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# BUSINESS CASE

## RFID Sample Tracking

*How to automatize sample tracking, reduce errors and provide real time information in the pharmaceutical industry?*

Solid Solutions en Identification SA  
[www.solid.ch](http://www.solid.ch)

# MISSION

In 2019, two Swiss Biotech & Pharmaceutical companies contacted us in order to optimize and automatized their sample tracking. Due to strict regulations in place in those industry, they haven't started digitalization like in other filed and where in need for a change.

The Solid team take on the challenge!

# CONTEXT

In laboratories, it is really important to be able to know where a sample is and to have all its movement history to be sure that the storage complies with regulation and processes.

Therefore, moving a sample through a plant (from production to QC) involved a high level of manual task and manual information entries in paper logbooks.

Lab technicians had to:

- Find the sample (no real inventories were available)
- Move it form one location to the other and checking concordance between sample and fridge temperature
- Entered information in paper logbook
- Communicate with other departments to tell them the sample were ready
- Entered information in LIMS system
- Etc.

And it doesn't stop there, the unpleasant work was not limited to lab technician but impacted the whole company:

- Sample manager have to compile that information to have an overview of the sample statues and check that sample where not out of a fridge too long
- Archivist had to classify the paper logbook in archive to find it quickly during audits
- And so on ....



# LIMITATION AND PROBLEMS

All these steps required time but had also limitations: no real time vision, limited access to information, time consuming, limitation of monitoring, human error possibility, limited access to historical data and non-gratifying task for the operator.

## FINAL GOAL

To sum up they were looking for a solution to automatized sample tracking. A solution that needed to:

- Track movement made by technician in labs and operate different control
- Share real information
- Communicate with other system (MES, LIMS)
- Comply with GMP regulation

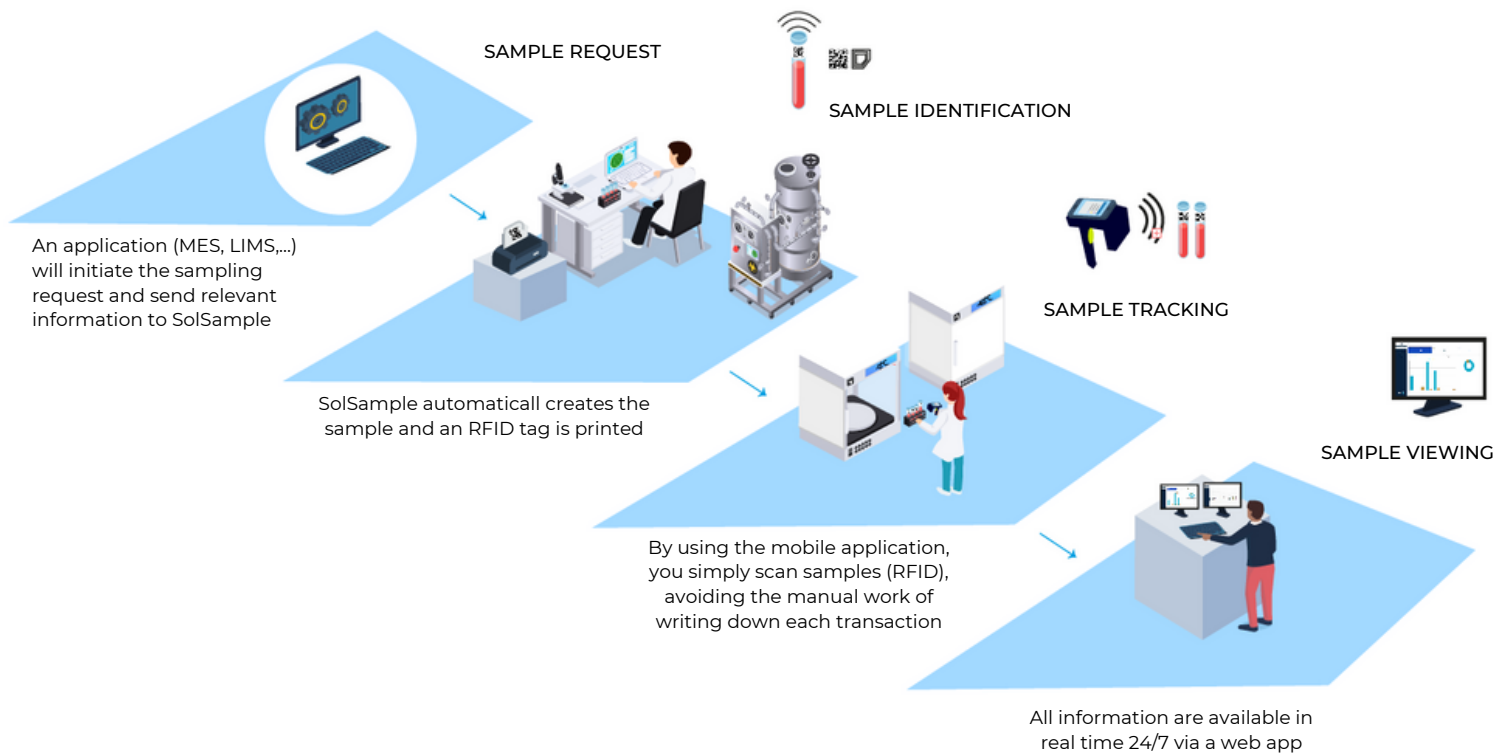
## SOLUTION

The solution we developed for our client is made of 3 components:

A tracking and identification technology: due to the size of samples, their number, and the movement process, we choose to equipped samples with RFID. Radio Frequency IDentification is a wireless system comprised of two components: tags and readers. The reader is a device that has one or more antennas that emit radio waves and receive signals back from the RFID tag. We replace their basic labels by RFID labels (same size) that allow to read them automatically. RFID offers several advantages like the ability of scanning without seeing the labels and multiple fast readings (81 samples in 20 seconds).

A mobile solution for operational action: we equipped departments with an app on Android PDA. Users use it to make their daily actions (transfer, destruction, aliquoting ....). The app makes the different controls needed such as correct source location, right fridge temperature, etc. and send all information to a database (who, when, what, from where to where ...)

A back-office solution to display all information from the field available to everybody at any time. The back office replaces the logbooks and bring new features (alerts, monitoring and reporting). If a user needs an info about a sample, he can have it in seconds. No need to archive logbook anymore.



## BENIFITS OF THE IMPLEMENTATION

The implementation of our solution allows:

- Real time vision for all
- Automatized processes with less mistake
- Better control of the movement and process rules
- Faster action, increase of productivity
- Reporting and activity monitoring
- Facilitate user experience

## REMINDER

As mention previously, SolSample has been thought and developed for the needs of the biotech, pharmaceutical and food industries. It meets the demanding safety, regulatory and the process requirements of them. This solution is the result of 25 years of experience in identification and was born of a joint effort between a partnership and Solid. Every little details, problems and inefficiencies have been carefully analyzed and solved during numerous exchanges with the partner. This solution is simple and effective and has been developed with the aim of being customizable for every industries while meeting their standards.