

„Wroclaw Centre of Excellence” WCE

Horizon 2020

Proposal for:

H2020 Widespread 2014-1

Teaming



Politechnika Wroclawska

Wroclaw Centre of Excellence

Consortium

1. Wroclaw University of Technology (WrUT)
2. National Centre for Research and Development (Polish NCBR)
3. Fraunhofer Institute for Material and Beam Technology (FhG IWS)
4. University of Würzburg (UWUE)



Politechnika
Wroclawska



Narodowe Centrum
Badań i Rozwoju



Politechnika Wroclawska

Wroclaw Centre of Excellence

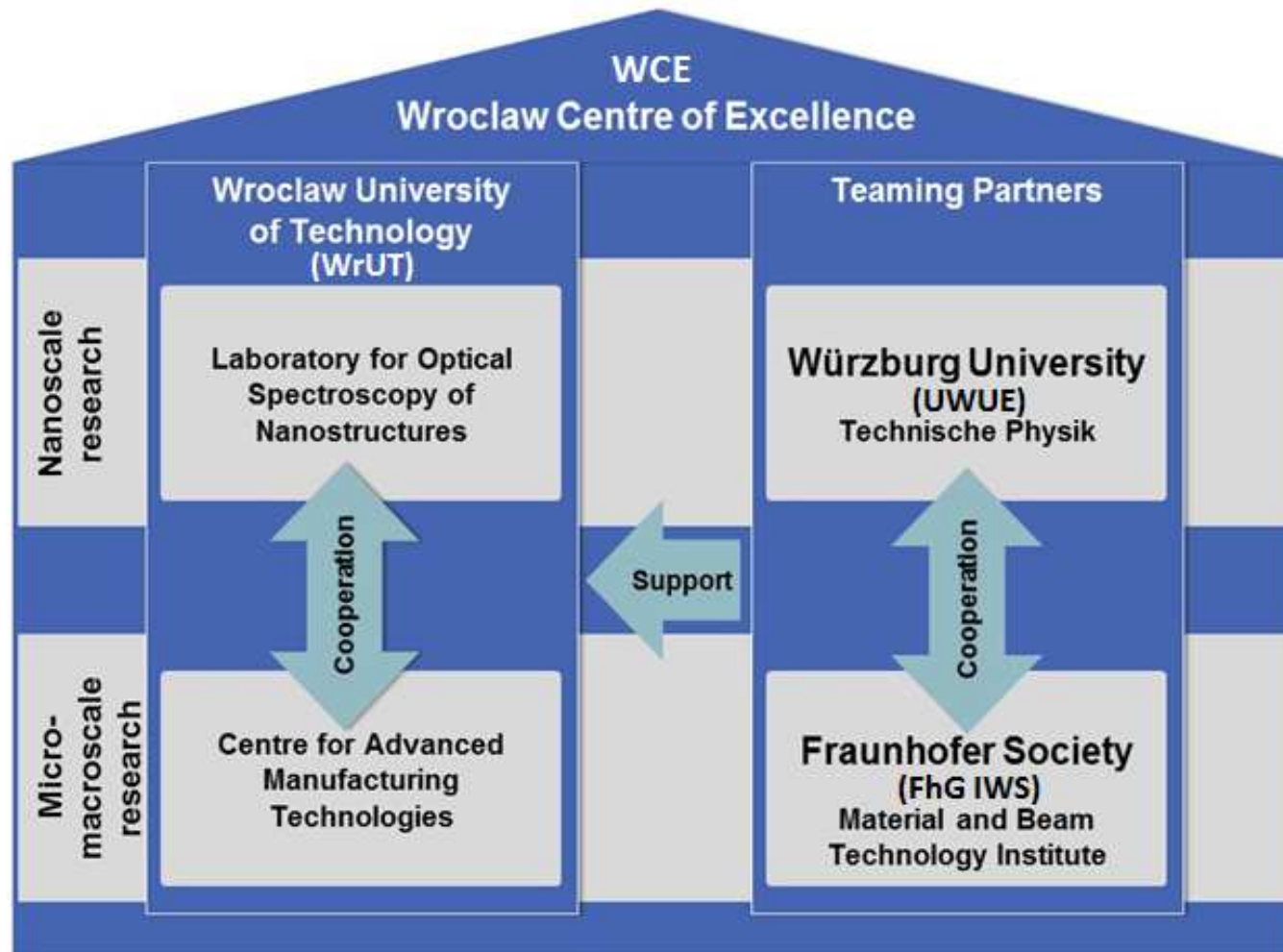
Objectives

The WCE will be based on a common effort of linked partnerships with the vision to create substantial development for excellent research capability in two research areas:

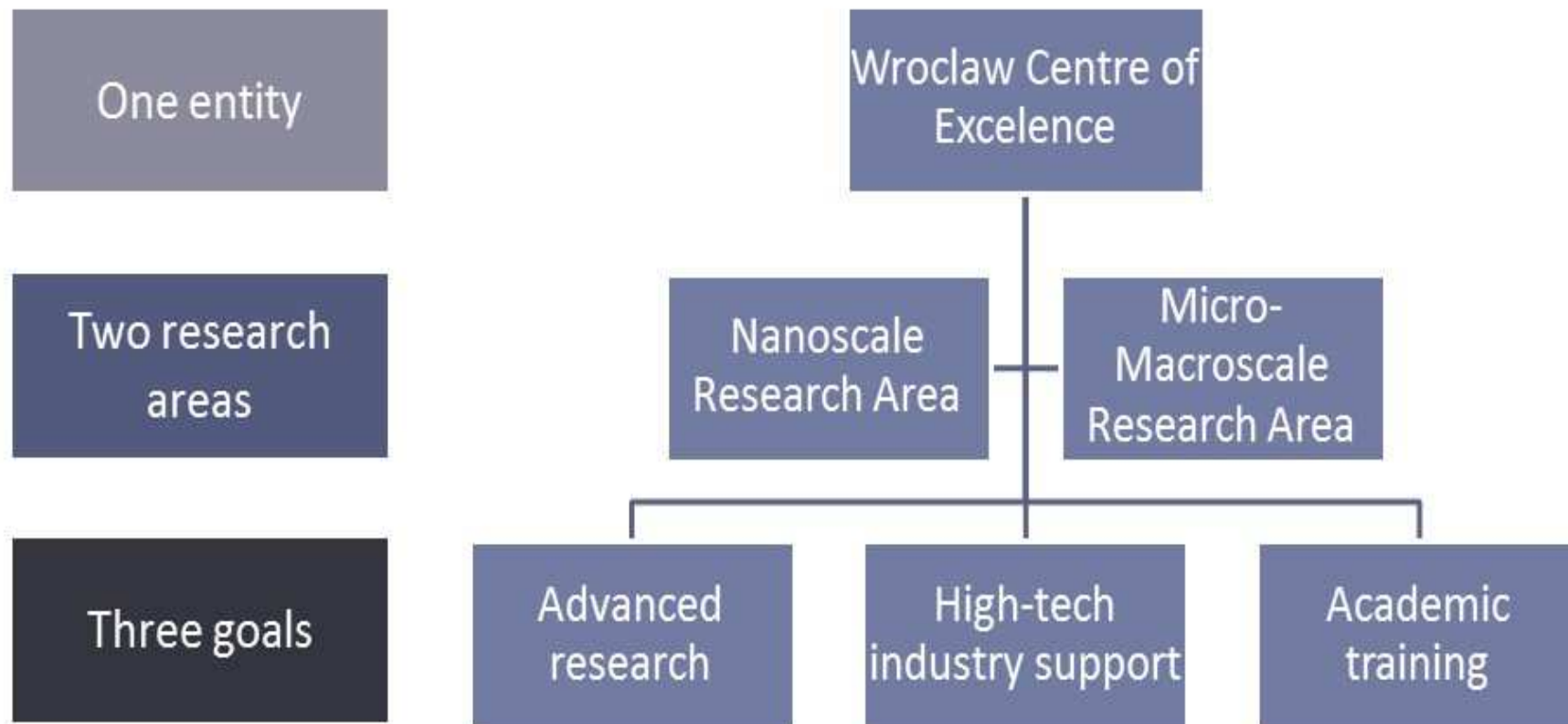
- Nanoscale Research Area (NRA), led by the **Laboratory for Optical Spectroscopy of Nanostructures (LOSN)** – WrUT supported by the Technical Physics Department at the University of Würzburg (UWUE).
- Micro-Macroscale Research Area (MRA), led by the **Centre for Advanced Manufacturing Technologies (CAMT)** – WrUT, supported by Material and Beam Technology Institute of the Fraunhofer Society (FhG IWS).



WCE idea



WCE – one entity, two research areas, three main goals

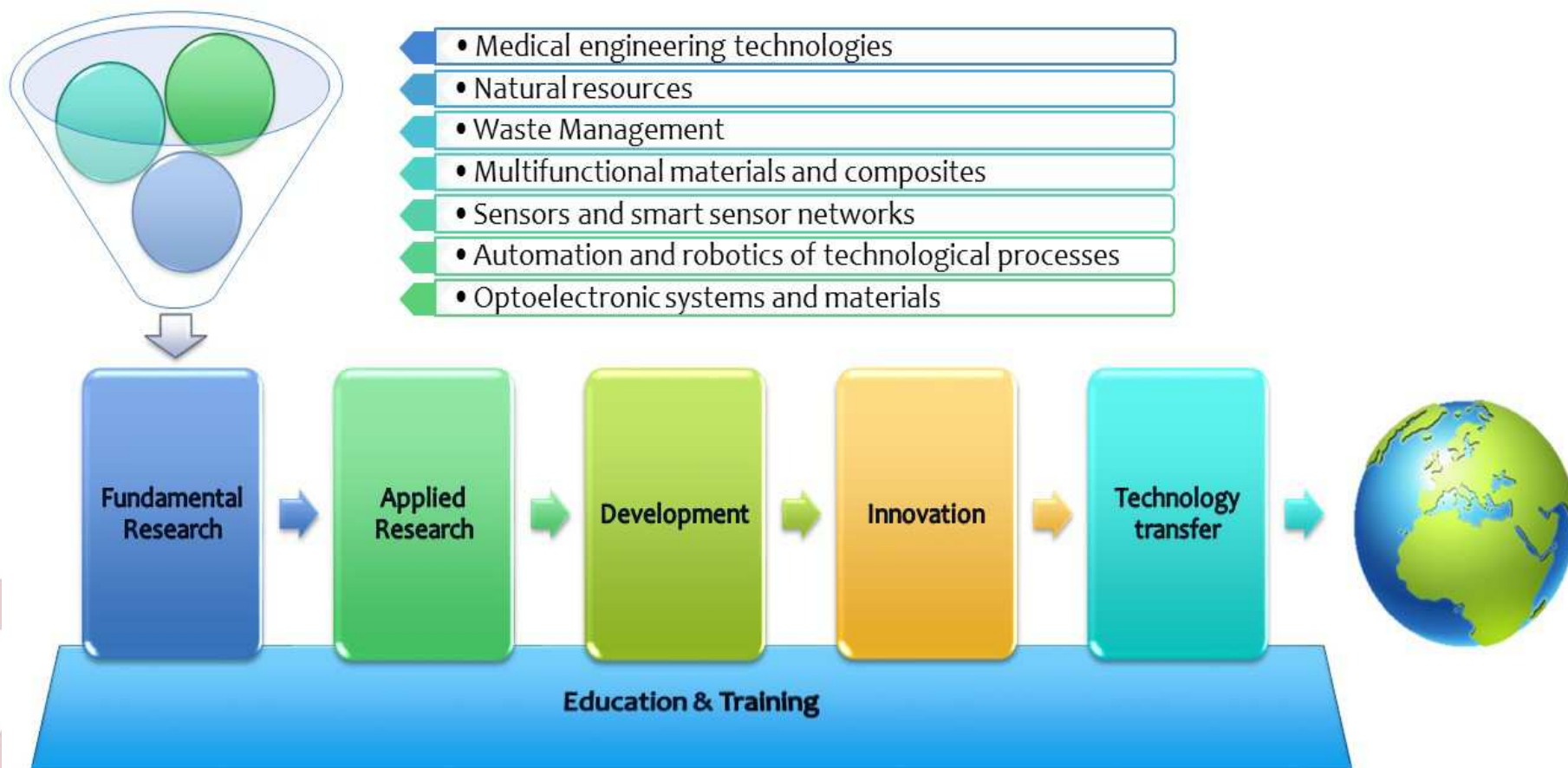


WCE research areas

- Nanophotonics
- Advanced materials and manufacturing technologies
- Additive manufacturing
- Automation and robotics
- Sensors
- Optoelectronics and optomechatronics
- Biotechnologies
- Management



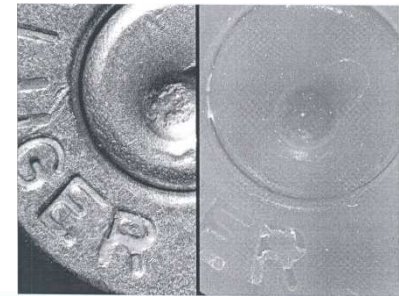
WCE specializations and structural pillars according to Smart Specialization Strategy



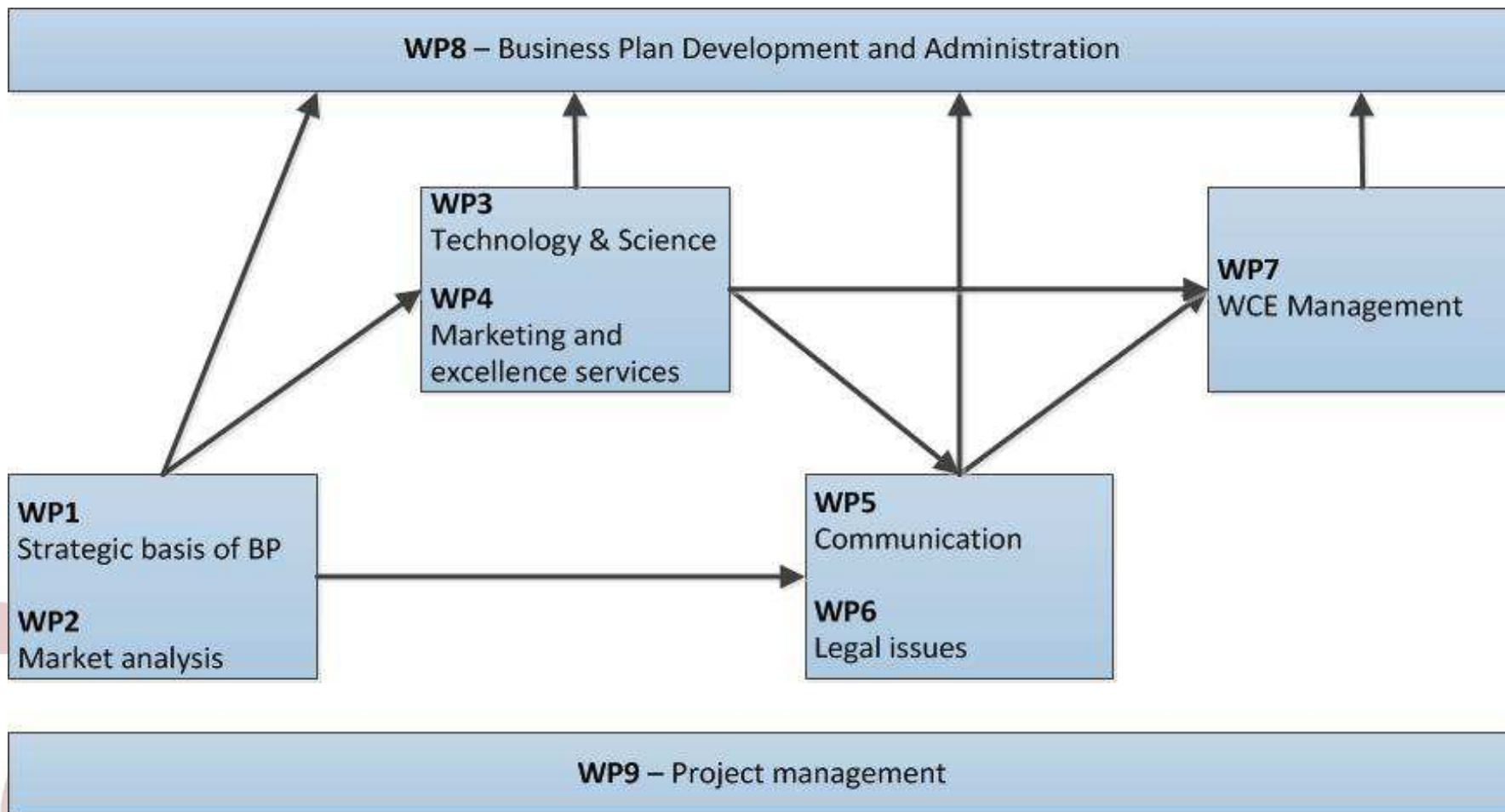
WCE long time impact

Beside assisting in the educational process for engineers and scientists and the related research in the fields of manufacturing technologies, nanotechnologies and nanophotonics, the Centre will focus on:

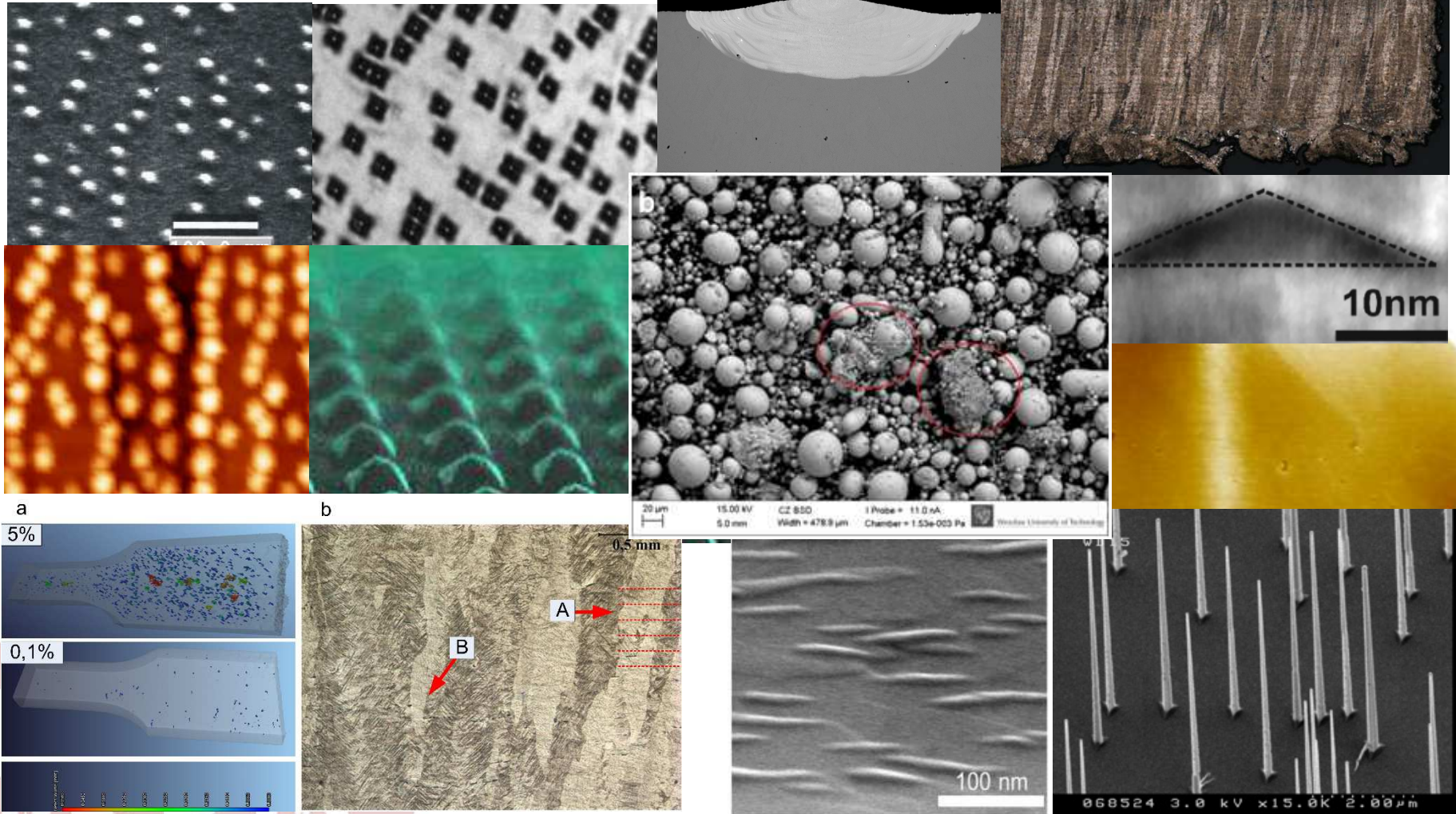
- **materials research,**
- **technology development** (laser, additive, hybrid),
- **device** (lasers, photodiodes) and **systems fabrication** for:
 - environmental,
 - safety/security,
 - medical,
 - and industrial applications (including automotive and aerospace).



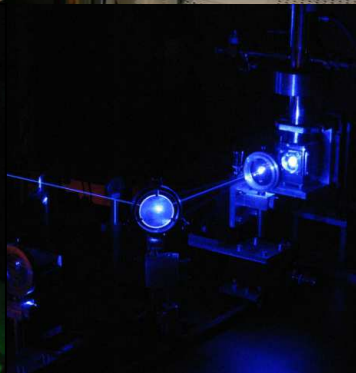
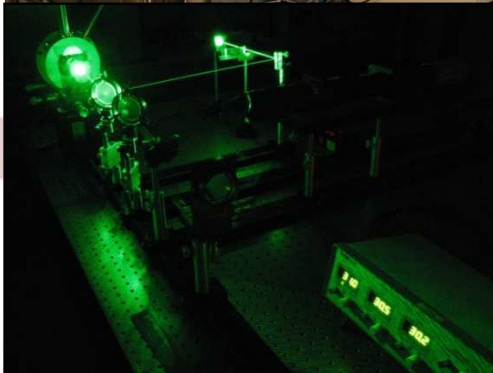
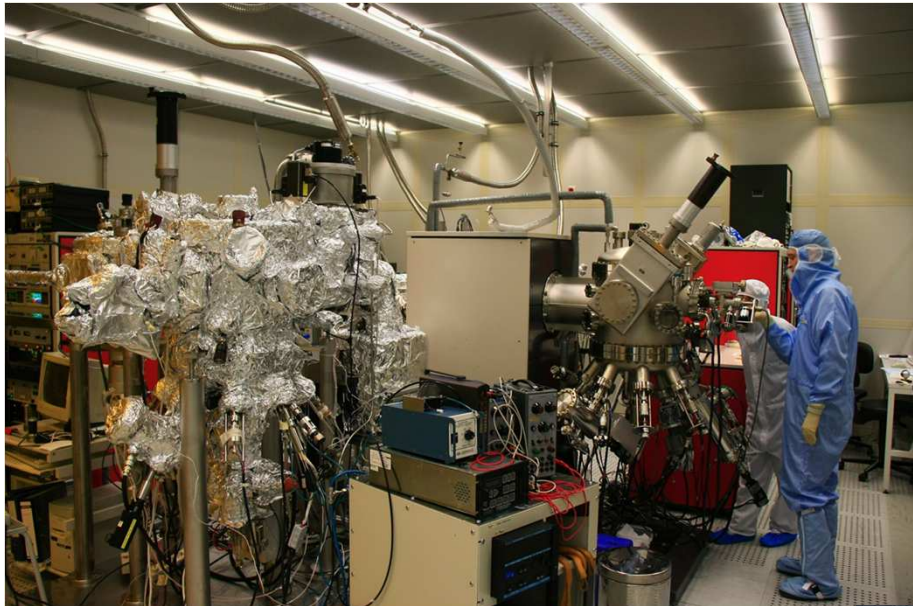
WCE one year plan



New materials



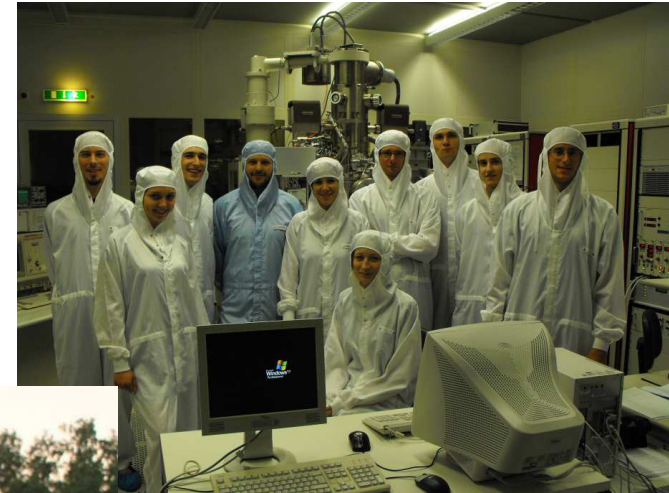
Laboratories



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People



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