Nanotechnology and Advanced Materials in the Czech Republic
Investment Success Stories

Toray Textiles Central Europe a.s.

“We have been operating in the Czech Republic since 1997. For the expansion of local production with this new technology, we based our decision on, among other things, the good work ethic and professionalism of the local workers. Favourable conditions, including the helpful approach of Czech authorities, also played a role in the decision.”

Akihiro Nikkaku
President of Toray Industries

Thermo Fisher Scientific

“FEI Company chose the Czech Republic primarily due to the country’s stable business environment and competent yet affordable workforce. FEI based its business in Brno due to the fact that it is a dynamic and modern city of science and research with a strong industrial tradition and a very accessible location, while also being a significant university centre.”

Jiří Očadlík
General Manager, FEI Czech Republic s.r.o.

Fibertex Nonwovens, a.s.

“Apart from identifying the right acquisition target, the company Vigona, to expand our portfolio of activities into new segments, we chose the Czech Republic for several reasons. The most important were the country’s highly skilled workforce, good location in terms of logistics and stable political system.”

Bjarne Knudsen
CEO, Fibertex Nonwovens, a.s.
The first electron microscope was introduced into production by Professor Armin Delong. Brno, the second largest city of the Czech Republic, became a centre of electron microscopy today.

Thanks to operations of Thermo Fisher Scientific, TESCAN, and Delong Instruments, the Czech Republic produces more than 30% of electron microscopes worldwide.

Patented technology for industrial-scale nanofiber equipment developed at Technical University of Liberec and commercialized by

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**Optics & Microscopy**

1949

The first electron microscope was introduced into production by Professor Armin Delong. Brno, the second largest city of the Czech Republic, became a centre of electron microscopy today.

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**Nanofibers**

2003

Patented technology for industrial-scale nanofiber equipment developed at Technical University of Liberec and commercialized by
**Elmarco** – a major breakthrough to create a whole nanofiber supply chain and discover new opportunities for the most demanding applications.

New technologies based on nanoscale to treat water (**Nano Iron**) and air (**Advanced Materials – JTJ**) or to improve energy savings find their way to the market. Newly introduced type of batteries (**HE3DA**) is about to cause a revolution in the energy storage and automotive industry.
Research & Development

CEITEC
Multidisciplinary centre facilitating synergetic studies on all available levels of complexity in life sciences and advanced materials and nanotechnology with scientists conducting research in 52 groups and seven programmes. New CEITEC Nano laboratories offer state-of-the-art infrastructure for all commercial and academic partners.

Regional Centre of Advanced Technologies and Materials
Scientific and research centre connected to Palacký University in Olomouc with main objective to produce superlative research and to transfer high-tech products and advanced technologies into medical, industrial and environmental practice. Involved in prestigious international cooperation as Pierre Auger Observatory and CERN-ATLAS.

Institute for Nanomaterials, Advanced Technologies and Innovation
Institute of Technical University of Liberec to support competitive engineering, well-known due to their international patent for the industrial production of nanofibers. Industrial research activities in machinery and vehicles, mechatronics, robotics, management and utilisation of artificial intelligence, nanomaterial creation, and electrostatic spinning.

STAR
Science and technology cluster close to Prague helping to develop innovative businesses and start-up ecosystem. Gathered around the most modern facilities of BIOCEV (Centre of Excellence in biomedicine and biotechnology), ELI Beamlines (part of the Extreme Light Infrastructure project to create the latest laser equipment), and HiLASE (key European facility for laser development).

These bodies promote the sector and develop new technologies to internationalize the Czech nanotechnology.
# Nanotechnology & Advanced Materials at Czech Universities

## Czech Republic | Students: 8,930 | Graduates: 2,093

<table>
<thead>
<tr>
<th>University</th>
<th>Students</th>
<th>Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brno University of Technology</td>
<td>2,237</td>
<td>539</td>
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<tr>
<td>Czech Technical University in Prague</td>
<td>1,908</td>
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<td>University of Chemistry and Technology, Prague</td>
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<td>University of Pardubice</td>
<td>607</td>
<td>122</td>
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<td>Charles University in Prague</td>
<td>643</td>
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<tr>
<td>VSB – Technical University in Ostrava</td>
<td>623</td>
<td>166</td>
</tr>
<tr>
<td>Technical University, Liberec</td>
<td>544</td>
<td>116</td>
</tr>
<tr>
<td>Palacký University, Olomouc</td>
<td>363</td>
<td>63</td>
</tr>
</tbody>
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Note: Academic year 2016/2017. The study programmes were selected by CzechInvest.

Source: Ministry of Education, Youth and Sport, 2017
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Canada | Toronto
To be opened

Ukraine | Kiev
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