PHOTONICS PUBLIC PRIVATE PARTNERSHIP

European Commission

Innovation hub with photonics competencies LASHARE

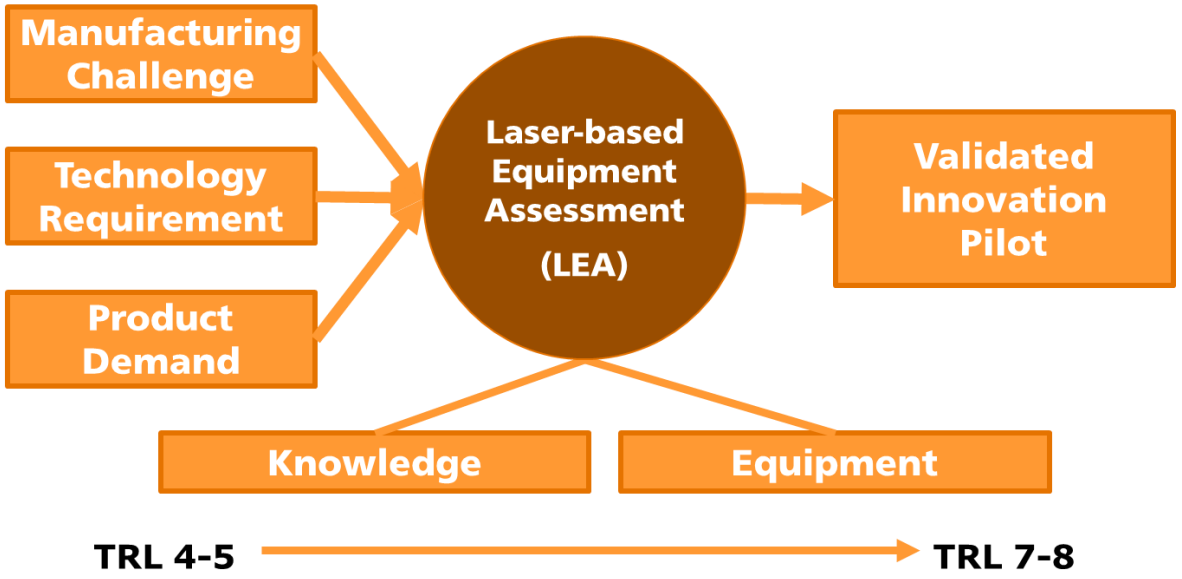
Outline

- *What is it and what is the main aim?*
- *How does it work?*
- *What is the impact / how successful is it (+ a practical example)?*
- *Why is it successful?*
- *What else would be needed/interesting to add?*

PHOTONICS PUBLIC PRIVATE PARTNERSHIP

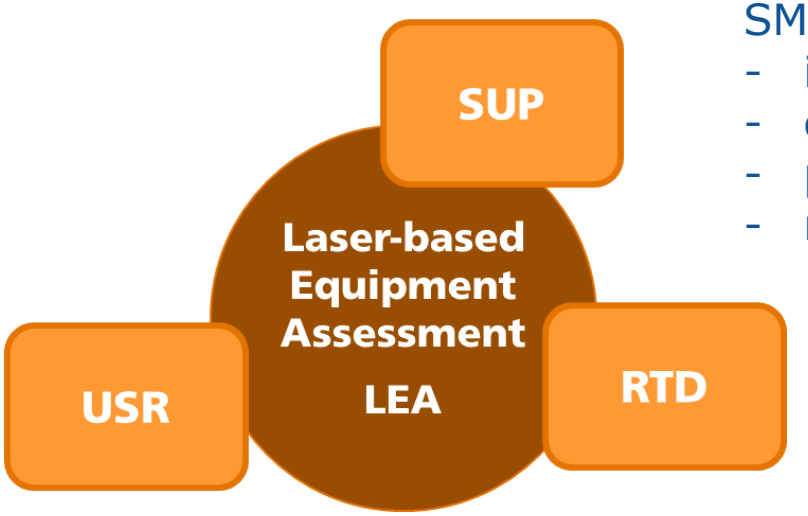
LASHARE Competence Center – What is it and what is its main aim today?

Assessment approach for strategic advance in TRL



PHOTONICS 21
PHOTONICS PUBLIC PRIVATE PARTNERSHIP

LASHARE – Partner Roles



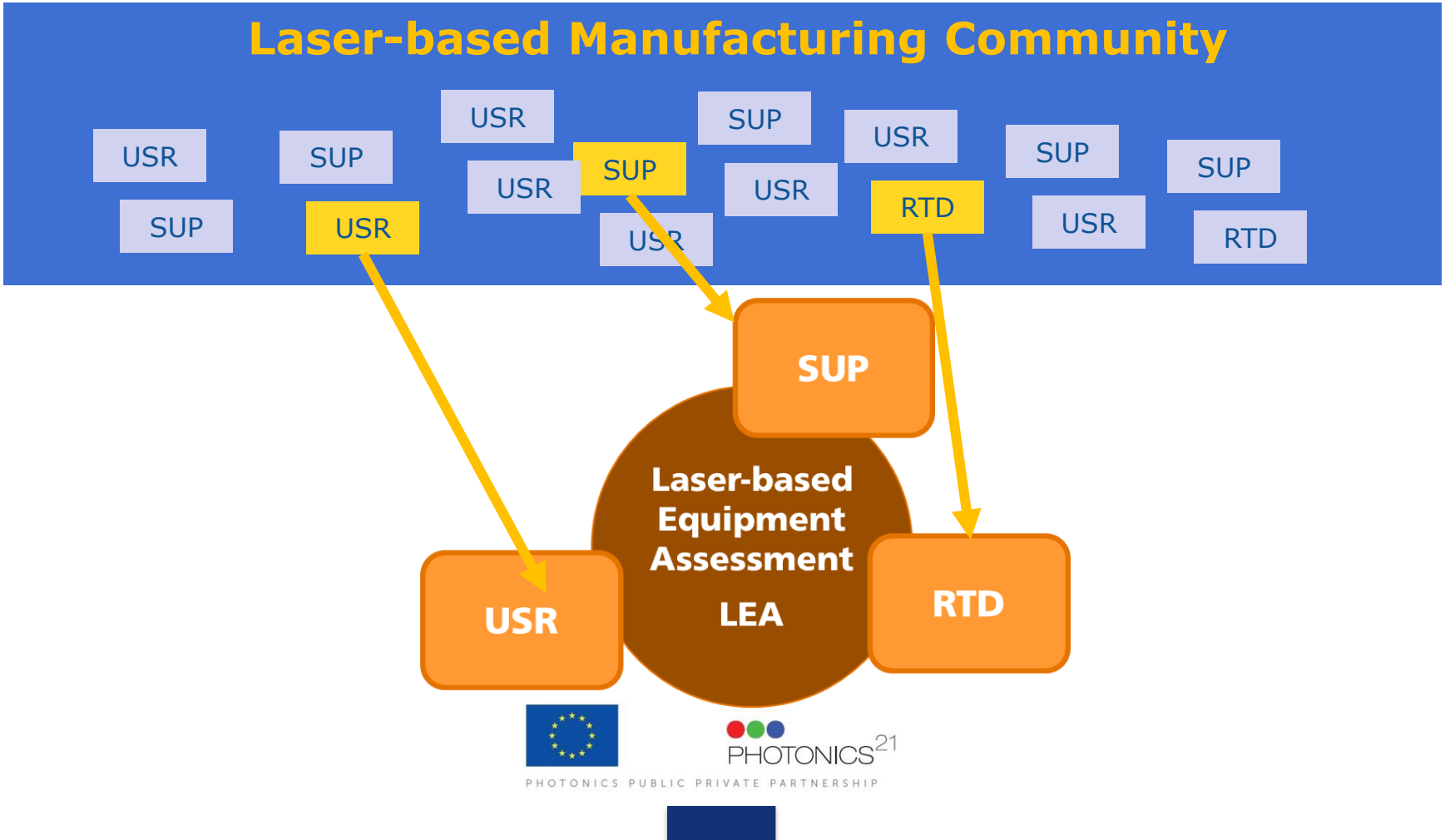
SME Supplier
- innovative product idea
- customer service request
- production process challenge
- novel business case

RTD Provider
- scientific knowledge
- demonstration equipment
- application test-bed
- analysis tools

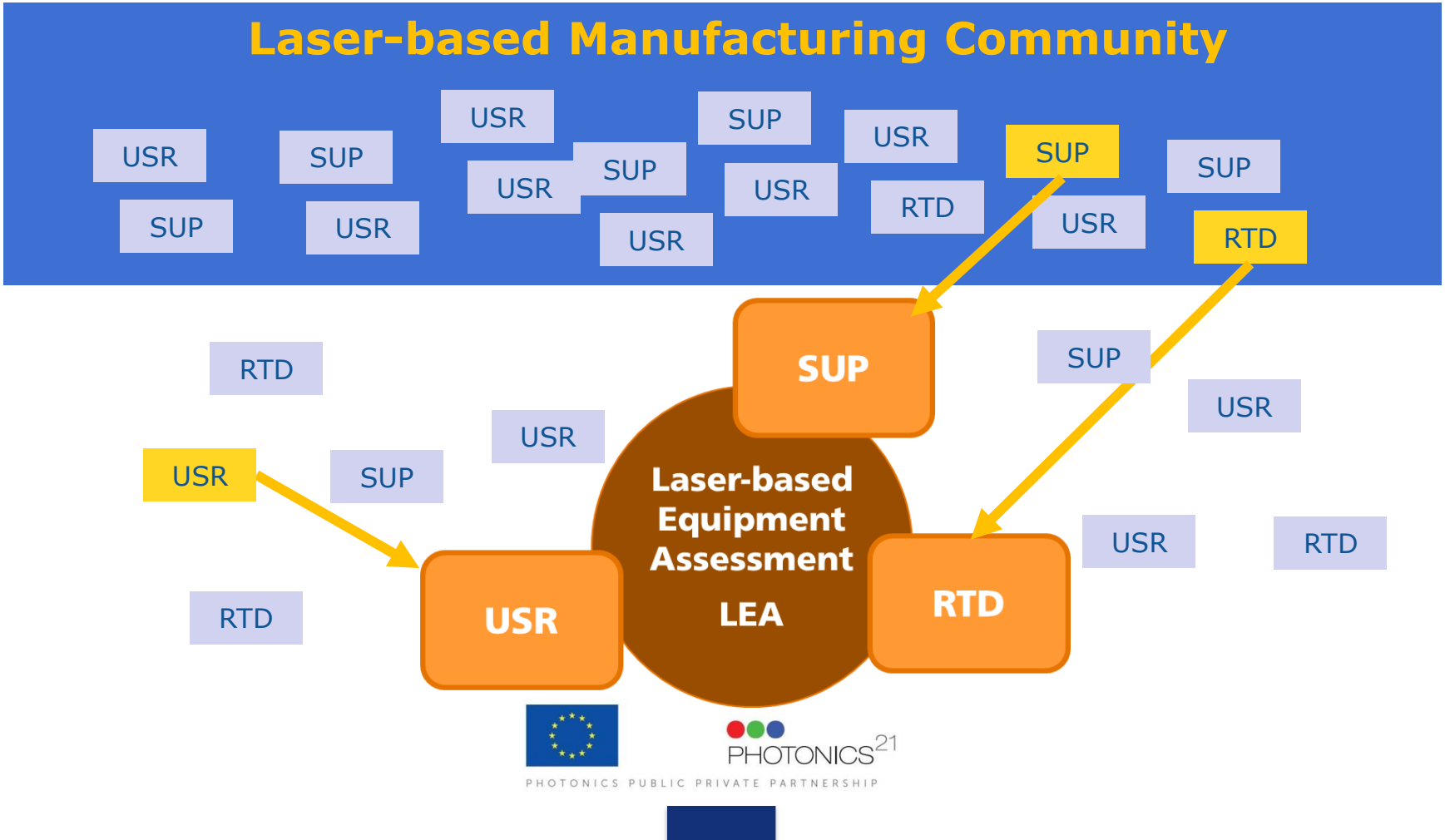
Industrial User
- manufacturing challenge
- market orientation
- quality requirements
- industrial evaluation

PHOTONICS 21
PHOTONICS PUBLIC PRIVATE PARTNERSHIP

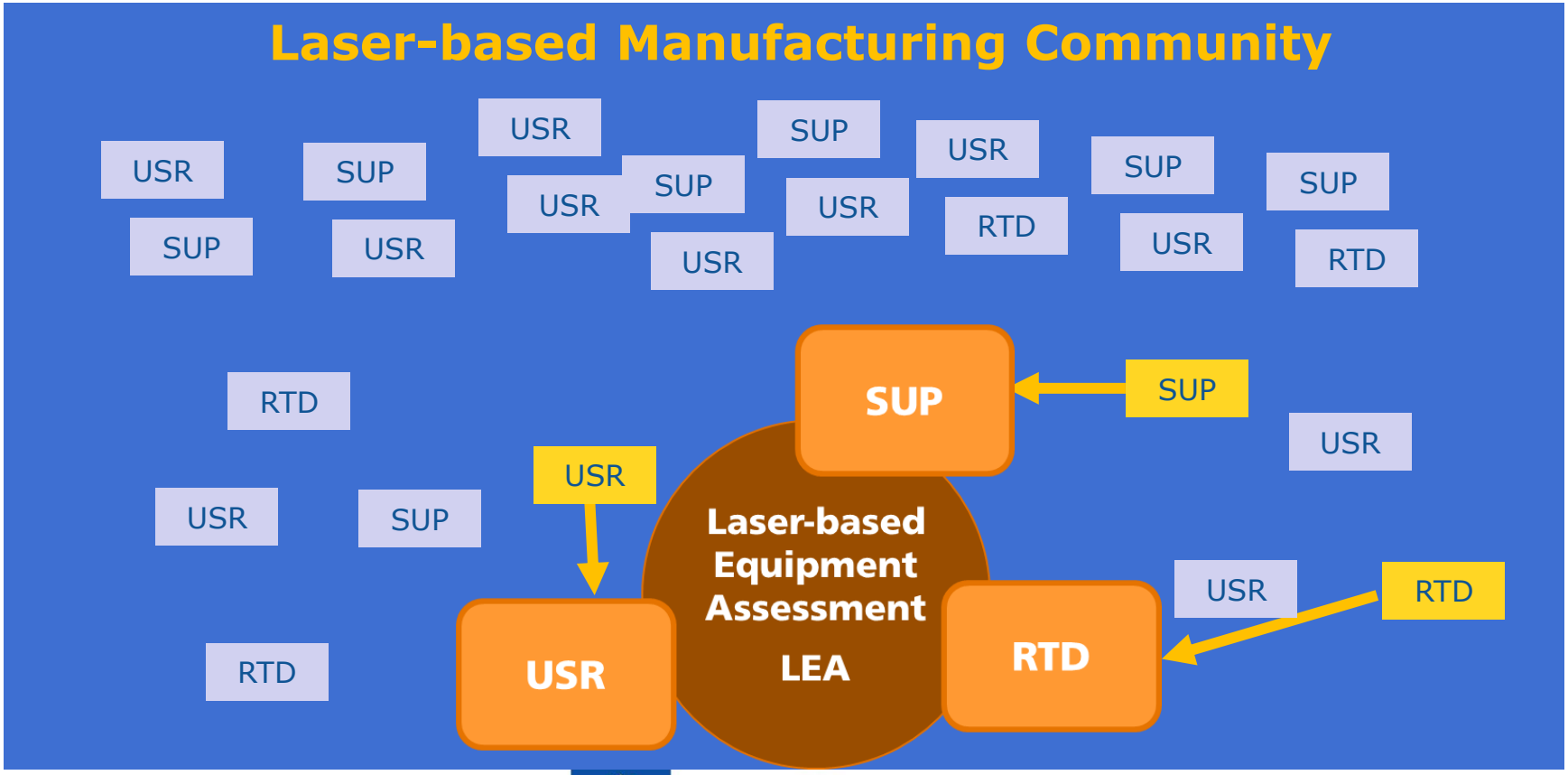
LASHARE – Initial Partnering



LASHARE – Current Partnering



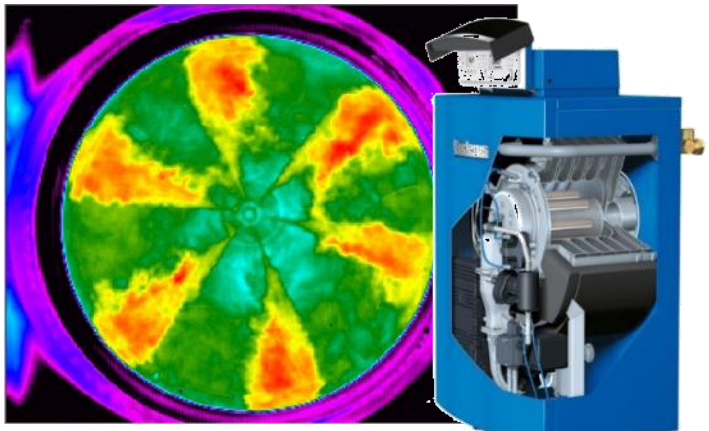
LASHARE – Future Partnering



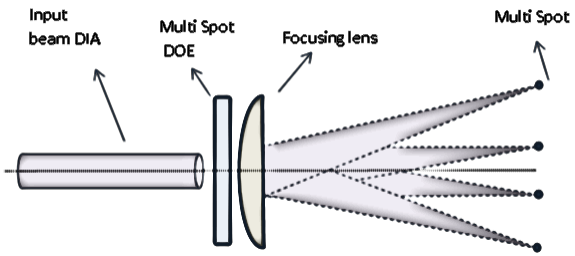
PHOTONICS PUBLIC PRIVATE PARTNERSHIP

LASHARE - PARROT

Parallel processing by splitting radiation of ultra fast lasers

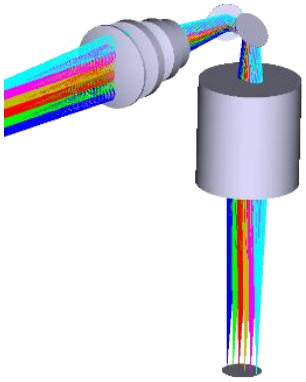


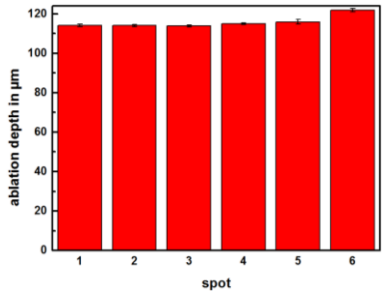
Swirl nozzle chamber



Principal sketch and simulation of beam splitting

Task	Increase of drilling speed for nozzle drilling
Partners	Bosch, HoloOr, Fraunhofer ILT
Solution	Multi beam drilling with DOE-beam splitting
Result	Increase of drilling speed by factor 6 with high accuracy in the micrometer range





Homogenenity of ablation

PHOTONICS 21

PHOTONICS PUBLIC PRIVATE PARTNERSHIP

LASHARE – Success Factors

- Laser-based equipment is targeted at a real world challenge through the user/supplier involvement
- Assessment teams SUP/USR/RTD are small, flexible and very active, fast decisions
- Confidentiality at assessment level ensures open communication about requirements and problems
- Shared resources at LASHARE Competence Center level (LCC) ensure wide knowledge support and flexible backup
- Communication of results at LASHARE level enables huge visibility for individual assessments

small team

real world challenge

confidentiality

shared knowledge

shared resources

huge visibility

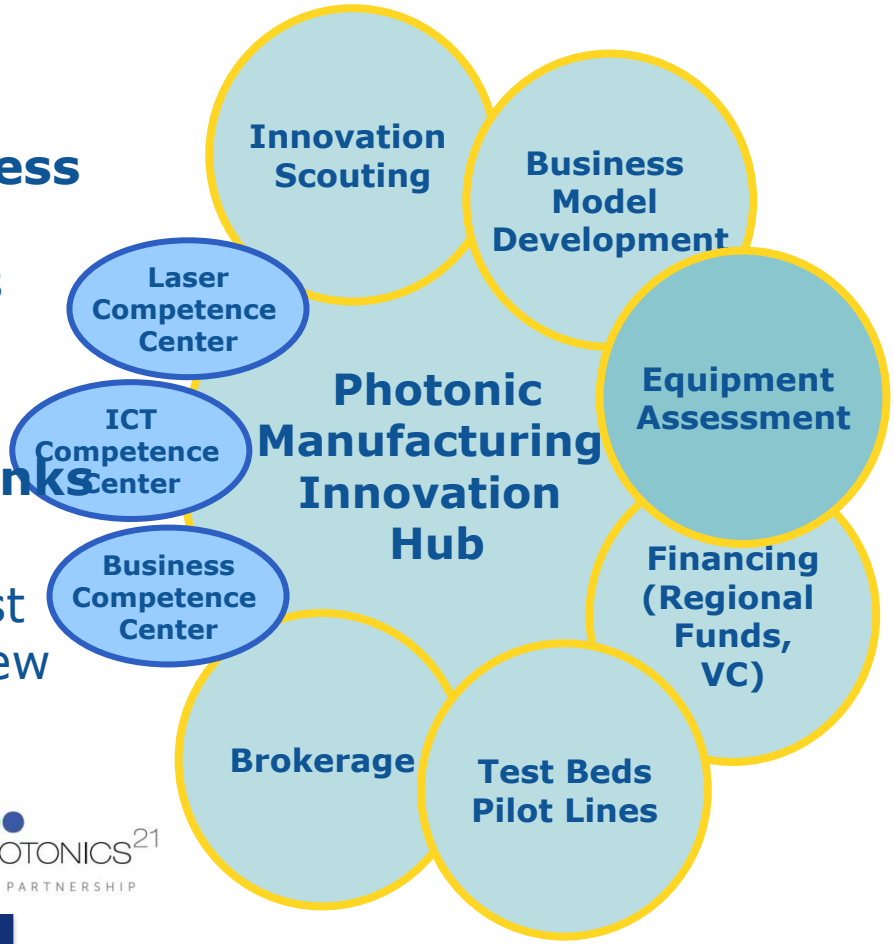
PHOTONICS 21

PHOTONICS PUBLIC PRIVATE PARTNERSHIP

Photonic Manufacturing Innovation HUB – Future Services

Services to be added

- Exploitation support w/r **business model development** and diversification to other markets
- **Innovation scouting** to pick up and support ideas early
- **Open Innovation** & **Think Tanks**
- Employment of developed equipment in **pilot line** like test beds for exploration through new external users



PHOTONICS PUBLIC PRIVATE PARTNERSHIP