



CLINIC 5.1

Comprehensive Lifesciences Neural Information Computing

Motivation In everyday clinical practice, physicians are faced with numerous decisions that they have to make for the best possible therapeutic outcome of the respective patient. Unfortunately, it is an unchanged core problem of medicine that for many disease entities the individual therapeutic success can only be predicted with a general statistical probability. A prognosis for the individual patient, on the other hand, remains completely unclear in the sense that it is not possible to predict exactly how the individual patient will respond to a specific therapy. The heuristic method of consecutive "trial-and-error" treatment very often results in a valuable loss of time and resources for patients, which can also have a negative impact on the therapy outcome.

Goal In the CLINIC 5.1 project, industry and research institutes are developing new and market-oriented forms of artificial intelligence (AI)-based decision support for physicians, using the prostate cancer use case as an example. In this way, innovative tools for decision support based on previous studies, diagnoses and therapies can be established in all phases of diagnostics, therapy recommendation and therapy implementation - a forward-looking step towards personalized medicine including new patient-oriented and ethical treatment strategies with the possibility of individually tailored therapy recommendations.

Intended outcomes The available diagnosis- and therapy-relevant data and information will be expanded and multilaterally integrated in order to be able to map the respective patient four-dimensionally, i.e. also longitudinally, and virtually as accurately as possible. The high-quality and medically as well as economically valuable treatment data of prostate cancer patients collected and curated at Heidelberg University Hospital, in part for almost thirty years, are an example of "data as an economic asset" and will enable AI algorithms to be trained efficiently and effectively.

Expected impact Successfully position the topic of "data as an economic good" in the government and commercial sectors, complementary to existing federal and EU open data initiatives. Thereby enabling new economic policy instruments to support the digital transformation and to ensure an appropriate, also transatlantic and global, competition policy as well as to create a solid basis for transparent procurement of high-quality data for professional learning of AI algorithms. Strengthening Germany as a business location by highlighting sensible investments in the forward-looking topics of AI and "Digital Twin" using the specific example of prostate cancer treatment.

Tags AI, health, digital twin, big data, data as a business asset

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2 YEARS
DURATION



Mar. 2021 – Feb. 2023

6 PARTNERS



Universitätsklinikum
Heidelberg (project
coordinator); Deutsches
Krebsforschungszentrum
(DKFZ); KARL STORZ SE &
Co. KG; SAP SE; Siemens
Healthineers AG;
Universität Heidelberg,
Physikalisches Institut

€ 7.5 MILLION
FUNDING



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€ 9.5 million
Total funding:
€ 7.5 million

Gefördert durch:



Bundesministerium
für Wirtschaft
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