COMET-Project

PSSP
Photonic Sensing for Smarter Processes

<table>
<thead>
<tr>
<th>Main location</th>
<th>Linz, Upper Austria</th>
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<tbody>
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<td>Other locations</td>
<td>Wels, Upper Austria</td>
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| Research programme    | Material defect detection  
                       | Physical parameter characterisation  
                       | Chemical materials analysis  
                       | Photonic sensing with limited information  
                       | Extended information with photonic sensing |

Planned realisation and outcomes

**Laser ultrasound**: methods for detection of solidification zones, acoustic damping in electronic components;

**Terahertz, optical coherence tomography, infrared spectroscopy**: NDT for adhesive bonds, cost-effective process analytics for the chemical and food industry, contamination detection in fiber production. **X-ray/CT**: device modeling for numerical simulation, 2D/3D methods, creation of a failure catalog; **Thermography**: stress measurements; **LIBS**: Material analysis.

**History of establishment**

Based on the knowledge acquired at RECENDT on the NDT methods explored in various projects, the next logical step was linking this knowledge even more closely with production processes. In order to be able to offer industrial production companies the research of the widest possible range of non-contact, photonic methods, RECENDT has joined forces with 3 other scientific partners.

**Selected company partners** (max. 10)
1. Lenzing AG
2. voestalpine Stahl GmbH
3. voestalpine Stahl Donawitz GmbH
4. Qorvo Inc.
5. Nemak Linz GmbH
6. Linseis Messgeräte GmbH
7. E+E Elektronik GmbH
8. Plasser & Theurer GmbH
9. Borealis AG
10. Brau Union Österreich AG

**Selected scientific partners** (max. 5)
1. JKU Institute for Applied Physics
2. JKU Institute for Microelectronics and Microsensors
3. Univ. of Appl. Sciences R&D Campus Wels

**Selected international partners**
1. Qorvo Inc.
2. Linseis Messgeräte GmbH

**Start of the COMET-Project** 01.Sep.2018 (4 years)

**Number of personnel** 12 (FTE) are involved (11 FTE are scientists)

**Leader of consortium**: Robert Holzer, RECENDT – Research Center for Non-Destructive Testing GmbH

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1 Partners with headquarters outside Austria

The COMET Project is funded within COMET – Competence Centers for Excellent Technologies – by BMK, BMDW as well as co-financing federal provinces. The COMET programme is managed by FFG. >> [www.ffg.at/comet](http://www.ffg.at/comet)

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