# CHBA Manuella Commence Going Beyond

DeLaRue

1st Quarter 2022

**New IGNITE® effects** 

Public engagement with banknote security features

**De La Rue commits to Science Based Targets** Initiative to drive net zero goals

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## Introduction

Physical conferences are starting again and we are pleased to have the opportunity to meet in person. Many of the De La Rue team are attending/have attended the Banknote & Currency Conference in Washington DC and we are also looking forward to HSP LatAm and the Global Currency Forum over the coming months. As well as providing a very welcome chance to connect properly the conferences also give us a chance to share our latest developments with you.

If we haven't yet had a chance to talk to you, we are excited to announce SAFEGUARD® ASSURE<sup>™</sup> as the first covert security solution for a proven polymer substrate. SAFEGUARD® ASSURE<sup>™</sup> is embedded into the core of the substrate and is supported with a suite of machine and hand-held sensors for central bank authentication. No other substrate offers the polymer benefits of customisable



windows and long-lasting tactile emboss features with a covert feature in the very core of the substrate. For paper security features we are pleased to be able to demonstrate the latest IGNITE® effects, which are sharper and more customisable – if you haven't had the chance to see them, please reach out as they represent a new level of customisable and dynamic colourshift security features.

As ever, please contact us if you have any ideas for content you'd like to see in future editions.

If you would like any more information about anything in this newsletter or would like to register for future webinars, please contact us at <u>currency@delarue.com</u>.

Ruth Euling, Executive Director and Managing Director, Currency

#### **New Banknotes**

#### HM Government of Gibraltar issue new £5

The new Gibraltar £5 entered circulation on the 1st December 2021.

The new note has been resized to match the dimensions of the Bank of England  $\pounds 5$ .

A PUREIMAGE<sup>™</sup> holographic thread was added to the note with a tilt and movement effect. The GEMINI<sup>™</sup> ultraviolet feature can be found on the front of the note and a see-through panel is visible on the reverse.





## Central Bank of the United Arab Emirates launch polymer 50 Dirham note

The new 50 Dirham was launched on the 7th December 2021 and is the first banknote in the United Arab Emirates to be printed on SAFEGUARD® polymer substrate.

The new note was printed in the UAE by Oumolat Security Printing LLC and contains distinctive artwork, intaglio and tactile emboss features to distinguish the note for visually impaired users.

#### Central Bank of Uzbekistan issues 50,000 Som

The new 50,000 Som banknote entered circulation on the 22nd December 2021.

The notes were designed and printed by the state printer Davlat Belgisi with input from De La Rue. The notes feature IGNITE<sup>®</sup>, De La Rue's combinational security thread.



#### Taking the Lead

Making a meaningful and positive environmental contribution.

For over 200 years De La Rue has helped countries trade, companies sell and citizens participate in the global economy. To continue doing this we must do our part to help limit global warming to below 1.5°C by committing to targets that show a tangible path towards delivery. We have therefore signed-up to the Science Based Targets Initiative to achieve net zero by 2050 and are committing to be carbon neutral in our operations by 2030.

We will achieve this by dramatically reducing what we consume and dispose of whilst transitioning towards a business model based on renewable sources and circular economy principles. We already rigorously measure and transparently report our impact on the environment whilst actively reducing our impact. This explains why the Financial Times named us in the top 25 of the European Climate Leaders in 2021. Ensuring that our actions are enough to have a meaningful difference is a natural next step. Investments and activities to date to reduce our environmental impact have been important. However, it is vital we now connect this back to Science-Based targets to ensure that we are doing enough and we'd encourage others in the industry to do the same.

Our approach is holistic – using measurements to reduce our impact across our products and our operations, whilst working with our partners and customers to improve the end-to-end lifecycle of our products and services. The past two years have showed us the potential for global disruption and we believe the climate crisis could be even more devastating. The time to act is now and the time to have a viable route towards the end goals is now. We are taking that action and making the commitment to play our part in securing a sustainable future for everyone.



Ruth Euling Managing Director De La Rue Currency

"De La Rue has signed-up to the Science Based Targets Initiative to achieve net zero by 2050 and are committing to be carbon neutral in our operations by 2030."

#### How we engage with our banknotes, or don't.



Kerre Corbin Circulation, Authentication & Counterfeit Expert De La Rue Currency What are the consequences when the public do not engage with their banknotes and security features. How should one approach this situation?

Perception studies (like all scientific studies) can generate conclusions that appear to contradict each other. This is because of different experimental design approaches and the range of demographics of those taking part in the study. As an example, in one study portraits were cited as the feature most looked at and, in another study, the same claim was made about holograms. The studies carried out in this space over the past few decades have been varied and each one was conducted for a unique purpose, meaning that the conclusions of the studies don't always overlap or align.

means that the public care less than we would like to think.

Work by Hans de Heij suggests that banknote features are of interest to the public when the banknotes are new but otherwise the public only really focus on getting the correct value banknote for the transaction needed<sup>1</sup>. Higher value transactions, where the potential loss is great, may be the exception and invite greater scrutiny. Overall, the notes are accepted if the feel and the visual cues seem intuitively correct. The public do not want to engage in an active experience with the banknotes – they want to complete

"We don't see a significant number of low-quality counterfeit notes in circulation – this means our intuitive brain is holding banknotes to a high standard and cash cycles are working as they should."

One area that many perception studies do agree on is that people do not normally check their banknotes properly. They rarely know what to look for on a banknote and struggle to recall specific features. Overall, this reflects a good level of trust in the ATM notes dispensed or retail change received (as well as some situations where checking change is culturally unacceptable). This trust is earned compared to the risk of encountering counterfeits in areas such as branded goods or cyber-security, the threat from counterfeit banknotes globally is very low. Banknotes are doing the job they are designed to do by creating that inherent trust. For the industry it

the transaction with confidence, convenience and speed. The Bank of Mexico even prioritised the ease to denominate and authenticate at the top of the agenda in the design process, even above security and durability<sup>2</sup>.

This results in a paradox for banknote design - the security features need to be sufficiently sophisticated to be a barrier to criminals attempting to simulate them, whilst understanding that the public will not typically spend time authenticating the note.

Designing for engagement is still a valid goal under these circumstances.

<sup>1</sup> User-Centred Design of Banknotes 2016, Hans de Heij, De Nederlandsche Bank, Balancing the Use and the Experience 2016, Hans de Heij, De Nederlandsche Bank 2 May 2018 Currency News article



An attractive, engaging and visibly secure design is known to convey trust and confidence. Visual interest and novelty stimulate curiosity and the emotional reward centres of the brain – it entertains. Alongside this, the perceived cost to make, its refinement and the value or preciousness of the materials used to create it, give a sense of conferred value. This is important in providing intuitive reassurance to the public that the note is authentic.

The risk with low public engagement is that is creates a lower bar for counterfeiters - the argument goes that almost anything can pass if the public don't really examine the notes or simply make intuitive decisions about it in a split second. If this really were the case we would see a much higher rate of poor-quality counterfeit notes in circulation. Something shiny would replace holograms en masse. Decorative inks (e.g. nail varnish) would be simulating the colour-shifting inks and threads. A combination of a photocopied static image and a colourless shiny layer on topic would be everywhere to simulate micro-optic features. This hasn't happened and when low quality counterfeit notes are attempted, they are typically removed from circulation guickly. Generally humans are good at spotting quickly when something doesn't feel right compared to what we are normally used to handling.

This means that intuition still holds banknotes to a high standard despite us handling them in an automated way. De La Rue has long talked about triggers and authenticators – some features will trigger suspicion of a note, while others are then used to authenticate it. This thinking around triggers and authenticators aligns with some of the excellent research on how the brain processes transactions<sup>3</sup> in fast mode (this is where a trigger is important) and slow, strategic scrutiny (where authenticators are important). Authentication doesn't have to happen in a split second though as long as something can trigger the user to look more closely.

So, public education features do not need to purely work in 'fast' mode but should give visual cues as to whether there is an anomaly that requires further investigation. Touch has long been known to act as a trigger – banknotes have a particular tactility due to intaglio and the substrate is intuitively expected to have a certain feel and stiffness which is linked to its level of wear. People have also been shown to instantly recognise images that aren't replicated accurately, the presence/absence of features or colours that are off. In one De La Rue repertory grid study, based on unprompted observations of people handling notes, the differences in the colour of a security thread but not the effect types was noticed by many participants.

We would argue that banknotes are seen as being genuine or not based upon the entire entity and not simply on the speed of response of a single security feature. Multiple factors can trigger that something isn't quite right and can lead people to examine a banknote more closely. This is why the role of design is so critical in ensuring that banknotes maximise the confidence of the public, as well as working to increase the chances of something being triggered when a criminal attempts to simulate a note.

<sup>3</sup> See the work of Professor Jane E. Raymond

#### **Designing Polymer for Printers**



Sean McLean Design Engineering Manager De La Rue Currency

Those keeping an eye in the currency industry press and on social media may have noticed increased traffic around the continued progress of SAFEGUARD® and its performance. Given that polymer is already matching, and in some cases exceeding, the production performance of paper, you may find yourself asking how and why SAFEGUARD® continues to improve.

As a banknote printer, we design and manufacture a diverse range of banknote requirements to meet our Central Bank customer's needs. From small commemorative orders of 1m notes, to denominations that print a billion notes each year, we see the whole spectrum. In addition, we supply substrate and features to external Commercial and State Printing Works around the world for them to print in their own facilities. The result of this breadth and depth of experience is that we know what it takes, and what it means, to deliver consistency and performance throughout a multitude of different applications and requirements. We are obsessed with improving the performance of our products and will continue to make polymer as effortless and rewarding a transition as possible.

Our Product Team monitors the performance of our products as they go through sites all around the world, watching, listening and learning how to increase performance further. Each extra ream processed per hour, or fraction of a percentage point waste decreased brings the total cost of ownership down for banknotes. We live and breathe the whole journey, side by side on the printing presses, capturing feedback as it happens, building on the vision repeatedly. Most recently, improvements made to our holographic foil receptive SAFEGUARD® mean it now runs at up to 25% faster at intaglio consistently, stable at 9,000 sheets per hour. Bringing it in line with the non-holographic foil version of our polymer substrate. The result of this latest improvement is that we now need to assess our ink formulations to unlock further stable speed increases to 10,000 sheets per hour! Those who operate this process will know the challenges of trying to run these machines in a stable and consistent manner at the maximum range of the capability.

These challenges excite us, and we are proud to lead the banknote substrate industry with such innovations, removing performance obstacles for the transition to polymer. When the manufacturing process is efficient, we all win. The manufacturer has less waste and higher throughput, improving delivery times and controlling costs. This means the market continues to be more competitive, driving choice and value for customers. It is a real pleasure to know that we no longer only make polymer for Central Banks, we make polymer for Printers!

#### **IGNITE®-ing new possibilities**

The award-winning Qatar series of banknotes, The recently issued Uzbekistan 50,000 Som, De La Rue's house notes and the Bangladesh 100 Taka commemorative note have all recently demonstrated the strong colour shift and movement effects of IGNITE®. This combinational thread belongs to the fast-growing combinational thread category that is becoming extremely popular amongst central banks choosing to remain on paper banknotes. Precision micro-optic technology combines with colour shift to ensure criminals must overcome double the barrier to any simulation attempts.

The effects already released for IGNITE® form part of a geometric range – predominantly based on simple, clean patterns and images that have been designed for high impact. Advancements to the micro-optic structures means that these effects are now even sharper and a new image-based range has now been unlocked. These new effects allow our design team to incorporate intricate customisable shapes that move and alternative sections of text and images into one thread.



Mark Spencer Technical Product Manager De La Rue Currency



New IGNITE® effects - sharper effects and greater customisation options

# Why perception studies need to be considered in a wider context



Kerre Corbin Circulation, Authentication & Counterfeit Expert De La Rue Currency Over 25 perception studies and associated presentations have been made over the past decade. Central Banks including the Reserve Bank of Australia, the Bank of Canada. the Bank of England, the Bank of Mexico, the Dutch National Bank, the Bank of Spain and the Federal Reserve have all applied scientific rigour to the banknote design and security feature selection process. Experiments have observed participants in different situations, with technology measuring response times, visual activity and emotional responses to assess how users interact with banknotes. Conscious and subconscious interactions have been considered. Surveys and brain response experiments have provided insight about how the public and cash handlers interact with banknotes.

seek to demonstrate the benefit of a specific product. The experiments, surveys and studies carried out have been specifically designed to meet precise objectives related to these types of topics.

The different requirements behind a perception study mean there isn't a single correct general approach. Many studies are designed with a deliberately narrow scope, for instance to focus on single features or a specific banknote. Furthermore, the diversity of people and cash cycles that exist will lead to various studies demonstrating different types of user interactions with the banknotes. This is useful when putting perception studies into context because it is important to remember that banknotes are secured holistically and need to

"Perception studies commissioned by suppliers may be seeking to demonstrate the benefit of a specific product"

These perception studies have been motivated by a range of factors. Central banks have wanted to increase user engagement, improve the user experience and better understand what drives confidence in banknotes. They have sought to establish an evidence-based approach to select security features, design banknotes and optimise public education programs. They have wanted to understand what people look for on a banknote, how accurately users can identify a counterfeit and whether factors such as banknote quality impact this accuracy. Perception studies commissioned by suppliers may

work for all stakeholders and use scenarios. It's also useful to note that perception studies, by necessity of their specific objective, are often undertaken in environments that differ from the transactional environment of day-to-day cash use.

Perception studies, as with all scientific studies, will lead to conclusions that are dictated by the design of the study. Results from one culture or demographic may not necessarily transfer to that of another. For instance, when checking whether a banknote is authentic, users who have grown up with paper banknotes may check the watermark



whereas users who have grown up with polymer banknotes may try to tear the note. Perception studies often have some type of instruction to follow, meaning the environment and financial considerations to be balanced, which means other surveys and studies may also be appropriate. The counterfeiting threat (both current and future)

"it is important to remember that banknotes are secured holistically and need to work for all stakeholders and use scenarios"

is not like real-life and people may examine the note more closely than usual. It's also possible that feature analysis and assessment may give unrealistic results if done in isolation of the overall banknote design. These types of examples help to explain why some studies draw different conclusions (e.g. "portraits are the most intuitive graphical feature for emotional engagement" versus "portraits should be replaced by other visual elements"). This doesn't mean perception studies are not valid - quite the opposite - it simply means that care is needed when taking the results from one perception study and considering its applicability to a different scenario. So, perception studies are useful but other requirements also need to be considered in parallel when designing a banknote. Certain perception studies may not be applicable for certain countries. Countries have political, cultural

and performance of the existing series needs to be assessed. Other banknote needs, such as wider cash handling requirements and production considerations, are also important. Taking a broader view and wider range of inputs helps to consider the banknote design in the wider context of stakeholders and priorities.

What perception studies do is to provide valuable information in the form of evidence and analysis to educate, guide or support decisions. They provide a unique perspective and a route for central banks to demonstrate they have included the needs of the public. They also provide insight into the most effective language and approach to public education materials and media, which is an important angle when considering banknote confidence. They are an incredibly useful tool if the conclusions are taken whilst considering the broader context,

such as understanding the motivation for carrying out the study and considering the applicability of the study to the relevant situation. For central banks considering a new series of banknotes perception studies can play an important role. However other perspectives also need to be considered and care is needed when extrapolating conclusions from any single study to a central bank's particular situation.



## **SAFEGUARD®**

A more durable substrate, lasting on average 2.5 times longer than paper

# Holographic stripe

Combinations of features create multiple barriers to counterfeit attempts



## **Tactile emboss**

Raised patterns aid identification for visually impaired users

### **SAFEGUARD**<sup>®</sup>

#### Now the most complete banknote substrate solution available?

There are many functional and secure features available that meet the needs of the various cash cvcles. banknote issuing authorities and end users. Central banks cite that they choose polymer substrate for reasons such as it being cleaner, greener, more secure and more durable. However both polymer and paper banknotes have specific features that are unique to their substrate, thus enabling a central bank to build the layers of security that have the properties they choose into their banknotes whilst tailoring the overall specification for their individual needs.

For polymer banknotes, customisable window designs can be fully integrated into the banknote which unlocks a highly secure and engaging aesthetic. The smooth surface of the polymer substrate enables holographic effects that aren't possible on paper banknotes. This is part of the reason for the growing trends to integrate holographic stripes into the window of the banknote. This hologram then protects both faces of the banknote. Polymer banknotes also enable greater financial inclusion than paper due to a long-lasting and obvious tactile feature that allows the blind and partially sighted to better distinguish between banknotes.

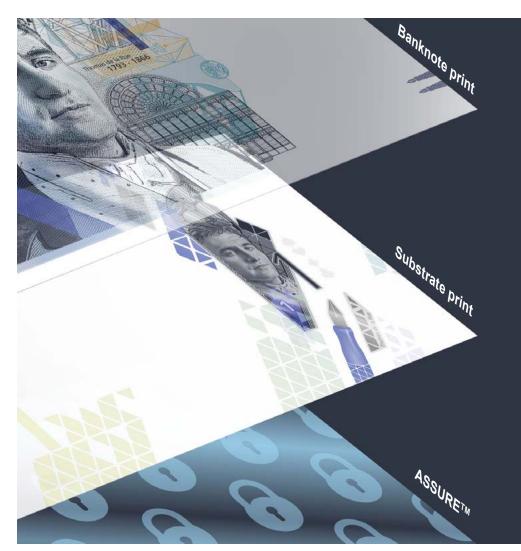
One of the benefits of paper banknotes is the embedded security features, such as a taggant or an embedded thread. The act of embedding a feature into the paper substrate is one route (and a strong route) to making a banknote more secure. De La Rue has invested in threads such as KINETIC STARCHROME®, PUREIMAGE<sup>™</sup> and IGNITE® along with the microoptic embedded stripe NEXUS™ for this reason.

However, embedding security, incorporating a window or applying a hologram are all one route to secure a banknote. None is the perfect solution in isolation and none is the best overall. Security is established via multiple layers. Banknotes from the G7 countries include those without embedded security; Japan protects its paper notes with a hologram but no thread whilst English and Canadian notes are already on polymer. Of all the 25 denominations in the banknotes of the G7 countries only one contains a windowed security thread. Every central bank that has transitioned to polymer reports a drop in counterfeit rates and most counterfeit notes are still produced on paper (even Australia, which has had polymer banknotes for decades still reports that a significant proportion of the counterfeit polymer notes seized are produced on paper).

For new banknote designs it is important to ensure the right combination of features are selected for the needs of the central bank. These needs cover security, functionality, durability, cost and many other factors. Billions of polymer banknotes in circulation are protected primarily by a secure window and certain substrate specific gravure print features. Billions of paper banknotes in circulation still have only a basic thread (or no thread). The security levels and features are scaled up to respond to the counterfeit attack. As polymer becomes more popular and an increasing number of higher value denominations convert to polymer the need for new security features



Alan Newman Product Director De La Rue Currency



increases, helping to explain why holograms have become the ultimate public security feature for polymer banknotes.

So warnings about a lack of "embedded security" shouldn't be a concern for central banks considering polymer. Polymer substrate is already secure, with the film having dimensions and properties used only for polymer banknotes and with the SAFEGUARD® substrate carrying part of the banknote design – playing an active role instead of being a blank canvas like a paper substrate is.

For a minority of circumstances De La Rue recognises that some banknote denominations need an option of last resort in the event of a state-sponsored terrorist attack or large-scale organised crime groups. Some banknotes out there have a particularly high counterfeiting threat. Some central banks are particularly concerned what happens In the unlikely event of a polymer note is allowed to wear down to the point where no ink remains. In these extreme circumstances SAFEGUARD® ASSURE™ is an option that will be available very soon. This is fully embedded into the core of the SAFEGUARD® polymer substrate, meaning that it can be detected by the central bank even if no other aspect of the banknote is remaining (i.e. at the equivalent stage of a paper banknote worn to the point where the thread has come out of the note and the note is so brown with dirt it can't be identified). This solution has specific machine only and user activated detection mechanisms and uses sensors compatible with the major high speed processing machines.

ASSURE<sup>™</sup> means that SAFEGUARD® now offers a holistic security solution for polymer with level 1, 2 and 3 security features as well as the inherent benefits of secure windows and tactile features for blind recognition. SAFEGUARD® also comes

with the ability to recycle, cash cycle analytics, design and technical support from De La Rue. This means it provides a unique and complete set of attributes that no other proven substrate can provide.

If you'd like to know more about SAFEGUARD® ASSURE<sup>™</sup> we will be making presentations at the Banknote Currency Conference. If you are unable to attend, please scan the QR code below to request more information.



## Currency: View

Download our app and start scanning De La Rue's brochures and artwork to see our products come to life.





Currency: View is available for download on the Apple App Store and Google Play Store

#### Currency's newest app - View

Scan our brochures and learn how our products and services can be used to create banknotes that are attractive, functional and secure. Share screenshots with a tap of your finger.

To get the best experience from the app, scan physical copies of our newest product brochures. Physical brochures will be available at Banknote Curreny Conference or you can request new brochures from within the app.

## The Importance of Design

Alan Eckford Head of Design

Jan Kercher Design Realisation Manager

Stuart Rost Currency Realisation Designer

De La Rue Currency

The importance of design was the topic of a recent webinar hosted by Reconnaissance and joined by Mark Stephenson of the IBDA, Rosbert Humphrey of the Eastern Caribbean Central Bank and Stuart Rost of De La Rue. Banknote design is a topic of ongoing interest, so Currency News followed up with the De La Rue team to delve a bit deeper.

#### Let's start with the theme of the January webinar - why is design important?

Design plays a pivotal role in banknote manufacturing and the end-to-end cash cycle. Good design optimises the banknote for every stage of its life cycle – it considers cost efficiency, environmental impact, artistic excellence, requirements around stakeholder interactions, manufacturing efficiency, security requirements and circulation performance.

The success of any banknote project is dictated by the design. People immediately understand that it sets the style and theme of the banknote, ensuring the public will have confidence in their currency and ultimately determining the acceptability of the note in circulation. However, it also impacts the success of a project at a financial and environmental level. This is because the banknote design will often dictate the manufacturing routing, the materials used,

the product cost, the waste levels during manufacture and durability in circulation. In fact, 70 to 80% of the cost is typically built in and committed at the design phase, with designers now routinely considering the end-toend life cycle of each banknote.

#### You're responsible for designing a third of all banknotes in circulation. What is the difference between good design and great design?

A great banknote design is simultaneously a small artistic masterpiece, a secure document and a functionally optimised product. It evokes a sense of pride and provides public confidence in the national currency. It is also easy to process, examine and authenticate at high speed with a high degree of reliability and quality. It does this whilst being cost effective and meeting the durability requirements of the cash cycle it circulates in.

De La Rue adopts a circular design approach to meet the diverse requirements of a banknote, pushing the designers to deliver banknotes that are artistically brilliant whilst optimised for manufacturing, cash cycle users and cash processing systems covering the full end to end cash cycle. If any of these elements are compromised or not considered there is a risk the design will not meet the intended functional requirements thus limiting the success of the banknote project.

#### With the trend towards polymer, what are the main differences between designing polymerbased banknotes and paper-based banknotes?

Firstly we should emphasise that many of the considerations for designing a new banknote are similar, irrespective of the substrate selected. Aesthetic themes, symbolism, security feature selection, the needs of all end users

(including specific groups, such as the partially sighted) and how the notes will interact with the cash cycle all need to be considered. Any changes in size of the banknotes or positioning of machinereadable features may impact the equipment the banknotes interact with in the cash cycle. These fundamentals remain for all banknote types.

That said the greatest design advantage for polymer is the substrate itself becoming an integral part of the total banknote design. Unlike paper, which is a predominantly blank substrate that carries the design, polymer is a fundamental and active participant in the design. This unlocks considerable design opportunities; for instance, a window isn't restricted to a small diecut shape in one part of the note but can instead be designed to be more complex, integrated, attractive, larger and positioned in multiple places. The window also offers an easily identifiable public recognition feature allowing for novel design elements and applied features such as holographic foil stripes. By integrating all the elements of the banknote into the design, it intensifies the beauty, adds intuitive security and functionality to the banknote.

As polymer provides a smoother surface to print on it results in much sharper print and finer lines thus we treat the print and engraving design to be sympathetic to this. It also allows for advanced holographic effects, which can't be achieved on the paper substrate. The consideration for tactility also differs when designing on polymer – on polymer the Intaglio print is slightly shallower although it still provides a distinctive polymer banknote feel. Intaglio is the main area of tactility on paper banknotes. For tactile blind recognition features we can additionally deploy a customised tactile emboss features into polymer banknotes.

Finally, what advice would you give to central banks thinking about their next new series of banknotes?

Understanding what you want to achieve with a new series of banknotes is a vital first step. This allows you to then understand the performance of the existing series and to work out any changes needed versus those future needs.

The process of thinking through your future banknote needs may involve consulting the public and other representatives of the cash cycle to understand that perspective. Alongside that research it is vital to understand how the public have used the banknotes (cultural preferences, how different value notes are used etc), the circulation performance of the banknotes, counterfeiting trends, the evolving counterfeiting threat and how the public authenticate their notes. Some central banks find value in using focus groups or conducting perception studies to understand more about a specific topic. Some consult the public about the theme or person to put on the banknote and others have used local artists to help deliver imagery that is particularly meaningful. Talking to suppliers like De La Rue and other central banks can also help you broaden your perspective and better refine your needs. For many representatives of central banks the project management of a new banknote series happens once or twice in their career. De La Rue is experienced in this area and continuously supporting multiple central bank projects.

## 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 <u>Nikki Strickland</u> or <u>Richard Sokl</u>.

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