

Hochschuleinrichtung: III. Physikalisches Institut

Leiter/in der Hochschuleinrichtung: Prof. Dr. Achim Stahl

Kurzbezeichnung des Projektes (Synonyme): E-Test

Bewilligungszeitraum: 01.02.2020 bis 31.1.2023

Beschreibung des EFRE-Forschungsvorhabens:

The ultimate goal of the E-TEST project is to have in the Euregio Meuse-Rhine a world-leading laboratory, a gravitational wave detector also known as the Einstein Telescope. Understanding the beginning of the Universe is the dream of Humanity. Thanks to gravitational waves, the region's leading scientists, engineers and high-level technology SMEs and the specific cross-border geological conditions, this will be made possible. To achieve this, it will require an ultra-cold innovative new observational instrument installed in a large infrastructure buried at 300 m deep in the for attenuating vibrations induced human activity, wind or ground motion.

E-TEST will first provide a publicly available open model and observatory of the subsurface that will serve a wide range of identified stakeholders. It will consolidate the optimal location and design for the Einstein Telescope within the Euregio Meuse-Rhine. Second, E-TEST will develop and build one of the major key element of the gravitational wave detector that will bring together high-tech SMEs and research institutions to enable the Einstein Telescope technology.

The project will start on February 1st, 2020, an run for three full years. It will build on the scientific results and technological achievements of the VIRGO and LIGO collaborations, published on their web-pages. The current status of the Einstein-Telescope is available from www.einstein-telescope.de. We will push these developments further with the support of the European Union through interreg Meuse-Rhin.

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