



PRESS RELEASE

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From Bern to Biel: the draw tower for optical glass fibres has moved

Together with the University of Bern and the Switzerland Innovation Park Biel/Bienne, the Institute for Applied Laser, Photonics and Surface Technologies ALPS of Bern University of Applied Sciences BFH operates a draw tower for development and production of (special) optical fibers. It is now located in Biel.

After 20 years housed in the stairwell of the building for Exact Sciences at University of Bern, the fibre drawing tower has now been relocated to Biel. In Bern the drawing tower was operated by the Institute of Applied Physics IAP of University of Bern and the Institute for Applied Laser, Photonics and Surface Technologies ALPS of Bern University of Applied Sciences BFH for research and development projects. The relocation to Biel has now given the opportunity for the infrastructure to be upgraded and expanded. As a new partner the Switzerland Innovation Park Biel/Bienne SIPBB has also been acquired. The fibre drawing tower is operated using a shared-cost/shared-benefit model and enables the partners to manufacture products ready for batch production, starting from a theoretical basis.

Special-purpose optical fibres – important in industry

Its ability to transport vast amounts of information at the speed of light means optical fibres plays a vitally important role in the telecommunications market. However, the three research partners are looking for modern applications for special-purpose optical fibres, not just focusing on low-transmission-loss properties, but also on functions which optical fibres can perform thanks to their special structure or added materials (doping), such as aluminum or ytterbium. For example, fibres of a few meters in length can be used to generate or guide laser beams. Mechanical engineering, medicine, sensor technology and many other areas of application benefit from fibre technology.

From preform to finished fibre-optic product

The drawing tower in Biel will be used for research and development but also lecturing purposes. Various research projects are already under way and master's degree programs on photonics are also planned. Together the three research partners possess the specialist knowledge and all the facilities required to cover the entire production process chain. This includes the manufacture of preforms, the drawing of optical fibres, testing and modifications, through to integration into special systems, allowing a project to be taken from design stage to finished fibre product within a few days.

Further information:

[Institute for Applied Laser, Photonics and Surface Technologies ALPS, BFH](#)

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