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# Brand©

## Protection and Promotion World



**Brand**© is published 10 times a year. Each issue includes consultancy-level articles that provide independent analysis of a variety of disruptive, emerging technologies that are gradually being incorporated by the world's leading brands. Each e-journal also provides exclusive reporting of latest material and product launches, trials and breakthroughs.

# 3D seal provides three-in-one security

**Swedish-based firm *Rolling Optics* has seen demand grow for its 3D security seal since its January 2011 introduction.**

**Rolling Optics CEO Fredrik Blomquist says the 3D seal is secure, easy to recognise and identify – for consumers, clerks, controlling staff and brand owners – and almost impossible to copy.**

**Blomquist adds: 'Products are being rolled out by our clients as we speak, but we are not allowed to talk about them at this stage. I'm glad to say that the 3D is always crystal-clear in the thin tamper-proof labels, sealed fine, and in some cases combined with some intelligent printing as well.'**

**Rolling Optics has several new clients since the launch of the 3D seals. Blomquist says that during 2011 there have been further product developments, with seal labels for different business sectors – including pharmaceuticals – to fit with right adhesives, material characteristics and more.**

**He comments: 'In the pharma sector function is important, which means that the label has to be easy to attach in existing machinery. There is also the combination with tamper-proof perforating or slitting, or what tamper feature you would like to use.**

**'Combination with 2D barcode, serialisation numbers, batch numbers and date stamp are important to be able to print on the label, or have visible through the label, and kept secure but still visible.**

**'We also integrate a whole portfolio of covert and forensic security features including first, second and third levels of security. We also integrate existing good features, from our security printing partners, such as the best track-and-trace printing solutions, covert ink and colouring features, tamper-proofing, additional layering with codes included, and more.'**

**With the launch of more pharmaceutical label products later in 2011, Blomquist argues that brands wanting to be competitive and best-of-breed, as well as staying ahead of counterfeiters, should combine and integrate both overt and covert features.**

**He adds: 'It needs to be done in integrated solutions – new labels, for example, or new integrated materials in product and packaging, that can cover, include and feature at least three different levels of security in one new, integrated solution. A three-in-one security in one 3D label.'**

**3D labels offer 3D security**


*Source: Rolling Optics*

## UK collaboration produces wireless, illuminating security labels

UK printed electronics firm *PragmatIC Printing*, and security printer and papermaker *De La Rue* have announced a collaboration to develop electronic security products.

The 'Remotely Activated Interactive Labels' (Rail) project, which also includes *DuPont Teijin Films* as a partner, has already produced a number of prototypes, for security printing market concepts.

The broad premise for Rail is to provide a visual feature – a light or logo – that is triggered by consumer interaction.

The ultra-thin screen developed in Rail – thinner than a human hair – is relatively cheap to manufacture, according to the project partners. However the current screen can only display one image, for just a few seconds.

Philip Cooper, head of ideas at De La Rue, comments: 'PragmatIC's unique imprint-based approach to printed electronics is not only able to deliver potentially exciting new security features, but is also a natural complement to other security printing technologies such as holographic embossing.'

No battery is required for any of the prototypes, as power is drawn wirelessly from a standard RFID or near-field communications (NFC) reader. The labels can be flexible and thin (around 50µ), and are also compatible with conventional hot lamination processes.

The project, supported by a £600,000 (€695,000) grant from the UK's *Technology Strategy Board*, aims to drive electronic security printing.

Printed electronics could offer both brand protection and enhancement opportunities. They can potentially be used for interactive marketing, as well as integrated authentication.

RFID and NFC readers are becoming increasingly

**The printed electronic prototype offers brand protection and enhancement**


*Source: PragmatIC*

widespread in contactless retail payment systems, while also being integrated into latest-generation mobile phones.

## Biological and nanotech researchers create invisible ink

German paper technology specialist *Papiertechnische Stiftung* (PTS) has developed transparent ink as a safety feature against counterfeiting.

Sabine Hottmann, a graduate engineer working at PTS, says recently concluded research created a new safety feature, based on the induced fit reaction (the lock and key *principle*) of bio molecule markers.

Hottman remarks: 'The system is very easy to use, fast and highly specific. To solve the code of bio molecules however is very difficult, as protein analyses are still expensive and complex.

'This allows a high and individual protection. Due to the use of various bio molecules, the protection is also variable. The ink can be combined with other protection techniques and will be based on bilateral contracts from industry. At this, the ink is adjusted and modified to the appropriate condition.'

To implement the research results, Hottmann says PTS is in conversation with several unnamed companies.

Bio molecules are used as markers that can be identified by means of specifically reacting antibodies in a rapid colour reaction test. Sol-gel materials based on $SiO_2$ serve as matrices for the molecules. Sol-gel is a wet-chemical technique used to create a gel-like substance.

The German *Federal Ministry of Economics and Technology* (BMWi) is funding the research project. Hottmann says an interdisciplinary collaboration between PTS biotechnologists, chemists and technicians let biological components with nanotechnology methods to be applied as a safety feature.

## Bosch hopes hologram halts counterfeit problem

*Bosch Security Systems* has decided to include a hologram on its new series of CCS 900 Ultro Discussion Systems, after it discovered fake units manufactured in Asia being passed off as genuine Bosch technology.

Paul Wong, managing director of Bosch Security Systems UK, says the Ultro range has been particularly targeted and confirms there was real potential for customers to be 'duped' into buying the wrong product.

He adds: 'It is disappointing to have had to take such a step, but our customers must be assured that if it says Bosch on the product, then it is true Bosch technology inside.'

The CCS 900 Ultro all-in-one Discussion System is primarily for small-to-medium-sized meeting areas such as town halls, local business centres and courtrooms.

By adding a holographic label on the bottom of each CCS 900 Ultro unit, the company hopes to provide customers with a guarantee they are buying genuine items.

## Colombian drinks firms address counterfeiting

The Colombian government has revealed that, since introducing anti-counterfeit measures towards the end of 2010, it has enjoyed increased sales of domestic spirits and discovered counterfeit products, leading to multiple investigations and arrests.

*Fabrica de Licores de Antioquia* (FLA) and *Industria de Licores del Valle* are the leading spirit producers in Colombia. As state-owned entities their revenues also make up a

**Verification proved by simple, rapid test**


*Source: PTS*

significant portion of their state government revenues.

A partnership between US brand protection firm *Authentix* and Colombian systems integrator *Figurazione* has so far resulted in the protection of approximately 100 million bottles of spirits.

The security includes an overt hologram in product packaging for tamper evidence and to help consumers verify product authenticity by visual inspection, and three covert features in the product pack and drinks.

Handheld field verification detectors and test kits have been distributed to investigators in the field. With nearly 1,300 police and government tax inspectors trained in authentic product verification across 28 of the 32 states in Colombia, the programme has started to impact the counterfeiting, which had reached over 50% of spirits offered for sale in some areas.

Andres Diaz, CEO of Figurazione, states: 'The authorities now have a definitive test, and are making progress with indictments and arrests of counterfeiters, thereby increasing government revenues.'

Inspection of over 300 retail outlets has, to date, resulted in the discovery of 10% of counterfeits, while FLA enjoyed an increase in sales of over 10%.

## No cloud cover for counterfeiters

In August 2011 *HP* officially launched a cloud-based system to help consumers verify the authenticity of medication.

HP's Global Authentication Service allows pharmaceutical companies to monitor the movement of products through their global supply chains with a higher degree of accuracy.

The service is being rolled out in India due to the dramatic growth in the country's pharma industry, which also is seeing the development of a parallel counterfeit drug market.

Initially developed in HP's central research department to monitor goods in the company's own supply chain, it has since been adopted by the food and pharmaceutical segments.

HP originally assisted African social enterprise *mPedigree Network* to design a first-of-its-kind service, which allows people to easily check the authenticity of their medication, using their mobile phones to access a free service.

Prith Banerjee, senior vice president, research, and director at HP Labs, remarks: 'The success to date with mPedigree and subsequent commercialisation of our Global Authentication Service highlights how valuable social innovation initiatives can be in bringing new service offerings.'

The partners launched the drug authentication programme in Nigeria and Ghana in December 2010, beginning with select anti-malarial drugs. The medication contained a code printed on the drug's packaging. Customers text the code to the mPedigree system, which quickly returns a message telling them whether or not the medication is authentic.

Further rollouts are planned for other developing countries later in 2011.

**Handheld verification in the field brings results**


*Source: Authentix*

## Zetes enters RFID ticketing market

Belgium supply chain ID firm *Zetes* has revealed a successful entry into the RFID ticketing market, following the Formula One Grand Prix recently held in Belgium.

**Instant authentication backed up by HP cloud**


*Source: mPedigree Network*

Pascal Durdu, traceability expert at Zetes, states: 'The system was very successful and has been shown to significantly improve visitor management. The queuing times were minimised and the system was able to manage access into 80 different zones within the circuit, to which visitors were admitted depending on the ticket type.

'[The system] is also highly useful for detecting counterfeit tickets and controlling a bigger problem of pass-back – where a ticket is reused by a group of visitors after one visitor is admitted. With RFID it is impossible to do that.'

There were a total of 80 RFID access points to control traffic to and within the 20 different circuit zones. Entry and exit point information is stored in the RFID chip itself.

Although this was not the first time the Belgian Grand Prix used RFID, it is the first time Zetes has provided the technology, following its acquisition of *RFIDea* in 2011..