

NACIONĀLAIS
ATTĪSTĪBAS
PLĀNS 2020



EIROPAS SAVIENĪBA

Eiropas Reģionālās
attīstības fonds

I E G U L D Ī J U M S T A V Ā N Ā K O T N Ē

NEW GENERATION WAVEFRONT SENSORS BASED ON THE METHOD OF CODED DIFFRACTION PATTERNS

Project number: KC-PI-2017/105

Project scientific leader: Dr. Phys. Sergejs Fomins.

31.03.2020.

Project implementation – 01.01.2020. – 31.03.2020.

Project team has continued to improve the performance of the coded wavefront technology. Wavefront recovery problems have been identified and stabilization measures have been taken (optical and algorithmic). Beam transformation nodes and strategies for using coding structures were improved to increase light output.

Team continued to work on the optical tests and comparison of performance of Shack-Hartmann sensor with prototype applying adaptive corrective optics. Work has been done on determining the functional ranges and retrieval parameters. Performance tests performed under broadband lighting conditions.

In-depth market research activities have been initiated to find out the optimal approach to market. Team communicates intensively with foreign and local optical experts regarding aberration correction.

Work on technical descriptions and drawings of the technology, considering the latest technical and algorithmic innovations, continued. Similar technologies are being explored and stronger patenting capabilities are being sought.

Contacts are maintained with local observatories and opportunities were sought for cooperation with foreign astronomers.