

## COMPANY PROFILE: SHL GROUP – CONNECTIVITY SOLUTIONS



SHL Group, the world's largest privately-owned designer, developer and manufacturer of advanced drug delivery systems, has been recently venturing into the field of connected devices. To identify and develop the most innovative solutions, we have been scouting for the latest technologies and concepts in the field. This led to the creation of our connectivity programme, Alubena®, focusing on connected devices such as Molly® C auto injector with the Recording Unit (see Figure 1) and their application to value creation for healthcare stakeholders.

Molly® C is a disposable auto injector, based on the well-proven Molly® platform; adding the Recording Unit allows it to connect to the patient's smartphone or other mobile device and transfer information about the injection. The information can be further shared with different stakeholders, including healthcare providers, pharma companies, payers and interested parties via secure cloud. The data collected can be analysed and used to improve patient's quality of life, further the knowledge about the disease and ensure the effectiveness of treatment for the outcome-based healthcare.

Molly® C and Recording Unit are just one example of SHL's work in this area. Another focal point is miniaturised integrated disposable electronics. The idea behind it is to embed the electronics into auto injectors in a way that allows the same operational usage as a non-connected device. The purpose is to make it suitable for patients with cognitive and physical

disabilities that prevent them from using the Recording Unit. In such a disposable device, sensors are part of the electronics which detects injector functions, e.g. movement of an activation button. The information is transmitted to a mobile device and later the auto injector is disposed of in an environmentally acceptable way.

In parallel with the Alubena® programme, SHL is also working with various partners, including the recently established joint venture, SHL Connect, to support our connectivity capabilities and work on solutions in the field of smart packaging and training devices/accessories. The programmes complement each other to ensure that SHL can offer the widest range of connected services to our customers. These include:

#### DRUG DELIVERY DEVICES

Low adherence to medication therapy is a challenge in many aspects. It is not only a contributing factor to unnecessary suffering for both patients and their families, but it also results in large healthcare expenses that can be avoided as well as significant financial loss for the pharmaceutical industry.

A connected drug delivery device enables patient support programmes by providing real usage data. The data can be used to personalise the patient support and experience. The intent is to increase adherence to the prescribed therapy and increase patients' quality of life. Increased adherence will contribute to a healthy

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Figure 1: Molly® C and Recording Unit.

outcome which will benefit all parties involved.

SHL's connected drug delivery systems are suitable for various therapy areas. The abovementioned Molly® C and RU concept, for instance, can be customised for specific user needs and different injector platforms.

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### TRAINING & INSTRUCTIONS

SHL is developing intuitive training systems that provide a controlled, repeatable method for teaching and learning. The training method is multi-lingual and uses a unique graphical interface for superior user experience. Enhancing the learning process creates user confidence which will improve adherence.

### SUPPLY CHAIN

Therapy outcome relies on drug efficacy and safety. To address these factors, SHL is working on environmental recording solutions for pharma applications which help ensure that the product has been continuously handled within specifications. Our environmental recording solutions can be employed throughout the supply chain right up to the last mile to the patient.

*Molly® C and Recording Unit were the topic of our recent feature article, "Embracing the Future: Connected Drug Delivery Solutions" which appeared in ONdrugDelivery, May 2016, Issue 67, pp 6-8.*

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# Connectivity Solutions

- ✓ Drug Delivery Devices
- ✓ Training and Instruction
- ✓ Supply Chain

