# VIRTUAL WELDING STUDY

## OVERVIEW

- / 13 participants
- / 2 weeks' training
- / 30% virtual welding
- / 70% real welding

*Thirteen students were observed during their first two weeks of welding training at the Fohnsdorf Training Center (Austria). Both the results of the welding trials on the Virtual Welding simulator and the data from real welding were documented.*

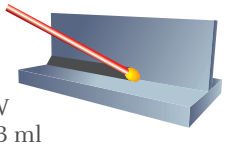
**13 PARTICIPANTS**

**2 WKS** of welding training

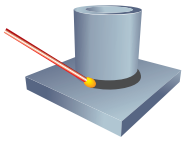
**30%** Virtual Welding

**70%** Real Welding

### WELDING TASKS*



135 P FW
FM1 S PB ml

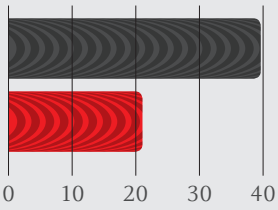


135 T FW
FM1 S PB sl

** Both on the Virtual Welder and in the welding booth with a real arc*

## ADVANTAGES OF COMBINED TRAINING

### WELD SEAM LENGTHS AFTER 8 HRS TRAINING

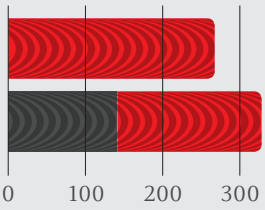



VIRTUAL WELDING
**39.9 METERS**
REAL WELDING
**20.7 METERS**

*Weld seams (m) per training day (8 hrs) with virtual or real welder training*

### MORE WELDING TRIALS WITH COMBINED WELDER TRAINING

**+22.8%**
WELD SEAMS WITH THE SAME AMOUNT OF TRAINING TIME




TRADITIONAL TRAINING

COMBINED TRAINING

*Weld seams (m) over the entire observation period*

**+65%**
**ARC TIME WITH VIRTUAL WELDER TRAINING**

*Based on 1577 real and 1733 virtual weld seams*


### LESS PRESSURE ON THE TRAINERS THANKS TO VIRTUAL TRAINING

#### VIRTUAL TRAINER

Participants are able to train independently, the virtual trainer is always there and objectively assesses each weld seam.

#### MORE TRAINER TIME IN THE WELDING BOOTH

The trainer is free to provide the participant with more dedicated support during real welding in the welding booth.

### SAVINGS ON MATERIAL COSTS

Material costs can be greatly reduced through targeted use of Virtual Welding Simulators in training.

*Welding tasks taken into consideration 135 P FW FM1 S PB ml and 135 T FW FM1 S PB sl*

COST SAVING OF UP TO **€ 231,-** PER PARTICIPANT