

TO CAP IT OFF

DIGITAL PACKAGING • ENSURING THAT IBCS ATTAIN THEIR FULL POTENTIAL IS AT THE CORE OF PACKWISE'S SMART CAP INNOVATION, BRINGING DIGITAL CONNECTIVITY TO PACKAGINGS IN USE

PACKWISE, A START-up describing its products as "the IoT solution for IBCs", has won the European Solvents Industry Group (ESIG) Solvents Award 2019. ESIG, a sector group of the European Chemical Industry Council (Cefic), presented the award to Packwise for a creation embracing digitisation and improving functionality on a global scale: Smart Cap.

Smart Cap is a new piece of hardware for intermediate bulk containers (IBCs) that collects a range of data, including filling level, impact, temperature and movement.

"Customers needed support when it came to collecting, servicing and reconditioning IBCs, but there were problems," says Felix

Weger, product management at Packwise. "The big one was a 'black box' problem. We had to wait for the end-user to call us up and request collection and we would have to respond immediately without any real preparation. Additionally, there was a lot of Excel use and manual input which became messy and had errors – so we decided there must be a digital solution that provides greater transparency."

Highlighting the unpredictability and inefficiency of existing systems, Weger mentions that neighbouring businesses sometimes request pick-ups one day apart from each other, meaning a collection to the same location that could be achieved in

one run now takes two visits to complete. Thanks to Smart Cap, these IBCs can be monitored, making it easier to predict collection and ensuring a continuous cycle and improved logistics.

Packwise says IBCs can spend up to 80 per cent of life empty and immobile. Smart Cap monitors when a container needs collection and how it is used, and sends a notification to the owner indicating that the IBC is immobile, making it key to achieving optimum efficiency. Smart Cap also measures impacts, assisting the investigation of incidents. The sensors are able to recognise if an IBC becomes slanted or tips over.

NEVER LEFT BEHIND

The major benefit of Smart Cap is that it will always know where an IBC is. Thanks to three separate tracking systems, it is possible to follow an IBC with a Smart Cap anywhere in the world.

"The average loss rate is between 5 and 10 per cent, but we have had a client that was experiencing a loss rate of 20 per cent. That is lost IBCs – not destroyed or damaged ones – but those that have simply disappeared and their whereabouts unknown," says Weger. Ensuring containers are never lost not only saves replacement IBC costs, but also protects the environment by reducing the amount of CO₂ required to create a new container. Smart Cap comes with a battery life of five years, covering the IBC lifecycle.

If the IBC the Smart Cap is attached to needs replacing, the Smart Cap can easily be removed and attached to another container by a screw attachment or adhesive mount. The Smart Cap can measure through all materials apart from steel, providing a huge range of options. The mount is made of HTPE, meaning it can be recycled alongside the IBC at the end of its life.

There are future plans for Smart Cap to be adapted to work with other forms of packaging solutions to provide a more efficient system for a variety of products. Smart Cap operates in 170 nations and comes with Packwise Flow, a software that allows tabular and graphical views of sensor data and a digital twin for up to 20,000 containers. **HCB**
packwise.de

