### Super Hard Tool Making

- Diamond / CBN tools
  - Tungsten Carbide base
  - Inserts
  - Complete 3D machining

Machining tools in automotive, aeroengine, mining markets

LMJ used for:
- Cutting inserts and tools
- Complex multi-tip tools

### Tight Tolerance 3D Machining

Repeatable and high-speed process to machine super hard materials. Very tight tolerances.

Main processing criteria:
- Tight tolerance cutting angles
- Speed
- Surface finish

Machining technologies able to reach these criteria:
- Grinding
- Laser MicroJet (LMJ) - water jet guided laser technology

### Higher quality, enables new applications, better cost of ownership

LMJ advantages versus grinding:
- Speed
- Lower consumable costs
- Improved overall piece cycle time
- Repeatability

Installed machine type:
- 5-Axis LCS 305
- 100 W green laser

Source: Synova