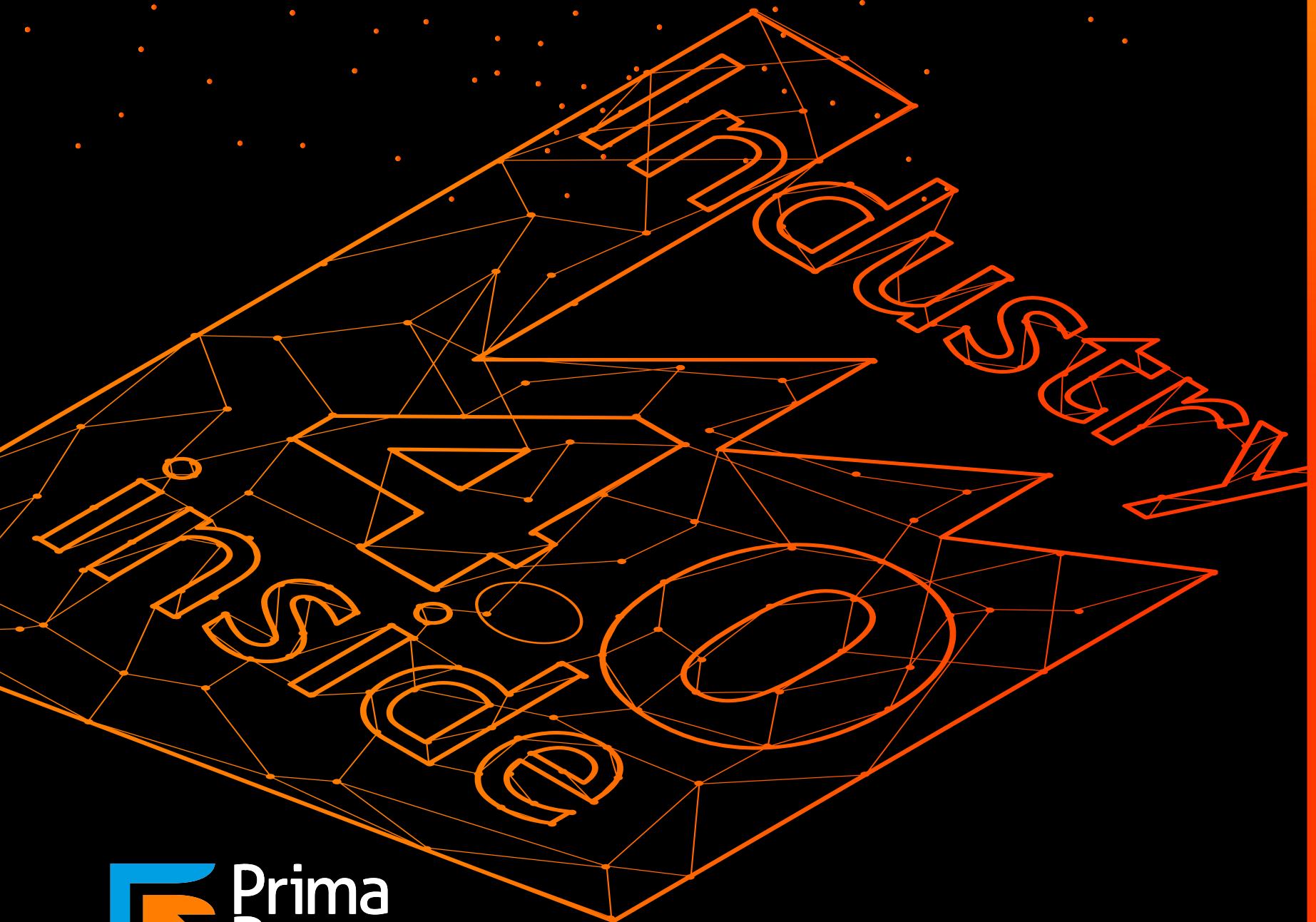


SPARKS

THE POWER LINE EBOOK

001

INDUSTRY 4.0



SUMMARY

#1

SMARTIFICATION

The manufacturing evolution features sensitivity, big data, accessibility and intelligence.

#2

INDUSTRY 4.0 IS THE ANSWER

Four ways to increase industrial productivity through technology.

#3

PRIMA POWER INNOVATION

New solutions for automated production, smart software and remote diagnostics.



The answer is in the question.

As CEO of Prima Power, at the head of a company devoted to innovation, my daily training consists of asking myself the right questions.

What level of client satisfaction do we have? Are we doing our best? Are we fast enough? Organized? Are we working in a stimulating and safe environment? What—and how—will we produce tomorrow?

These are the daily questions that help turn challenges into opportunities because the answers influence the four cornerstones of an industry that is growing.
Flexibility, reliability, efficiency, service.

— **Ezio Basso**
CEO of Prima Power



SMARTIFICATION

Digital technology applied to industry can provide many answers through tools and methods that define a SMART plant. Prima Power applies the Industry 4.0 principles by adding four vital elements to the production: **connectivity, big data, accessibility and intelligence.**

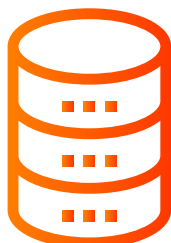
FOUR VITAL ELEMENTS

.1 CONNECTIVITY



The machines become “perceptive”: they are able to control the environment and production processes through sensors, actuators, cameras and software, connected to the network and run by a central software. This is the **Internet of Things (IoT)**.

.2 BIG DATA



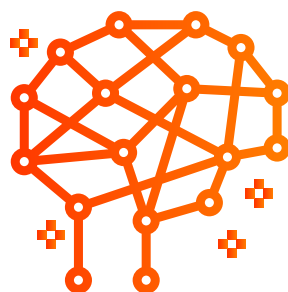
The machines are able to gather an enormous amount of production data, leading to efficiency gains and anomaly detection. In this way, **Big Data** mirrors the production processes.

.3 ACCESSIBILITY



Big data collected by machines are sent to the **Cloud** and can be used by all company levels, from management to operations. Remote data accessibility allows Prima Power operators - in agreement with customers - to carry out maintenance operations in a very short time, with a considerable reduction in downtime.

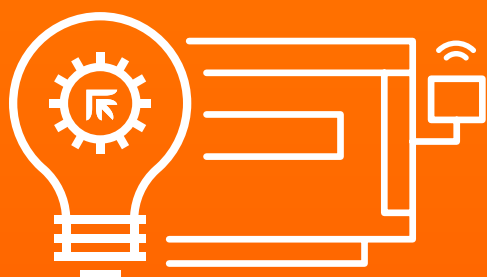
.4 INTELLIGENCE



The data shared and collected on the **Cloud** is processed by software that can monitor production processes and solve problems almost in real time. The resulting knowledge makes it possible to predict potential malfunctions and the relative maintenance interventions.

DIGITAL TECHNOLOGY

THE INTELLIGENT MACHINE



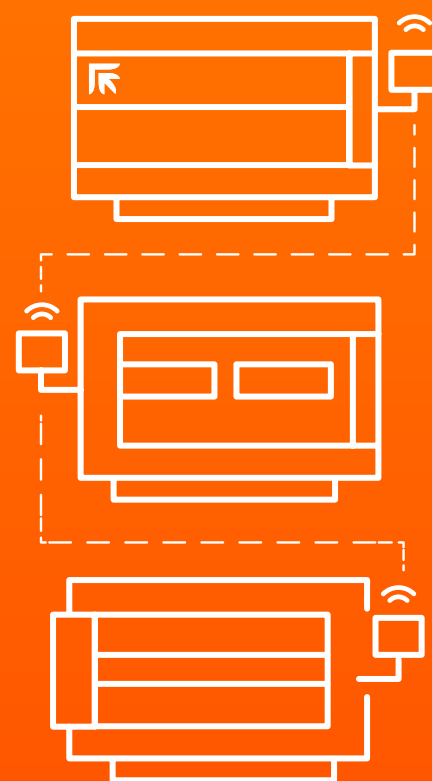
Everything starts from the single machine, the atom of our system. Each Prima Power product is already equipped with the four "vital" elements that make it compatible with the Industry 4.0.

THE MAN THINKS, THE MACHINE DOES



The frontier of the Industry 4.0 is the production in which the human contribution is minimized in repetitive, dangerous, heavy activities. The goal is to increase efficiency, reduce errors and accidents.

THE INTELLIGENT NETWORK



The union of atoms creates molecules, molecules create life. Each Prima Power machine can be part of an interconnected production network, interacting with other machines and generating even more efficient synergies.

INDUSTRY 4.0 IS THE ANSWER

The questions we pose as entrepreneurs and managers are concerned with improving the productivity of our plants. **Industry 4.0** is the intelligence in which we find the answers.

1

FLEXIBILITY

The production lines can be programmed to perform very different processes in full efficiency, remotely and autonomously.

2

RELIABILITY

Monitoring the whole production process ensures the highest level of reliability.

3

EFFICIENCY

The software analyzes the whole process in order to optimize all manufacturing stages, reducing waste and downtime.

4

SERVICE

Every issue can be solved both remotely and locally with a fast and effective diagnosis. This means that we can always be there for our clients.

SMART SOFTWARE



PRODUCTION CONTROL

Convenient remote monitoring of the factory

With Tulus® MUPS Mobile Information System you can always check the status of your production wherever you are.

Maximizing sheet utilization

Cad/Cam NC Express e³ is a part of Prima Power software family. It can search for the best suitable sheet size, determine coil cut lengths and nest parts automatically common line for punching, laser and shearing machines.

User-friendly Human Machine Interface

With Prima Power software you can interact in an easy and friendly way through touch screen or a tablet.

Manufacturing Execution System

Tulus® Power Processing is a flexible Manufacturing Execution System (MES). With Tulus® Power Processing you can control the whole production process from order management, programming and machine time scheduling all the way to the finished product and reporting.

REMOTE DIAGNOSTICS

Improving operational efficiency

Thanks to the analysis of machine condition and performance, we know in advance when a machine needs an update or when a visit to the customer is necessary.

Saving time and money for customers

In case of unexpected alarms, thanks to Remote Diagnostics, a technician does not always have to visit the site.

Reducing machine downtime

Fixing a machine remotely, it can be back running in a few hours.

Security policy ensuring data privacy

Remote diagnostic access is allowed only to selected and authorized people. Safe and secure level access policy is granted.