

# Going Beyond

February 2021



DeLaRue

World's first  
banknote  
issued with  
**SAFEGUARD®**  
**ARGENTUM™**

"Banknotes  
& Bitcoins"  
feature by JP  
Koning

Feature Series  
Housenotes  
unveiled

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# introduction

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We shared our latest business updates and future intentions in our first Currency Keynote event this month. We also launched our Features Series Housenotes, showcasing De La Rue design and revealing six notes with the latest security features and effects from our Currency Division.

Congratulations to the Central Banks of Libya and Trinidad & Tobago, who issued new banknotes this month. The Libya 5 Dinar was their second polymer banknote and the first banknote in the world on SAFEGUARD® ARGENTUM™. The \$1 and \$50 from Trinidad & Tobago completed the transition of their entire series to SAFEGUARD®.

This month's edition also focuses on cash and payments. The economic financial writer and blogger JP Koning shares his thoughts on Bitcoin. We also remind you about how pooling your data into the anonymised and aggregated dataset in DLR Analytics™ can give you better insight whilst benefiting all contributors within our industry.

De La Rue will be represented at Intergraf next month by Dr Nikki Strickland who will be speaking about the sustainability of different payment types and what would happen if cash disappeared tomorrow. Our next webinar is planned for April, more details on this to follow.

If you would like any more information about anything in this newsletter or you would like to register for future webinars please contact us at [currency@delarue.com](mailto:currency@delarue.com).



A handwritten signature in dark ink, appearing to read 'Ruth Euling'. The signature is stylized and fluid.

Ruth Euling, Managing Director

# New Banknotes: Libya 5 Dinar

Following the revolution in Libya in 2011 one of the first tasks of the Central Bank of Libya was to replace the Libyan banknotes, whose designs reflected the old regime. De La Rue designed and manufactured the new banknotes in record time, allowing the first of the new banknotes to be introduced into circulation just three months after being awarded the contract.

The banknotes introduced at this time were more than just currency, reflecting a new start for the country. The 1 Dinar banknote depicted the flag of Libya and 17 doves that symbolised peace. Its issuance date of the 17th February 2013 marked the 2nd anniversary of the Libyan Revolution. The rest of the series followed, capturing Libyan culture via images such as the Ottoman Clock Tower, Omar al-Mukhtar, Al Ateeq mosque in Oujlah and the Italian Lighthouse of Sede Khrebeech.

This month, on the 10th anniversary of the Libyan Revolution a new 5 Dinar denomination was issued into circulation on SAFEGUARD® polymer substrate. This is the second banknote on SAFEGUARD® to be issued by the Central Bank of Libya, following on from the 1 Dinar in 2019. Like the 1 Dinar the new SAFEGUARD® 5 Dinar features a complex window depicting Libya's iconic resistance leader Omar Mukhtar, the "hide and reveal" substrate feature, MASK™ and the UV ink feature GEMINI™.

The 5 Dinar is also the first banknote to be issued in the world with SAFEGUARD® ARGENTUM™ into the polymer substrate. This highly reflective silver ink forms part of the polymer substrate and has been integrated into the polymer window as mirror-like shapes around the edge of the window. It has been sensitively designed to look consistent with the previous paper banknote and to align with the style of the SAFEGUARD® 1 Dinar.



ARGENTUM™ integrated into the polymer window.

# Central Bank of Trinidad & Tobago

## \$1 and \$50

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The new polymer \$1 and \$50 banknotes have been issued this week by the Central Bank of Trinidad & Tobago. These notes complete the transition of the new series to SAFEGUARD® polymer substrate and perfectly complement the current \$5, \$10 and \$20 denominations.

In 2014 the Central Bank of Trinidad & Tobago issued the first SAFEGUARD® note in the Caribbean region, with a \$50 commemorative note that went on to win the “Banknote of the Year” Award from the International Bank Note Society. Today completes the transition of the banknote series to polymer.

The front of each banknote celebrates Trinidad & Tobago, with imagery of national birds, the national flag and the country’s coat of arms. The reverse of the note contains an image of the building of the Central Bank of Trinidad & Tobago, along with landmarks and scenes of cultural importance. A tactile emboss feature broadens financial inclusion by enabling those who are visually impaired to more easily distinguish between different denominational values.

Governor Alvin Hilaire said “We are excited to launch the final two denominations of the series and we are incredibly pleased with our new polymer banknotes. The feedback on the notes we issued last year has been wonderful and we are happy to achieve this milestone of introducing the entire suite at this time. These polymer notes represent an upgrade to our previous series, with notes that are more durable and cost effective than the previous series. Thank you to De La Rue for their collaboration and support throughout.”

We are delighted to see these secure, modern and beautiful banknotes enter circulation. It has been a pleasure and an honour to work with the Central Bank of Trinidad & Tobago as they transitioned to a new series.

# Banknotes & Bitcoins



J.P. Koning

*J.P. Koning is a financial writer and blogger with interests in monetary economics, economic history, finance, and fintech. He has worked as an equity researcher at a Canadian brokerage firm and a financial writer and publisher at a large Canadian bank. More recently, he has written several papers for R3, a distributed ledger company, on the topics of central bank cryptocurrency and cross border payments. He founded the popular blog Moneyness in 2012.*

To understand any new phenomena, we look for analogies among existing things. The most popular analogy for bitcoin is cash, one of the world's oldest payments technologies. But how similar are banknotes and bitcoins?

There are a few similarities, but at their core banknotes and bitcoins are very different. Bitcoin isn't an evolution in payments technology. It's an incredibly successful and robust rendition of the old-fashioned chain letter.

Bitcoin was first described as an "electronic cash system" in 2008 by its creator, Satoshi Nakamoto, a pseudonym for either an individual or group of programmers. By appropriating the word "coin" for bitcoin, Nakamoto reinforced a link between his/her/their creation and monetary instruments long dominated by mints and central banks.

Since 2008 the price of bitcoin has risen from \$0 to \$40,000, albeit with many huge falls along the way. The total value of all bitcoins ever created is now worth around \$750 billion, about the same value as all €50 notes put into circulation by the European Central Bank.

Let's look at some of the similarities between bitcoin and banknotes.

In the lingo of bitcoiners, cash and bitcoin are decentralized and censorship resistant. Decentralized means that much of the control over both networks is outsourced to members of the public. An instrument is said to be censorship resistant when no one can be prevented from using it.

For instance, you needn't sign in to the Bank of England's server to ask for permission to

make a £20 banknote transaction. Anyone can participate. Nor does the Bank of England have the ability to freeze £20 notes and lock users out.

Likewise with bitcoins. A network of computers all over the world runs open source software that processes bitcoin transactions. Anyone can download a bitcoin wallet and send bitcoins via this network. Transactions cannot be censored, nor can users' holdings be frozen.

But that's where the similarities end.

*"of the 1% of Americans that own bitcoin, almost no one uses it for payments"*

Banknotes are widely used for payments: to buy coffee, pay rent, or lend to a friend. But 12-years in, bitcoin remains a niche medium for buying stuff. In its 2019 Survey of Consumer Payment Choice, the Federal Reserve found that of the 1% of Americans that own bitcoin, almost no one uses it for payments. Data compiled by the Reserve Bank of Australia's 2019 Consumer Payments Survey indicates that less than 1% of Australians used cryptocurrencies to make payments.

Which isn't to say that bitcoin hasn't gone mainstream. People all over the world have been buying bitcoin in the hope that its huge price fluctuations will make them fabulously rich.

We need a better analogy for bitcoin than banknotes. After all, no one acquires a



*"Bitcoin isn't an evolution in payments technology. It's an incredibly successful and robust rendition of the old-fashioned chain letter."*

¥10,000 note because they want to parlay it into a Lamborghini. Which gets us to the old-fashioned chain letter. If you lived in the U.S. in the 1970s, you may remember receiving a copy of the famous Circle of Gold letter in your mailbox. When email arrived, digital chain letters like Make Money Fast proliferated.

Chain letters instruct recipients to forward money to the person at the top of a list indicated in the letter, then copy the letter

*"We need a better analogy for bitcoin than banknotes. After all, no one acquires a ¥10,000 note because they want to parlay it into a Lamborghini."*

(while adding one's own name to the bottom of the list) and send it on. As the letter propagates through the mail and one's name rises in the list, money will start to flow in.

Chain letters tick all the same boxes as bitcoin. They are decentralized. That is, there is no single actor controlling a chain letter's finances. This limits the ability of authorities to prevent the chain from spreading. A chain letter is also censorship resistant. No individual can be prevented from receiving a letter, forwarding money, copying letters down, and sending them on.

While no one expects to get rich off of banknotes, that's the whole point behind both bitcoin and chain letters. The earliest participants in Make Money Fast and bitcoin can get paid off handsomely, but only if a subsequent wave of participants arrives. And this second wave can only earn a profit if another wave arrives, etc.

But bitcoin is a far more efficient machine than any chain letter preceding it. The weakness of chain letters, both the paper and email variety, is that they aren't secure. Each participant has an incentive to mis-copy the list and put their name at the top, thus cutting into the queue. And so chain letters have always broken down a few months into the game.

Linguistic and cultural barriers have also impeded the transmission of chain letters. A letter written in English and asking for payout in pounds is unlikely to gain success in China, nor will a letter written in Mandarin and denominated in yuan circulate in the U.K.

Bitcoin solves these weaknesses. Bitcoin's digital 1s and 0s are not linked to any given language or currency. Freed from cultural baggage, the chain is free to spread from Britain to Uganda to Colombia and back.

Second, bitcoin solves the chain letter cheating problem. The network of computers running bitcoin software prevents counterfeiting by checking each bitcoin

transfer against the entire transaction history. So whereas it's easy to cut into line with old fashioned letters, bitcoin software prevents queue jumping.

And thus bitcoin has become the world's first global, 100% secure digital chain letter.

Which gets us back to the banknote analogy. Banknotes and bitcoins are fundamentally different instruments. Yes, they are both decentralized and censorship resistant. But whereas a chain letter's value is determined entirely by the next wave of entrants, a £20 note is permanently anchored by the Bank of England, Her Majesty's Government providing additional lines of support via its taxation power.

This makes for a relatively stable, if not boring, instrument. But stable is exactly what people prize when it comes to payments. Anyone who holds a £5 note in their wallet can be assured that, a few weeks from now, their banknotes will still buy two Big Macs. Bitcoin will always be too volatile to provide such assurances.

Which isn't to say bitcoin will never have a role to play in the payments landscape. With the arrival of bitcoin, those on the fringes—criminals, dissidents, and the unpopular—now have a digital option to turn to whenever they are cut off by mainstream electronic payments networks. But using a volatile chain letter as a payment tool will always make for an awkward experience, so don't expect anyone other than the fringe to use it for that purpose.





# 1st Edition Feature Series



The first edition of the Feature Series Housenotes launched on the 16th February and comprises two SAFEGUARD® polymer notes and four paper notes.

Designing and manufacturing Housenotes require the same rigour of design, depth of thought and attention to detail as every series of banknotes.

The latest security features and variants were selected and combined to create the optimal balance between functionality and security. The features are then brought to life with symbols and images that are centered around a meaningful theme, chosen to engage and inform the recipient.

Banknotes hold symbolic importance, celebrating the identity of a nation at a point in time. Thomas de la Rue, as founder of De La Rue, provided an obvious parallel for issuing authorities seeking to base their next series of banknotes on a person of significance. Thomas de la Rue symbolises the creative, progressive and expertise of De La Rue today.

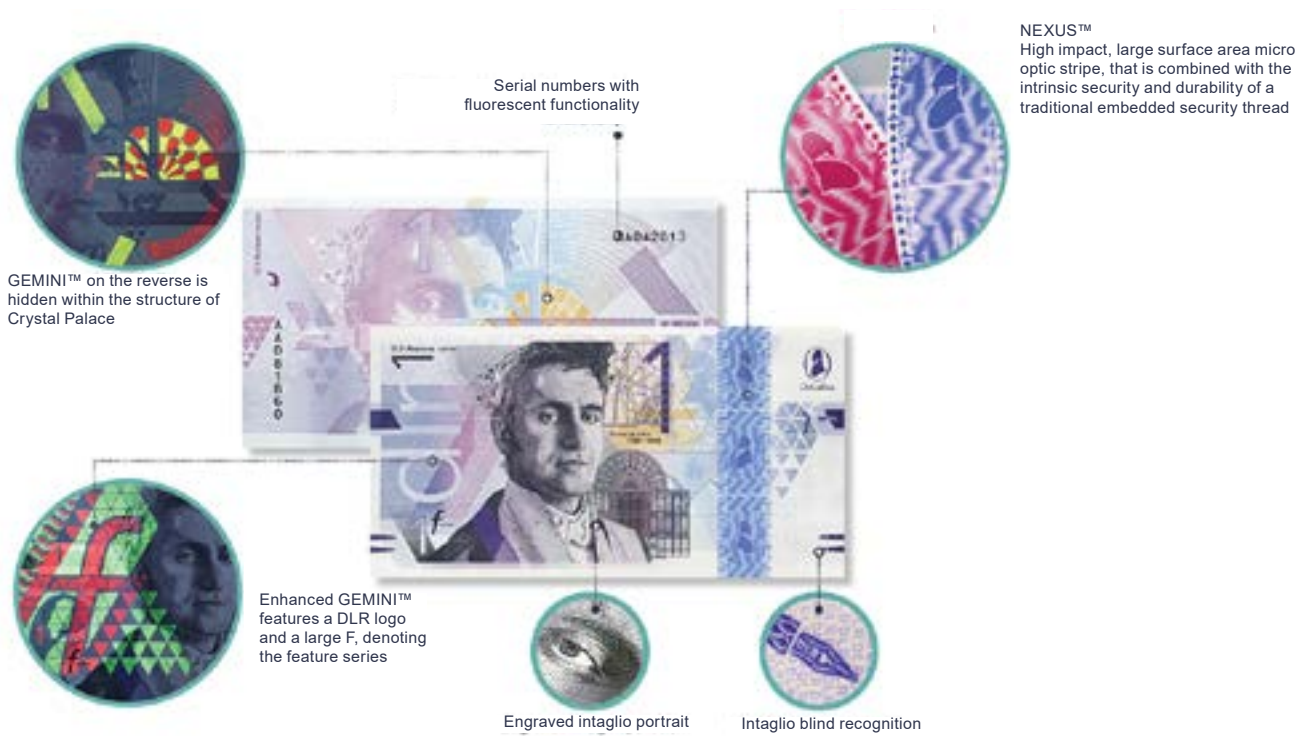
The Feature Series housenotes show how security features can be layered throughout a note, with public authentication, teller and machine readable security features all featured on the notes.

To learn more about the breadth of De La Rue's security feature portfolio and the design and manufacturing expertise behind these notes please visit our website or scan the QR code on the back of any housenote with your smartphone camera.

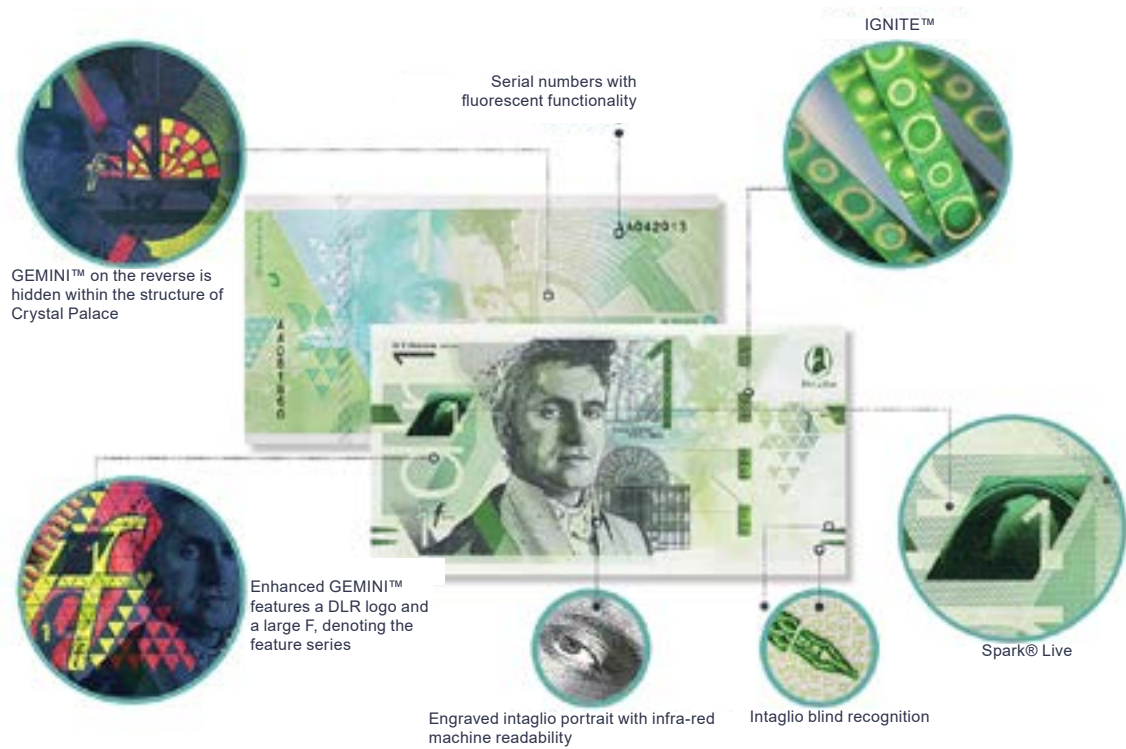
[www.delarue.com/currency/housenotes/firstedition](http://www.delarue.com/currency/housenotes/firstedition)

# Security Features

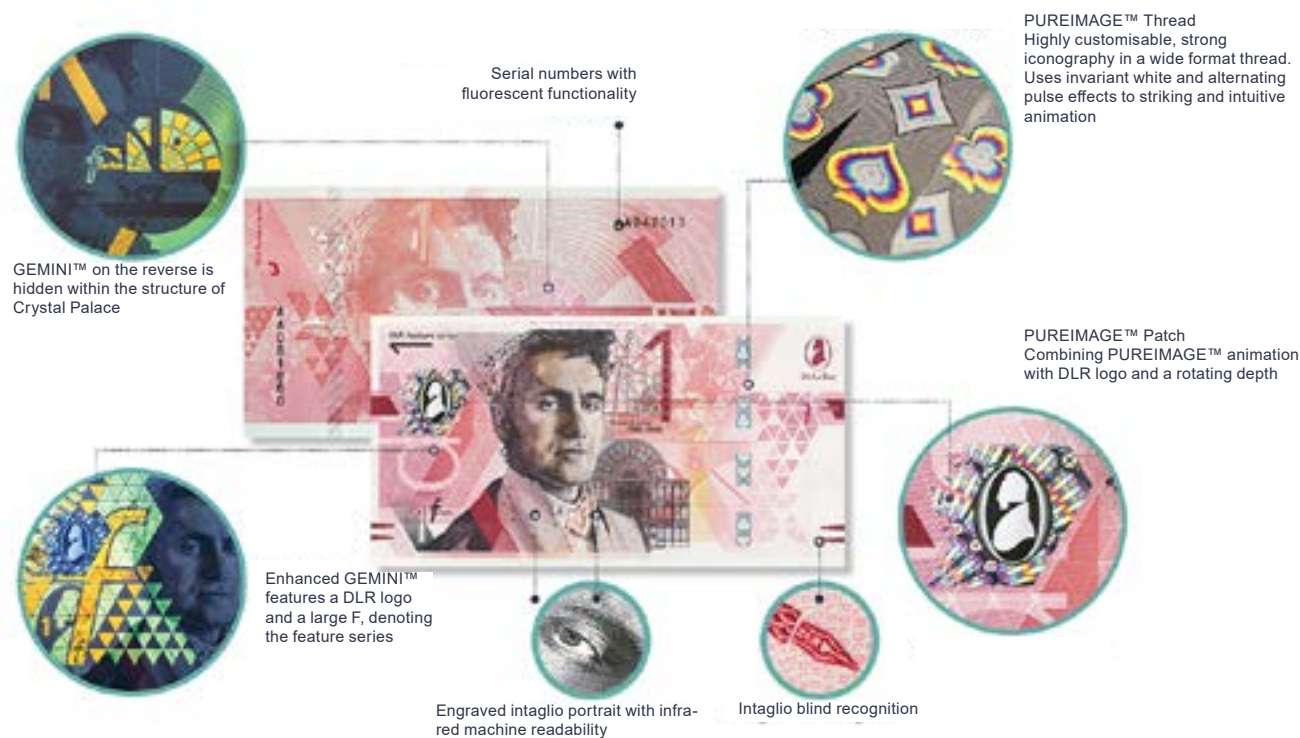
## NEXUS™



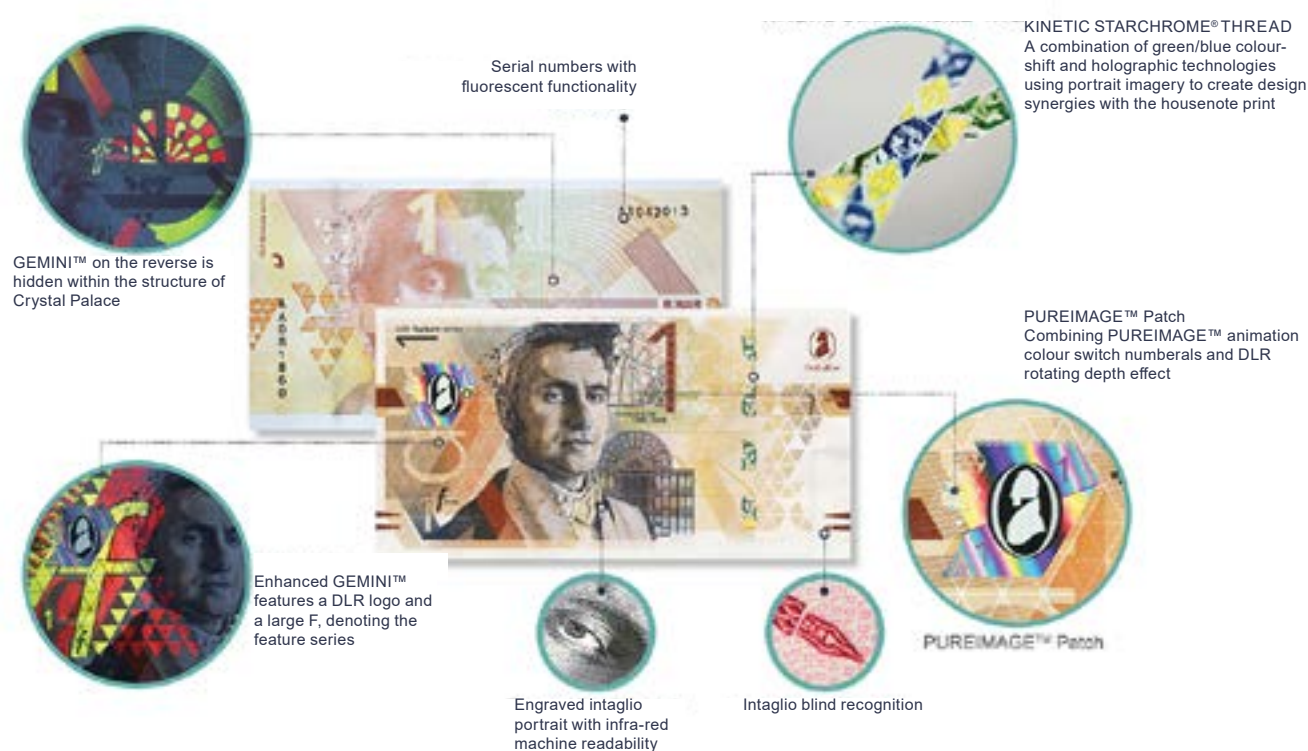
## IGNITE®



# PUREIMAGE™ thread & patch

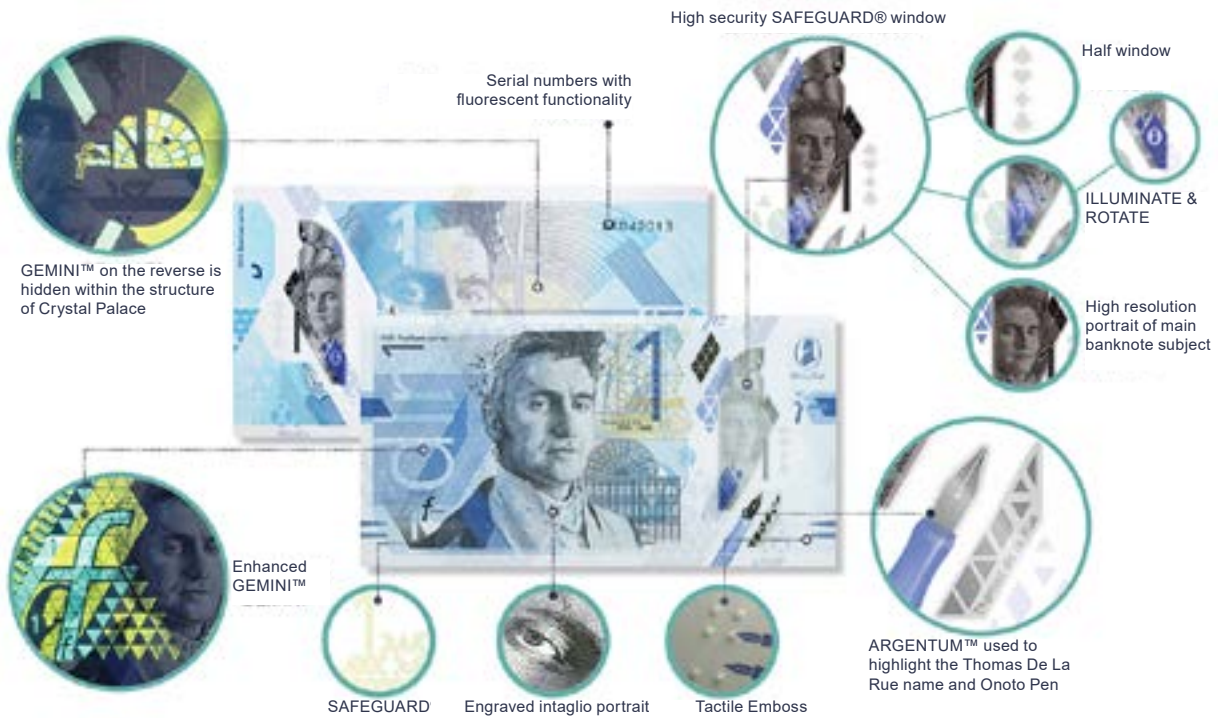


# KINETIC STARCHROME® & PUREIMAGE™ patch

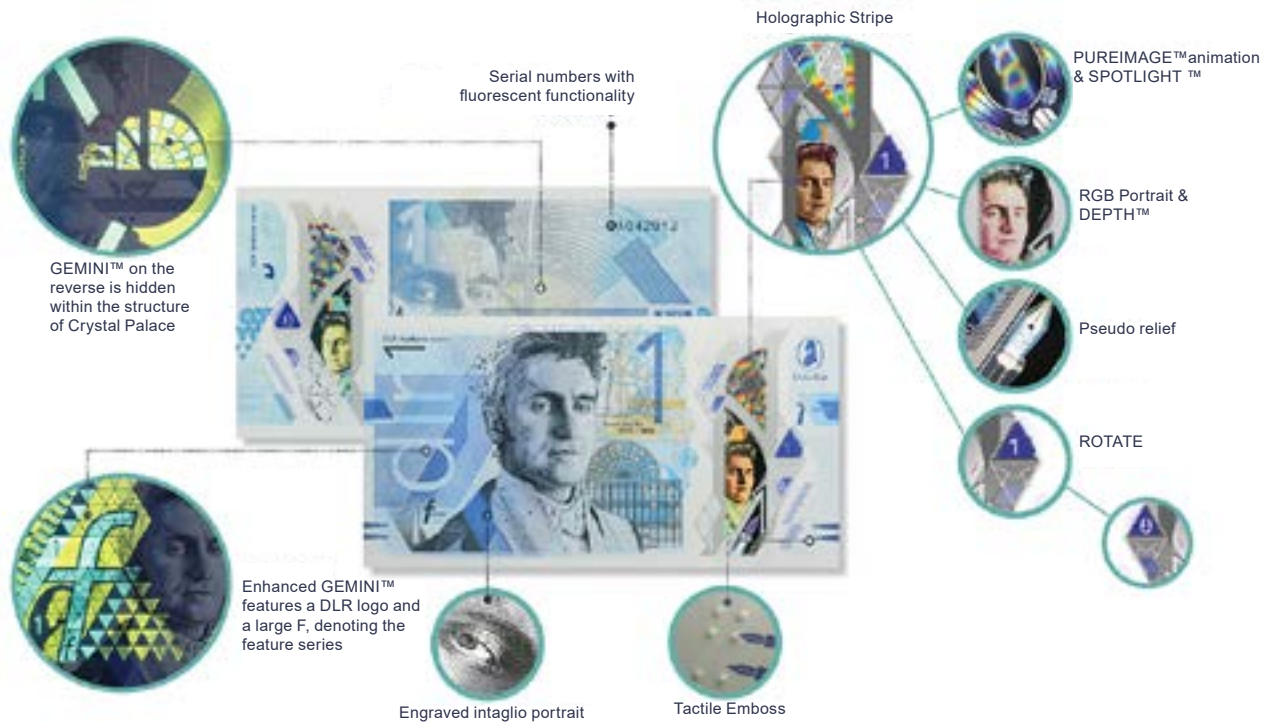




## SAFEGUARD® ARGENTUM™



## SAFEGUARD® holographic stripe



# Keynote Event

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The first ever online Keynote event was streamed by De La Rue earlier this month.

Ruth Euling updated the audience on the recent progress of the Currency business, the new banknotes issued in 2020, the advancements in polymer and future plans for De La Rue.

Alan Newman, Currency Product Director, launched the new housenote series and guided the audience through the latest products and features.

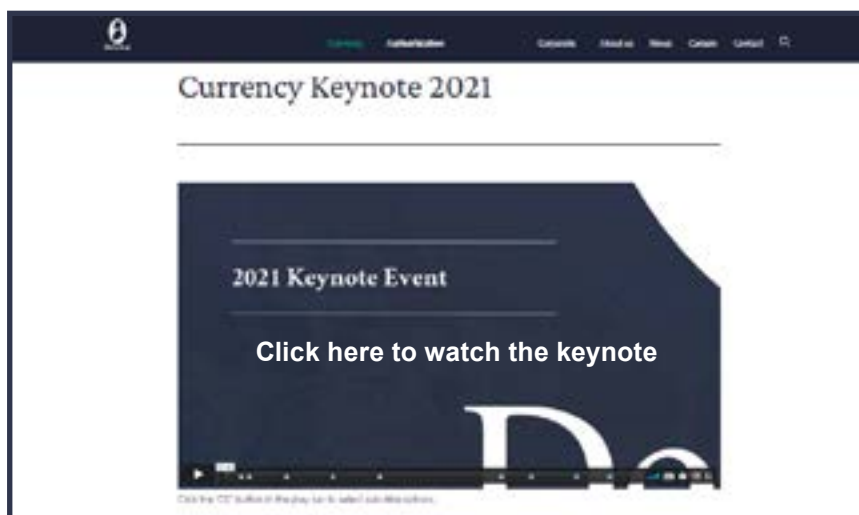
The motivation behind the Keynote event was to explore alternative ways of communicating with and updating the industry whilst COVID19 restrictions continue. It has been our most popular currency videos, with over 1000 views in the first five days.

The Keynote can be streamed from [delarue.com](http://delarue.com) and is 22 minutes long, we hope you find the time to watch it.

[www.delarue.com/currency/keynote](http://www.delarue.com/currency/keynote)

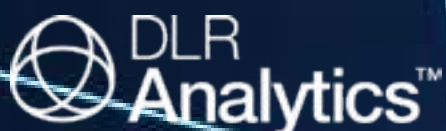
*De La Rue Currency  
presented our first  
online Keynote  
address in February,  
we hope you find an  
opportunity to view it.*

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DeLaRue



Data-driven insights  
to put you in control  
of your cash cycle.

LEARN MORE



# What is happening to cash in circulation?

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*Dr Nikki Strickland  
Head of Product Marketing  
De La Rue Currency*

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*"The purpose of DLR Analytics™ is to provide a standardised approach to cash cycle analytics so that every currency issuing authority can learn from each other."*


The purpose of DLR Analytics™ is to provide a standardised approach to cash cycle analytics so that every currency issuing authority can learn from each other. De La Rue has been supporting central banks with cash cycle analytics for decades and it was a natural next step to move this activity digital in 2017. The SaaS platform is free to use and cloud-based – central banks who want to access DLR Analytics™ receive a URL that allows them to log in for free as often as they like.

At a basic level the DLR Analytics™ SaaS platform contains mathematical models to forecast banknote demand and calculate banknote lifetimes. The mathematical models compiled within DLR Analytics™ are the ones central banks told us they used most frequently. The banknote lifetime calculations have been checked against sorter analytics data. Users simply log in and upload monthly data (e.g. the number of notes in circulation at the end of each month). The calculations automatically run once the data is uploaded and intelligent algorithms select the best models (although users can override if they so choose). This means that users can spend time comparing the outputs from different models and thinking about the “so what” of the analysis, instead of spending time working out which mathematical model to use.

Users of DLR Analytics™ are automatically members of the Cash Cycle Partnership and the real power of this group is that central banks can learn from each other. The data that goes into DLR Analytics™ is aggregated and anonymised so that regional and global trends can be shared with all participants. Central banks can check whether their cash cycle is behaving within region ‘norms.’ For a central bank considering a change (e.g. introducing a new high value banknote or transitioning to a more durable polymer substrate) then the Cash Cycle Partnership is likely to have a member with a similar cash cycle so that they can learn from each other. Forecasting banknote demand when you make a change to the denominational structure or the durability of the banknotes is especially challenging, and it can be helpful to see anonymised examples of what has happened elsewhere.

Two year ago we published a series of industry insight papers covering what is happening to cash in circulation, the factors behind the trends, banknote issuance patterns and trends in circulation velocity (i.e. how often on average central banks were seeing a banknote to inspect it). Last year we paused during COVID19 and we are now working to refresh the latest industry insight, based on the latest data from DLR Analytics™ and equivalent banknotes statistics.

We have reached out to banknote issuing authorities for 2020 data. If you represent a banknote issuing authority and you'd like to receive the 2021 industry insight reports please email [currency@delarue.com](mailto:currency@delarue.com).



We provide banknotes that central banks and issuing authorities can be proud of.

Our market-leading Currency Division provides banknote security features, polymer substrate and fully finished banknotes to central banks, banknote issuing authorities and state printing works around the world.

De La Rue banknotes are more than just currency – they are secure, functional and beautiful products that countries can be proud of. They represent the very best of British design and innovation by capturing the richness of the cultures they represent with originality and creative flair.

Today's De La Rue is a progressive global company, with international manufacturing expertise, building on a heritage of customer focus, invention and expertise. We value our role as a trusted and long-term partner to banknote issuing authorities and respect this role by striving to offer the best products, support and services, via a seamless experience from start to finish.

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Join us on social media. Get access to De La Rue opinion, events and our latest news and views on cash and currency around the world. We will keep you informed on what we are doing and what matters to us.

We welcome your suggestions, ideas and comments. Please send these to [Nikki Strickland](#) or [Richard Sokl](#).

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