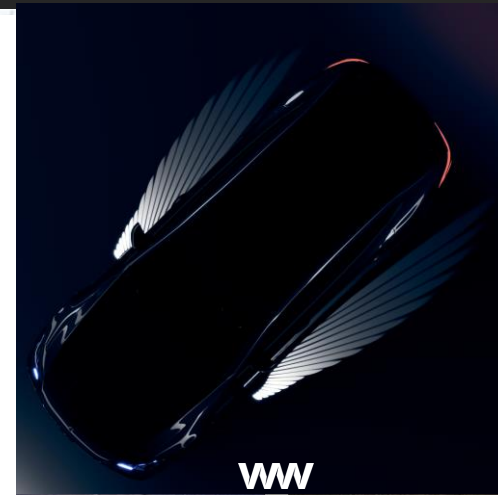
Feb 14 2022

[www.glowwing.com](http://www.glowwing.com)

- Founded: April 2019
- Location: Leipzig, Germany
- Shareholder: 100% family owned
- Business:

Automotive Lighting:  
Development, Production, Sales  
of MLA projectors

- Official Fraunhofer-Spin-Off
- Inventorship of MLA projection in 2009 with 100+ patents
- Fully licenced MLA-technology-provider
- B2B: OEM module supplier + MLA consultancy provider

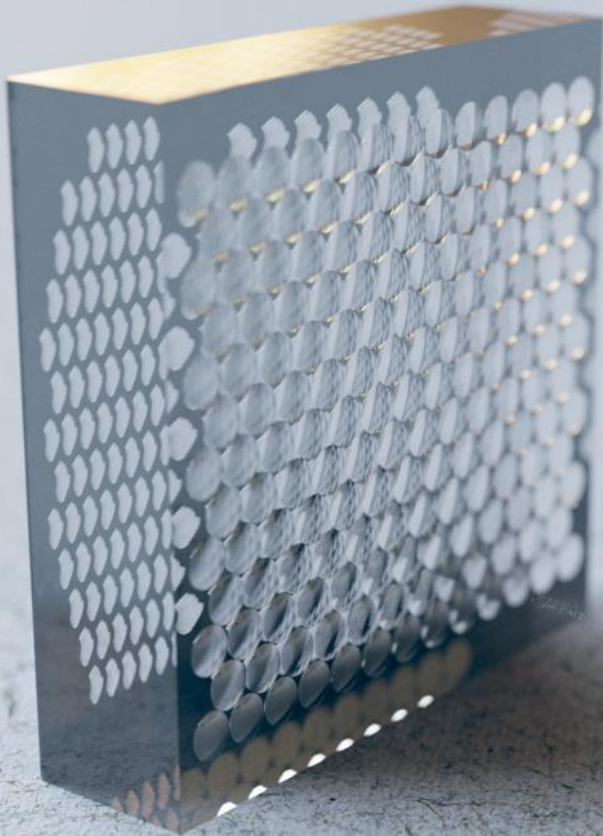


„Revolution in Lighting“

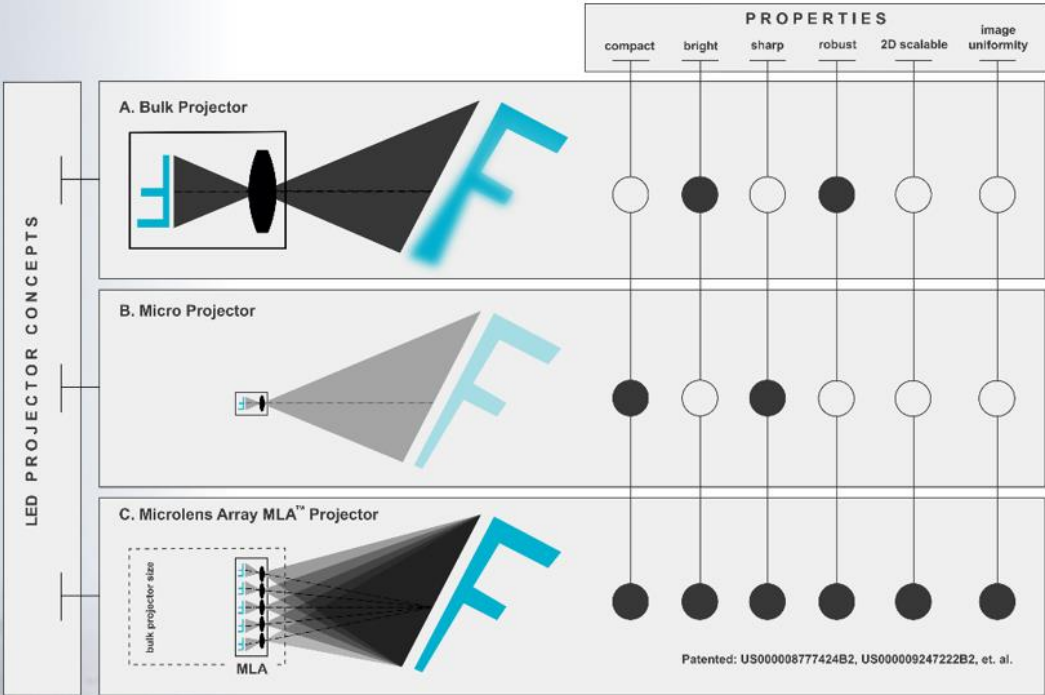
**USPs:**

- Smallest package possible
- Bright & sharp images
- Good tolerance w.r.t. dirt / dust
- Robust monolithic layout

$$f_{MKP} = \frac{f_{EKP}}{\sqrt{N}}$$



3mm



**MLA = Best of both worlds.**

**GLOWWING 2020**



<b>Flux</b>	90 lm
<b>Volume</b>	40 ml
<b>Wattage</b>	5 W
<b>Efficacy</b>	18 lm/W

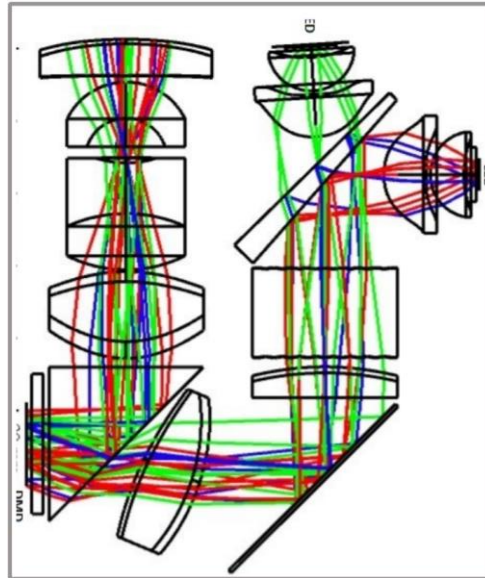
**Upcoming: GLOWWING 2022**



<b><u>250 lm</u></b>
<b>35 ml</b>
<b>6.5 W</b>
<b>38 lm/W</b>

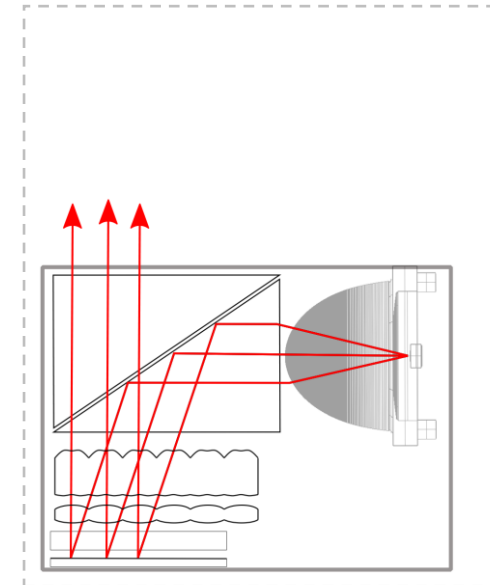


Current DMD projector layout:



**WORLD PREMIERE**

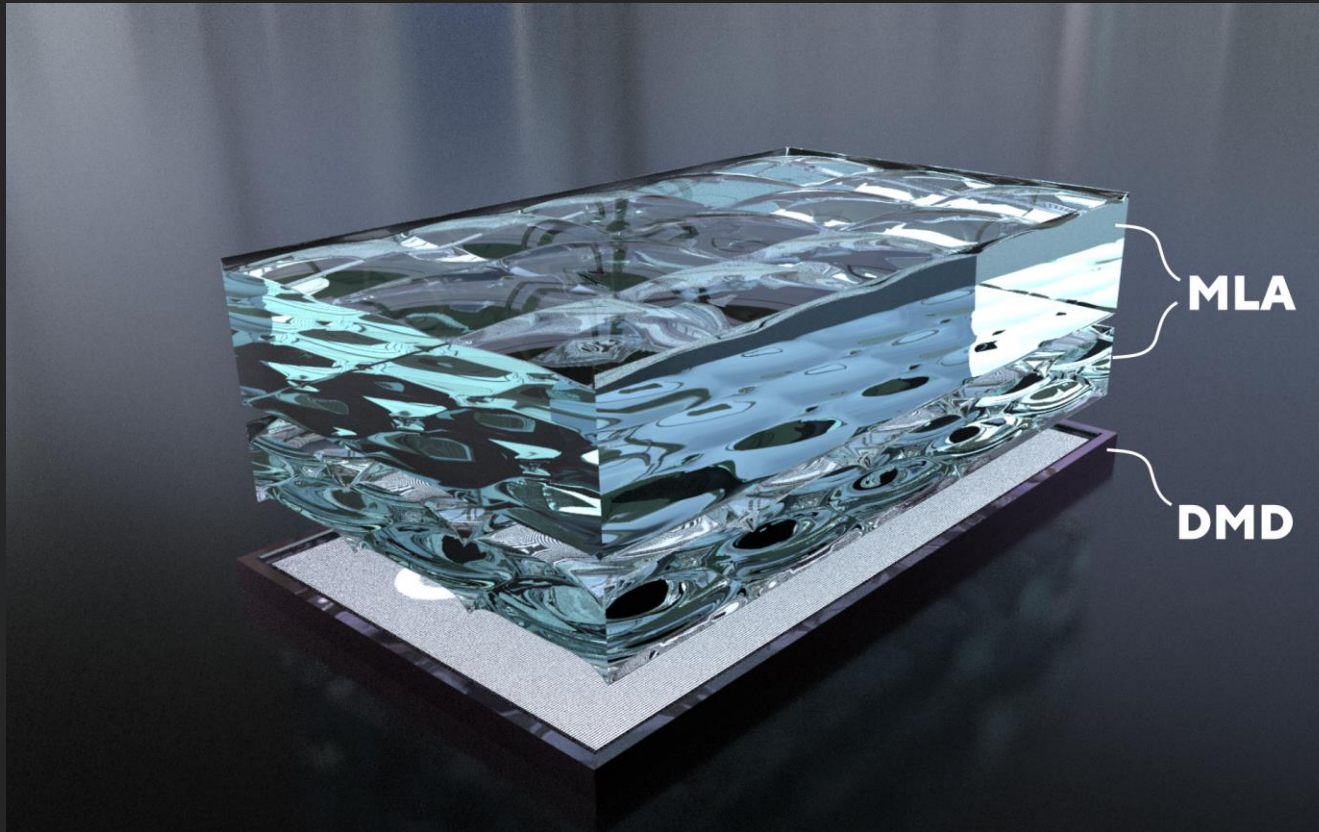
MLA DMD projector layout:



Patent pending

<b>Flux</b>	~50 lm
<b>OE Volume</b>	~10 ml
<b>Number of opt. Elements</b>	10-14
<b>Resolution</b>	WVGA 854x480

2x (w.r.t. current DMD projectors)
~60%
3-6
WVGA



GLOWWING is looking for:

- 1) Technology partners to bring **dMLA -Technology** into product maturity / mass market.
- 2) Module customers looking for high-power, smallest package MLA-projectors.
- 3) MLA optical design with unique image features.