

## **AI-PROFICIENT**

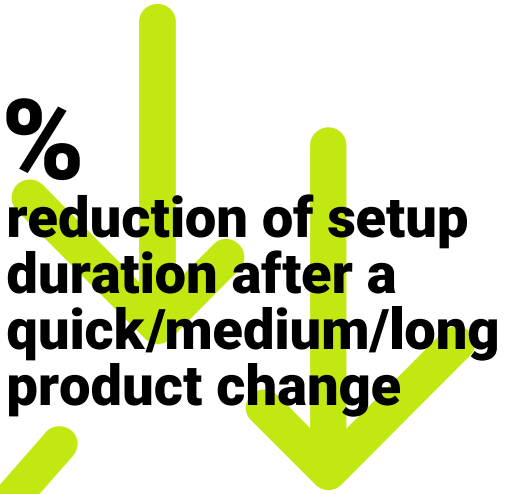
**Artificial intelligence  
for improved production efficiency,  
quality and maintenance**

# **Info pack**

**The use cases of AI-PROFICIENT aims to improve manufacturing process through human machine interaction. This document provides the various KPI improvements which would be achieved in the 2 different manufacturing enterprises (Continental and INEOS) in terms of production efficiency, quality and maintenance.**

# Restart Set up

**5–15%** reduction of setup  
duration after a  
quick/medium/long  
product change



reaching

**100%**



system adaption  
capability

**5–15%**

reduction of rework quantity  
after a quick/medium/long  
product change



# Released

Continental 

# extrusion optimization



# deep

# learning

teacher-student approach

# improving

the relaxed conditions of thread




being able to

# identify



the relevant cause  
of non-relaxed thread

# Tread blade wear


**25%** reduction in number of interventions of curative mode




**15%** decrease unscheduled reparation times related to the cutting system




**0,1–1,5%** reduction in number of interventions of curative mode



# Quality analysis

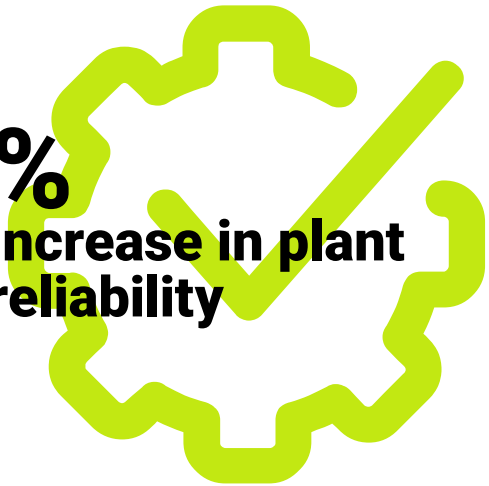
**≥ 80 %**   
detection rate of the quality analysis and assurance tool

more than **0,05 %**   
reduction of the scrap rate improvement

# Reactor stability

INEOS

**0,5** %  
increase in plant  
reliability



**significant  
reduction**  
in drift frequency



# Image recognition

INEOS

more  
than

**95**

**%**  
cases only  
require a single  
photo to be taken



more  
than

**99****%**

automated input  
from the operator



**full**

prevention of  
wrong additive  
use





# Rheology drift

INEOS

through

**analysis**

of the historical process and  
product characteristics data

**detecting**

the most probable causes for product  
characteristics degradation

**analysis**

of the effects of process data  
on the product characteristics

**PROJECT TITLE**

**Artificial intelligence for improved production efficiency, quality and maintenance**

**START DATE**

**1st of November, 2020**

**DURATION**

**36 months**

**FUNDING PROGRAMME**

**H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)**

**TOPIC**

**ICT-38-2020 - Artificial intelligence for manufacturing**

**FUNDING SCHEME**

**RIA - Research and Innovation action**

**TOTAL EU CONTRIBUTION**

**€ 5.467.698,75**

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**FIND US**

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957391.