

CURRENCY NEWS™

THE CURRENCY CONFERENCE / DAY THREE

SPECIAL ISSUE

CPS Turns One After a Successful Year

CPS were proud to celebrate their first year as an independent company on Monday evening with champagne and cake at their exhibition stand.



Cake all round for Keith Eckford (left), CEO of CPS, and Chris Hyman, Chairman (right).

Attended by a large number of delegates, CPS Chairman Chris Hyman and CEO Keith Eckford shared a toast to the growing company.

Of this milestone, Keith Eckford said: 'we are a one year old company with a 60 year heritage in the cash processing industry. We have 60 years of experience behind us but with new focus, impetus and investment from our new owners allowing us to build on that heritage. The first year as CPS has exceeded our expectations. We have managed to out-perform all of our key measures while managing a complex transition from De La Rue.'

Jim Richards, CPS Business Development Director and Head of ECM™ added: 'we are delighted to have won significant orders from a number of strategic customers, including a number of central banks, which demonstrates the continued trust and support from our customers.'

This has resulted in a 14-fold increase in our order book going into this financial year compared to last year, which shows the progress we have made over the last 12 months.'

Over the last year the company has launched a number of solutions into the market including *DLR® 7000 QC*, high-res cameras for more accurate used note sorting, the *X Range™* desktop sorters and *ISA 7*, the next evolution of the market-leading ECM integrated cash supply chain platform.

Their focus on R&D continues, particularly around their high speed sorters, single note inspection systems and ECM software platform, with a series of new innovations and solutions being delivered this coming year.

This year will also see CPS move to a brand new head office in Basingstoke, UK, a positive step forward in its growth as an independent company, allowing it to create an office space that suits its needs as a growing business.

Combined with a complete transformation of CPS' IT systems, adopting the latest software platforms and technology to enable it to work as efficiently as possible, and provide a more responsive and co-ordinated service to its customers, this year looks to be even more positive for CPS, said the company's Chairman, Chris Hyman.

Varifeye Becomes More Varied

Louisenthal has long been an innovator of secure windows in paper banknotes. As the trend for windows is growing, so is the range of innovative window features. Its new feature is the *varifeye® ColourChange*, which works in combination with the properties of the micro-mirror foil for translucent and transparent windows. Authentication is fast and easy.

The sample on show at the company's booth is the water feature, redesigned using windows strategically placed on the back of the note to provide areas of transparency, or translucent effects, when held up to the light. The light creates a shimmery blue translucency through the window, in the shape of the *LaserCut™* window (a blue fish contrasted against a gold shell).

With backlighting, meanwhile, on the front of the note the fish appear blue, but gold on the back of as per the gold foil.

In addition, the holographic *Rollingstar LEAD* retains the known benefits of the foil, including micro-mirror 3D effects, *SilkLine®* running effects and pumping effects concentrated on the '100'.

The varifeye ColourChange effects are visible even in low light conditions, and are durable, retaining their properties even in harsh circulating conditions.



Varifeye ColourChange Windows Come to Life.

Cash Cycle Analytics Has Arrived

De La Rue has announced that 15 central banks have taken part in a successful pilot of *DLR Analytics*, a new software programme to analyse key aspects of the cash cycle. These banks can already see how they compare to each other and learn how their cash cycle is working. It has helped them obtain actionable insights on their currency circulation.

Martin Sutherland, the CEO of De La Rue, joined the banknote industry from a data analytics company, BAE Systems Applied Intelligence. That company collects and analyses huge volumes of data to help prevent crime and keep companies and countries safe and secure.



Martin Sutherland.

For example, the insurance industry found that when they combined their data at a country level, they could spot fraud rings run by organised crime. Individually, each insurance company could not identify big scams, but when looking at data as a whole a huge amount of fraud was detected and stopped.

'This provides a salutary lesson for central banks. At De La Rue, we have looked at data anonymously from 132 central banks and can see patterns that are impossible to see when looking at one data set,' said Martin Sutherland, 'So the company is very proud to announce the launch of the Cash Cycle Partnership. This will be a forum for central banks to review and share data.'

'Members of the Cash Cycle Partnership will be able to look at different substrates, features, regions, policies and see what we can all learn about circulation velocity, note longevity, best feature combinations and many other factors that will be useful in maximising the effectiveness and efficiency of cash cycles', he added.

Membership of the Cash Cycle Partnership is open to all users of DLR Analytics.

A Quartet of Innovations from Kurz



Kurz' new 'SPACE' demonstration note for the KINEGRAM HDM technology.

Kurz has taken the opportunity of the Currency Conference to showcase four of its latest innovations in optical security technology.

First is *KINEGRAM® HDM*, a new high definition (partial) metallisation technology, which offers a sophisticated new solution for partially-metallised foils.

For the first time in the banknote industry, this technology allows for the creation of metallic designs and patterns with a line resolution right down to 10 microns. This enables banknote designers to realise exceedingly precise shapes, images and line patterns, says Kurz, and opens up a new wider scope for design integration where the foil feature and the banknote print can be cleverly interconnected.

KINEGRAM HDM is a proprietary standalone technology which achieves extremely clean and precise partial metallisation with its unmatched line resolution. The design of the metal content can be fully adapted to banknote design requirements, including screened and halftone metallic images.

The technology is compatible with all typical application machines and banknote substrates, and offers new options for the incorporation of first-, second- and third-line optical security features. The new technology is being presented by Kurz now on its 'SPACE' demonstration notes.

KINEGRAM® FLUX is another new optical effect which Kurz is unveiling at the Currency Conference. This technology facilitates the intuitive authentication of banknotes through the creation of bold, eye-catching movements which can be incorporated into foil features in a variety of ways.

Complementing the portfolio of *KINEGRAM®* optical effects, *FLUX* is extremely easy to use for the untrained public because of its simple yet pronounced and eye-catching appearance. According to Kurz, the feature offers a large portfolio of movements in a wide selection of colours. Most importantly, it can be combined with intricate shapes and transparent areas created by partial metallisation. This makes it of great interest to banknote designers as a more versatile alternative to other movement-based features.

Then there is the *SUSI Optics™* feature. Kurz is collaborating with KBA-NotaSys, LenSys and other industry partners on this new feature, which involves a transparent foil incorporating perfectly-shaped lenses applied onto the banknote substrate in the printing works. The result is a unique optical appearance with fully customisable multicolour designs and a range of visually striking effects. These include colour switch, 3D movement, morphing, and depth. The new feature is currently aimed at polymer banknotes and is subject to further development.

Finally, Kurz is presenting *COSMIC* in Kuala Lumpur, a variant of *KINEGRAM COLORS®* where a metallic color shift is integrated into the foil, adding a further level of security into the feature.

Whereas the core security lies in the *KINEGRAM®* optical origination, the additional colour shift based on true metal colours is a further barrier to the counterfeiter as well as an obvious invitation to the banknote user to inspect the note more closely.

The technology offers a large variety of switching colour shades, and can easily be combined with other optical effects. It is even possible to realise several different colour shifts in one single security element.

KBA-NotaSys, LenSys and Note Printing Australia Launch First SUSI Optics Specimens

The Currency Conference has seen the launch of two new specimen notes featuring the LenSys *SUSI Optics*® feature. These notes, conceived and designed in close cooperation between LenSys, KBA-NotaSys and Note Printing Australia, have been realised with the close involvement of Kurz and SICPA and the active support of De La Rue.

The specimens show two different design philosophies, one from KBA-NotaSys, the other from Note Printing Australia, which arose from the same initial brief. The original intention was to select one for production, but it was felt that both were so good and presented the feature in different, complementary ways to such an extent that both were taken forward through production.

Hervé Guillerey, Head of Design at KBA-NotaSys comments: 'it is a great pleasure to show these very special new specimen banknotes – 'The LenSys SUSI Optics Specimens'. We are convinced that people will be immediately attracted to the feature as it is visually striking, easy to authenticate, but very difficult to counterfeit.'

Malcolm McDowell, CEO at Note Printing Australia adds: 'it has been a great experience for NPA to be involved in this exercise.'

The feature adds real value in the printing works, and the layered approach to the realisation of the feature is a unique collaboration between substrate, print and application that has not been seen in the industry before.'

Michael Blesovsky, CEO of LenSys concludes: 'launching a completely new feature to the market is always exciting, but for me this one is extra special as it is the culmination of an outstanding collaboration. The feature is an exemplary demonstration of the benefits of collaboration and partnership and of the layered approach to security in the banknote.'

During the development of the feature we received many expressions of interest from central banks and we are confident that these specimens will both enhance those expressions of interest and generate more.'

As described in yesterday's daily edition, SUSI Optics involves a transparent foil incorporating perfectly-shaped lenses applied onto the banknote substrate in the printing works.

The result is a unique optical appearance with fully customisable multicolour designs and a range of visually striking effects. These include colour switch, 3D movement, morphing, and depth.

Partners

Any good project cannot be completed without the support and cooperation of important partners. The production of the SUSI Optics specimen brought together some of the most highly regarded companies in the industry.

Note Printing Australia

The focus of Note Printing Australia (NPA), since inception, has been to generate 'security products' of the highest quality. This philosophy continues today as NPA works with its customers to provide innovative high quality banknotes, passports and security solutions. Apart from the Australian banknote series, NPA prints for a variety of other countries.

LenSys

LenSys is a joint venture between KBA-NotaSys and Lumenco, a development company based in Denver, Colorado. The unique micro optics technology proposed by LenSys together with high precision simultaneous offset printing allows for the creation of the SUSI Optics feature. This innovative level 1 feature offers visually striking effects that are immediately recognised by the general public.

SICPA

SICPA is the leading global provider of secured identification, traceability and authentication solutions and services. Founded in 1927 and headquartered in Lausanne, the company has become a trusted advisor to governments, central banks, high-security printers and industry.

Kurz

LEONHARD KURZ Stiftung & Co KG is a 5th generation family-owned company established over 115 years ago. From its beginnings as a gold foil producer, it has developed into the world's leading manufacturer of hot stamping foils for banknotes.



Entries for the Guardian Design Competition Now Open!

CCL Secure is running an exciting competition for designers – from students, to up-and-comers, to professionals – to come up with their very own prototype of a promotional banknote concept for the 2nd Latin American Guardian™ Polymer Seminar in Antigua (Guatemala) this June, 22-24.

Participants in the competition will be guided by the renowned polymer banknote designer, Carlos Almenar, from CCL Secure and will be judged by a group of senior professionals in the banknote industry.



'Plastic' banknotes in Latin America have risen in popularity in the last two decades, with several countries in the region adopting *Guardian*™ polymer substrate for their banknotes.

www.cclsecure.com

Two New Security Features from Fabriano

Italian substrate and security feature manufacturer Fabriano has been showcasing two new prototype secure effects at the Currency Conference.

First is *ColourShift Window* – a striking and immediate colour shifting effect obtained simply by moving the banknote (and hence window) from a clear to a dark background. In the samples available, the colour shift is from light blue to red, although other colour permutations are available.

The feature is created by manipulating the molecular structure of ink pigments. The feature is applied to the banknote as part of a foil stripe, with the colour shift patch laid over the window in register.

The rest of the foil can provide other security elements, such as ‘mobile’ effects and holography. It can also be printed with UV fluorescent inks detectable under UV light.

The feature is, however, intended first and foremost as a public, Level 1, feature as it is so simple and intuitive.

Second is *SPLIT* – comprising double side colours which are again suited for use in banknotes with windows.

Highly detailed demetallisation patterns with positive and negative text in up to three colours, with either parallel or diagonal colour bands and/or different colours on the front and reverse, can be created. The images that appear in the window meanwhile, are in perfect register.

SPLIT is suitable for registered application on windows in paper banknotes, and can be integrated with additional element such as *Multilevel™* demetallisation and machine-readable features.

A New Set of Perspectives on Cash

The panel discussion yesterday entitled ‘The Future of Payments Landscape’ was an eye-opener. Organised by the International Currency Association (ICA) and chaired by Ralf Wintergerst, ICA’s former Chairman, it comprised three distinguished speakers that are not familiar faces, and definitely not part of the industry.

Margaret Doyle, Head of Financial Service Research at Deloitte, has reported on numerous issues surrounding banking and regulatory strategy, the latest being a study on disruptive developments in the European retail banking arena. She is also a writer for the Economist, Daily Telegraph and Reuters and a frequent commentator on financial and current affairs on mainstream television news channels.

She focused on the findings of this study, citing the challenges facing banks as changes to consumer preferences, technology and regulation. Payments are the main touchpoint between banks and their customers, but governments – eager to drive down the costs of payments to the economy – are seeking greater transparency and competition.

Value of data for tech titans

Stepping up to the opportunity are so-called ‘tech titans’ for whom personal data, for which personal transactions are the best source to mine, is the goal. ‘Data is the world’s most important resource’ she said. This data is used to amass profiles on not just millions but billions of consumers, and sell accordingly.

As a result, she said, new payments oligopolies will emerge, either to replace the banks or to complement them.

David Wolman is a journalist, contributing editor at Wired and has written for publications such as *the New York Times*, *the New Yorker*, *the Wall Street Journal* and *Business Week*. He is also the author of ‘The End of Money: Counterfeiters, Preachers, Techies, Dreamers — and the Coming Cashless Society’.

His induction into the world of cash came when he wrote an article for Wired stating that it was germ-ridden, a relic of the past and should be euthanized.

Debate is too binary

Such was the backlash that he decided to dig deeper, and spent a year researching for the book. Along the way, and subsequently, he came to realise that there are attributes to cash and that the debate between cash and cashless is far too binary. ‘Just because the car came along’, he said, ‘didn’t mean the end of bicycles. The two co-exist. Cash and non-cash payment mechanisms should be able to do the same’.



Ralf Wintergerst of the ICA with, from left to right, Margaret Doyle, David Wolman and Brett Scott.

Brett Scott is an independent consultant and researcher in the field of alternative finance, and financial reform. He authored ‘The Heretic’s Guide to Global Finance and is an associate of the Institute for Social Banking, as well as a fellow of the Finance Innovation Lab.

Brett’s was forthright on the so-called War on Cash, which he said is real, and driven by the banks. The cash industry is not framing the narrative in the right way, and letting the other side get away with presenting the glorious future for digital payments.

‘It’s not the cashless society we are talking about,’ he said, ‘but the bank payment society’. And the war is not on cash, but on privacy and informality. Also, as a sceptic of capitalism, he now prefers ‘good old-fashioned capitalism’ to the emerging capitalism of surveillance, bureaucracy and zero privacy.

He also provided useful ammunition to those concerned that cash is conflated with crime. For as start, he said, the narrative against cash is exaggerated, inaccurate and incomplete.

Digital payment technology not the answer

Moreover, if financial inclusion is a goal for the impoverished people of the world, then digital payment’s technology is not – as is so often mooted – the answer.

He also poured cold water on the notion that the unbanked and financially excluded are particularly vulnerable to the security risks of holding cash. That, he said, is not the fault of cash, but the fault of societies without effective institutions, including law enforcement.

Delegates expecting the panel to be a diatribe against cash were pleasantly surprised. Instead, it was an inspiring and thought-provoking set of complementary perspectives from those outside the narrow confines of the industry that provide useful ammunition in the campaign to promote the benefits of cash against the interests of those lining up against it.

Oberthur Makes New Addition to Security Thread Family

Oberthur Fiduciaire has launched the latest product in its portfolio of banknote threads – **STARsheen™ MULTI** – which it describes as an exciting new development in its growing family of colour-shifting threads.

STARsheen MULTI is a unique window thread that consists of two pairs of colour shifting effects coupled with a complex design. A wide range of powerful colour changing effects can be accommodated, and further complemented by negative text. This offers huge opportunities to integrate and harmonise the thread into the design of the banknote itself.

The combination of two pairs of colours, all of which move, is a significant development compared to standard and traditional colour shifting effect. This, says Oberthur Fiduciaire, will allow strong opportunities for customisation, particularly when combined with cleartext type images.

STARsheen MULTI is currently available in red/green and green/cyan, and green/blue and gold/green.

STARsheen MULTI complements Oberthur's highly successful *DualTrack™* family of threads and can be produced in widths up to 6mm. It is available in machine readable format, and does not lose any visual impact if the banknote is varnished before issue.

Commenting on the launch of STARsheen MULTI, Gilles Tillon, Oberthur's Banknote Marketing Director said, 'we are very pleased with our latest thread which we are launching at the Currency Conference. It is a great response to the interest and excitement our customers are continuing to show in our unique banknote security threads'.



Launch of New Swiss 20 Franc

The new Swiss 20 franc note goes into circulation today. Following the launch of the CHF 50 note last year, this is the second of six denominations in Swiss National Bank's new banknote series to be issued.

The remaining notes will be issued at half-yearly or yearly intervals. Each note in the new series depicts a typically Swiss characteristic (the inspiration behind the new banknote series being 'The many facets of Switzerland').

The CHF 20 focuses on Switzerland's creativity – expressed by light, the note's key motif. The hand holds a prism through which light is dispersed into various colours. The motif is echoed in the constellations over the globe.

It also plays an important role on the security stripe: here, night-time light emissions are overlaid on a map of Switzerland and the surrounding regions, and the distances between various celestial bodies and the earth are listed in light seconds.

Light also reveals the colour of the butterfly's wings, while the lines on the back of the note portray an iris, which regulates the amount of light entering the human eye.

The new series has been developed in cooperation with Orell Füssli, Landqart, SICPA and Kurz and was designed by Gestaltung Manuela Pfrunder. The notes have numerous security features – some new, some established ones.

All six denominations have the same security elements. Using a range of technologies, they are incorporated into both the front and the back of the note's innovative, three-layer substrate (*Durasafe®*).



TRILUMIC – Novel Optical Effects for Banknotes

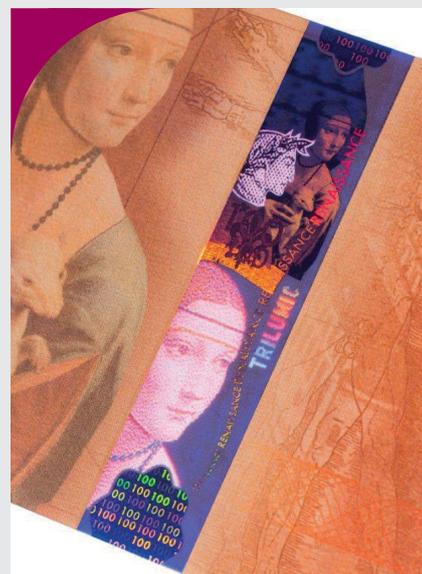
TRILUMIC® – HUECK FOLIEN's latest product innovation – is an enhanced optically attractive effect incorporated in its high security foil **SIGNET**. This effect expands the authentication level 1 properties of the hologram with a new level 2 feature and results from a cooperation between HUECK FOLIEN and Banque de France.

This complex security feature is placed in perfect register on the holographic stripe and is hidden under daylight. Under a UV light source, however, it shows brilliant true colours and half tone images that can only be achieved with foil, not on paper surfaces.

According to HUECK FOLIEN, the special technology of the feature in combination with the demetallised area of a holographic stripe ensures attractiveness for the public, interesting opportunities for the banknote designers and a significant barrier for counterfeiters.

The new optically attractive TRILUMIC can be combined in perfect register with enhanced security stripe technologies made by HUECK FOLIEN, such as partial demetallisation, unique true color holography (origination SIGNET) or its *PICTURE™* technology.

The family-owned HUECK FOLIEN, based in Austria, is leader in high security threads and foils, and its products are used in banknotes and other high security documents around the world.



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Fiji Celebrates Success on the Rugby Field

Last month, the Reserve Bank of Fiji proudly unveiled a new banknote and a 50 cent circulation coin celebrating the country's gold medal win at the Rio 2016 Summer Olympics in men's Rugby 7s – the country's first ever

Olympic medal.

The commemorative \$7 note was the subject of a joint presentation yesterday by Susan Kumar, Chief Manager Currency & Corporate Services Group at the Reserve Bank and Jonathan Garside of Oberthur Fiduciaire (which printed the note) on 'Design, Collaboration and Celebrating Success of a National Event'.



The coin, meanwhile, was produced at the Royal Canadian Mint's high-speed production facility in Winnipeg, Manitoba. It is the latest collaboration between the Mint and the Reserve Bank, whose relationship dates back to 1990.

The front of the coin features the word 'FIJI' and the issuing year '2017' with the denomination '50 cents' and a representation of the Fijian Coat of Arms. The main image is that of Fiji Rugby 7s Olympic Coach, Ben Ryan CF, sitting on the Sigatoka Sand Dunes with arms folded with the ocean as the backdrop and the words 'BEN RYAN SEVENS HEAD COACH' inscribed around the coin in a semi-circle.

The unveiling event received international media attention – it celebrated a sport that is loved by Fijians and commemorated a moment in their history that will never be forgotten!



Trio of Dutch Master Concludes with Rembrandt

The third and last Dutch Master that the Dutch Currency Association (DCA) is putting the spotlight on at the Currency Conference is the world famous Rembrandt van Rijn.

Delegates can participate in the special Dutch Masters competition, with a chance to win an original pair of hand painted wooden shoes – this time with Rembrandt's most famous painting 'The Night Watch' from between 1639 and 1642.

The DCA is also continuing with its workshop programme, which is being held in the Johore 4 hospitality suite and today comprises:

12:25–12:40

Optimising your Banknote Destruction Operation for Various Substrates

by Xander Wiardi of Royal Dutch Kusters Engineering

12:50–13:05

Coin-Note Boundary

by Joerg Sassmannshausen of Royal Dutch Mint

13:15–13:30

Next Level Process Quality Through Seamless Screen Printing and Digital imaging during the Finishing Process of Banknote Printing

by Rob Hermkens of SPGPrints

16:55–17:15

Banknote Vision Inspection Systems: Introduction of High Quality and Proven BVIS in cooperation with CBPM/KEXIN (by invitation only)

by Tianyi Chen of PNO Global



Editor: Astrid Mitchell

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Currency Publications Ltd, 10 Windmill Business Village, Brooklands Close, Sunbury, TW16 7DY, UK

Tel: +44 (0)1932 267 232; Fax: +44 (0)1932 780 790

www.currency-news.com

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