



Roldsmartfab



Industry 4.0 in real time: SmartFab is the ideal solution to enable any manufacturing company to monitor, analyze and manage data and optimize production processes.

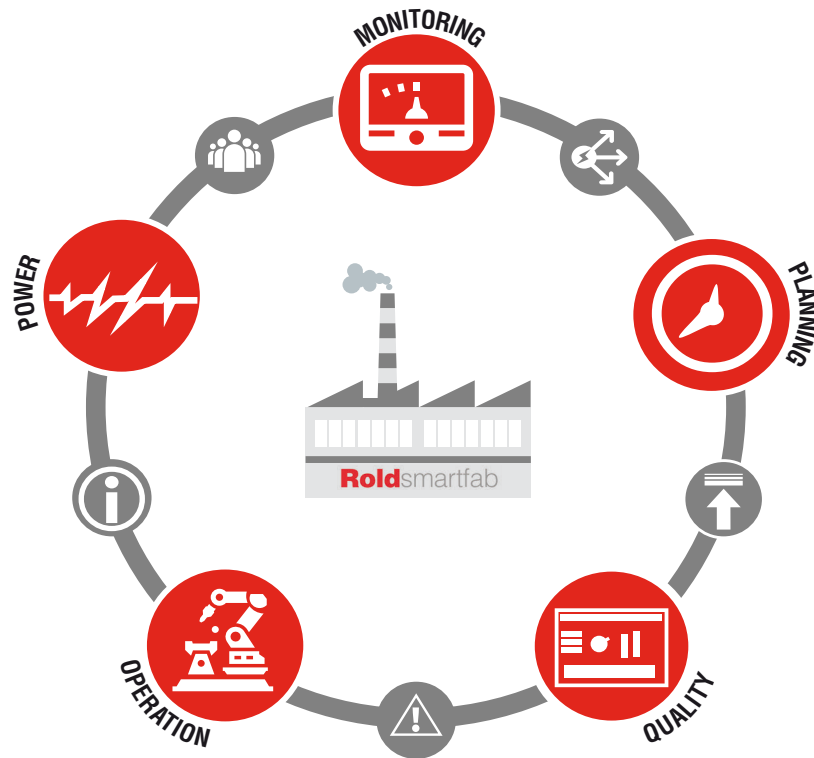
An innovative idea by **ROLD** in partnership with **SAMSUNG**

SmartFab is the practical application of Industry 4.0, with data always at your fingertips, in “real time” on touchscreen, smartwatch, or smartphone display.

Rold SmartFab is the “ready to use” platform, connecting people, machines and information.

It was created by Rold, a manufacturing SME, in partnership with Samsung, to allow companies an easy access to Industry 4.0 at an affordable cost. The combination of technology and “usability”

allows the digitalization of machinery (from the most recent to older models) so that data is readily available anywhere and to anyone through smart devices. **Rold SmartFab sends data directly to the operators**, eliminating the need to search it manually.



Having the factory constantly at your fingertips, enables better decision-making.

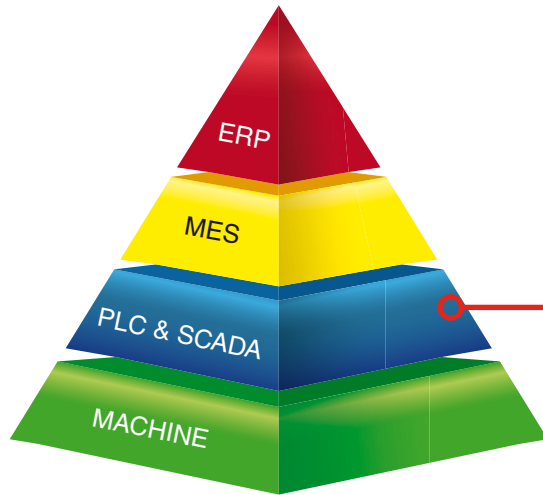
SmartFab is a system which uses everyday devices and maintains high levels of security and data ownership. Smart **Signage touch screens are installed along the production lines** to control and analyze the most important information, making data readily available.

Offices are remotely connected with touch screens so that management can comprehensively oversee production. Moreover, **mobile devices (smartphones and smartwatches) allow** the direct management of alarms, error codes and problems in real time, resulting in a quicker response to potential emergencies by remaining constantly connected.

SmartFab also expands the use of digital devices inside the factory, utilizing high-resolution touch screen boards, to guarantee versatility, extended connectivity and cooperation among workers and with the control and line management systems.



SmartFab can be installed in any manufacturing environment, on different machines and on existing infrastructure.



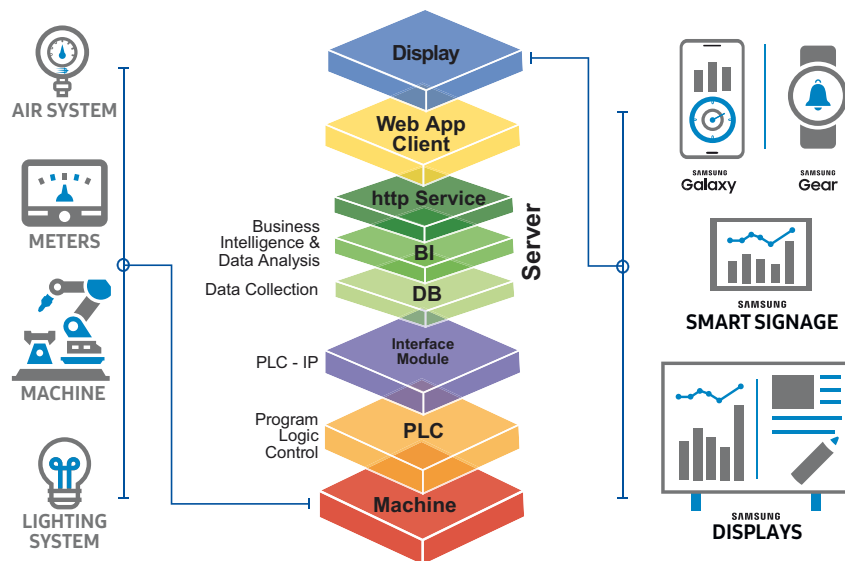
ROLD SmartFab is positioned at a level between the MES and the production lines (machines). SmartFab does not replace the MES, but **works in parallel with production software and provides instant and constant support.**

Its strongpoint is that it connects the physical world with the digital world by providing an immediate reading of process data directly from the production line.

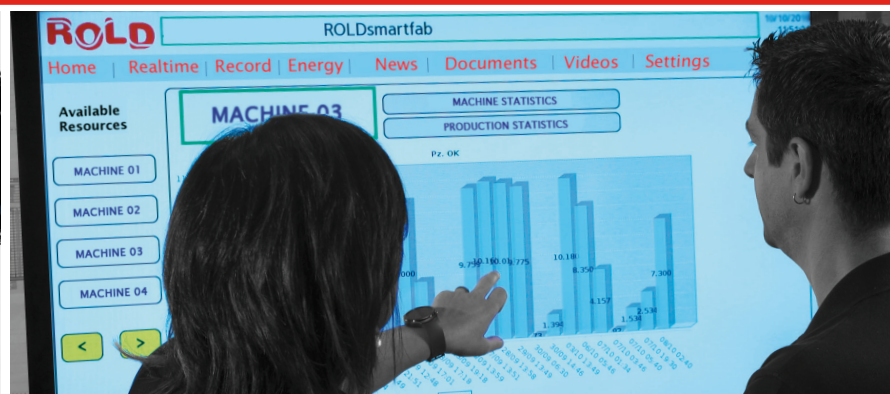
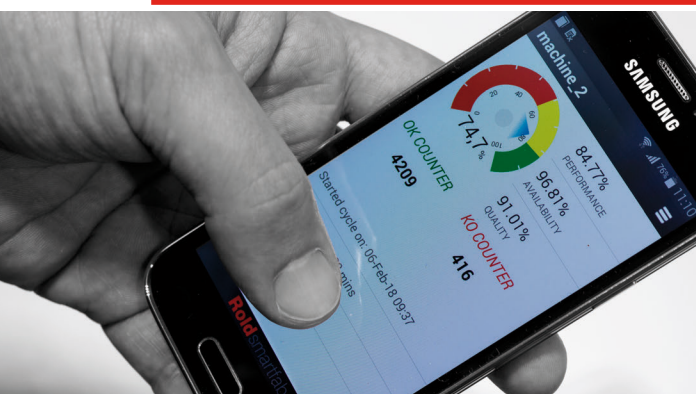
This results in:

- Immediate data recovery
- Granularity of information
- Interoperability with different field protocols
- Integration with the ERP either directly or through the MES
- Ability to share information easily with all workers involved

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The architecture of the platform that distributes information anywhere, in real time.

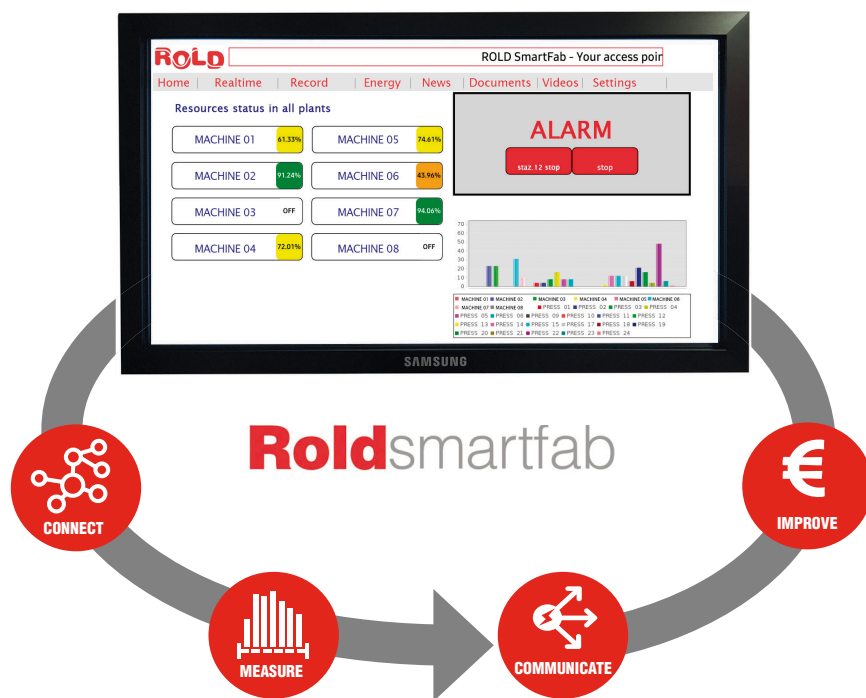


SmartFab is a simple, quick and affordable way to digitize and connect machinery and systems.

SmartFab encourages the propensity for innovation: today's world is deeply marked by the onrush of new and often disruptive digital technologies which can radically transform productive processes.

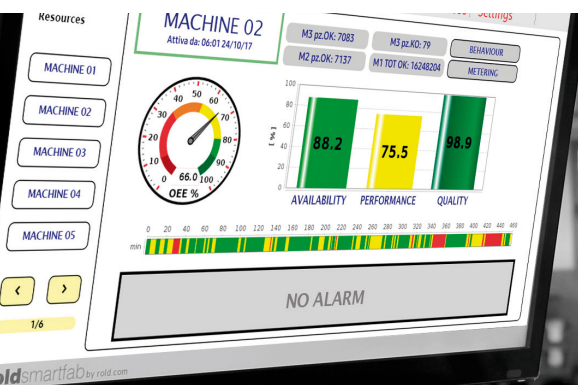
Rold SmartFab is therefore very well suited for companies keen on boosting efficiency. The use of SmartFab on the factory floor inserts a paradigm shift in the approach to production processes.

Workers, foremen, and managers no longer need to retrieve the data from the field, struggling to obtain tangible and objective information. **Rold SmartFab is a digitization enabler** for companies seeking to optimize their processes. At the same time, **SmartFab can also act as the starting and access point to Industry 4.0** for companies that have not yet embarked upon the new digital path.



The SmartFab digital platform is ideal for such companies

- SmartFab can be used in companies with high output serial production.
- In such companies, management needs to frequently **check the status and activities of individual production resources and plant efficiency, with the goal of saving even just a few minutes per production cycle.**
- The ability to quick identify which process parameters to act upon are a **key factor for success and, in the long run, can increase the production yield.**
- SmartFab is a quick and ideal fit for all industrial environments:
- **Manufacturing companies, mechatronic sector, food industry, pharmaceutical, plastic, textile and automotive.**
- Companies with serial production
- Companies with a strong focus on innovation
- Companies that want to share production data among multiple decision makers
- SMEs



SmartFab is an effective production “trainer”: precise, accurate and practical. With rapid and comprehensive performance information.

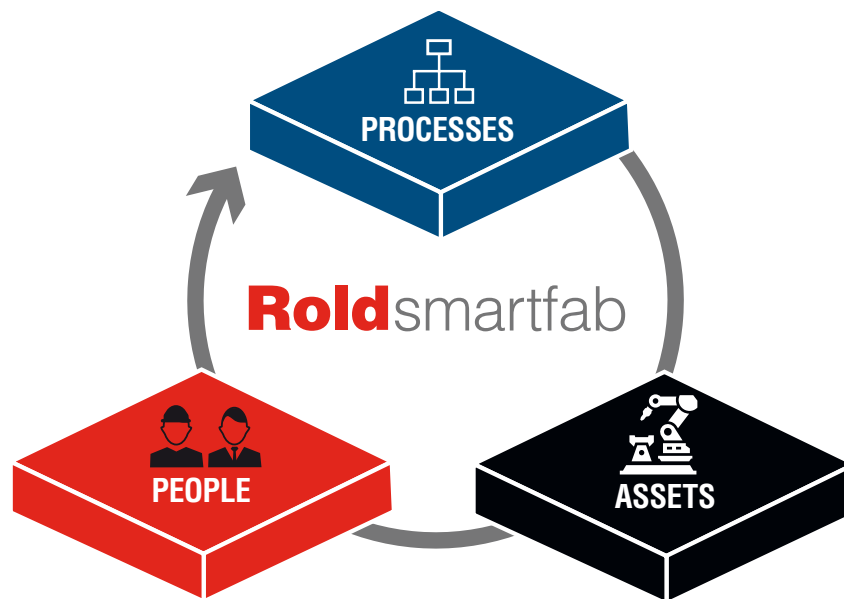
In order for companies to achieve more efficient processes and added value, it is vital **to keep an eye on three important key areas: time, quality and production costs.**

SmartFab helps a company to accelerate its processes. If a company can view the production rate at all times, it can keep its finger constantly on the “pulse of the situation”, that is the process parameters (including the OEE), so it can **immediately identify the best performing machines and those in need of remedial actions.** SmartFab enables continuous improvement, with people learning from

the process itself in real time. **Workers benefit from a system that notifies them of any critical machine conditions, while continuing to operate in accordance with procedures.**

Any company which promotes continuous improvement will enjoy a competitive advantage. This is possible either through appropriate training or through a real change in mentality.

Everyone involved in the process, depending on their level of responsibility and expertise, can critically evaluate the production process to identify areas in need of increased efficiency.



The main benefits of SmartFab for manufacturing company staff

Workers

- Real time visibility of interruptions, breakdowns and performance loss
- Reduced response times
- Improved process control awareness

Foremen

- Visibility of the saturation of productive resources in real time
- Analysis of downtime and process yield in real time
- Availability of a tool for continuous improvement

Management

- Ability to create dynamic performance indicators on real process data
- Instant communication with process operators
- Rapid and remote access to factory information



Objective: to improve efficiency and quality, increasing production line performance and optimizing costs. With people at the center of the system, assisting them in the decision-making process.

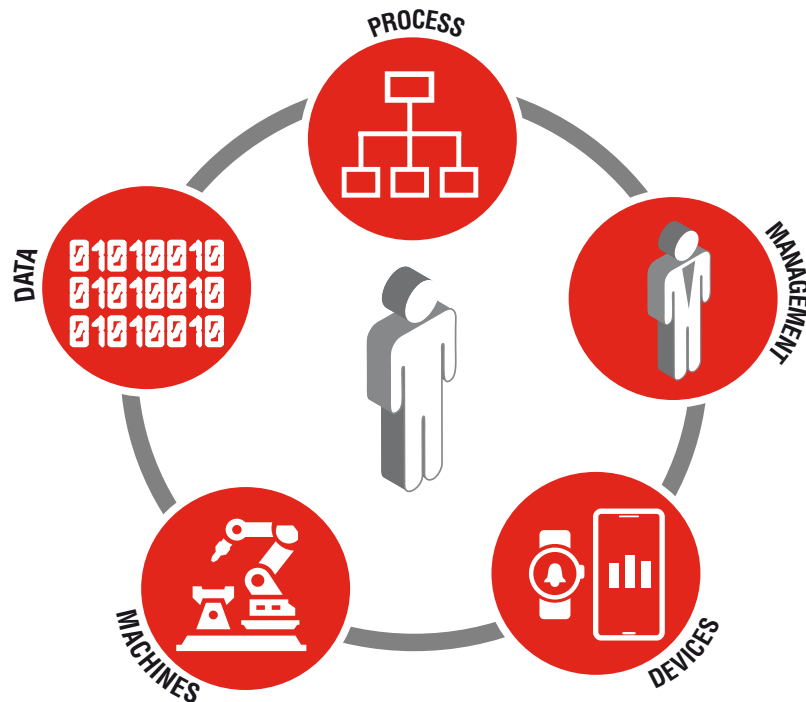
SmartFab brings a substantial change to the **control paradigm of production processes: from reactive** (as a function of scheduled events) **to proactive** (in response to scheduled events but under continuous monitoring and improvement, so as to anticipate the emergence of critical situations). Organization becomes fluid and the role of workers and managers is key: the ability to connect the physical world to digital data creates a true productive digital twin.

This is the first step in a broader digital strategy that must be successfully pursued by companies that want to **extract value from previously uncontrolled process areas**.

The ability to make more objective decisions: this

critical factor falls within a wider organizational issue, namely that of understanding the context and make the right decision. Managers today make objective decisions within an highly complex organisational environment. Often these decisions are based on both objective data and on experiential elements and are therefore subjective. **SmartFab collects solid real time data, becoming the crucial decision-making tool** (whether operational, tactical or strategic) and facilitates an understanding of the production process. In the past, we relied on experience to understand trends.

With SmartFab we can now make the information available at multiple levels, permeating the production process.

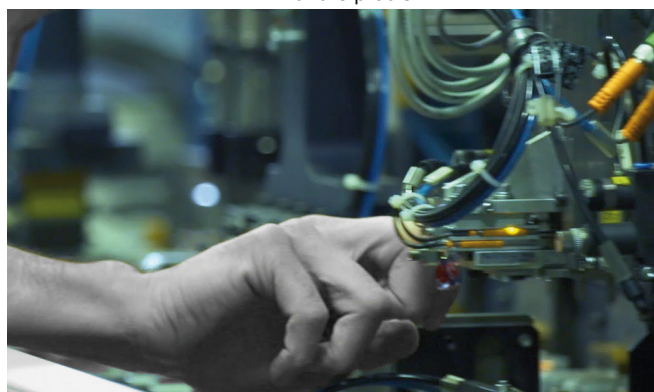


All data and factory alarms are at your fingertips and available for prompt response

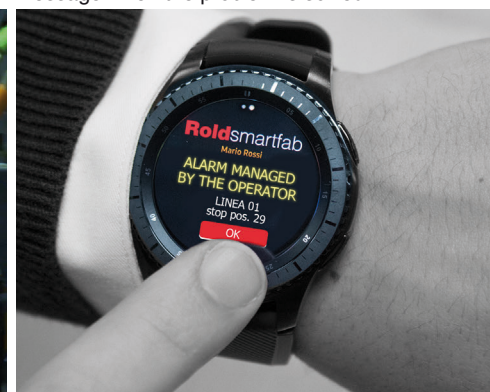
The operator receives an alarm notification on his smartwatch



The operator quickly deals with the problem



The manager receives a real-time message when the problem is solved



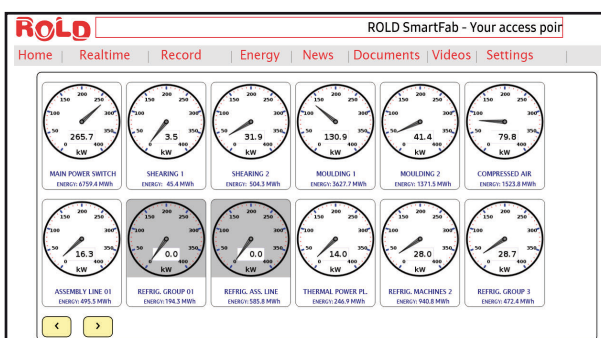
SmartFab provides advanced process management and data categorization, allowing the profiling of users and storage of data in a relational database (cloud-based also available).

- Modular and upgradable platform
- No changes to existing processes
- Data collection directly from measurement points on the production lines
- Historical data archive
- Creation of statistical reports for any production field
- Display of the production plan for each resource or machine
- Multidimensional data analysis
- Ability to create reports on efficiency and on causes of inefficiencies of production phases

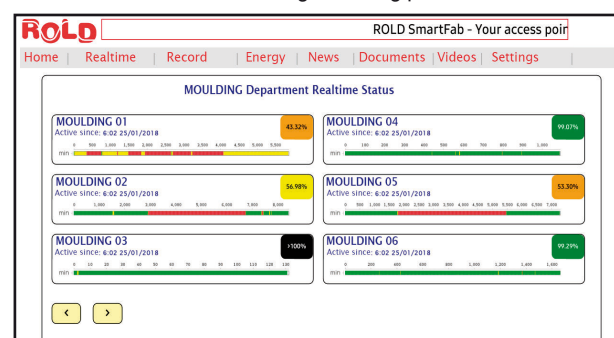
User-friendly Administration interface configuration



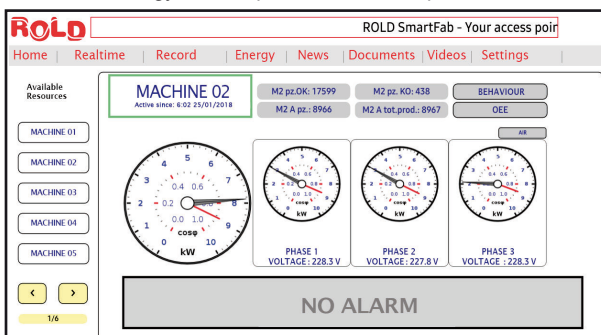
Monitor energy consumption and efficiency



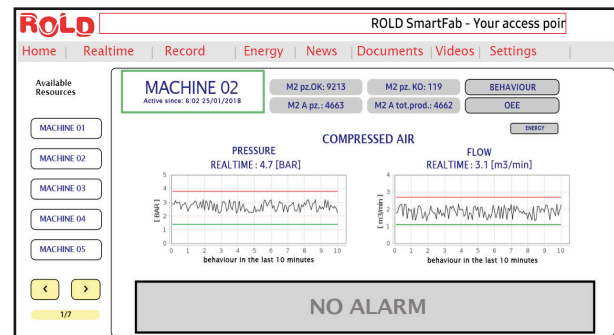
Tools for controlling moulding processes



Monitor energy consumption of individual production lines



Monitor of compressed air consumption



Cost savings

Massive improvement in savings and efficiencies. Economies of scale thanks to hi-tech devices more accessible than industrial-type systems. Lower maintenance and renewal cost.

Data security

Advanced software components, easily configurable in varied environments. Platform with high security levels that meet the most commonly used international standards.

Easy for operators

Simplification of the operators' process of change: using the same "everyday" devices allows for a more immediate interaction which favours continuous training and improvement.



Rold SmartFab is the result of a research and development partnership between **Rold**, a leader in the field of components for household appliances, and **Samsung**: having shared know-how, skills and technologies to create an innovative system, ideal for SMEs who operate in the manufacturing industry. This system allows them to monitor, analyze and manage data and information collected directly from the production lines and the factory sub-systems, making them available in real time, on touch screens, mobile and wearable devices.

SmartFab is ideal for companies in the mechatronic and manufacturing sectors, because it scans the operational status of the production lines - anytime and anywhere - and allows to promptly solve urgent issues such as machine downtime or significant speed losses.

SmartFab just works. It was created for manufacturing companies by a manufacturing company who, seizing the opportunity of Industry 4.0, has designed and developed a solution that takes into account the real and practical needs of industrial companies and their production processes. SmartFab application in Rold production plants has transformed its organizational model.

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