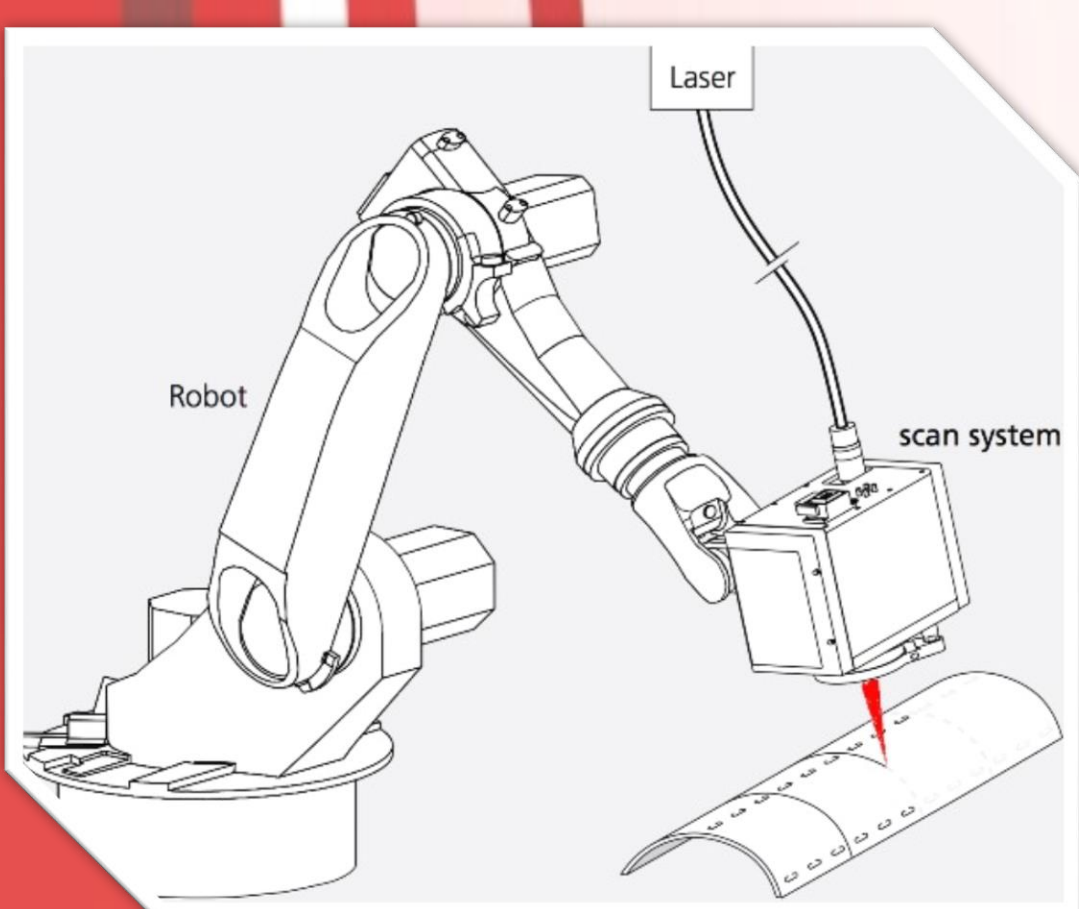


A new fiber-based delivery system for pulsed laser beams

NewDeli's objective is to develop a **new ultra-short pulse fiber delivery systems** that is likely to be the key enabling factor for a new generation of **additive and subtracting manufacturing machines**. NewDeli is a part of the **APPOLO project**, which aims to establish and coordinate connections between end-users, applications laboratories and equipment manufacturers.

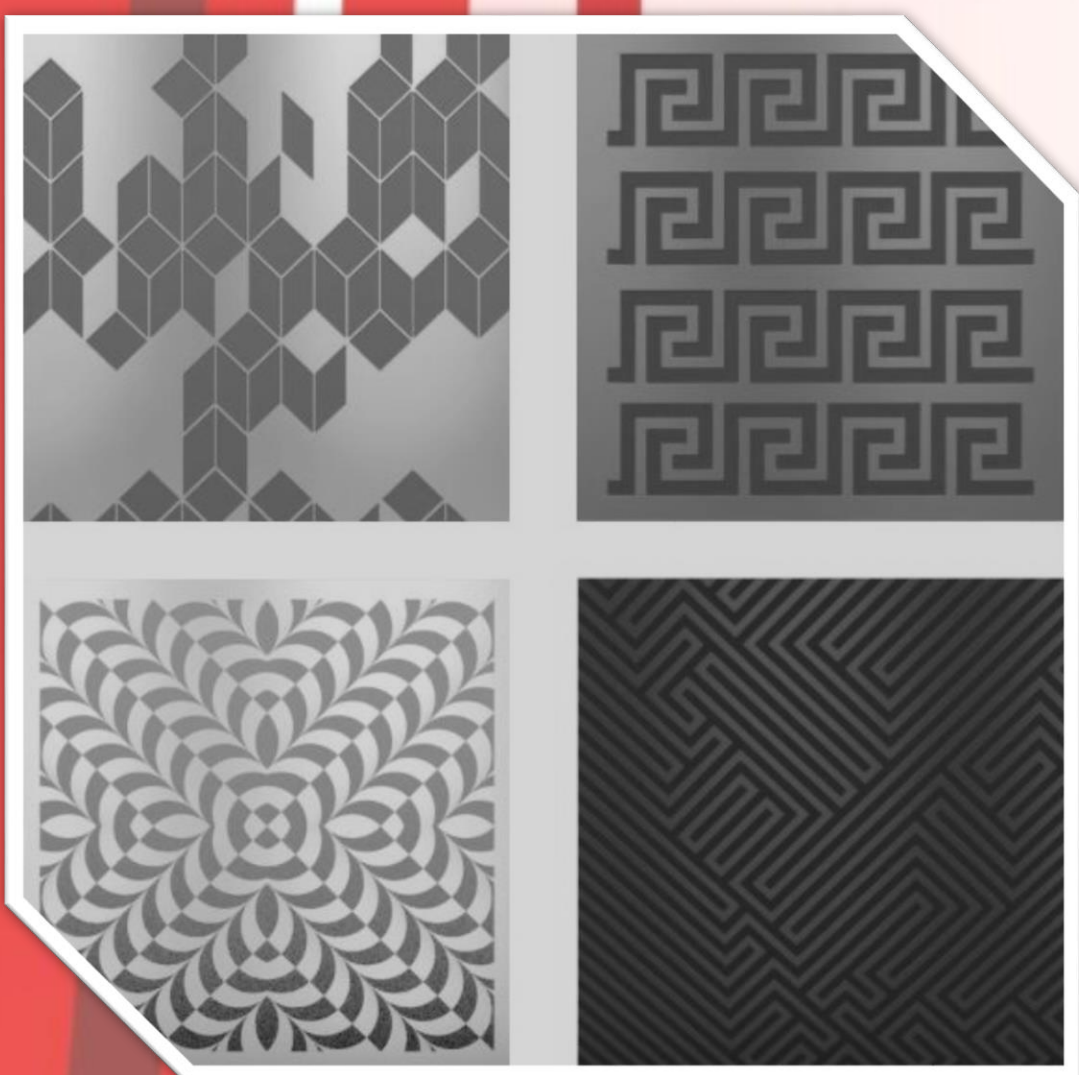
FEATURES



Possibility to be **coupled with an anthropomorphic robot arm**, giving an unprecedented flexibility to the manufacturing process.

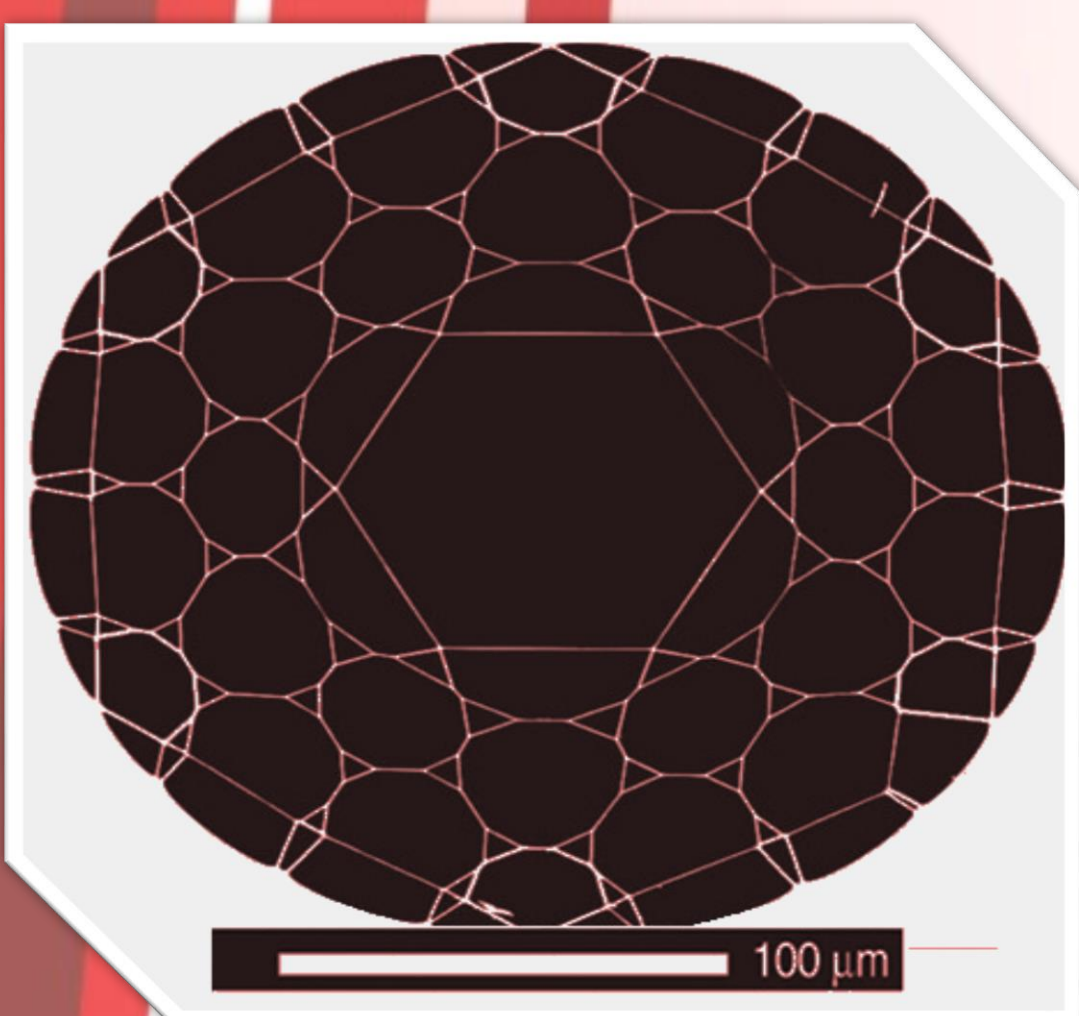


Max cable length [m]	6
Wavelength range [nm]	930-1100
Pulse duration [ps]	< 1
Pulse energy [mJ]	< 0,5
Max avg optical power [W]	< 50



Focus on **laser ablation of metals** for the **aerospace, automotive** and **med-tech** sectors:

- Laser polishing
- Laser drilling
- Laser texturing
- Laser milling



NewDeli exploits a new class of **Hollow Core Photonic Crystal Fibres (HC-PCF)**, known as "**Kagome fibers**", where the laser induced damage threshold can be dramatically increased allowing the fiber to deliver high peak power and high energy pulses in the ultrashort temporal regime.

CONSORTIUM



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Playground for new Ideas