

**DIGITALISING  
MANUFACTURING  
CONFERENCE 2020**

**REALITY DRIVING DIGITAL**

5 - 6<sup>th</sup> OCTOBER 2020

- VIRTUAL EVENT -



## ***Intelligent Close-loop Laser System for high productivity and quality process***

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06/10/20



**PRECISION LASER SOLUTIONS**

# Objectives

## OBJECTIVES

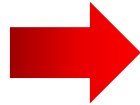
Productivity

Accuracy

Quality

2,5D and 3D shape laser process

IoT



Sensor for monitoring

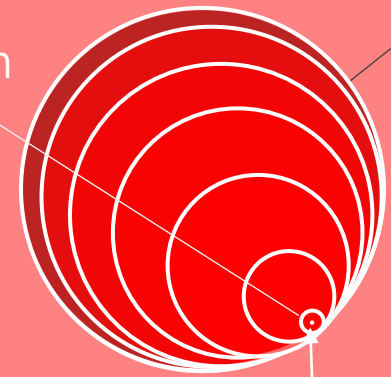
Trajectory simulation

Machine learning

Automated laser machine

Opt size  
5 – 80  $\mu\text{m}$

Human hair  
 $\varnothing$  80  $\mu\text{m}$



1  $\mu\text{m}$

1 mm

# Objectives

## OBJECTIVES

Productivity

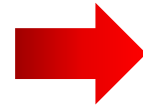
Accuracy

Quality

2,5D and 3D shape laser process



Sensor for monitoring



Trajectory simulation

Machine learning

Automated laser machine



Laser process / laser machine



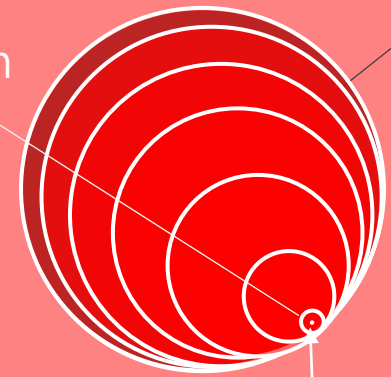
End-user



Machine learning/ IA development

Opt size  
5 – 80  $\mu\text{m}$

Human hair  
 $\varnothing$  80  $\mu\text{m}$



1  $\mu\text{m}$

1 mm



# ICLOS - PROJECT

4.0 laser machine

Process laser quality control



Measurement system

Data Acquisition and Analysis



Data management system

Results prediction



Modelling, simulation

Process automation



Automated machine, HMI

OBJECTIVES

Quality and accuracy validation

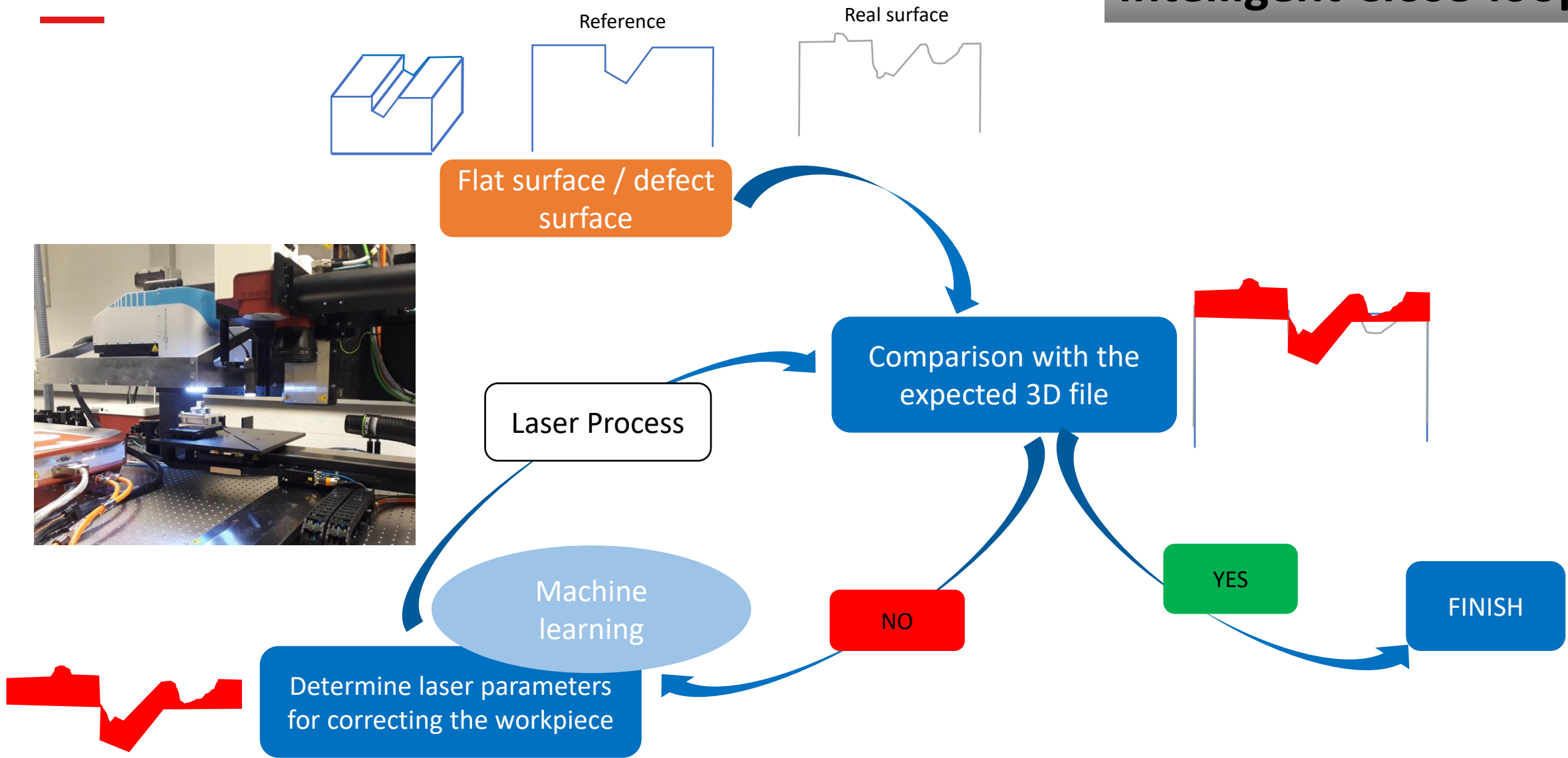
Database creation

Ensure the productivity during the process development phase

Ensure the productivity for the customer

# ICLOS - PROJECT

## Intelligent Close-loop



# Thank you for your attention



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