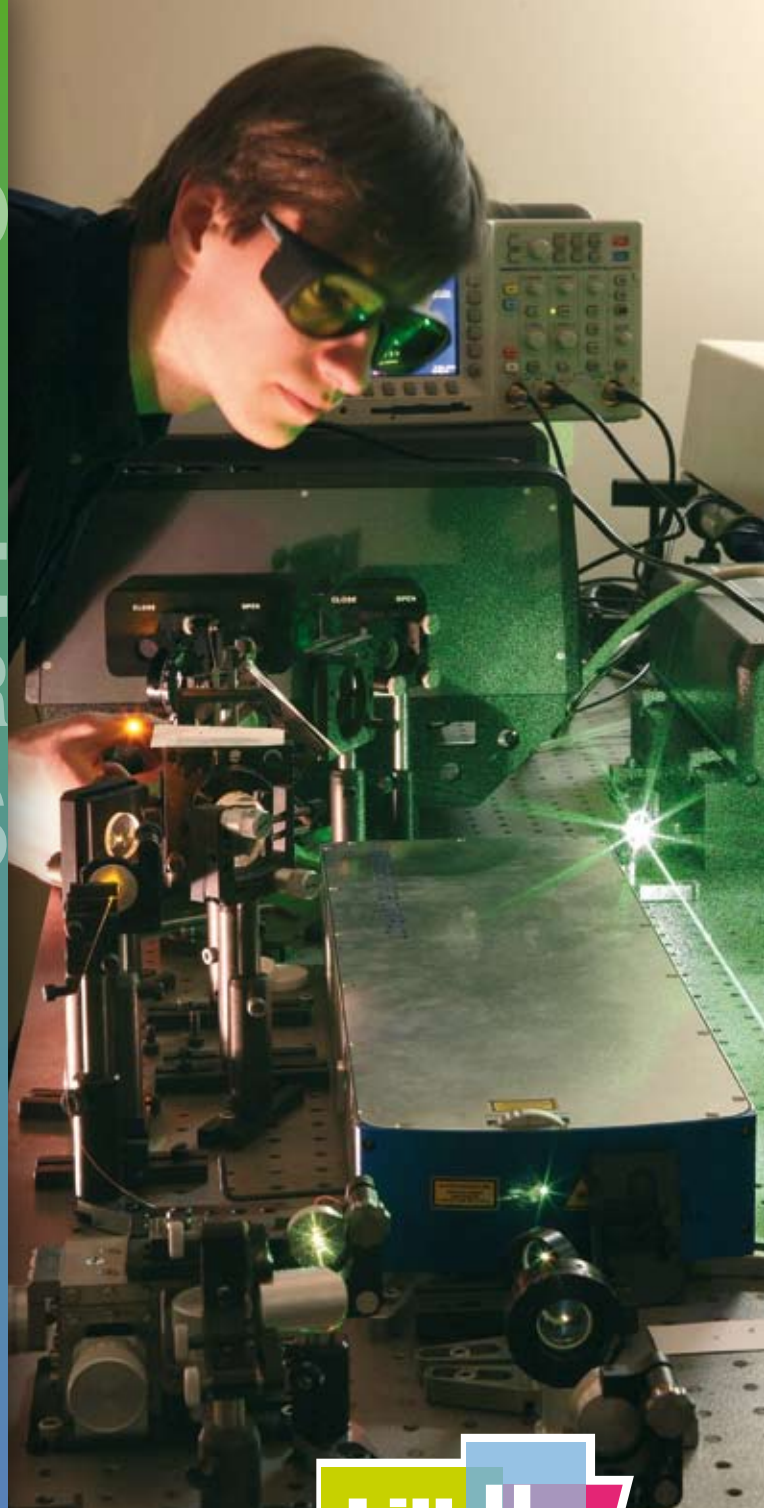


one **STEP**  
FOR YOU ....

... one **giant**  
leap for YOUR  
**SUCCESS**



THE LASER  
INDUSTRY IN  
LITHUANIA

# Market Opportunities

Lithuania's laser industry presents attractive business expansion opportunities to foreign investors:

- Long-terms (since 1966) laser development and manufacture traditions
- Leading Lithuanian laser equipment competitiveness in international markets
- Global leadership in transferring fundamental research into manufacture: 11 science and laser technology research centres carry out fundamental research
- About 85 % of production exported to all continents
- Annual sector growth of ~20 % and largest share in value added created on the national market
- One of Europe's best-educated, most-multilingual and highest-quality talent pools

**Products manufactured by Lithuanian companies hold nearly 10 % of the global market of lasers used for scientific research. Lasers for industrial applications - material processing and machining – are also of great potential for expansion.**

## Industry Overview

Laser industry and science are among the strongest areas of Lithuania's knowledge economy. The success of Lithuanian laser technologies is driven by:

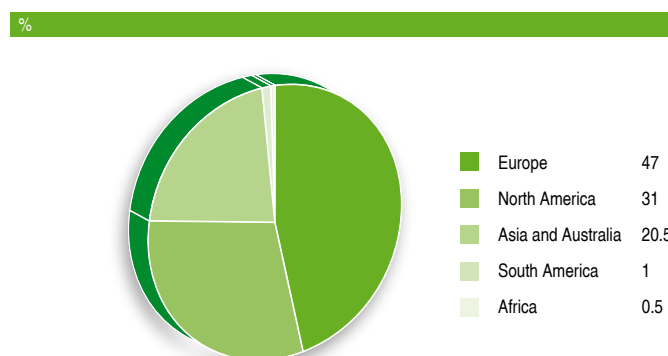
- fundamental and applied research in the field of laser physics and technology conducted in Lithuania already for more than forty years;
- strong science and manufacture collaboration infrastructure;
- professional training and availability of high-quality specialists.

The Lithuanian laser industry, firmly positioned on the global market, holds more than half of the world market for high-energy pico-second lasers as well as ultra-fast parametric light generators.

The Lithuanian laser sector players export about 85 % of their products to 100 countries around the world. The majority – three quarters of total production – is sold in Europe and North America. However, the rapidly growing Asian market is another target for the Lithuanian laser manufacturers.

The Lithuanian laser industry is growing more rapidly than the global market: during 2003–2008, its sales increased by 140 %, whereas the worldwide laser technology sector went up by 45 %. Local sales haven't been standing still either: in 2003, 8 % of total production was sold on the local market, while in 2008 this index amounted to twice as much.

## Distribution of Laser Exports by Continents



Currently, 16 laser technology companies, employing over 450 highly qualified specialists, operate in Lithuania. The number of employees increased more than twofold over the last five years. Every tenth Lithuanian laser industry professional holds a PhD.







## Focus on R&D

Annually, Lithuanian laser manufacturers allocate up to 20 % of their income to R&D. In addition, they successfully tap into EU support for innovative projects.

Scientists from 11 research and educational institutions, as well as from several largest industrial laser enterprises, are engaged in the field of laser science and technology. Scientific research covers a wide range of areas: from laser physics and optical technologies to laser biomedicine. Achievements of Lithuanian laser scientists have been recognized by significant international awards.

By conducting world-class laser research for more than 40 years already, Lithuanian science centres have gained extensive expertise and prepared a pool of highest-qualification specialists.

**Laser technologies in Lithuania boast outstanding expertise accumulated by national academic centres and laser companies over more than four decades.**

## Science Centres



### Laser Research Centre of Vilnius University

Scientific research in the field of laser physics and nonlinear optics started in *Vilnius University* in the 1960s, and continues in seven laboratories of the Laser Research Centre. In 2002, the Centre was awarded by the European Commission the status of the Centre of Excellence. Visit [www.lasercenter.vu.lt](http://www.lasercenter.vu.lt)



### Institute of Physics

The scientific research in the *Applied Research Laboratory* aims at direct practical applications, and is done mostly for business enterprises' needs. There are also two laboratories conducting fundamental research. Visit [www.fi.lt](http://www.fi.lt)



# Why choose Lithuania

- **500 million consumers in one stop:** Lithuania is a springboard to the single European market, counting over 500 million consumers as well as to Eastern markets.
- **Stable political and economic environment:** ensured by EU, NATO and WTO membership
- **Europe's prime transport centre:** two Trans-European transport corridors crossing the country
- **Innovation-driven knowledge economy:** global laser, biotech and IT leadership
- **Top-quality talent pool:** one of the best educated human resources in the world
- **Competitive business operation costs:** productivity-driving profit tax incentives for R&D, tax "holidays" in free economic zones; competitive wages and rent rates

## 500 mn

consumers in one stop

By establishing your business in Lithuania, you instantly get access to the single European market, counting 500 million consumers

## Market Leaders

### ALTECHNA Co. Ltd.

*Altechna* exports a wide range of laser systems & laser-related components for scientific and industrial applications to over 40 countries worldwide. *Altechna* is one of the few companies in the entire world which develops technologies and workstations for femtosecond laser solar cells processing, as well as sapphire and fiber microfabrication. Visit [www.altechna.com](http://www.altechna.com)

### EKSPLA

*Ekspla* is the largest laser company in Lithuania, and a global leader. *Ekspla's* share of the worldwide market for scientific high-power pico-second lasers exceeds 50 %. It is the only company in the world manufacturing sum frequency generation spectrometers for material surfaces investigation. *Ekspla* exports more than 90 % of its products to approximately 40 countries worldwide. Visit [www.ekspla.com](http://www.ekspla.com)

### LIGHT CONVERSION

*Light Conversion* is the world leader for tunable femtosecond/pico-second optical parametric amplifiers with *TOPAS* series products which cover around 80 % of the global market. Recently introduced new products form a "best-in-class" set of devices for femtoseconds applications in industry, medicine, and fundamental research. *Light Conversion* exports 95 % of its products to over 70 countries worldwide. Visit [www.lightcon.com](http://www.lightcon.com)

### OPTIDA

COATINGS FOR OPTICS

*Optida* is the largest optical coatings manufacturer and provider of services in the field of optical technology in Lithuania. Optical coating technologies developed by the company enabled the manufacture of optical components that comply with global standards. Visit [www.optida.lt](http://www.optida.lt)

### EKSMA OPTICS

*Optolita* is a manufacturer and vendor of optical components, crystals and precise mechanical components. The company exports nearly 60 % of its products to 46 countries under the *EKSMA Optics* trademark. Visit [www.eksmaoptics.lt](http://www.eksmaoptics.lt)

### STANDA

*Standa* is one of the most famous European companies designing and manufacturing precision mechanics, automation solutions and motion controls in the field of photonics. The company develops and manufactures DPSS sub-nanosecond micro lasers. *Standa* exports 95 % of its products to over 60 countries worldwide. Visit [www.standa.lt](http://www.standa.lt)

## Facts and Figures



### LAND AREA

65,300 km<sup>2</sup>

### POPULATION

3.4 million

### MAIN CITIES

Vilnius (capital): 556,000

Kaunas: 358,000

Klaipėda: 186,000

Siauliai: 128,000

Panevėžys: 115,000

### CLIMATE

Moderate Continental, with average temperatures ranging from -5C in January to 23 C in July

### LANGUAGES

Lithuanian – 82 % of the population, Russian – 8 %, and Polish – 7 %

### MEASUREMENT SYSTEM

Metric

### TIME

Lithuania is in the Central European Time zone: GMT+2 hours

### CURRENCY

the national currency is the Litas (LTL or LT), comprised of 100 centas. Litas is pegged to the Euro at the rate of 3.4528 LTL/EUR.

### FISCAL YEAR

Calendar year

### NATIONAL HOLIDAYS

- January 1<sup>st</sup> (New Year's Day),
- February 16<sup>th</sup> (Independence Day),
- March 11<sup>th</sup> (Restoration of Independence),
- Easter (Sunday and the following Monday),
- May 1<sup>st</sup> (Labour Day),
- 1<sup>st</sup> Sunday in May (Mother's Day),
- June 24<sup>th</sup> (Midsummer Festival),
- July 6<sup>th</sup> (Coronation of Mindaugas, King of Lithuania),
- August 15<sup>th</sup> (Assumption Day),
- November 1<sup>st</sup> (All Saints' Day),
- December 25-26<sup>th</sup> (Christmas).



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