Digitalisation as an efficiency factor in the healthcare sector - Datalogic

Process optimisation: with its hand-held scanners, Datalogic is in high demand as a system partner in the continuous digitalisation of procurement processes in the healthcare sector.

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To increase efficiency, more and more major healthcare providers combine purchasing and logistics in larger economic units.The continuous digitalisation of the procurement process has proven itself as a tested method.Datalogic hand-held scanners hold a key position in this – they are used in decisive intersections in the digital purchasing process.With their easy handling and high reliability, they contribute to keeping the efficiency promise of digitalisation.

One trend has been gaining ground for years – bundling health benefits. That is how medical practices grow into medical supply centres, while medical supply centres and hospitals in turn become part of healthcare companies. The advantages are obvious. They range from the all-round care of patients to optimised negotiating positions with respect to the health insurance companies. As a result of such synergy effects, the different parties also need to combine purchasing and logistics into larger units for increased efficiency. This is quite a challenge, even for one of Germany's leading healthcare companies. Until just a few years ago, purchasing at Agaplesion gAG was organised locally. It was left up to the individual organisations belonging to the company. Necessary operating materials, such as medication or surgery supplies were sometimes still ordered on paper. In addition, Agaplesion had completely outsourced the logistics. In the course of the centralisation, "purchasing cultures" with their own storage facilities and inefficient business relationships were to be avoided. The "AGFA Orbis" software, a hospital information system, was a central element of the IT infrastructure. This was also meant to be maintained during the digitalisation of the purchasing process.

Efficient purchasing – from the order to the delivery docket

The restructuring of the purchasing process allows Agaplesion to achieve three objectives. First and foremost the healthcare company aims to save time and costs and to optimise the entire purchasing process across all stations. The consistent naming of identical articles using a master data management system must be ensured, as does storage sorted by batches. This must be realised through data acquisition and monitoring that runs economically, transparently and professionally. So-called maverick buying, the independent and unauthorised purchasing of materials, is thus avoided. Instead, cost-efficient purchasing and tracking of the entire purchasing process is made possible. Objective no. 2: the logistical supply of all organisations of the corporation from in-house for

all stock items and all items in constant use. This is to save on external costs and eliminate the partially unorganised storage logistics. Objective no. 3: preventing an additional workload for the personnel. And as a result keep the logistical documentation as simple as possible.

A lean process for great purchasing volume

To fully exploit the advantages of the digitalised purchasing process, a lean process chain was needed. AGFA Orbis, the hospital information system used, was not adequate to meet the requirements. In particular with regard to an integration of pharmacies and the company's own central warehouse, which had been built in the meantime. Now the "MobiDiK" software – mobile data acquisition in the hospital – by Richard Müller GmbH is used. This had already proven itself in fifty hospitals as an add-on to AGFA Orbis. That is why there was no special interface problem. The process chain is comprehensively mapped in electronic form. Every individual process step is recorded, documented and verified. The staff responsible for purchasing have access to a classical order front-end, and repeat orders are automated. All articles are electronically recorded using Datalogic hand-held scanners. From the Agaplesion hospitals via the Agaplesion logistics centre to the commissioned pharmacies. And this across the board and in the complete workflow, whether it's loading in the outgoing goods department or postings in the goods received department. In addition, processes in the Agaplesion logistics centre and the pharmacy are commissioned fully electronically.

Datalogic hand-held scanners in the healthcare sector:simple to use, versatile in functionality

Two types of Datalogic hand-held scanners are used. More than a hundred Memor X3 scanners are used for hospitals and pharmacies. Around twenty Falcon X3+ scanners are used for the Agaplesion logistics centre. Both offer numerous useful functions for digital procurement processes in the healthcare sector. Recorded articles can be categorised and, depending on their definition, allocated to patients or cost centres. The scanners are designed for the Datamatrix code – and can uniquely identify and select forged labels. System requirements like Windows CE 6.0 for the Memor X3 and Citrix for the Falcon X3+ are easily met. Another point: its ease of use. For the requirements at Agaplesion, often simple scanning is sufficient – a keyboard or mouse is hardly ever used.

Eight advantages of the Memor X3 at a glance:

- Smartphone format and light weight
- Clear, bright display
- Simple data input with joystick operation
- Storage capacity can be expanded through SD card field
- Operated with accumulators or AAA batteries
- Intel X-Scale system architecture in connection with Windows CE operating system
- ScreenWeb applications

- Device configuration management

Eight advantages of the Falcon X3+ at a glance:

- Hand-held version and pistol grip model in ergonomic and very robust design
- Dust- and water-resistant
- Clear, bright display
- Numeric and alphanumeric versions
- Patented Green Spot for read confirmation
- Standard ranges or extra-long ranges
- Dual process architecture
- Windows CE and Windows Mobile operating systems

The AGAPLESION non-profit corporation was founded by Christian companies in Frankfurt am Main in 2002 to promote primarily Christian healthcare institutions in a challenging economical and competitive situation.

Across Germany, AGAPLESION comprises more than 100 facilities, including 25 hospitals with over 6,300 beds, 35 residential and care facilities with over 3,000 care places and an additional 800 assisted-living apartments, four hospices, 31 medical supply centres, 15 outpatient care services and a training academy.

In addition to all of this, AGAPLESION offers training in the area of healthcare and nursing in 19 different sites. Over 19,000 employees provide patient-oriented medicine and care in accordance with recognised quality standards. Every year, over a million patients are cared for. The turnover of all facilities including holdings amount to a billion Euro.

For over 100 years, Systemhaus Richard Müller GmbH has been recognised for its innovative business ideas. From the typewriter to radio-supported mobile data acquisition. Richard Müller GmbH offers mobile solutions for the efficient design of internal and external logistics for the healthcare sector. In 2002 the company was awarded the "LOG-IT" innovation prize of the European Union and the Ministry of Economic Affairs of North-Rhine Westphalia, Germany. The MobiDiK solution received awards as the optimal connection of logistical processes and IT in the healthcare sector. Currently, the family business employs approx. 25 employees and focuses on the programming and introduction of mobile solutions in the industry, retail and healthcare areas.

Since 1985, MobiDiK (mobile data acquisition in hospital) has been using mobile scanners to link processes in hospitals for the benefit of personnel at stations as well as in the storage facilities and the pharmacy. At this point, the main focus is on logistical process controls using the MobiDiK Lager, Apotheke and MobiDiK WEB solutions. Many studies have shown that a majority of the costs determined in the area of material management are process costs. This is where MobiDiK comes in – the individual software modules on the whole offer a market-leading system for station demands, optimised processes in pharmacies, storage facilities and purchasing as well as the integration of

external suppliers. Currently over 80 hospital pharmacies, several leading private hospital owners and associations as well as commercial logistics providers and online platforms use the solution to handle their order and delivery processes. Around 300 hospitals in Germany, Austria and Switzerland make use of the MobiDiK solution.

Figure 1+2: The Mobilcomputer Falcon X3+ with Datalogic's pistol grip is used in the Agaplesion logistics centre to record codes

Figure 3+4: Easy to operate and in a simple smartphone format: the Memor X3 for the healthcare sector

Figure 5: The ergonomic hand-held version of Datalogic's Falcon X3+ with its very robust design

Figure 6: The healthcare version of the Memor X3, with its smartphone format and light weight