

NATIONAL
DEVELOPMENT
PLAN 2020



EUROPEAN UNION

European Regional
Development Fund

I N V E S T I N G I N Y O U R F U T U R E

PROJECT TITLE: Development of mechanoluminescent thin films for real time stress detectors

Project No : 1.1.1.1/20/A/138

Duration: 01.04.2021. – 30.09.2023.

Project Leader: Institute of Solid State Physics, University of Latvia, Dr. habil. Phys. Donats Millers.

Project partners: Sidrabe Vacuum Ltd, B.A.Sc. Matiss Piesins.

Total budget: 535 856.88 EUR

Project description:

The main goal of the project is the development of mechanoluminescent (ML) thin films for optical real time stress detectors. Such detector can be used in various applications connected to registration of stress anomalies, for example, dynamic stress sensing for diagnosis of possible damage in constructions via structural health monitoring process. Thin film coating is a material-efficient method where a thin layer of material can be deposited directly on the material of interest or be deposited on a polymer sheet or bulk material. The main result of the project is development of laboratory technology of applicable ML material.