Session	Sensors – AI - Automation
Title	Modular SPR Platforms for Process Analytics Seeking Collaborative Project Partners
Company	SappZ (OTH-Regensburg)
Speaker	Peter Hausler
TRL	TRL 4 - 7
Keywords feedstock (max 2)	Feedstock agnostic
Keywords technology (max 2)	Optical biosensors
Keywords End-Product (max 2)	Biosensor devices

Abstract:

The Sensorik ApplikationsZentrum SappZ at OTH Regensburg is an applied research institute specialised in optical sensor systems, packaging, and process monitoring. To overcome analytical bottlenecks in modern bioprocessing and downstream processing DSP, we develop advanced Surface Plasmon Resonance SPR sensing hardware for inline and atline process analytical technology PAT.

Our technological portfolio encompasses two complementary platforms. On the one hand, we offer a mature SPR Imaging system with high technology readiness level that provides a flexible multiplexed research platform for label free interaction analysis and process characterisation. On the other hand, we develop cost effective miniaturised fiber optical SPR sensors designed for robust physical integration directly into bioprocess pipelines and DSP units.

While our institute covers the entire engineering pipeline, from optical design and micro assembly to hardware integration, we are actively seeking partners to join upcoming EU funded research consortia. We are specifically looking for bioprocess developers and DSP specialists with concrete monitoring challenges, as well as biochemical partners working on tailored surface functionalisation and receptor immobilisation for specific target molecules. Together, we aim to bridge the gap between advanced plasmonic hardware and real time bioprocess control.