

# Insight to innovation

**Cambridge Design Partnership** enjoyed a successful 2016 partnering on innovation with the best in FMCG and healthcare

Cambridge Design Partnership (CDP) had a landmark year in 2016, demonstrating global application of its holistic end-to-end innovation approach, 'Potential Realised'. Linking a combination of research, science, technology, engineering, manufacturing and design into a single integrated process, it developed many successful innovations for clients in FMCG and healthcare – collecting some prestigious industry awards along the way.

Through its office in Palo Alto, its presence in the US market grew significantly, with the likely changes in the healthcare landscape a major focus for clients. Furthermore, CDP's Front End Innovation (FEI) capability matured

with researchers regularly meeting consumers in locations including Brazil, Germany, USA, Sweden, Japan and Mexico. It also launched a new connected packaging/activity-logging platform, diialog™.

## First Response Monitor

Measuring and monitoring vital signs of trauma patients remains a time-consuming, manual process for first response medics. It becomes much harder in a mass casualty situation when rapid triage, evacuation and safety are critical factors.

CDP identified the need for a low-cost/one-use device to bridge the gap between manual patient monitoring methods – which can be

laborious and challenging in a disaster zone – and more expensive, less portable monitoring systems. The resulting First Response Monitor (FRM) is a lightweight, sterile, single-use, connected wearable device that attaches to a patient's nose. It displays real-time vital signs patient data and connects to a smartphone or tablet, allowing medics to perform simultaneous multiple-patient triage.

Early in the project, CDP's researchers and designers spent time with civilian and military medics to understand the conditions they worked in, tasks performed and the challenges presented. Rather than trying to improve existing devices, CDP reviewed what was actually needed: a



fast way of assessing and monitoring key human biometrics (heart rate, breathing rate and SpO<sub>2</sub>). Focusing on measuring 'breathing rate', CDP soon identified that a patient's nose region could provide all indicators necessary via low-cost sensors usually found in consumer products. A number of rapid prototypes centring on a nose-wearable device followed.

Integrating device connectivity led to custom app development which enables medics to monitor several patients simultaneously and be notified instantly if their vital signs start to deteriorate.

Since its launch, CDP has received sales enquiries from around the world and won a number of awards including two Red Dot: Concept Best of the Best awards and an Electra European Electronics Industry Award for Design Team of the Year. FRM was also included in the Nominet100 list of the 100 most inspiring examples of Tech for Good.

## diialog™

There's often a gap between what consumers say and their actual usage behaviour. To bridge this gap, CDP's consumer insights and medical research team worked with its engineering



capability to develop a more systematic, less invasive way of capturing consumer behaviour data. The result was diialog™, a suite of connected activity-logging platforms. Unobtrusive, it's an insights tool to complement established user-trial methods. Sensors can be integrated into a wide range of products, devices and packaging – to be largely unseen by users and encourage natural behaviour. This usage data is collated by CDP, distilled into user insights, translated into commercial opportunities and used to enhance the design and innovation process.

## Zyliss Control Knives

The US market for domestic kitchen knives is dominated by a small number of brands and DKB Household saw this as an opportunity for its Zyliss brand to disrupt and enter this market segment. To assist, DKB commissioned CDP to develop a new knife design and block set.

The initial project phase saw researchers and designers observing a variety of households during meal preparation to understand how home cooks used the knives and utensils they already had and what the areas of frustration or unmet need were. After analysing the most-used cutting and



grip patterns, four patented 'control' points were incorporated into the individual knife and handle design. These points allow users to have the same level of control over the knife, regardless of their personal cutting style or hand size.

Feedback on the prototypes was overwhelmingly positive and production was scheduled just three months after the start of the project. The outcome was new Zyliss knife range, Control. Available individually and as a five-piece knife block set, Zyliss Control is currently on sale in the UK. Zyliss Control is available in the US individually and as a 17 and 5-piece knife block set.

Grant Race, director of marketing, DKB Household UK, comments: "We chose CDP because of their expertise in innovation, design and research. We needed a partner who had good knowledge and understanding of how to use research for innovation to unlock unmet user needs, as well as having solid in-house design expertise. We achieved our goal: challenging conventional thinking around the design and use of kitchen knives."



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Opposite page | First Response Monitor  
Below, left to right | diialog™ user insights tool,  
DKB Household/Zyliss Control knives,  
Prototype printed at CDP using an EnvisionTEC Perfactory 4 XL