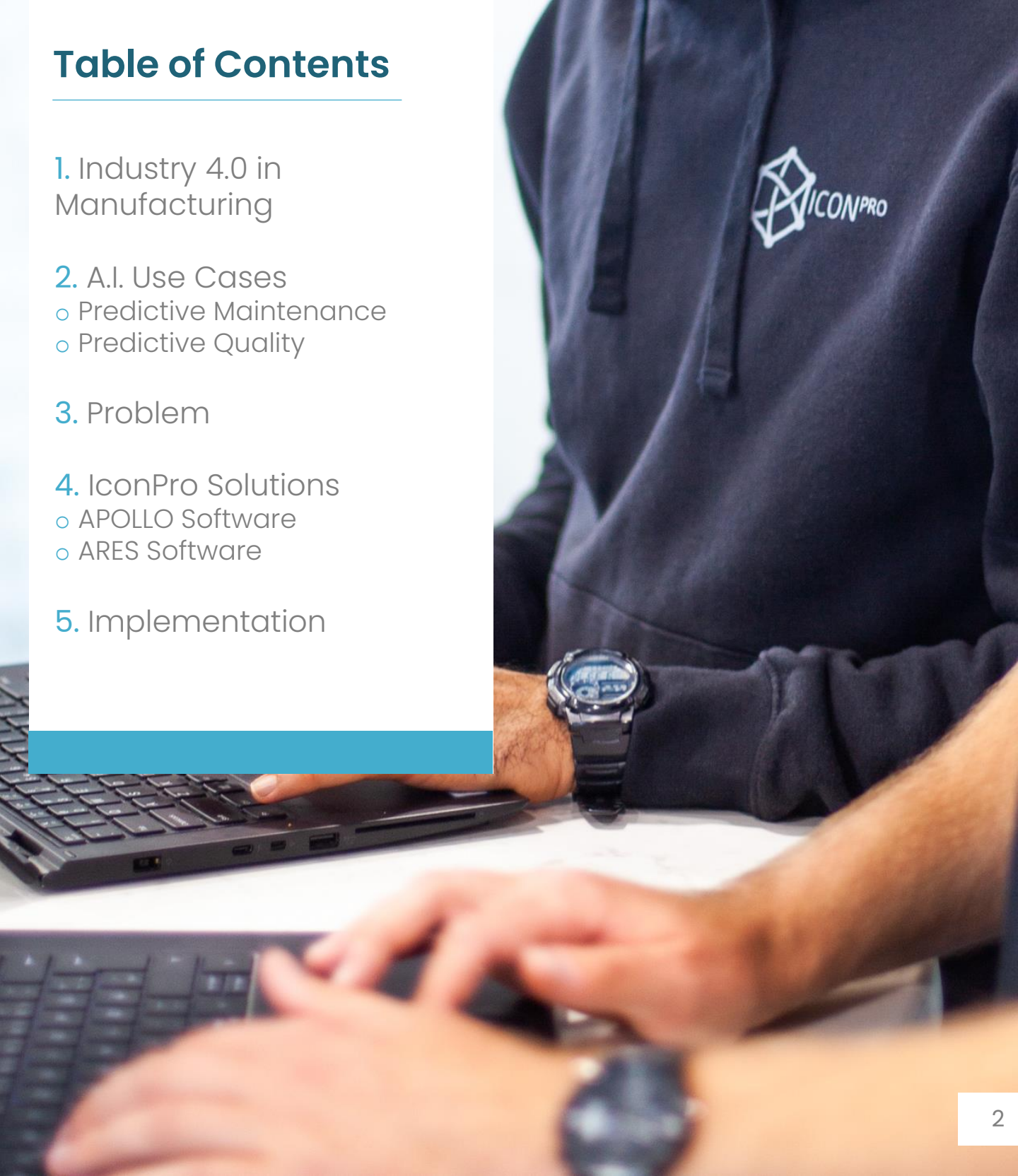
ICONPRO

INTRODUCTION

AI IN MANUFACTURING

Table of Contents



1. INDUSTRY 4.0
In Manufacturing

The Fourth Industrial Revolution, or **Industry 4.0**, becomes each day more relevant in **manufacturing**. This new wave of technology is very appealing to **producing companies** since it makes it very simple to **increase productivity** in operations.

With its rising popularity, manufacturers that fail to adapt to the newest technology in the industry will be at a disadvantage towards competitors that managed to **digitize** their production along the way.

AI and Machine Learning

work well with manufacturing data. Hundreds of variables influence the production process. While it is very complex for humans to analyze them, **machine learning models can forecast** the impact of individual variables in such circumstances. Machines still operate below human skills in other industries involving language or emotions, limiting them to adapt to the A.I. field.

2. USE-CASES In Manufacturing

Predictive Maintenance

Predictive Maintenance techniques enable manufacturers to predict potential **machine downtime**. By **analyzing data** provided by sensor devices, manufacturers use **A.I. technology** to forecast when the machines will fail. This allows them to plan **optimal repair and maintenance** dates, in a way that assures equipment **efficiency**, as well as **avoids extra costs**.

Predictive Quality

Predictive Quality enables companies to make **data-driven predictions** of product- and process-related quality. The goal is to **optimize quality** by using predictions as a basis for deciding on actions. This includes not only action measures derived by the user himself, but also recommended actions provided prescriptively by a machine **learning data analytics model**.
This results in **less scrap** and **reduces quality inspection costs**.

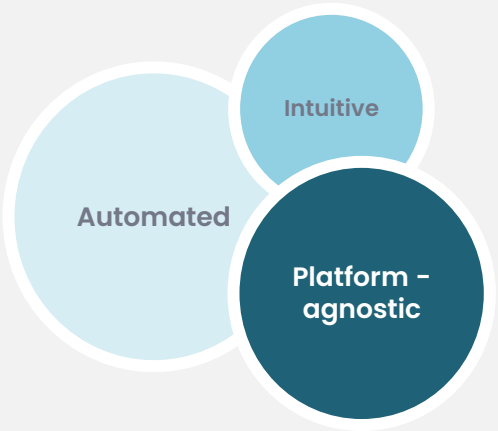
3. THE PROBLEM
In the industry

The benefits of A.I. in manufacturing are widely known. However, producing companies still hesitate to adopt these technologies in their facilities.

Here is some data

Less than 14% utilize A.I. to increase **productivity** and **sustainability**. About 75% of these companies hesitate to use A.I. in production, due to the **missing software experts** that understand the use-case, or because the **return of the investments** is still unclear. Finally, they also worry about **data safety** and are also often conservative about **clouds**.

Production engineers need solutions that are:



This way, A.I. can be implemented faster and truly **drive productivity**.

4. ICONPRO Solutions

APOLLO SOFTWARE
For Predictive Maintenance

Easy Setup & Connection

Any Cloud & On-Premise

Reduce Maintenance Costs

Low-Code Platform

100% Automated Predictions

Track & Reduce Downtime

Our APOLLO software is for **predictive maintenance** of production units. It is easy to set up and connect **machine tools, robots, or measurement systems**. It is 100% automated, predicts downtime and optimal maintenance dates. It tracks **operations, conditions, events, and alerts**. Of course, it is a low-code platform that runs on-premise or in any cloud.

ARES SOFTWARE
For Predictive Quality

Loads from any Data Source

Live Predictions and Optimization

Reduce Quality Inspection Costs

Finds all Data Relations

Any Cloud & On-Premise

Reduce Scrap Rates

Our ARES software is for **predictive quality** and **process optimization.** You can load the data from any source. It automatically finds and utilizes all relations in the data. You can easily integrate predictions and optimizations into your live processes. Of course, it comes as a **no-code platform** that runs on-premise or in any cloud.

7. IMPLEMENTATION
Process at IconPro

Introduction
Processes and Data Sources Analysis.

Test Study
Data Assessment and Feasibility Analysis.

Implementation
Software Interfaces Implementation and Validation.

Deployment
Results Deployment, Software Installation and General Recommendations.

Monitoring
Software / Algorithm Validity and Results Sustainability.

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