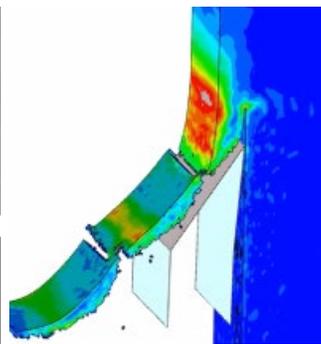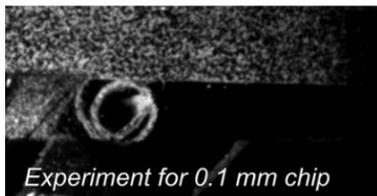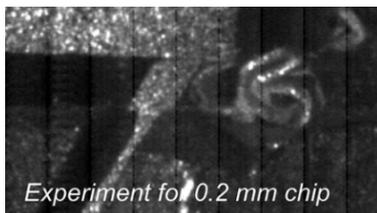# WOODCUTTING SIMULATION

Problem Description

- Wood is gaining more and more traction within the construction business.

- Hilti is developing a multitude of tools, including sawblades, relevant for the timber industry.

- In order to support the development of such applications, the ability to simulate woodcutting will become increasingly important.

Experiment for 0.2 mm chip

Experiment for 0.1 mm chip

Source: Project "HARDIS"

Objectives & Tasks

- Investigate the current state-of-the-art of woodcutting simulation for Hilti relevant applications.

  - Literature review on woodcutting simulation and relevant, similar processes.

  - Investigate possibilities for external cooperation partners.

- Investigate the possibilities and limitations for implementation in commercially available finite element code.

- Implement a simple, dynamic FE analysis simulating a woodcutting process in LS-Dyna.