

## BREAKING THE BARRIERS



## TO INNOVATION



Customer-centric design and innovation delivering world class experience

# Developing an innovative smart metering product



We helped Landis+Gyr develop their 'ecoMeter' in-home display and the software in their smart meters. The products represent the majority of the 16 million smart meters that British Gas is rolling out across the UK by 2020. Smart meters help consumers reduce their demand for energy and lower their bills, while enabling utilities to reduce costs and improve customer service.

Working closely with Landis+Gyr, we brought together electronics, mechanics, industrial design, behavioural science, user-experience design, radio and software design to create an innovative and desirable product that delivers real benefit in reducing domestic energy use. The first functional units were exhibited seven months after work began, with the full software and delivery-to-production completed a few months later.

## Developing a world first in medical injectors



The SmartJect® autoinjector, developed by PA for Janssen Research & Development, LLC is the world's first pre-filled, single use, disposable autoinjector which fully automates the injection cycle.

The SmartJect autoinjector is ergonomically designed for use by both patients and their carers. It is shaped so that it can be easily gripped, and the button is located for optimum self and carer administration. The product is easy and intuitive to use and has a safety feature which prevents actuation unless held against the injection site.

PA conducted multinational user research amongst patients, pharmacists, clinicians and nurses; PA worked with Janssen R&D to match the design to their requirements; then designed and developed the SmartJect autoinjector and its test methods. PA also helped to develop the SmartJect autoinjector's automated manufacturing equipment.



# Additive manufacturing of bespoke eyewear



PA has created a range of fashion products built around digital manufacturing platforms. The result is a range of unique, rapidly changeable and highly personalised products that combine an organic feel to 3D printing with handcraft product development and finishing.

In our virtual shop of the future, we have taken our experience with eyewear and product design and created a prototype for digital manufacturing. In the case of eyewear, there is a range of face sizes and shapes, not to mention personal tastes, which makes selecting and stock keeping glasses difficult in traditional shop environments.

In the PA future shop concept, a user could scan their face using a tablet, for example at home or in a shop, and let software work out an ideal fit based on facial dimensions. By breaking through the barriers to innovation, organisations across industry can achieve exceptional results. We believe great brands and businesses are built on delivering unique and valued experiences.

PA has an award winning design studio embedded in its innovation and technology business. We specialise in an insight-driven, human-centred approach to innovation, design, and technology commercialisation to help organisations innovate and grow.

We use a portfolio of proven techniques to develop tailored programmes to meet the challenge of our clients. These include:

- in-house concept creation and visualisation
- very rapid development cycles using additive manufacturing to deliver prototypes for regular customer testing and trials
- the ability to bring together at our technology centre – a multidisciplinary team including designers, manufacturing experts, mechanical engineers, chemists, physicists, software developers and polymer scientists – all working together in one space.

To find out more about breaking the barriers to innovation visit:

www.paconsulting.com/breaking-innovation-barriers

or email: innovation@paconsulting.com

## BREAKING THE BARRIERS TO INNOVATION



We help companies give their customers exactly what they want: innovative, aspirational products, available when and how they want them.

At our technology centre, we develop products from initial research and concept design, through development, prototyping, manufacture, supply chain set-up and support.

To find out more about breaking the barriers to innovation or to arrange to meet us at the Innovation Roundtable Summit visit:

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or email: innovation@paconsulting.com



We are an employee-owned firm of over 2,500 people, operating globally from offices across North America, Europe, the Nordics, the Gulf and Asia Pacific.

We are experts in energy, financial services, life sciences and healthcare, manufacturing, government and public services, defence and security, telecommunications, transport and logistics.

Our deep industry knowledge together with skills in management consulting, technology and innovation allows us to challenge conventional thinking and deliver exceptional results with lasting impact.

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