

Pressemitteilung

Fraunhofer-Institut für Schicht- und Oberflächentechnik IST

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17.08.2022

<http://idw-online.de/de/news799865>

Forschungsprojekte
Ernährung / Gesundheit / Pflege, Medizin, Umwelt / Ökologie
überregional

Sub-Saharan Africa: Healthcare for everyone

The comprehensive provision of medical care presents a major challenge, particularly in rural regions of Africa. The Fraunhofer Institute for Surface Engineering and Thin Films IST is therefore working in collaboration with the Fraunhofer Institute for Solar Energy Systems ISE and the Stellenbosch University in South Africa on the development of a mobile healthcare platform with which even the most remote areas can be reached.

Around two billion people worldwide live in remote areas without healthcare. In the sub-Saharan region of Africa, for example, distances to the next large town can be up to 600 kilometers - a journey that the inhabitants, who are often limited in their mobility, are unable to make without assistance. "Basic medical care in rural areas of Africa often fails due to a lack of mobility," explained Dr. Lothar Schäfer, coordinator of the project and Deputy Director of the Fraunhofer IST. "Within the PreCare project, low-cost platforms for pickups are being developed which will enable preclinical examinations, tests and vaccinations to be carried out - even in areas which are inaccessible for mobile clinics."

The first step is the commissioning and testing of an initial prototype of the platform in South Africa. This will primarily involve local stakeholders in order to identify the requirements at the respective location and, at the same time, to increase acceptance among the population. The platform consists of a cabin which not only contains modular supply elements such as a water-treatment plant, disinfectant production, a refrigerator and a telecommunications unit, but can also accommodate medical devices, active substances and test equipment. Photovoltaic modules and a battery provide the entire unit with a permanently self-sufficient power supply. The healthcare unit is designed in such a way that it can simply be loaded onto a standard pickup truck and deployed extremely flexibly in remote terrain.

In the future, a laptop with satellite link and Bluetooth-enabled examination devices such as blood-pressure monitors or ECGs will provide patients with decentralized medical consultations and information from specialist medical staff, thereby providing a contribution towards health education. The medicines and vaccines on board allow basic care to be provided on site. Furthermore, the platform assists in the early detection of diseases and epidemics, and contributes towards the establishment of local health programs.

True to the motto "Made in Africa for Africa", the long-term goal of the project is the establishment of series production locally in order to create jobs whilst simultaneously enabling local value creation. The platform thus contributes to the Sustainable Development Goals of the United Nations.

URL zur Pressemitteilung:

<https://www.ist.fraunhofer.de/en/press-media/2022/sub-saharan-africa-healthcare-for-everyone.html>