

IN-VISION Technologies AG

www.in-vision.at

Florian Zangerl

CEO

zangerl@in-vision.at

About

IN-VISION Technologies AG develops and manufactures high-precision optical systems for industrial applications. The globally leading DLP UV-projectors from the company are mostly used for additive manufacturing, bioprinting, 3D metrology and lithography applications. The company manufactures its products like projectors and projection lenses exclusively at the production site in Guntramsdorf, Austria and runs a subsidiary in Boston, USA.



IN-VISION[®]

Future built on light.

Ikarus Light Engine Close-Up

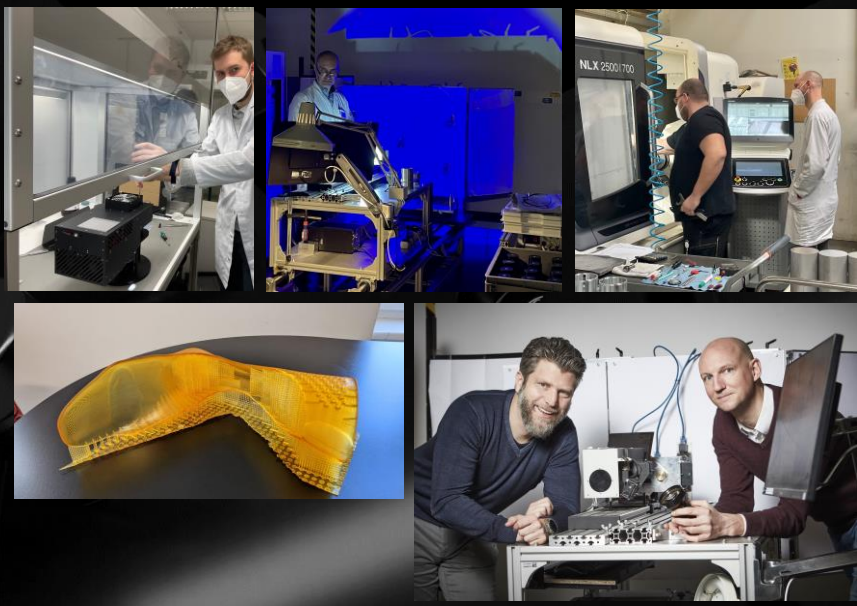
CORPORATE INTRODUCTION

IN-VISION CORPORATE PRESENTATION



THE COMPANY

**IN-VISION IS A DRIVING FORCE IN DEVELOPING
NEW APPLICATIONS WITH PRECISION LIGHT**



75 Employees

Turnover: 19 Mio € (2023e)

Private equity financed

Customers on 5 continents

Strong background in optics design

Founded in 2000

**Developing and manufacturing in
Guntramsdorf, Austria**



PRODUCT PORTFOLIO

OPTICAL PEAK PERFORMANCE FOR A WIDE RANGE OF APPLICATIONS



DLP® LIGHT ENGINES

ADDITIVE MANUFACTURING
BIOENGINEERING
RESEARCH
METROLOGY
LITHOGRAPHY



CINEMA LENSES

LARGE VENUE PROJECTORS



PROJECTION LENSES

HIGH-END SIMULATORS

OUR PRODUCTS

WHAT MAKES IN-VISIONS LIGHT ENGINES SPECIAL FOR OUR CUSTOMERS?



DLP® LIGHT ENGINES

- **Designed for 24/7 reliability**
- **100% Quality inspection**
- **Precision: Highest MTF & lowest distortion values**
- **High variability: Lenses from 2um to 165um**
- **Resolution from HD up to 4K**
- **High Power: up to 15W irradiance (image plane)**
- **Custom built solutions**



VALUE CHAIN

IN-VISION IS THE ONLY LIGHT ENGINE MANUFACTURER TO COVER THE FULL VALUE CHAIN ON PREMISE

1 Major Suppliers

In-Vision approved supplier
Aluminium preforms
Lens preforms
PCB & Chipsets




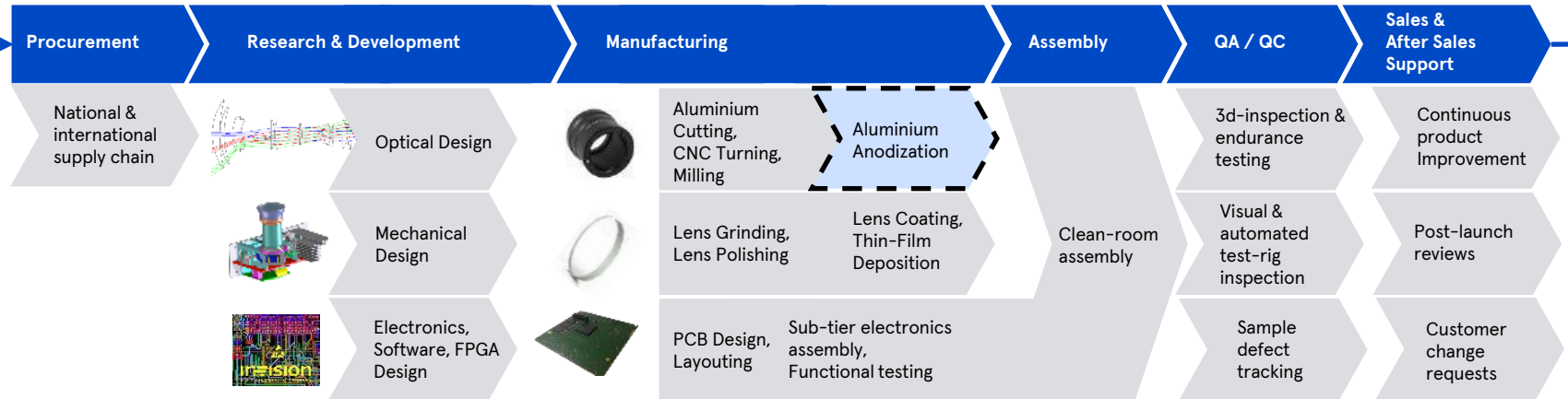
3 Major Customers

Projection Lenses
4k Cinema Lenses
Digital Projection Lenses

High-End Light Engines for
Additive Manufacturing
3D Metrology
Maskless Lithography



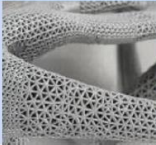
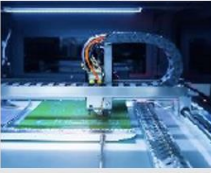
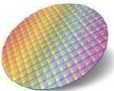



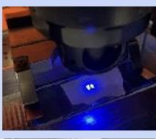


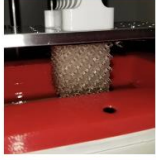
2 Value Chain

 Outsourced
Production step



APPLICATIONS

A BROAD RANGE OF PROVEN APPLICATIONS AND MULTIPLE NEW USE CASES IN DEVELOPMENT

Additive Manufacturing		<p>Liquid and photosensitive polymers are cured through high-resolution digital light exposure. The application of our technology allows for mass-market production instead of prototyping and modelling.</p>		<p>15.000.000</p> <p>Full personalised sport shoes have been printed on 3D printer with our light engines in 2021</p>		<p>Transforming digital light exposure technology to metal printing resulting in 20x faster metal prints</p>
Lithography		<p>Silicon wafer manufacturers invest 80-100mm USD in tooling for contrast masks. As IN-VISION exposes light to the precision of 2um pixel size, these masks become obsolete allowing for small batch and prototype production for the first time in history.</p>		<p>FIRST</p> <p>Working light engine prototype for serial maskless lithography in silicon wafer production worldwide</p>		<p>Light intensity is the driver for the speed of print – IN-VISION develops the most powerful illumination system available for 3D printing</p>
Metrology		<p>High-resolution images are projected onto any object. Three scanning heads scan the real picture. Transform it into a 3d model and compare it with the original mechanical design.</p>		<p>2</p> <p>out of the 3 Globally leading metrology companies use our technology for quality assurance</p>		<p>In-Vision has built a light engine to print two-material bio-compatible pads for active glucose management</p>
Bioengineering		<p>Addition of cells to biocompatible polymers that mimic the ECM environment to support living cells. 3D-bioprinter that leverages two advantages of DLP technology for the development of on-demand soft tissue regeneration: Speed and cell viability.</p>		<p>RESEARCH</p> <p>is one of our core disciplines . We are working with research labs and universities, start-up companies, biotechnology companies</p>		<p>In-Visions high variability of lenses from 2um to 162um expand techniques for developing soft tissues, such as cartilage, based on a silk substrate material.</p>

PRODUCT PORTOFOLIO

IN-VISION CORPORATE PRESENTATION



PRODUCT PORTFOLIO

OVERVIEW | ADDITIVE MANUFACTURING AND METROLOGY PRODUCT PLATFORMS



IKARUS II

The light weight – high performance optical module



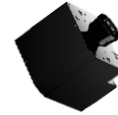
FIREBIRD

high intensity for industrial applications



PHOENIX

an industrial 4K UV Projector for 24/7 use



HELIOS

most powerful Light Engine for additive manufacturing



MERCURY

Designed for 3D metrology, scanning and mapping applications

Chipset	DLP6500	DLP9000	DLP670S	DLP9000	DLP6500
Micromirror array size	1920 x 1080	2560 x 1600	2560 x 1600	2560 x 1600	1440 x 1080
Display resolution			3840 x 2160 (XPR)		
Wavelengths	365 385 405nm	385 405 460nm	385 405nm	365 385 405nm Also available with dual and triple wavelength illumination	460nm
Cooling	Air	Water	Air	Water	Air
Image resolution	Full HD	2K	4K	2K	Full HD
Standard lenses (others on request)	50 84 100μ	2 75 84 162μ	native: 35 to 100μ 4K: 23 to 65.3μ	6 31 75 100 150 162μ	I. 540 x 405mm II. 241 x 180mm III. 715 x 536mm
Optical output power (image plane)	up to 4W	up to 5W	up to 6.5W	up to 12W	up to 200mW
Contrast ratio	up to 1:300	up to 1:400	up to 1:175	up to 1:300	up to 1:300
Uniformity (lens-dependent)	up to 95% acc. to IEC61947	up to 95% acc. to IEC61947	up to 95% acc. to IEC61947	up to 95% acc. to IEC61947	up to 92% acc. to IEC61947



IR=ISION[®]

Future built on light.