# Unlocking the Czech Laser Potential

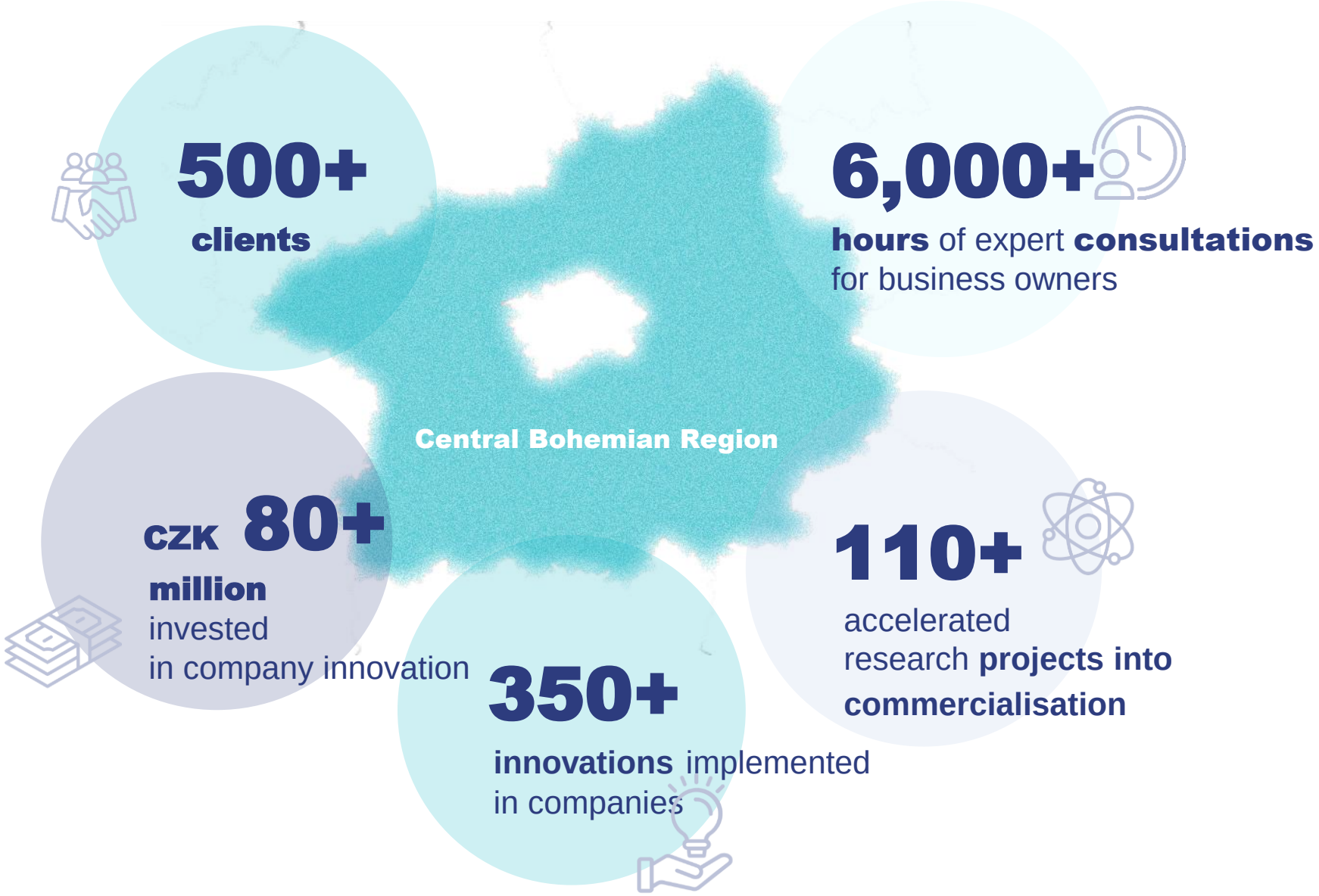


**Michal Helekal**
**Ecosystem for Innovative Companies Leader**
**LASER-PRO Conference, 01/10/2026**

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# Central Bohemian Innovation Center

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# Do laser technologies have strategic potential for Czechia?

**YES!**

# The Czech laser base is broader than the visible core

The mapping identifies actors that use, develop or are directly linked to laser technologies.

**530**
laser-related actors identified

**427**
in manufacturing

**14**
research & university actors

**81%**
industrial base

**282+**
locations across Czechia

**12**
technology & application areas

We should look at lasers mainly as an **enabling technology**.

# Lasers can upgrade industries Czechia already has

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 | Manufacturing & engineering | Automotive | Machinery & industrial equipment | Aerospace | Metals & heavy industry | Energy & Power |
| 2 | Optics & instrumentation | Microscopy & imaging | Scientific instrumentation | Metrology & inspection | Optical systems & components | Diagnostics |
| 3 | Advanced applications | Glass & advanced materials | Defence & space | Sensing | Semiconductors | MedTech & biomedicine |

CURRENT CZECH READINESS

Well established

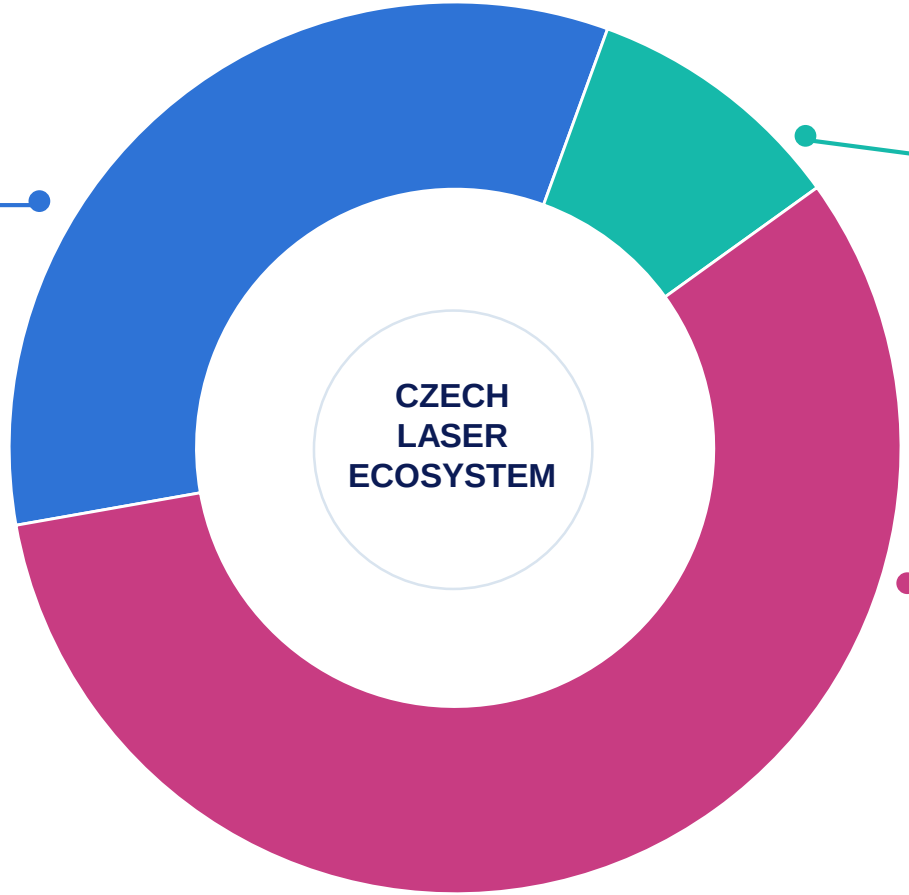
Strong position

Developing

# Czech Laser Ecosystem

**14 Research & university actors**

Research institutes, universities and academic groups active in laser technologies.




**6 Startups**

Young innovative companies captured in the current Czech laser ecosystem mapping.

**24 Established businesses**

Companies active in the development, manufacturing or application of laser technologies.

# Czechia has built a global deep-tech niche before

Brno electron microscopy shows that a narrow physics-engineering specialisation can become a global export strength.

**5000+**
**employees in companies**
high-skilled deep-tech jobs

**37.5+bn CZK**
**combined turnover**
measurable economic impact

**~1/3**
**of global electron microscope production**
global niche from Czech know-how

**The lesson is not to copy microscopy.**
**The lesson is that Czechia can turn specialised science and engineering into global industrial value.**

# What should happen next?

**1** **Define ownership**

Agree who will take long-term responsibility for developing the Czech laser ecosystem and coordinating the key stakeholders.

**2** **Choose strategic priorities**

Jointly identify a limited number of areas where Czechia has the strongest combination of research excellence, industrial capability and market opportunity.

**3** **Build a long-term strategy**

Translate these priorities into a shared Czech laser roadmap with clear objectives, responsibilities and measurable actions.

**4** **Secure funding for implementation**

Identify and align national, regional and European funding to continue ecosystem development beyond LASER-PRO.

**“The Czech laser potential already exists.**
**The question for the next decade is whether we can connect it, focus it and turn it into impact.”**

**Unlocking the Czech Laser Potential**

# Thank you for your attention

**The Czech laser potential is already here.**

**Let’s unlock the potential together.**

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