

PRESS RELEASE

AI tools in intensive medicine

Health-tech company TCC enters into exclusive strategic partnership with Fraunhofer IGD

PRESS RELEASE

July 11, 2023 || Page 1 | 4

Hamburg/Darmstadt, 11th July 2023: TCC, a provider of remote support services to intensive care units, and the Fraunhofer Institute for Computer Graphics Research IGD have entered into an exclusive strategic partnership for the joint development of AI-supported tools in healthcare. The aim is to pool the competencies of the two partners in research and product development. While TCC develops the software and algorithms and supplies the clinical real-time data (“Real World Data”), Fraunhofer IGD will use its expertise in applied science to validate the results. The first joint project in wound management is already well advanced, and further use cases will be identified in the coming weeks and months. Because the collaboration is intended to be a long-term arrangement, TCC will become part of the clinical partner network of Fraunhofer IGD in the Health and Care business area.

The first joint project already clearly shows what both partners intend to accomplish in the future, namely the implementation of scientifically validated tools and features for intensive care units in clinics and hospitals. In wound care, as in many other cases which ICUs have to deal with, every minute counts. One of the most important aspects is wound identification. Using the parameters and image data that TCC obtains in real time from the intensive care units and the algorithms developed by Fraunhofer IGD, the TCC software can automatically identify the location, size and type of wound. These results are then validated by Fraunhofer IGD, making use of its expertise in sensor technology and image recognition. With the results from the wound analysis, the intensive care physicians in the TCC Competence Center gain valuable time in providing targeted support to their colleagues in the hospitals. The Telehealth Competence Centers in Hamburg and Berlin are staffed by specialists around the clock, seven days a week, and currently provides remote medical consulting services to no fewer than 13 hospitals.

“Fraunhofer IGD is the ideal partner for TCC,” is the considered verdict of Prof. Dr. Christian Storm and David Barg, founders and managing directors of TCC.

PRESS RELEASE

“The institute provides the scientific basis and validates our results, which we are able to obtain from medical data supplied by the ICU. We are very pleased about the partnership and now intend to work on jointly identifying areas in the field of machine learning and AI that provide practical added value in the hospital environment. We see great potential in our collaboration with Fraunhofer IGD, especially in the area of predicting disease progression. Also in making our tools even better known to clinics and hospitals.”

PRESS RELEASEJuly 11, 2023 || Page 2 | 4

Fraunhofer IGD applies AI to the analysis of healthcare data. For many years now, machine learning and artificial intelligence methods and procedures have been used at Fraunhofer IGD to analyze and evaluate vital and general health data as well as disease-related patient data. The techniques include AI-based medical image processing, visual cohort analysis and anomaly detection in vital data.

Dr. Wolfgang Müller-Wittig, Head of Competence Center Health and Care at Fraunhofer IGD: “For us as an institute of applied science, exchange with clinical partners is essential. Only if we are aware of the actual everyday challenges in clinics and hospitals can we develop technologies that help to solve the problems they have to deal with. TCC is an ideal partner for us, because the data from the intensive care units can be used to derive predictions about the course of a disease and make early therapy recommendations – which can ultimately save lives.”

Digital twins planned for the simulation of disease progression. Further applications are planned for the future, as TCC intends to develop digital twins for various purposes, chiefly simulating the course of diseases. Such simulations can, for example, be used to determine the risk of dialysis or of mortality at an early stage, and the results will then be validated by Fraunhofer IGD. The partnership also includes joint workshops on digitalization strategies in hospitals, cooperation in the area of research (including publication of the results) and a generally close exchange within the expert network.

FRAUNHOFER INSTITUTE FOR COMPUTER GRAPHICS RESEARCH IGD

PRESS RELEASE

Further information:

[More about AI research in the health sector at Fraunhofer IGD](#)

PRESS RELEASE

July 11, 2023 || Page 3 | 4



Image (M): Fraunhofer IGD and TCC agree on a long-term partnership for the productive integration of artificial intelligence into clinical processes along the intensive care treatment chain. (© Fraunhofer IGD)

PRESS RELEASE

About Fraunhofer IGD

Since 1987, the Fraunhofer Institute for Computer Graphics Research IGD has been setting international standards for applied research in visual computing, the branch of computer science that deals with images and 3D models. We transform information into images as well as images into information, and we support industry and business in their strategic development. Keywords here are human-machine interaction, virtual and augmented reality, artificial intelligence, interactive simulation, modeling, 3D printing and 3D scanning. Around 180 research staff at the three sites in Darmstadt, Rostock and Kiel are generating new technological application solutions and prototypes for Industry 4.0, digital healthcare and the smart city. Our products take on international relevance through our partnership with the sister institute in Graz and Klagenfurt. Our matrix organization enables us to serve our clientele from a wide range of industries with technical and competitive services relevant to their needs. For this purpose, we have assembled cross-functional teams of experts with extensive industry experience, who also take on planning, management and evaluation responsibilities for projects of any magnitude.

About TCC

The initials TCC stand for “Telehealth Competence Center”, the name of a health-tech company based in Hamburg, Germany. TCC provides remote medical consulting services to intensive care units. The company was founded in 2020 by Prof. Dr. Christian Storm and David Barg. From their own many years of experience, they are both acutely aware of those areas in the critical infrastructure of hospitals where opportunities for digitalization lie. Christian Storm is a habilitated intensive care physician at the Charité in Berlin, and David Barg, as a trained health care worker and graduate in Business Administration, is very familiar with everyday hospital life. In 2021, TCC successfully completed a seed financing round in the mid-seven-figure range.

<https://tcc-clinicalsolutions.de/>

Press contact:

Thomas Doriath

Tel: +49 176 / 24 24 42 83

E-mail: t@doriath-komm.de

PRESS RELEASE

July 11, 2023 || Page 4 | 4
