AI·PROFICIENT

***A**rtificial **i**nte**l**ligence*
for improved *pro*duction e*ffici*ency,
quality and mai*n*tenance

Info pack

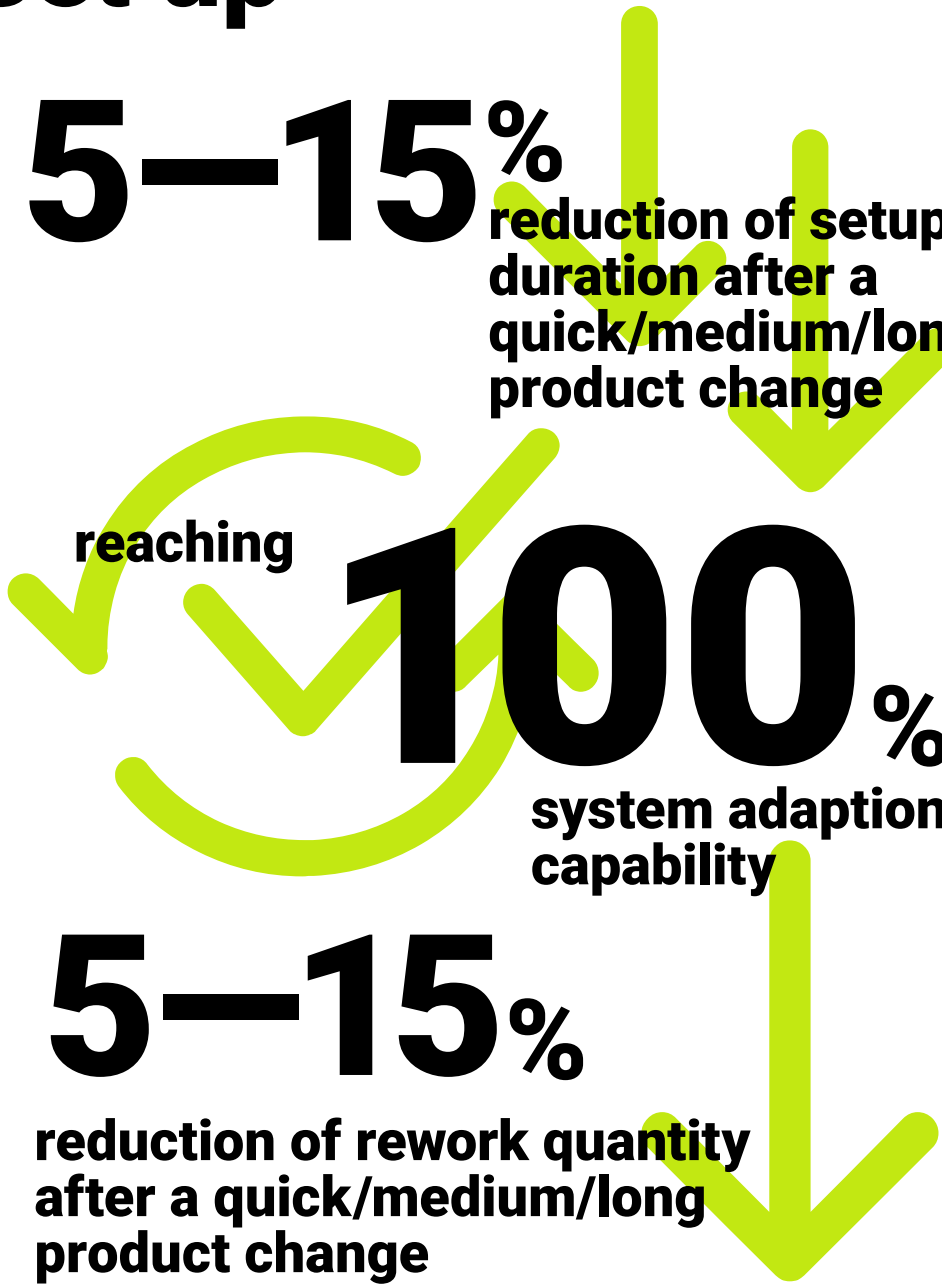
The use cases of AI-PROFICIENT aims to improve manufacturing process through human machine interaction. This document provides the various KPI improvements which would be achieved in the 2 different manufacturing enterprises (Continental and INEOS) in terms of production efficiency, quality and maintenance.

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 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

Tread alignment

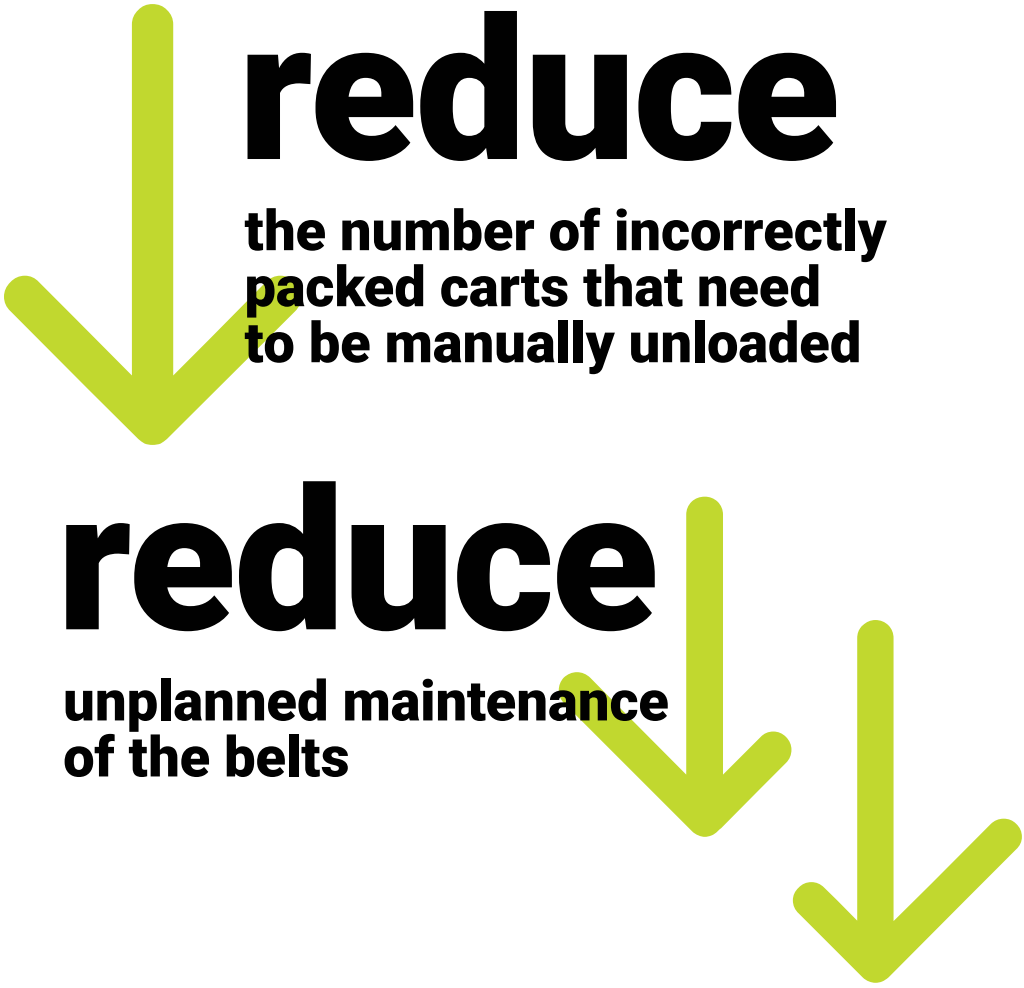
Continental

reduce

the number of incorrectly packed carts that need to be manually unloaded

reduce

unplanned maintenance of the belts



Quality analysis

Continental

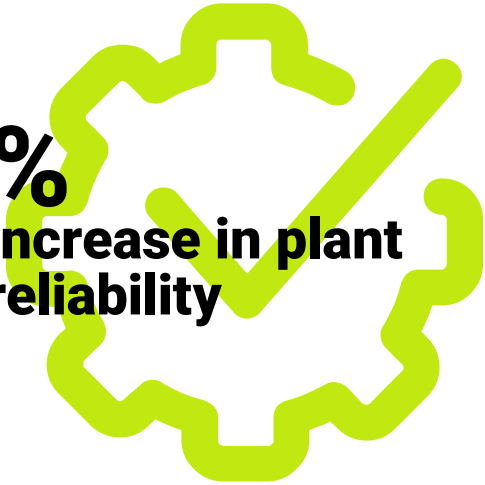
≥80%
detection rate of the quality analysis and assurance tool

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

PROJECT TITLE

Artificial intelligence for improved production efficiency, quality and maintenance

START DATE

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DURATION

36 months

FUNDING PROGRAMME

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TOPIC

ICT-38-2020 - Artificial intelligence for manufacturing

FUNDING SCHEME

RIA - Research and Innovation action

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