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The knowledge economy is a key priority for Lithuania's long-term economic development, and the main driver of it is the close interaction between industry, science and research. This encourages the creation and development of high-tech enterprises that create high value-added for the economy, at the same time providing many well-paid jobs.

The laser industry, laser science and the study of lasers, along with the biotechnology sector, the information technology sector, and the mechatronics sector, have been noticeable for their many wide-ranging achievements.

It is not easy to describe exactly what the laser sector in Lithuania produces. It encompasses different kinds of lasers, optical, electronic and mechanical laser components, circuits, the parts for them, and various combinations of these. The same product can even have different names when it is used by different clients: to some it can be a multicolour laser, to others a parametric generator, while to others an optical device.

For almost five decades, research has been carried out in Lithuania into fundamental laser physics

and laser applications (lasers celebrated their 50th anniversary in the world in 2010). Highly qualified specialists have been trained in Lithuania for 40 years; and 30 years ago the world noticed the Lithuanian laser industry. The consistent and creative work has ensured that lasers made in Lithuania and their components are exported to all economically developed countries in the world, scientific works by Lithuanian researchers are quoted widely, and they are invited to speak at prestigious conferences all around the world.

The achievements of the last five years alone are truly impressive. The volume of sales in the laser industry has doubled, from 98 million Litās in 2008 to more than 200 million Litās in 2012. A large part (almost 90%) of the production is exported. One decade ago, there were ten enterprises working in the sector. By 2012, there were already 22. Of these, six were set up in 2011 or 2012. After taking over 10% of the world market of lasers intended for scientific research, we then stepped into the market for industrial lasers, in which a quarter of our production is now sold. The products of the Lithuanian laser industry have even gone into space.

Paradoxically, the proportion of lasers that are exported is witnessing a decline in the share of country's overall laser production, even though the figure for the export volume is growing every year. The explanation is quite simple: 20 years ago, there were no clients in Lithuania who were in a position to buy locally made lasers, and the entire production was exported. Now lasers are bought by industrial enterprises and research institutions in Lithuania; some years they buy more, and some years they buy fewer.

The share of laser production in the Lithuanian economy is not large; however, the relative parameter – the product's value added – is almost three times greater than the industrial average.

The success of the sector has been noticed not only by specialists in this narrow field. In 2007, laser people were awarded the Lithuanian National Progress Prize for laser science and for the industry's success at breaking into world markets. In 2011, the Lithuanian-made NT200 laser was recognised as the world's most advanced product in the scientific lasers category at the Prism Awards for Photonics Innovation held in

San Francisco. In 2012, laser scientists won the Baltic Assembly Prize for research into lasers and the field of non-linear optics. Since the inception of the Lithuanian Science Prize in 1993, researchers in the field have been awarded the prize every two or three years.

Important projects in laser science and business are taking place as part of the integrated research, study and business programme at Saulėtekis Research Centre: the National Centre for Physical and Technological Sciences, the Naglis National and Transnational Multifunctional High Power Laser Facility, devoted to the research on ultrahigh power laser radiation interaction with matter (both yet to be completed), and the Technology Transfer Centre. The prospects for co-operation between scientists and industry in the field of lasers are opening up many new areas and possibilities.

