

FRAUNHOFER INSTITUTE FOR CERAMIC TECHNOLOGIES AND SYSTEMS IKTS



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FOREWORD



ANNUAL REPORT 2014/15

Dear partners and friends of IKTS,

It is a pleasure to present you our new annual report, again looking back on a very successful year. At our three sites, we reached an overall operating budget of over 54 million euros, thereby achieving very good external funds revenue of 76 %, which splits into respectively 50 % from industrial and publicsector revenue. This success was only possible by steadily and reliably collaboration with partners from research and especially industry, for which we would like to give our thanks. We would also like to thank the various ministries of the German federal government as well as the Free States of Saxony and Thuringia for their excellent support. Due to this support, we were able to further invest in our infrastructure and to further extend our core competencies. In the current year, we are focusing on the enhancement of "Additive Manufacturing" as technology platform and our "Bio- and Medical Technology" business division.

Completely new possibilities and perspectives emerge from the integration of the IKTS in Dresden-Klotzsche into the overall IKTS structure. By developing new test methods over the entire value-added chain of materials diagnostics up to inline production monitoring, our core competencies and offers for industry are considerably extended. In doing so, we rely on a broad spectrum of new methods in the fields of optics (e.g. optical coherence tomography OCT), acoustics (e.g. high-frequency phased array ultrasonic analytics), electromagnetic methods (e.g. high-frequency eddy current) and X-ray methods (e.g. highly integrated X-ray line detectors). Substan-

tial synergies arise from the areas electronics and microsystems technology through to the "smart materials". Due to the integration of the electronics and software competencies of the IKTS in Dresden-Klotzsche, we are able to complete our systems expertise. The "eneramic®" project funded by the Fraunhofer Future Foundation for the development of a fully integrated 100 W fuel cell system is a perfect example. By integrating in-house electronics and software solutions, the system costs were reduced by a factor of 2 resulting in the development of commercial prototypes. In order to link our three sites and to leverage the synergies, we adapted our divisions and fully integrated the IKTS in Dresden-Klotzsche into our organizational chart. As a result of this action, we also hope to master the still considerable business challenges at Dresden-Klotzsche more effectively.

Further highlights and development trends from our business divisions are comprised in this new annual report. I hope you enjoy browsing the articles and that numerous new project ideas arise from your reading, which we are happy to discuss

with you at any time. As always, I offer you to make use of our excellent equipment and facilities, as well as our outstanding IKTS team. We are looking forward to cooperating with you.

Yours,

A. Mi chael

Alexander Michaelis

May 2015



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