fast**SUITE**®

cenit

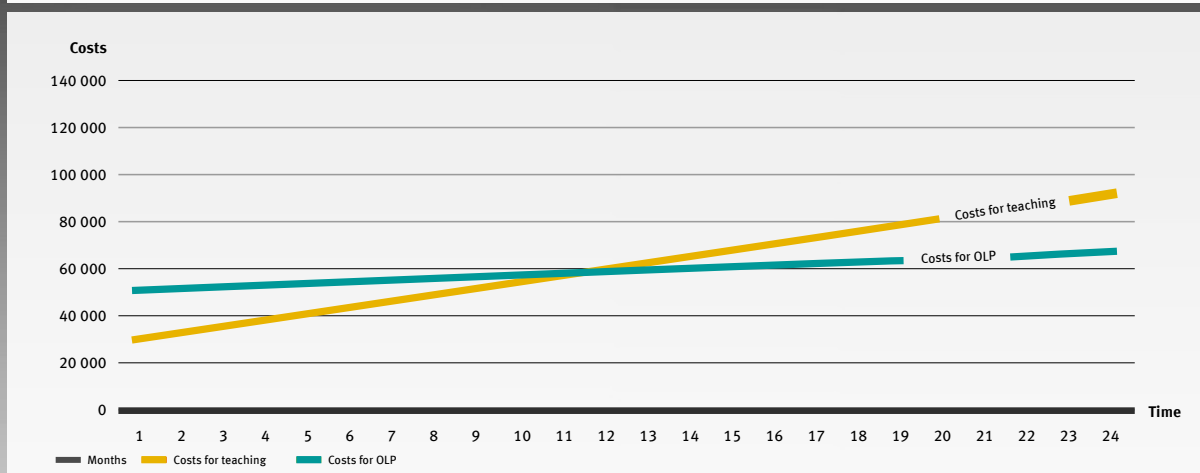# ROI-CHECK: TEACHING VS OFFLINE PROGRAMMING
EFFICIENT SETUP OF LASER WELDING SYSTEMS

TEACHING

4 HRS*	→	600 EUROS
8 HRS	→	1.200 EUROS
16 HRS	→	2.400 EUROS

PART

- Simple
- Medium
- Complex

OLP

90 EUROS*	←	1,5 HRS
150 EUROS	←	2,5 HRS
300 EUROS	←	5 HRS

SAVINGS/PART

510 EUROS   1.050 EUROS   2.100 EUROS

10 x EURO
30 x EURO
10 x EURO

SAVINGS/YEAR
57.600 EUROS
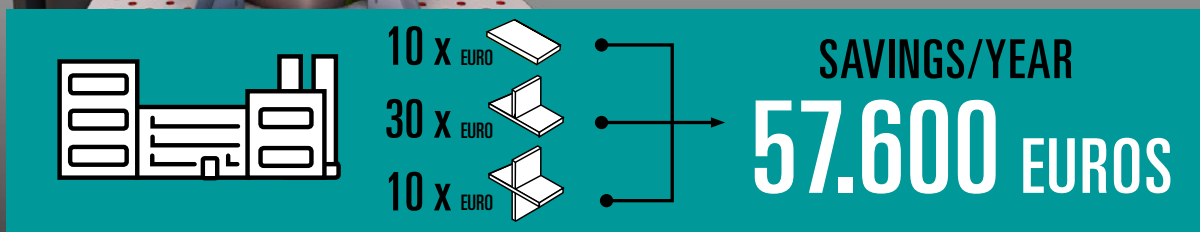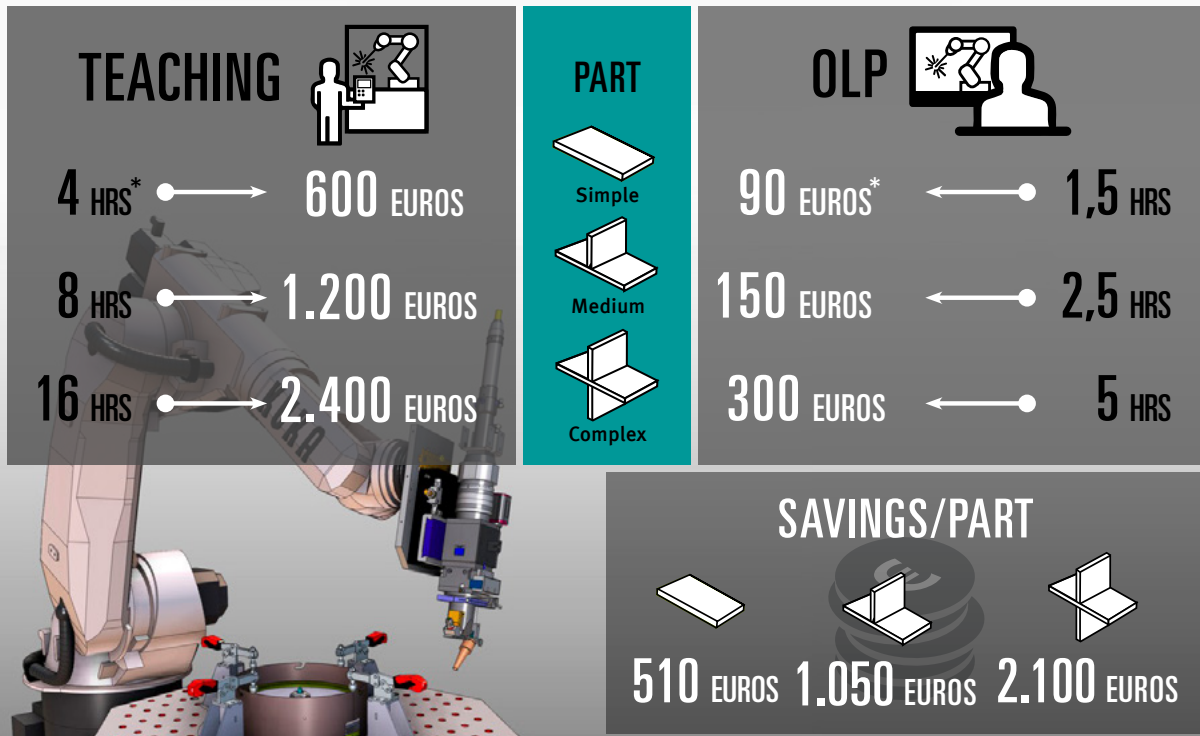
INTRODUCTORY COSTS FOR OFFLINE PROGRAMMING (OLP)

The introduction of offline programming assumes an investment of approximately 50,800 euros over a period of three years. This amount consists of around EUR 33,600 in fixed costs (calibration of a cell with a robot, software implementation, training of two members of staff) and EUR 17,200 in variable costs (software licences, annual software maintenance, wages). Calculation of the ROI refers to the production of 10 parts of low complexity, 30 parts of medium complexity and 10 parts of high complexity per year (as shown in the example above).

Costs

| 140 000 |
| 120 000 |
| 100 000 |
| 80 000 | Costs for teaching |
| 60 000 | Costs for OLP |
| 40 000 |
| 20 000 |
| 0 |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24   Time

▬ Months   ▬ Costs for teaching   ▬ Costs for OLP

*Hourly rates for manual teaching EUR 150, hourly rate for offline programming EUR 60 (Depending on the complexity of the part, we assume relevant efforts for the preparation/positioning and programming of the part. Teaching at EUR 150/hour corresponds to costs for system operators/programmers wages and occupation of the system; offline programming at EUR 60/hour corresponds to costs for system operators/programmers wages and an OLP workspace with 10 m2 space requirement, workstation PC, software licence fees and annual software maintenance)