



## Advanced Document Verification

### Optaglio launches holographic portrait solution

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E-beam lithography firm Optaglio has developed a technology for issuing personalised ID cards with a holographic portrait of a holder.

The firm's solution involves the creation of a basic hologram, which cannot be imitated, with a blank section. This blank section can be filled with a 3D portrait using a special writer delivered by the company.

The company says the new technology overcomes a long-term issue connected to the holographic protection of ID cards and passports.

The documents need to be personalized with information about the particular holder, including his/her photo. However, holograms are products of mass production because the same master hologram is imprinted into thousands or millions of items. This contradiction is often solved through printing or lasering of personal information and its covering with a security hologram. The ID card holder is photographed from many angles and these photographs are integrated into a single 3D portrait.

"Research and innovation are our everyday business. In some aspects, personalized holograms can be seen as breakthrough innovation for the industry. For our laboratories, it is a part of our regular research processes through which we enable card producers to keep a sufficient advantage against potential counterfeiters," said Luboš Malák, divisional director for e-beam lithography in OPTAGLIO. "I expect it will take rather years than months until the market gets used to holographic portraits. However, I strongly believe it is the future of personal documents."

Technology for holographic portraits has been developed in OPTAGLIO Labs in Lochovice, Czech Republic. This research center was established in 2015, following continuous massive research activities since OPTAGLIO founding in 1994. The company originated from Czech Academy of Science and it is still strongly influenced by a research attitude and strong focus on innovation.

This science-based innovation focus has enabled OPTAGLIO to master e-beam lithography on an unrivalled level. The company has also brought several crucial innovations and patents including microholograms, OVIimage (technology for holographic identification of individual cards) and OVMesh (seamless integration of holograms into polycarbonate).