

# Receiving the benefits of RFID

Technology inside laundries has come on a long way and one device, the RFID tag – a microchip attached to an item that can be read at speed and wirelessly - has revolutionised the laundry process. And as we enter 2022, RFID has two new 'springboards' that should give a boost to any laundry deploying it.

The first is sustainability where RFID enables efficient tracking of items so that

they circulate smoothly with minimal losses, less pressure on staff and no unnecessary deliveries or collections. Efficiency, especially in a world of Covid related cost pressures is more important now than ever irrespective of the service performed or the firms position in a sector or supply chain.

As for the other key benefit, RFID tags in linen can turn a simple sheet into

a store of information that is valuable to management in the fight to keep costs to a minimum.

Adam Bernstein takes an in-depth look at RFID and updates the sector on all the latest developments in the technology.



## UBI Solutions

BIH, a client of UBI Solutions, has deployed RFID to great effect

Renaud Munier, director of marketing and international business development at Ubi Solutions, considers tracking textiles with RFID in ultra-high frequency (UHF) as "one of the top developments in the present and future." And he says that providers of RFID solutions "are excited about the many possibilities the technology offers." But he worries that while potential users are aware of the advantages, some are put off by investment costs, others argue their customers aren't comfortable with RFID, while more raise concerns about the reliability of the reading stations and tags.

In response to these concerns, Munier says that laundries that have implemented RFID "have realised that RFID is not only a tool for tracking linen, but that it offers much more and is the basis of other trendsetting developments like industry 4.0."

To make the point he gives an overarching view of the technology, and he starts by noting that RFID technology is closely tied to automation: "Automated processes lower the costs of a laundry and elevate quality, which provides a competitive advantage.

And a fundamental requirement for an intelligent automated laundry is the exchange of information between all involved items - machines, textiles and IT systems." Here he points to the role of communication via internet protocols which is often referred to as the Internet of Things or IoT.

"RFID technology," says Munier, "is the basis for a completely automated laundry. By introducing RFID, laundries are taking a big step toward automation and single stages of the process, such as counting linen before and after washing, can be done easily and quickly."

In more detail, Munier explains that collected data is not saved on the tag itself but elsewhere in a database. The information is linked to its specific tag via a unique ID number. As laundry processes produce enormous volumes of data, it's logical to manage this data in a separate application, which then exchanges information with other systems and machines as needed.

There are two different approaches to rolling out RFID in a laundry. The first requires every single item to be tagged. But as Munier says, "tagging

100 per cent of laundry represents a big investment and great effort as textiles already in circulation need to be chipped as well." As a result, many laundries avoid doing this. He adds that as a compromise "a lot of laundries start tagging all of a new customer's laundry." The problem for him is that "what first sounds like a sensible, soft introduction of RFID bares little merit. Although the laundry knows exactly where the articles of that one customer are located, it does not provide any insights into the processes at the laundry itself." The result, he says, is that they cannot profit from the savings and advantages that RFID tracking promises.

The other approach outlined by Munier is less used throughout Europe even though he says that it offers greater benefits at a similar price - the tagging of only newly bought linen. As he describes, to start off, only a small percentage of linen is equipped with RFID tags across all customers. But with every purchase, the percentage rises and everything will be tagged in around two to five years. By following this approach Munier says

that "software is solely responsible for tracking and is capable of delivering meaningful statistics."

A key benefit of RFID for Munier comes through a fundamental restructuring of relationships with customers as "it offers a new and comprehensive knowledge about the location and the history of each laundry article."

He says, however, that it is essential for customers to have access to the data to improve transparency and trust in the technology; they can access it via cloud applications.

For Munier, RFID essentially offers "laundries a complete overview over all data of every item in real time. The application knows exactly when any item was washed, which customer it is attributed to and where it is currently located." He says that the benefit for customers is clear – "they can see how often their laundry is used before it is worn out, how much laundry they have in stock, and if they are complying to their hygiene regulations."

And with mobile readers, Munier says that data can be collected at customer sites, which may assist, for example, hospitals or hotels in the management of their laundry. Here Munier offers the view of Luc Videau, technical director of hospital laundry, BIH, in France.

According to Videau, the main motivation for deploying RFID was "to reduce the loss of 50,000 sheets per year representing €250,000, which were vanishing every year. Notably, only 30,000 new bed sheets were being bought each year, so this loss was an issue. Videau explains that the project was set up in September 2013 with a return on investment in seven months – "now 100 per cent of the patient shirts and 10 per cent of sponges and towels are chipped. These three products represent 75 per cent of our textile purchases."

As to why BIH hasn't tagged everything, Videau says that "the investment for chipping 100 per cent of the linen was too big and gave us no guarantee of a higher ROI." For BIH, the goal was to have a tool "that would allow us to educate our customers to handle the linen differently. So, a

tool that provides transparency was more important than tracking 100 per cent of the linen." Before the introduction of the system, BIH had no visibility. So even visibility of just 30 per cent of its linen "gave us a great advantage and enabled us to reduce losses and therefore our annual purchases by 25 per cent."

RFID, says Videau, has improved BIH's customer relationships "because we can now discuss factual data. The more new and chipped linen we buy the higher is the accuracy of the KPIs." Interestingly, Videau highlights that there was no resistance to RFID – "it was actually quite the contrary; it enables hospital linen rooms to have accurate KPI's to show to the care services."

In time, Videau says, that everything will be tagged to totally automate the production process. Even so, he says that "the simple fact of chipping just 20 to 30 per cent of our textile articles is sufficient to justify the investment."

Back to Munier, he ends by saying that "RFID opens the path to industry 4.0 for laundries, the path to the future. Linen moving autonomously through a laundry and machines which know themselves what to do sounded like science fiction just a few years ago. But today that future lies within our grasp."

He adds a final comment: "For that to become reality, laundries have to think beyond single tags and machines. They must let technology inspire them, they have to embrace change with determination and maybe take a step out of their comfort zone."



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