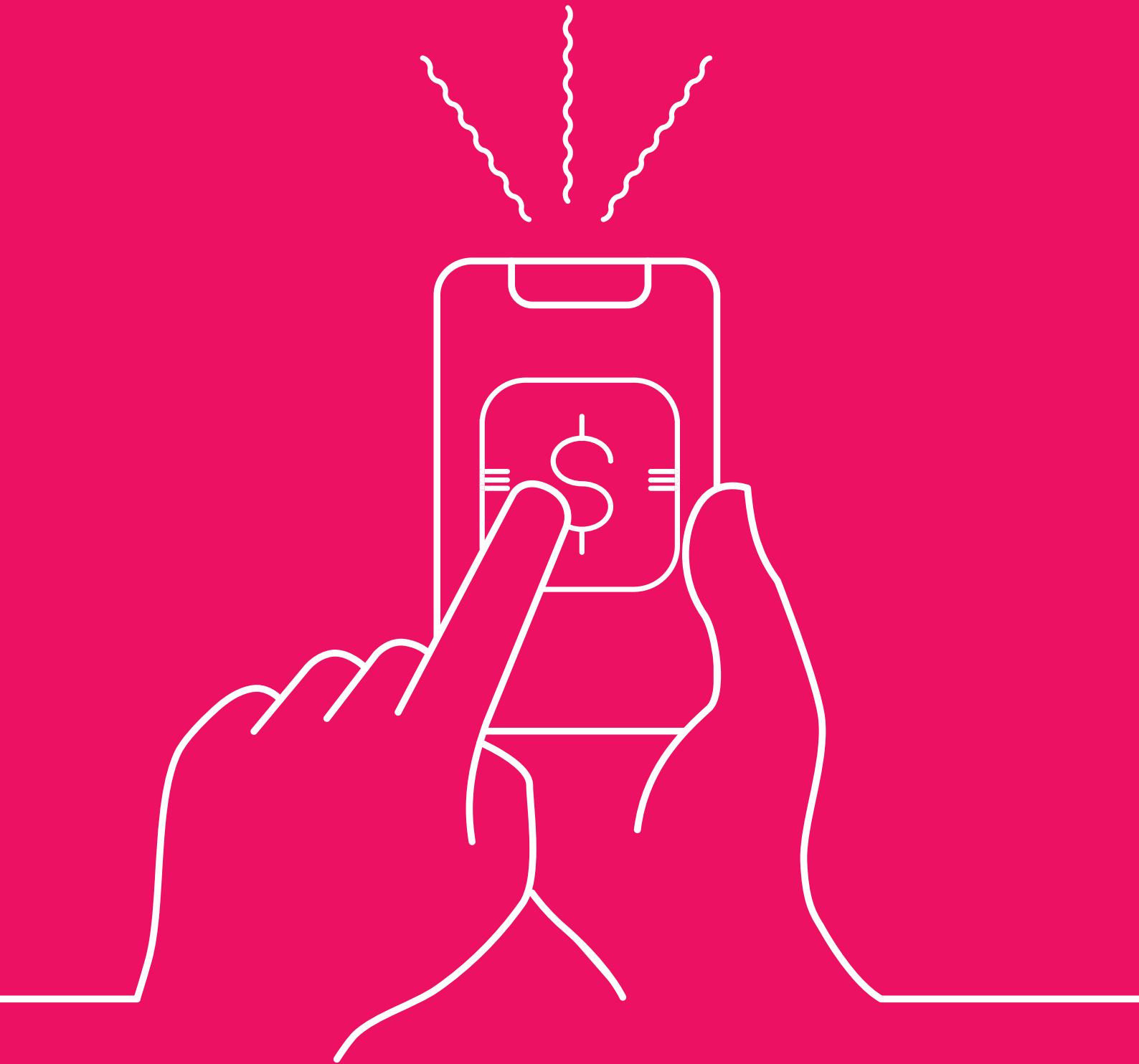




Reserve Bank
of New Zealand
Te Pūtea Matua

How you could use Digital Cash.



Hone uses programmable payments.

Hone owns a small New Zealand dairy factory that serves local customers.

He usually receives payments from his sales a month after delivery. The timing of when he receives the payments often changes. Hone has sophisticated sales delivery and tracking systems, but they are not connected to his financial systems.

Hone also has many suppliers that need to be paid on time. He receives invoices from his suppliers at different times, which makes it hard for him to keep on top of his accounts.

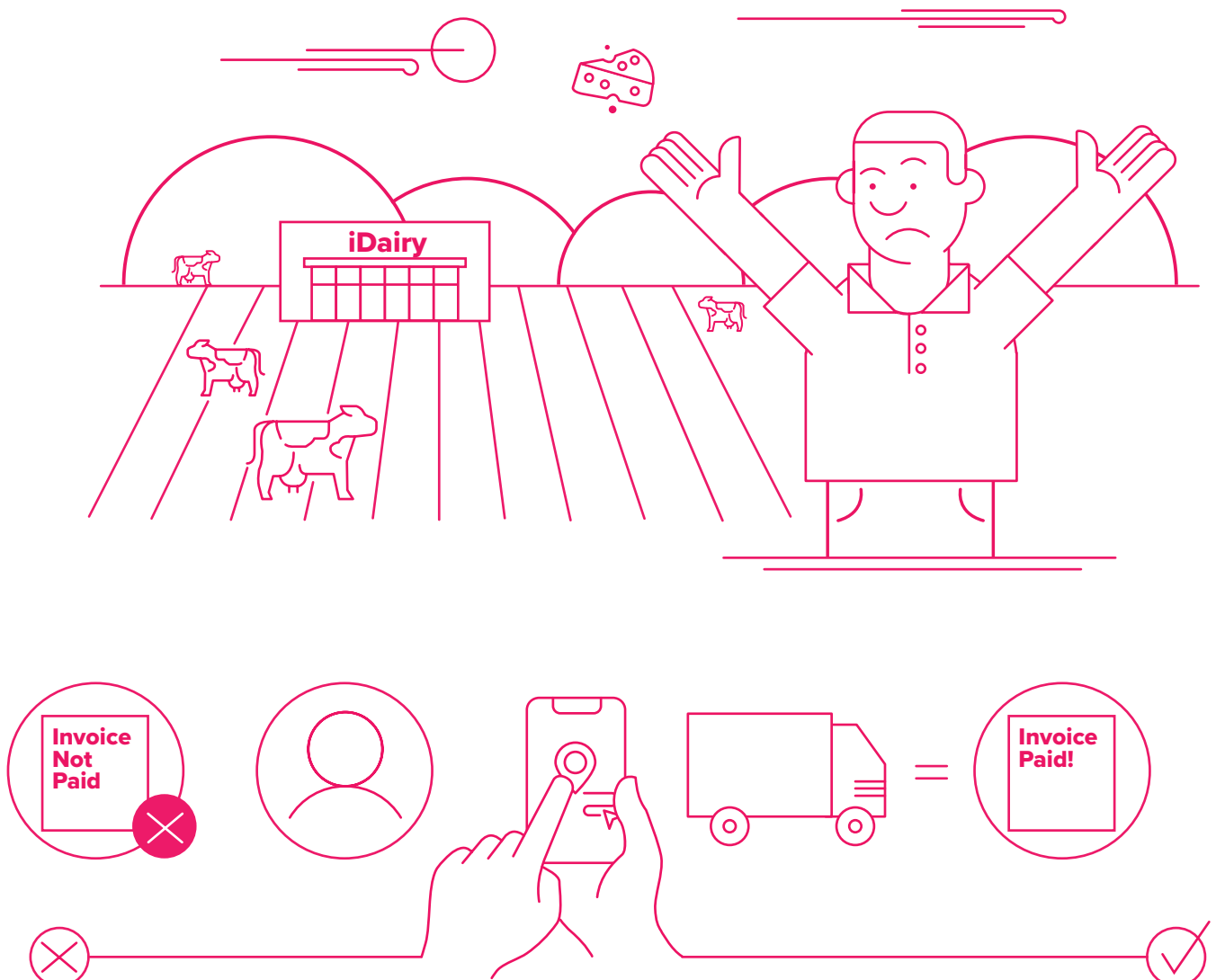
He would like to better match his sales with his deliveries to help him pay his invoices on time.

Hone decides to open a digital cash account for its smart contract functionality. He uses this to send a conditional payment request to his customers.

The customer authorises the conditional payment and locks the digital cash funds that will be used to make the payment. With the payment embedded in a smart contract, Hone sends the customer their order.

He uses his tracking systems to confirm that the order has been delivered, and then releases the payment.

The conditional payment functionality gives Hone more certainty around when he'll be paid and puts him in a better position to manage his businesses.



Leilani makes payments without the internet.

Leilani lives in a small town in New Zealand.

Leilani's town has a history of severe weather events and the cellphone reception is sometimes patchy. During past severe weather events, her community has lost internet access and had poor cellphone coverage.

The EFTPOS systems also went down. This made it hard for people to buy food and essential supplies, and businesses couldn't take payments.

With digital cash, Leilani and her community would be able to use it in 'offline mode' to make payments, if the internet or power went down.

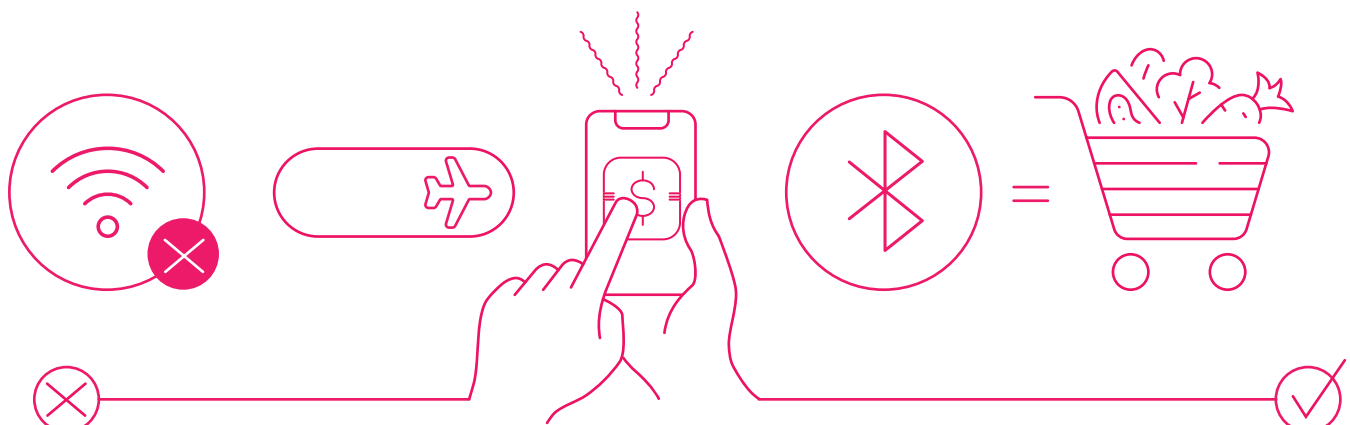
This means, Leilani and her community will be able to buy critical items from shops and transfer money to pay for them.

They can also use their cellphone to pay, or use a physical card, like a secure smart card.

They can do this by downloading digital cash to their phone or card, then use Bluetooth to transfer it from one device to another.

By accepting offline EFTPOS payments, local shop owners and retailers in the affected area can remain open and continue to provide needed supplies. This will make communities more resilient during a severe weather event, or in an emergency.

Smart cards will give people who are less comfortable with making digital payments an option to access digital cash. This means everyone will have more choice in how they make payments.



Sam and Belinda get back online.

Sam and Belinda live rurally and applied for a loan to buy a new car.

But, they found it hard to keep up with the repayments and they now owe more for their car than what they paid for it.

They spoke to a financial mentor, who advised them to apply for insolvency.

After applying for insolvency, they lost their bank account with their existing bank. They were able to open an account with another bank but it doesn't have a local branch.

The bank also restricted how they could use their account — Sam and Belinda were not given internet banking or mobile banking, and they weren't allowed to have debit or credit cards.

This means they could only use an EFTPOS card to buy things in shops, and couldn't make online payments.

They also had to do all their banking in person, at a branch, which was an hour away.

Sam and Belinda decide to open a digital cash account so they could have access to their money online and make online payments. The digital cash account is debit only and does not have any restrictions.

Sam and Belinda can now have their wages and working for family's tax credits paid into this account, do mobile banking, and buy things online.



How would digital cash be used?

We can use the stories of Grace, Levi, and Maya to look ahead and imagine some of the ways people could open a digital cash account and use it in their everyday lives.



Grace has just opened a digital cash account with her bank.

1. Opening an account is quick and easy – Grace uses her phone to take a photo of herself, which she uploads to verify her identity.
2. Her identity is verified in a few minutes, and she now has a digital cash account.
3. This account is separate from her other bank accounts. Her bank cannot touch the digital cash in her account.
4. Grace uses internet banking to transfer money into her new digital cash account.
5. She also gives her employer her new digital cash account number, so she can get paid in digital cash.
6. Later, Grace finds some cash in her wallet. She goes to a smart ATM and deposits cash directly into her new digital cash account.
7. Grace can choose to access her digital cash through her phone, online banking, her watch, or through a separate physical card.
8. In the future, there would be many digital cash service providers offering digital cash services. You would be able to choose which provider you use, and this could change depending on the service you want.
9. Like Grace, you could open a digital cash account with your own bank or use a private payments company.

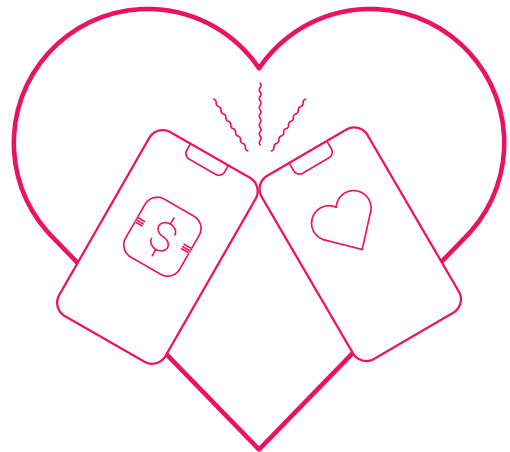


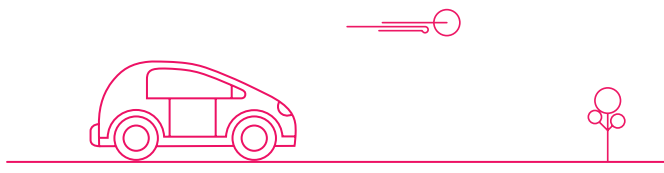
Levi wants to use his digital cash to pay for things instantly.

1. Levi orders a coffee at his local café, he chooses to make the payment by holding his phone, wearable or card against the Point of Sale terminal. He also orders one for his friend Grace.
2. Levi also wants to book flights to Marlborough to visit his Nan. By paying with digital cash, Levi won't get charged any extra fees.
3. Levi also wants to be able to receive digital cash payments anywhere, anytime. By tapping their phones together, Grace can pay Levi back for the coffee he bought her earlier this morning.

Grace's money is sent to Levi instantly and securely.

4. Levi is also going to take his digital cash card on holiday, in case he needs to buy something and has no data left on his mobile to make an online payment.





Maya has more control over how she manages her money.

1. Like most of us, Maya wants to have more control over how she manages her money.
2. Using her digital cash banking app, Maya can see exactly where she is spending her money.
3. Maya wants to cut down on the number of coffees she buys so she can save for a new car.
4. The app adds up how much Maya has spent buying coffees in a month and lets her compare how this has changed over time.
5. This helps Maya manage her spending without having to spend time adding her expenses manually.
6. Maya also uses her digital cash app to set up an automatic payment to transfer the digital cash she has left over every month into her savings account so she can earn interest. This helps Maya achieve her goal of buying a new car faster.
7. Maya also uses automatic payments to transfer some of her digital cash into her expenses account. This helps Maya track her bill payments and allows her to use the automatic payments that she has already set up.

How would digital cash drive more innovation in payment services?

We can use the illustration of GiveBetter and NoScam to look ahead and imagine some of the new services that could be created using digital cash.

GiveBetter offers new donation services

1. GiveBetter is a small payments start up firm. It wants to help charities accept digital donations for a lower fee.
2. It knows that donations given through existing digital apps charge high fees. These are due to card fees and the app provider fees.
3. It also knows that internet transfers can be clunky and are not convenient for one-off donations like street collections.
4. GiveBetter sets up a digital cash giving app. It has no card fees and sets a small processing fee.
5. Charities sign up to GiveBetter. They can request digital cash donations using a simple QR code at a fraction of the fees of other donation apps.

NoScam offers fraud protection

1. NoScam wants to help protect everyday people from online fraud.
2. It sets up a service that confirms the identity of people and businesses that receive digital cash. This protects people from scammers who are pretending they are trusted parties like government agencies.
3. This service works in the background of digital cash wallet apps. People can select the NoScam service to check whether the people or businesses they are sending digital cash to are who they say they are.
4. NoScam checks the payee's actual identity against what they have told the payer.



rbnz.govt.nz/digitalcash