

# DEVELOPMENT OF A CUTTING FORCE MODEL

## Problem Description

- In the development of new tools the system approach is getting more and more important, in this case tool+blade
- Currently the cutting force is only applicable for tools with already performed measurements. For every variant of blade and cut material a new measurement is needed
- The cutting force is needed for the simulation of all given cutting processes (normal mode, blocking, etc.)

## Objectives & Tasks

- Transfer and application of the proven concept for circular sawing to a linear sawing process
- Programming of a cutting force model and building a reduced multibodysimulation model
- Validation of the cutting force model by measurements
- Implementation of the validated cutting force model into the full powertool model and performing parameter studies with the full model

