

## KLARUS

A novel approach to drug delivery to improve adherence and the patient experience

### THE CHALLENGE >

Patients suffering from chronic diseases such as rheumatoid arthritis often face the additional burden of juggling a complicated treatment regimen at home. In many cases, they need to store their drugs in the fridge, warm them up to the correct temperature for injection, prepare their auto-injector for use – and dispose of the device safely.

Learning how to use a new drug delivery device and remembering multiple treatment steps can be challenging – particularly for the elderly or those with dexterity issues.

It's one of the reasons why adherence rates are often low – many patients just give up or fail to take their medication correctly.

### THE SOLUTION >

We've used state-of-the-art technology and applied our user experience and human factors expertise – together with our knowledge of medical device regulation and our skills in electronics, mechanical engineering, software and connectivity – to create a radically new approach to drug delivery.

Klarus stores drugs at the correct temperature, warms them up for injection, prepares the injector with the correct needle and medication cartridge, and prompts the patient to take their drug.

After injection, Klarus will collect the needle and cartridge ready for safe disposal – alerting the patient when supplies are running low, and reordering if required.



### BENEFIT TO CLIENT >

The Klarus system has adherence built in – it automates many of the tasks that patients often struggle with when using auto-injectors regularly.

It could be offered to patients as a subscription-based service – and would pay for itself in the space of just one year if it replaced weekly treatment with a single-use auto-injector.

As well as helping to improve patient outcomes, it would also be more environmentally friendly – saving on packaging and involving the disposal of only a small cartridge each time, rather than an entire auto-injector.

