KFI

KFI is a system integrator specialized in creating innovative and customized projects. Since 1991 it has collaborated with the world most innovating technology suppliers, supporting companies in tracing, innovating and streamlining the key processes for the success of their business.

Since 2004, a team of professionals provides solutions and system integration in complex environment. This makes KFI the main reference in Italy for all companies that need to improve their manufacturing and intralogistics processes.

PROCESS INNOVATION
We support the customer in analyzing the **AS IS situation** and we share experiences and ideas in order to improve the **TO BE processes.**

DIGITAL TRANSFORMATION
We offer, with an agnostic approach, innovative **digital technologies**, placing them **at the service of new processes**.

SYSTEM INTEGRATION
We integrate new technologies with the customer's **information system**, bringing **tangible benefits** in terms of **process efficiency**.

Paperless Factory: the first step to Industry 4.0

Digital Transformation involves a set of technological, cultural, organizational and managerial changes for companies.

In manufacturing, this evolution finds application in the concept of Industry 4.0.

The first step towards Industrial IoT is the Paperless Factory, where the digitization of information allows real-time updating of data and elimination of paper documents.

In this era, dominated by digital technologies and sophisticated communication networks, the management of data through paper can create bottlenecks that slow down the flow of information through the factory.

Nonetheless, in many production environment, paper is still the main tool for sending processes instruction and creating reports on activities, anomalies or maintenance.

Anyway, paper sheets have their limits: they are not updatable and can be easily damaged or lost.

Moreover, finding the right data along the sheets is not immediate and the information is often limited to employees involved in the document management, who are responsible for their sharing.

This lack of flexibility, combined with the inability to process data in real time, generates chaotic situations that affect productivity and quality.
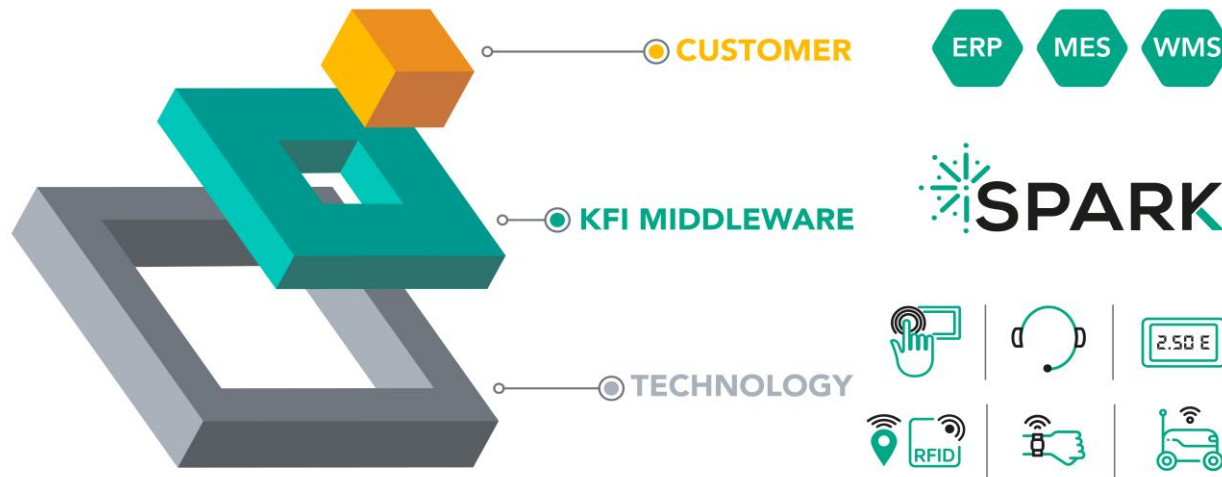
Fortunately, the opportunities related to the growing interconnection of objects, systems and applications, combined with better and more affordable enabling technologies, have created the condition for the Paperless Transformation.

In this scenario, the dematerialization of information eliminates paper, simplifies staff activities and facilitates the introduction of innovative tools such as wearable devices or ESLs which, with their dynamic displays, can convey richer and more punctual information.

This give the opportunity to streamline the processes, record data, obtain production's instruction in real time. In addition, it allows all stakeholders to access to the correct information just when needed.

These advantages translate in a resource management more aware and efficient, leading to higher productivity and profitability.

Spark: the KFI multi-technological platform

CUSTOMER

ERP   MES   WMS

KFI MIDDLEWARE

SPARK

TECHNOLOGY

Spark is the **KFI software platform** that integrates and manages the technologies which support the manufacturing and intralogistics activities.

Acting as an **interface** for the **ERP / WMS** systems, it allows the customer to manage all the technologies and the processes through a **single point of interaction**.

It allows the **collection of reliable information** on the operational processes in real time and displays them through **customizable graphic dashboards**.

Advantages

Increased productivity: complete control of processes in real-time redefine the production standards of quality and efficiency.

Man per hour reduction: more efficient processes free resources for activities with higher added value.

Cost reduction: processes and assets monitoring allows a more efficient resources allocation, faster reactions and the waste elimination.

Less training time: technology simplifies processes making new employees immediately operational.

Interchangeability: standardization and guided procedures allow operators to exchange roles easily.

The processes we make more efficient

Picking, Kanban e Refill

Immediate identification of locations and error-free pickings

Short training times and fast onboarding of new employees

Real time stock information and replenishment

Kitting and Trolley Documentation

Correct sequence of picking

Complete and correct kits

Clear identification of the right boxes on the trolleys in multi-order picking
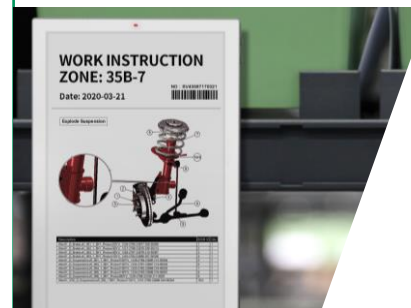
The trolleys ensure up-to-date information to the assembly stations

Assembly Instruction

Production plans and assembly instructions updated in real time

No errors related to the use of obsolete documentation

Asset Management

Asset status and position constantly monitored

Resource usage optimization

Up to date and accurate vehicle inventories

Spark: moving to the Paperless Factory

Supported Technologies

Pick/Put by Light

Multicolored LED signals allow **immediate identification** of items and locations.
Hands-free operations **speed up processes** and drastically **reduce errors**.
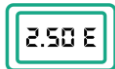It **reduces training** time and favors the swapping of operators.

Voice Technology

It guides the operators during the activities of picking and quality control, **reducing time and errors**. It allows your team to work with eyes and hands free. It **speeds up training** and **facilitates** the **induction** of employees.
Digitizing the paper checklists, processes are made faster and more comfortable. The errors related to manual transposition of data to the information system are avoided.

RTLS & RFID

RTLS accurately identify and track assets and people in real time. They **optimize** the use of **space** and **routes**. They simplify the attribution of the use of the asset to the correct **center of cost**.
RFID technology allows the **massive reading** of labels (even in absence of direct visibility) and **to trace the internal movements** of the items.

Electronic shelf label

They allow to digitize data, guaranteeing **real-time updating** and **richer information content** on articles, lists, assets and work instructions.
The correct information is always accessible to the **right user** in time of need.

Wearable Devices

Making hands and eyes free, wearable devices improve ergonomics**, increasing productivity** and reducing errors.

AMR

Thanks to sensors, on-board computers and maps, AMR move independently, planning fast and efficient routes.
They **do not require investments in infrastructures**. They free human resources for activities with higher **added value**.

References

Ducati Motor Holding Spa

Pick-to-light wireless for the production supermarket
- Better ergonomics - Hands free picking
- Training time: from 4 days to 4 hours

Beverage & Mineral Water Manufacturer

Production and material flow monitoring via RTLS
- Real time data on objects status and position (accuracy up to 10 cm)
- Network sharing of the logistics processes

Supersport Car Manufacturer

Voice-to-light for KLT and GLT boxes refill
- Better ergonomics - Hands free picking
- Setting errors reduction

Spark: moving to the Paperless Factory

KFI

KEY FOR INDUSTRY

SPARK
A KFI INTRALOGISTICS 4.0 SOLUTION

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