



ANNUAL REPORT 2019

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Profile

About us

Payment services differ from 'normal' services: everyone has to deal with them and they are the bloodstream of our economy. As a result the payment system seems appears like a utility. But there is no such thing as a free lunch, as the saying goes. Just like utilities, payment services are not free either. High costs are involved and they have to be paid for.

The Dutch Payment Association organises the collective tasks in the payment system for its members, providers of payment services, taking the interests of the demand side into account. The payment system relies on an infrastructure that is maintained by a large number of different payment service providers. Security, efficiency, reliability and accessibility of the payment system as a whole are of critical importance to society. This requires more than the dedication of each individual participant; the participants have to work together and harmonise their activities.

The role of the payment system in society therefore requires a platform where suppliers and end-users of payment services can meet and enter into a dialogue about their expectations, possible problem areas, and other developments. The indispensable collaboration in the Dutch payment system and the public dialogue are the *raison d'être* of the Payments Association. This collaboration has borne fruit and its results, as far as 2019 is concerned, are presented in this report. For the payment system to work properly, standards and agreements, technical and otherwise, are very important. They are largely determined at a European or indeed a global level. The Payments Association coordinates the sector's compliance with these agreements and represents the interests of the Dutch community during consultations on these standards and agreements.

Connecting the payment system

Because most payment services in the Netherlands are provided by our members, the Payments Association is the place to be for consultations between payment service providers (supply side) and users of payment services (demand side), and all of society's echelons that have to deal with the payment system, such as end-users, public authorities and suppliers. The Dutch Payments Association organises meetings and consultations, initiates (both spontaneously or on request) collective activities for the sector, responds to questions on behalf of the sector, and makes its knowledge available to members and stakeholders. This

concerns the infrastructural and societal aspects of the payment system – security, efficiency, reliability, accessibility.

Coordination between parties on the supply side is also an essential role for the Payments Association. Where necessary, this coordination takes a formal character in decisions taken by the board of directors. Coordination with stakeholders takes place in the various stakeholder forums and is also guaranteed through our input to the National Forum on the Payment System (known as MOB), organised by DNB at the request of the Minister of Finance. In the Payments Association, no consultations take place about sensitive competitive topics.

For more information about our work area, our duties, our products, our partners, and our history, please refer to [our website](#).

Report from the Board of Directors

With great pleasure I present the annual report of the Dutch Payments Association for the 2019 financial year.

Board of Directors

The board of the Dutch Payments Association has nine members. The board has three independent members, including the chairman, and six members affiliated to members of the Dutch Payments Association. Our association of payment service providers (the supply side) attaches great value to the social role of the payment system, which includes the interests of the payment service users (the demand side). As a result, the board meetings cover the perspectives of everyone involved in the payment system. The Board and Management appendix provides additional information on the composition of the board.

During the reporting period the board met five times in regular meetings. During its meetings, the board focused not only on its regular activities, but also on European developments in payment transactions, such as the implementation of PSD2 in the Netherlands. The privacy aspects of account information services, for example, were discussed at length. In addition, the board discussed the role of the Dutch Payments Association in cyber security. In an offsite meeting, the board also discussed the Dutch Payments Association's strategy for the coming years, which is anchored in its roadmap.

Four new board members

In the reporting period, Michiel Kwaaitaal occupied the Rabobank vacancy that had existed since 2018. Frank Stockx, Guus Slik and Daniël Köhler joined the board at the beginning of 2020. They succeeded Vincent van den Boogert, Henk van den Broek and Edwin Hartog. The formal appointment will take place at the annual General Members' Meeting in 2020.

The board would like to take this opportunity to thank Vincent van den Boogert, Edwin Hartog and in particular Henk van den Broek, who has been vice-chairman of the Dutch Payments Association since its foundation, for their commitment and involvement in our association.

The board has multiple governing committees. The Selection and Appointment Committee assesses board candidates according to the board member profile and, if the assessment is positive, proposes their appointment to the General Members' Meeting. The Audit Committee meets four times a year. Two meetings are dedicated to the budget and the annual accounts.

By February 2021 at the latest, Piet Mallekoote will step down as director because he has reached retirement age. The procedure to recruit a new director has been started.

Activities

The Dutch Payments Association aims for a payment system that is secure, reliable, efficient and accessible, based on a clear and broadly supported vision of the payment system. Our website explains our role and how we view the payment system.

For a more detailed description of recent activities of the Dutch Payments Association with her members, please refer to the next chapters. Key facts and figures about the payment system in 2019 are summarised in an infographic. For the latest information, please visit our website, www.betalvereniging.nl, follow us on social media (LinkedIn and Twitter) or sign up for our newsletter.

We released nine episodes of 'payTV' in 2019 (in Dutch). We also produced a video comparing the Dutch payment system to payment systems in other countries. On 28 November, we organised our yearly conference, attended by more than three hundred members and stakeholders. For the venue, Rabobank kindly provided its auditorium. Various experts gave presentations about the topic of the conference, 'Secure Payments'. A panel of three CISOs from our members discussed this topic on stage. For a report and pictures of the event I refer to our website.

The board and management will pursue an even more effective and efficient Dutch Payments Association. We will honour the trust of our members and stakeholders to maintain broad support for our activities.

Open to new members

With the introduction of PSD2 on 19 February 2019, payment transactions will change significantly. The Dutch Payments Association is open to everyone offering payment services on the Dutch market. We are pleased that several new members joined the Association. We are actively encouraging more payment service providers that are active on the Dutch market or have plans to do so, to apply for membership. This increases the diversity among our members and encourages discussion about new payment applications, among other things. We continuously seek to add value for all our members in the increasingly complex payment system.

Between the annual report for 2018 and this annual report, the Dutch Payments Association welcomed five new members, both banks and non-bank payment institutions.

Coronacrisis

In the first months of 2020, the world was ravaged by the corona crisis. Although obviously the primary focus is on the health of all citizens and the economic impact of the crisis, payments were undisturbed. The Dutch Payments Association adequately and quickly worked with all parties involved in the cards payment chain to raise the limits for contactless payments without PIN. In addition, the Dutch Payments Association increased public communication about the risks of fraud by criminals taking advantage of the crisis.

Finally

The board looks back on 2019 with satisfaction. The activities in the year-plan have been accomplished and the association, always considerate about costs, operated within its budget. The board would like to thank the management team for a pleasant and professional working relationship, and every employee for their commitment.

Amsterdam, 22 April 2020

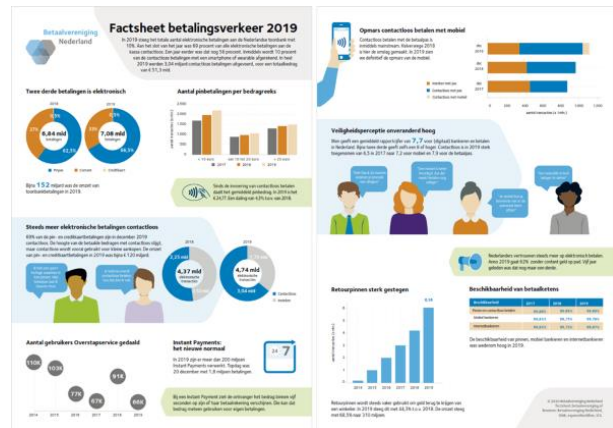
On behalf of the Board,
Lex Hoogduin, chairman

Developments in the payment system

Infographic 2019

Here is an infographic for a quick overview of 2019. The most important developments are:

- Two thirds of payments at counters are electronic.
- Since the introduction of contactless payments, the average PIN amount has dropped.
- 69% of card payments at counters were contactless in December 2019. The amounts with contactless rise, although contactless is still mainly used for small purchases.
- More than 200 million Instant Payments were processed in 2019. The busiest day was 20 December with 1.8 million payments.
- Consumer have a high esteem of payment security: an average score of 7.7 is given for (digital) banking and payments in the Netherlands.



Developments

Introduction PSD2

For payment service providers, 2019 revolved around the introduction of the PSD2 legislation. In February, the final transposition of the European directive into Dutch law saw the light of day, more than 13 months after the European deadline. Seven months later, the corresponding regulatory technical standards of the European Banking Authority (EBA) took effect.

SCA Migration Project for online card payments

The most important innovation of PSD2 is that the account holder can make use of new payment and information services. Account holders are entitled to give third parties access to the payment accounts at their banks. Under PSD2, banks must provide a digital interface to regulated third parties offering payment initiation or account information services. This access is possible via either the standard user interface or a dedicated machine interface (Application

Programming Interface or API). The Dutch Payments Association supports the view that open dedicated machine interfaces (APIs) are the best guarantee for secure and reliable communication via the banking infrastructure between third parties and payment account holders. With the National Implementation Support Platform NL or NISPNL, the Dutch Payments Association carried out coordination and support activities with two goals: a smooth implementation of dedicated interfaces for both ASPSPs and TPPs and support for exemptions from the fallback interface obligation by DNB. A good dialogue between stakeholders was possible through NISPNL.

One of the regulatory technical standards (RTS) required by PSD2, namely the RTS on strong customer authentication (two factor authentication), required interaction over a longer period of time between banks and other market participants to facilitate the wide use of the new account access interfaces. Specifically for remote card payments¹, the RTS proved to be more demanding than the market was able to meet at the time. Therefore, the European Banking Authority (EBA) announced a migration period until the end of 2020.

Meanwhile, market players in Europe can make the necessary preparations to meet the relevant technical standards. The Dutch Payments Association organised discussions with payment service providers and end users, with the consent of De Nederlandsche Bank (DNB), in order to achieve a timely, efficient and high-quality transition.

The introduction of PSD2, together with the imminent Brexit, gave rise to a boom of new permits for payment service providers in the Netherlands in 2019 and permits transferred from the United Kingdom. This also led to a notable increase in the number of electronic money institutions (ELMIs) based in the Netherlands. At the beginning of 2020, 139 payment institutions and 10 ELMIs were reported to the EBA² by DNB, the National Competent Authority (NCA) or regulator in the Netherlands.

There is a great deal of interest in payments on a global scale. Major western tech players, such as Apple, Facebook and Google, as well as Asian giants such as Tencent and Ant Financial, are building up positions in the payment system. In the Netherlands, end users are still mainly served by domestic providers. However, globalisation is clearly perceptible. On a European level, this already led to authorities and regulators aiming to secure European self-

¹ In the Netherlands, this only concerns online credit card payments.

² Including electronic money and payment institutions exempted from the licensing requirement.

determination in the payment infrastructure, which is so essential for the economy. To that purpose a group of twenty major banks has launched a study into the feasibility of a pan-European payment scheme.



These regulatory changes were less visible to end users of payment transactions. The 'Maatschappelijk Overleg Betalingsverkeer' (National Forum on the Payment System) conducted a mass media information campaign labelled 'PSD2Bankieren' (PSD2Banking) to familiarise Dutch account holders with PSD2. However, few will have noticed the effect of PSD2 in their daily use of payment services. On the one hand, this is caused by the well-functioning payment market in the Netherlands, and on the other hand by the relatively short time since PSD2 licences have been issued.

Ongoing digitisation and acceleration

User are well aware that the digitisation of payments is advancing. For many users, paying in cash, banking on paper and visiting bank offices is disappearing. Contactless payments, mobile banking apps and push payments between consumers prevail. In shops, the vast majority of payments are card payments - mostly contactless. The Dutch Payments Association and its members are committed that payments remain accessible to anyone struggling to keep up with these developments. They assist them, for example, with coaches, workshops and special tools.



After years of rumours and speculation several banks introduced Apple Pay in 2019. Paying contactless with a smartphone had already been available to Android users for some time. With some banks, wearables such as rings, watches and bracelets can also be used for contactless payments.

Customers seem to eagerly embrace these new possibilities, reinforced by the full coverage of contactless payments. As a result, customers can rely on every payment terminal to accept payment with their (Android or Apple) smartphone.

Account holders at almost all banks also experienced that in the course of 2019, their payment orders were immediately credited and made available to the beneficiary, 24 hours a day, including weekends and holidays. This development, referred to as Instant Payments, took a lot of effort on the part of providers. The necessary technical and process changes in payment handling were considerable and were applied by banks during a four-year Instant Payments project coordinated by the Dutch Payments Association. End users accepted immediate

crediting as a logical development, similar to the immediate and continuous operation of messaging services, such as email and WhatsApp. They are not always aware that the Netherlands is unique in Europe by positioning Instant Payments as the new standard for credit transfers. Elsewhere Instant Payments are introduced as a so-called premium product and charged as such.

ATMs in the news



We're paying less and less with cash. This reduces the use of ATMs. In order to keep cash available to everyone, ABN AMRO, ING and Rabobank jointly founded Geldmaat for a more efficient, bank independent network of ATMs. Most will have noticed that more and more bank specific ATMs are converted into Geldmaat cash dispensers, with their characteristic cheerful yellow appearance. This conversion must be completed in 2021.

ATMs also made negative headlines as they are increasingly targeted for violent crime with serious social implications. Criminals use heavy explosives to gain access to the cash inside ATMs. The explosions cause severe damage to buildings surrounding an ATM, with serious risks for local residents and passers-by.

In order to reverse this trend, banks and Geldmaat took measures at the end of 2019 to restore security, combat crime and ensure the accessibility of cash. As part of the measures, a temporary night-time closure of ATMs was announced, which will be lifted as soon as permanent adjustments have been made to ATMs. Banknotes in ATMs will then be rendered unusable in the event of an attack. In the meantime, the social impact of the night-time closure has been very limited, as only about 2% of all withdrawals were previously made during the night-time closure time frame, and public sympathy for the night-time closure is high. . Nevertheless, the aim is to end the temporary night-time closure as soon as possible.

Reliable identification for trust in online services

The better we can identify someone unambiguously in the digital world, the better parties who trade online can trust each other, stimulating online services. In countries such as Norway, Sweden and Denmark, banks and governments work together to provide online identity solutions. In the Netherlands, the government issued DigiD can only be used for logging into public services, while the business community can only use private resources such as iDIN

and custom user-id and password systems. The use of private resources for public services is regulated in the Digital Government Act, which was adopted in the House of Representatives at the beginning of 2020. Secure login in the private domain is expected to lead to a



breakthrough. This will benefit the security and reliability of our digital society. Watch the episode of betaalTV about identity [here](#).

Modified consultation with point-of-sale institutions

Consulting with stakeholders about the payment system was continued in 2019. The Dutch Payments Association organised various stakeholder meetings, specifically on credit transfers and instant payments, on security, on PSD2 and on card payments. Consultations with point-of-sale institutions were set up differently. Up to and including 2018 point-of-sale institutions and banks convened at Stichting Bevorderen Efficient Betalen (Foundation for Promoting Efficient Payments). With the festive dissolution of the foundation at the end of 2018, consultation continued under the umbrella of the Dutch Payments Association. Efficient payments are still increasing in shops, the hotel and catering industry and elsewhere at physical counters. The ambition is to achieve a 75% share of electronic payments at points-of sale. Representatives of point-of-sale institutions and the Dutch Payments Association are steering this development in joint consultation, including the decreasing role for cash that this entails. The shared view is that, despite declining volumes, the role of cash is far from over. Cash must remain sufficiently accessible and available. The Dutch Payments Association is participating in a MOB task-force reviewing the vision on cash drawn up in 2015. The report will be published in the course of 2020.

Corona crisis

Since March 2020, life is badly hit by the corona crisis. Payment service providers decided to contribute to the fight against the virus by increasing both the cumulative limit and the transaction limit for contactless payments without PIN. For payments in general, the corona crisis resulted in a decrease in the number of point-of-sale transactions and the number of cash withdrawals, while the number of e-commerce transactions increased. There was also a shift at the point-of-sale from cash payments to contactless card payments.

The Payments Association has warned against fraud abusing the corona crisis. It has also kept track of developments on its website and in a special Corona Bulletin for members.

Re-aligned consultation with payment institutions

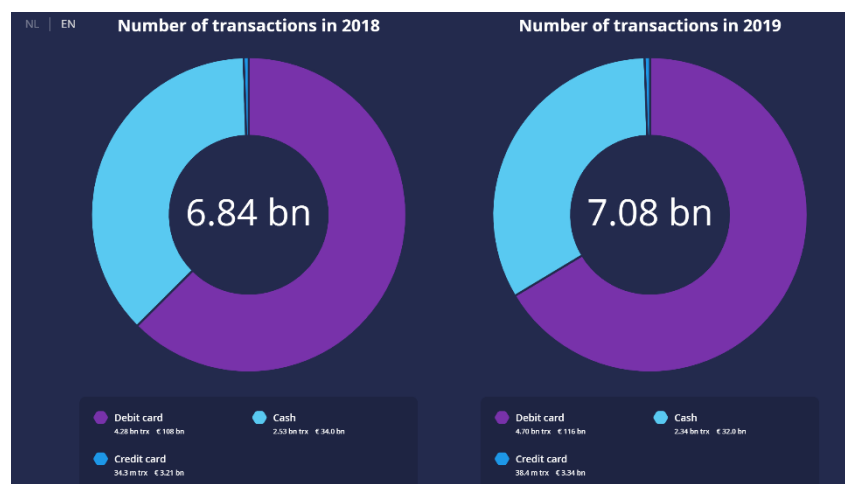
The Advisory Council of the Dutch Payments Association advises management - solicited and unsolicited - about the strategy and activities of the association. Payment institutions are represented with one seat on the Advisory Council. With the increasing number of payment institution members, with specific characteristics, it was decided in 2019 to set up a separate committee for payment institutions. This works to the great satisfaction of the participants and promotes more effective input from the payment institutions to the Advisory Council. Incidentally, when the Dutch Payments Association was established, payment institutions were already represented with one seat on the board of the association.

Activities - Point-of-sale payment system

Electronic payments at the counter continue to increase after their introduction almost 30 years ago. Their share rose again this year compared to cash payments. Convenience, efficiency and security are the most important drivers for this success and are widely supported by all parties involved in point-of-sale payment transactions. The ability to also pay with cash is important. This is the subject of frequent consultation with all stakeholders in the point-of-sale payment system.

In 2019, PIN payments increased by 8.9 percent. The share of electronic payments at the checkout rose to 67 percent (2018: 63 percent). This growth is remarkable and ahead of the schedule for 70 percent electronic payments by 2022 and 75 percent by 2025. As in 2018, the largest growth was in contactless payments for small amounts. The total number of electronic point-of-sale payments amounted to 4.7 billion in 2019 (2018: 4.3 billion). The turnover from debit and credit card payments in 2019 was more than €119 billion.

In the online fact sheet on our website you can find many more facts and figures.



Nearly all payment terminals in the Netherlands now accept contactless payments. In 2019, a total of 3.04 billion contactless payments were made at Dutch counters (2018: 2.3 billion). This involved an amount of €51.3 billion. By the end of the year, 69 percent of all electronic payments at counters were contactless (2018: 56 percent). In addition to replacing smaller cash payments, more and more amounts above €25 are being paid contactless (with a PIN code).

More electronic payments with smartphones and wearables

A debit card perception poll in 2019 shows that the overall rating of 8.1 out of 10 for debit card payments is very high, as in previous polls. By now, consumers are used to contactless payments. All contactless payment methods are rated positively by users. The rating for contactless payments with a card has risen from 6.5 in 2015 to 7.9 in 2019.

In addition to debit card and cash payments at counters, credit cards, gift cards, fuel cards, closed payment systems and new mobile payment solutions such as Payconiq, Tikkie and push payments are used. Compared to a total of more than seven billion point-of-sale transactions, these other payment methods are, as in previous years, modest in number.

Electronic payments are increasingly made with other instruments than a debit or credit card. These instruments can be wearables such as rings and smart watches, but mainly they are mobile phones with NFC. Android users at most banks could pay with their smartphones as early as 2016. In 2019, the three major banks and bunq also made this possible for iPhone users via Apple Pay. Apple Pay has contributed significantly to the enormous growth of mobile contactless payments; from 14 million in 2018 to 116 million in 2019. By the end of 2019, approximately 10 percent of all contactless payments were made with a smartphone or wearable.

When returning a purchase to the point-of-sale, consumers are increasingly refunded electronically on their payment account by means of Retourpinnen (debit card refunds). Three major Dutch banks offer Retourpinnen to merchants. Retourpinnen is especially popular in non-food retail and in situations where a deposit has to be refunded. The number of Retourpinnen transactions rose by more than 44 percent to more than 6 million transactions in 2019. The average amount was € 50.

Campaigns and information



The 'Pay contactless' campaign was launched in 2019 and focused on consumers who did not yet pay contactless. In addition to a TV commercial, online advertising was used to reach people aged 25 to 34 who watch less and less television. Special landing pages on www.pin.nl gave additional information on contactless payments by debit card, wearable, mobile phone in general and Apple Pay. Promotional activities for debit card payments in general targeted itinerant trade and radio audiences.

A reliable system is a prerequisite for managing card traffic efficiently. The Dutch Payments Association is regularly asked by journalists, students and consumers how the debit card payment cycle works, so an explanatory animation was made in 2019.

Cash availability

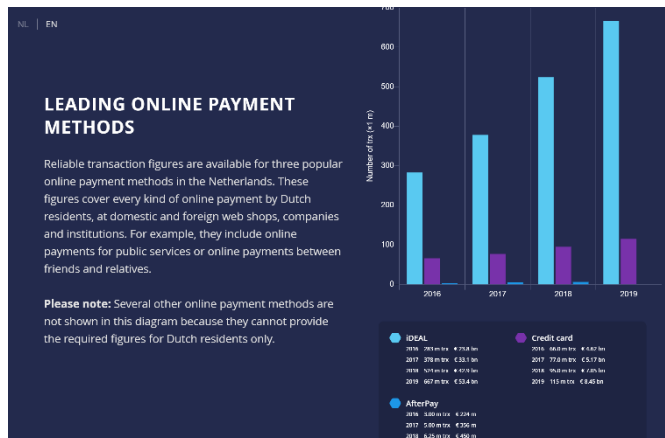


To keep the availability and accessibility of cash affordable, three banks (ABN AMRO, ING and Rabobank) have transferred their ATMs to a joint company: Geldmaat. This way, despite decreasing use of ATMs, the social agreement that an ATM is available within a 5 kilometer radius of every residence, can be better safeguarded. The first Geldmaat was installed in June 2019 and in 2021 all the ATMs of the three major banks will be replaced. Geldmaat will also take charge of joint sealbag and coin-deposit machines and ATMs in shops where employees are present to help customers, if required.

In 2015, the MOB published a report entitled 'Visie op Contant Geld' (Vision on Cash). Since then, the use of cash has decreased further and Geldmaat was established. The MOB's Cash Task Force is working with the main stakeholders on a revised report. The report will be finalised in the course of 2020.

Activities – Online Payments

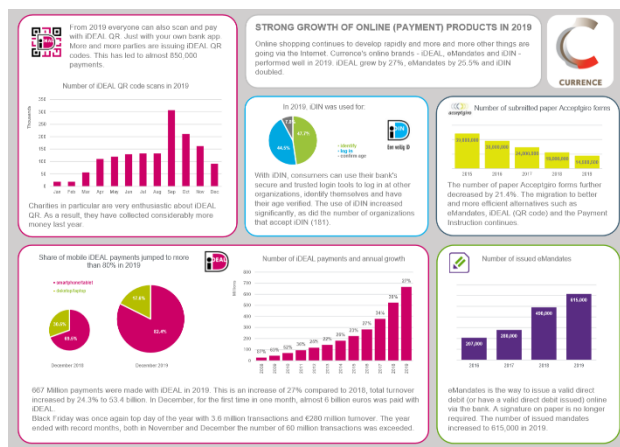
With paying online, one mostly thinks of paying in web shops. But many online payments are made elsewhere. For iDEAL (with a total of 667 million transactions in 2019) about three-quarters of all transactions are made outside e-commerce. A portion of online credit card transactions (with a total of 115 million transactions in 2019) is also made outside e-commerce.



A quarter century after its appearance in the Netherlands, online shopping has acquired a significant position. More than 13.5 million Dutch consumers make a total of 258 million online purchases every year. iDEAL has been an important driver of the success of e-commerce, Wijnand Jongen notes in his book '25 years of online shopping in the Netherlands', published at the end of 2019.

An important development in recent years is that online payments are increasingly authorised from mobile phones. Currence issued a press release stating that by the end of 2019 as many as eight out of ten iDEAL payments were made on smartphones.

Look [here](#) for Currence's fact sheet.



Strong increase of online payments in ecommerce

In 2019, 26 percent of all spending (on goods and services) was in the online channel. Dutch consumers spent €25.8 billion in e-commerce in 2019. Online spending on goods and services thus grew by 7 percent relative to 2018, as shown by research into online consumer spending by Thuiswinkel.org³. The diversity of online payment solutions is greater than at points-of-sale. In 2019 there was a notable increase in the average number of payment methods accepted by web shops. In 2018 an average web shop accepted just 3.7 payment methods. In 2019 this increased to 4.2. For members of Thuiswinkel.org this is even 6.2.

It is also noteworthy that the number of web shops offering iDEAL has risen sharply. All major webshops have been accepting iDEAL for years. As the majority of smaller Dutch webshops also offer iDEAL, total acceptance in the Netherlands rose from 74 percent in 2018 to 90 percent in 2019. iDEAL mainly replaced credit transfers as a payment method. Credit cards are accepted by 30 percent of Dutch web shops, PayPal by 54 percent. In addition, various means of payment are offered for post-payment, such as Afterpay, Klarna and cash on delivery. Klarna showed the largest increase: from 3 percent acceptance in web shops in 2018 to 9 percent in 2019. Online retailers choose payment methods based on the fees they have to pay, the ease of use for the customer and the reach of the payment method.

When it comes to the use of these payment methods, the vast majority of purchases from Dutch web shops are paid with iDEAL (iDEAL's market share in Dutch e-commerce in 2019 is 60 percent). Consumers also paid with credit cards (9 percent), PayPal (5 percent) or post-payment. Notably PayPal is widely offered by web shops, but only modestly used by consumers.

The introduction of Apple Pay in the Netherlands in 2019 has so far mainly led to more contactless transactions at counters. Apple Pay can also be used in e-commerce but is not yet popular for this purpose.

QR codes on the rise

As consumers become more accustomed to paying online via their mobile phone, there have been initiatives to introduce online payment methods into the physical world as well. An iDEAL payment link⁴ on an electronic invoice is already well established, but in recent years initiatives to initiate a payment via a QR code have been increasing. QR codes have been successful in

³ Thuiswinkel.org eCommerce Payment Monitor 2019.

⁴ The Dutch Payments Association has developed a Payment Instruction Template for this purpose.

Asia for years. WeChat Pay and AliPay use it to initiate payments in many different situations, including in shops.

Inspired by the practice in Asia, various providers tried to introduce QR codes in the Netherlands in 2019, as an alternative to a debit card payments at counters. That turned out to be a difficult undertaking. In the Netherlands, the existing payment infrastructure in physical shops is already highly efficient.

However, QR codes can add value in specific situations. Supermarket Albert Heijn, for example, uses QR codes to pay for groceries delivered at home. In the health care sector, Infomedics prints QR codes on invoices, so the customer ends up on a payment page and does not have to enter payment data himself. This usually leads to faster payment of invoices. In addition, charities massively embraced QR codes to serve the growing group of donors who do not have any cash at their disposal. Charities experimented with different QR code payment



methods, but saw that donors mainly paid with iDEAL QR: in 2019 the number of donors using an iDEAL QR code rose from 40,000 to 126,000. Stichting Collecteplan has announced that it will use this payment method even more intensively in 2020.

There are other initiatives that make online payments possible at points-of-sale. At various petrol stations customers can refuel with the Ease2Pay app and pay directly with their smartphone without using a payment terminal. Decathlon allows customers to scan the chosen products with a special app (Scan&Go), pay with online and leave the shop without obstacles. In the hospitality industry, supplier of cash register systems Eijsink introduced the Booq concept and won a Horecava Innovation Award. After scanning a QR code at the table, a customer can use his mobile phone to place his order and pay directly with various online payment methods. This means that fewer staff are needed and customers no longer have to wait to take the order or pay for it. The Dutch Payments Association expects more such initiatives in 2020.

Activities - Giro-based payments

A lot of money is involved in giro credit transfers. They are processed reliably, quickly and securely. Figures from DNB on retail giro payments show that more than three billion non-cash giro payments are processed each year. These are credit transfers, direct debits and so-called Acceptgiro payments. An important part of giro payments are batch payments made by businesses, for example for salary payments, allowances and benefits. These are all processed electronically. If we zoom in on single credit transfers, they represent more than 1 billion transactions, almost entirely electronically, even though paper orders are still possible.

Infrastructure for Instant Payments implemented smoothly

After years of preparation by banks, coordination with stakeholders and tight control of the implementation, the infrastructure for Instant Payments is now the base (the new normal) for giro payments in the Netherlands. Payments via mobile and online banking are now handled entirely via Instant Payments. With Instant Payments, a payment order is immediately processed and credited to the beneficiary's payment account, even if the beneficiary has an account with another bank. This can be at a Dutch bank, but potentially also elsewhere in the Single Euro Payments Area (SEPA).



With the introduction of Instant Payments, giro payments are not just immediate, the new infrastructure is also continuously available, 24 hours a day, 365 days a year. So even on weekends and public holidays, payment orders are processed immediately and the funds are immediately available to the beneficiary.

The roll-out of Instant Payments started in March 2019. Subsequently, it has been gradually scaled up to all single payment orders given online or via mobile phone. This makes the Netherlands the European leader in the processing of Instant Payments. In 2019, more than 200 million interbank payments in the Netherlands were processed directly and credited to the beneficiary's payment account. This is in addition to payments between account holders at the same bank; these have been processed instantly for some time.

In the Netherlands, Instant Payments are processed from payer to recipient within five seconds, faster than the European standard, with a maximum processing time of ten seconds. Also, Dutch banks agreed not to apply a shared maximum amount. Every bank determines its own maximum amount per Instant Payment. This allows for a more extensive use than the

European standard, which currently applies a maximum amount of € 15,000,⁵. The stricter Dutch standard for maximum processing time and the (technically) unlimited maximum amount only apply to banks that participate in these additional agreements; all participating banks can also process transactions that meet the European requirements (EPC SCT Inst Rulebook).

Major achievement of the Dutch banks

The transition to Instant Payments and the associated 24/7/365 availability is a fundamental change in the infrastructure for processing interbank payments. The combination of a common, interbank approach, tight control, extensive testing and gradual implementation has resulted in the Instant Payments infrastructure operating in a stable and reliable manner from its inception. The wide use in the Netherlands is also due to the fact that the Dutch banks offer Instant Payments as the standard for giro payment to their customers. This means that when the originating and beneficiary banks are both able to process Instant Payments, processing is instant.



Watch episode 3 of pay TV (in Dutch). Sandra Peute (ABN AMRO) and Evelien Witlox (ING) tell what had to be arranged within their bank before Instant Payments were ready.

The smooth introduction, the fastgrowing use and the high availability of 24/7/365 handling of instant payment orders is a major achievement of the Dutch banks. With the banks that offered Instant Payments at the end of 2019, ABN AMRO, Knab, ING, Rabobank and de Volksbank (SNS, RegioBank, ASN Bank), the majority of Dutch payment account holders (>95%) can initiate and receive Instant Payments⁶. It is anticipated that more banks⁷ will connect to the Instant Payments infrastructure in the course of 2020.

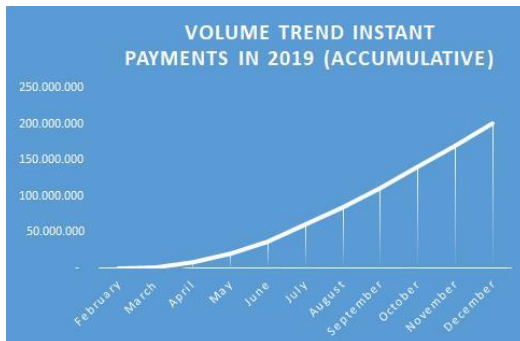
Dutch consumers and businesses have quickly become accustomed to the new normal of Instant Payments. Giro payments are no longer interrupted on holidays and weekends. They are processed every day and night. Meanwhile, people rely, that giro payments can always be made instantly, for example for home deliveries, This makes Instant Payments an alternative to mobile card payments, in specific cases.

⁵ The European limit will be raised to € 100,000 in July 2020.

⁶ Bunq also supports Instant Payments, but mainly to and from various foreign banks, for now.

⁷ Triodos, BNG Bank and NWB Bank, for example.

In the Netherlands, Instant Payments, are widely available for general use. Cross-border Instant Payments within Europe are not yet possible on a large scale. The implementation in other countries varies. Some countries have a wide reach for inbound payments, but do not (yet) offer the possibility to initiate Instant Payments as well. In other countries, the reachability for Instant Payments varies for each bank, with or without the possibility to also initiate Instant Payments. In those cases, Instant Payments is often positioned as a premium payment product with a specific, higher, pricing.



The use of the Instant Payment infrastructure will continue to increase in the Netherlands as soon as other channels, in addition to online and mobile, also switch. Batch payments, for example, will eventually and gradually be processed as Instant Payments. The Dutch Payments Association expects payment service providers to discover more and more new

applications for Instant Payments, resulting in further growth of this new standard for giro payments.

New system for Bank Switching Service



The Bank Switching Service was launched in 2004 to facilitate the switch a customer's payment transactions from his old bank to his new bank. During thirteen months, the service transfers incoming giro payments from the old payment account to the new payment account at another bank. Businesses that use direct debits are also automatically informed in advance of the

switched payment account, so that the new payment account is debited.

In 2019, 66,000 consumers and businesses used the Bank Switching Service. The decrease compared to 2018 (91,000) was due to a one-off migration of a large number of accounts in 2018, due to a termination of service. This largescale migration was used the Bank Switching Service. Adjusted for this anomaly, the number of users of the service in 2019 is in line with the numbers in previous years.

In 2019, development of a new system started, for an even better Bank Switching Service in which the payer is immediately informed via mobile or online banking that the payee has a new account number. In addition, end users of an increasing number of banks can apply digitally for the Bank Switching Serviced.

Further decline of paper orders and Acceptgiros

In the Netherlands, payment orders are delivered almost entirely digitally. Businesses do this one hundred percent and consumers submit just about one percent of their payments on paper. The majority of processed paper payment orders consists of Acceptgiros.



However, organisations progressively reduce joining paper Acceptgiros to invoices or payment requests. Instead, they offer other efficient payment methods, such as the uniform Payment Instruction, both digital and on paper, direct debits, digital payment requests or iDEAL payments with QR codes. In 2019, the number of processed paper Acceptgiros was further reduced by 21% to 8.7 million compared to 2018. This sharp decline is in line with that of previous years.

Last 10 digits of Dutch IBAN will no longer be unique

In the course of 2020, each Dutch bank will determine the last ten digits of a new IBAN individually. To date, these last ten digits are still assigned centrally to all banks, and meet a modulo-11 test⁸. This is all coming to an end, and the last ten digits of a Dutch IBAN can occur in multiple IBANs from different banks. However, each full Dutch IBAN of eighteen digits and letters remains unique. Moreover, all valid IBANs comply with the so-called MOD-97 check⁹.

Dutch IBANs of eighteen digits and letters may therefore no longer be truncated to the last ten digits with impunity. Conversely, old Dutch account numbers of ten digits or less may no longer be automatically converted into correct full IBANs. Otherwise, errors may occur in the processing of payment orders as the last ten digits of Dutch IBANs will no longer be unique across all banks. The change follows the international IBAN standard, which until now was not fully applied in the Netherlands. Dutch bank account numbers will be fully in line with the international ISO 13616 standard.

The change does not affect private payment account holders: there will be no change to existing IBANs. Businesses that have only made limited changes to their systems with the

⁸ The so called 'eleven proof' is a data-entry validation on the 9 or 10 digits of Dutch domestic account numbers

⁹ IBANs are validated using a so-called MOD-97 check (based on a modulo 97 calculation).

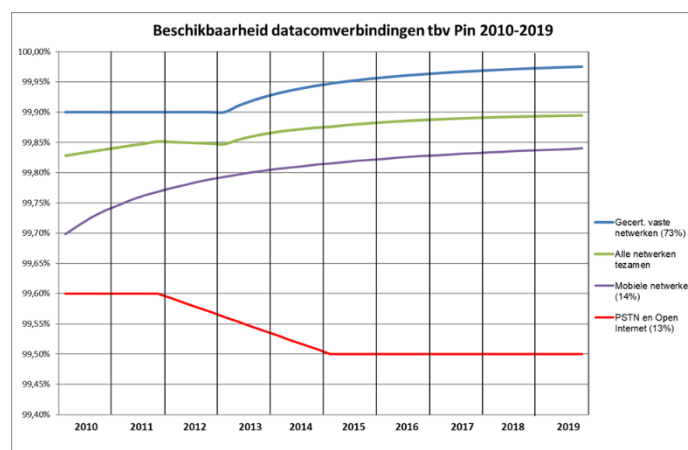
introduction of IBAN in 2014 may be affected. This has been extensively explained and discussed in the Giro Stakeholder Forum of the Dutch Payments Association. By the end of 2019 at the latest, all parties involved should have adjusted their systems for the use of full IBANs.

Activities - Stability of payment chain

Barely any malfunctions in point-of-sale card transactions

The availability of the card payment chain remains high in 2019, at 99.89 percent. Measures taken for debit card payments in recent years, by banks - partly prompted by statutory availability requirements - and by retailers, have contributed to this. The Dutch Payments Association publishes the availability of the debit card chain on its website.

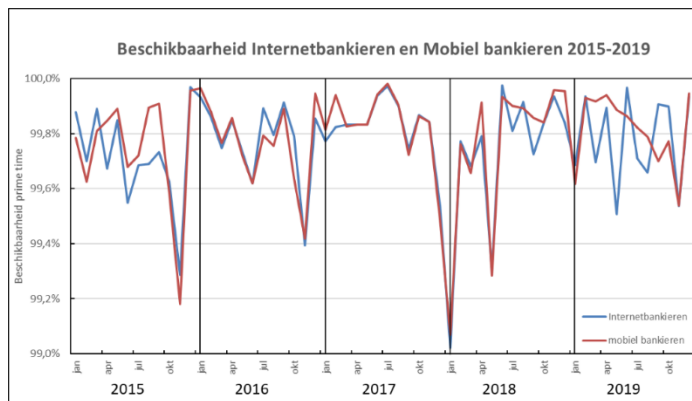
The number of malfunctions fell significantly, from thirteen in 2011 to three in 2019. Two of these concerned problems with the internet, which mainly affected entrepreneurs without network connection certified by the Dutch Payments Association. The other report concerned a malfunction at KPN, that only affected Ahold branches. The disruptions in 2019 had a relatively limited impact, although every disruption, no matter how small, is one too many. The use of certified network connections reduces the risk of disruptions.



High availability of mobile and online banking

The availability of mobile and online banking to the public was again high in 2019, thanks to efforts by banks, including scaling up capacity. The availability (at primetime) was 99.8 percent on average. This is slightly better than in 2018, when availability was 99.7 percent.

The above-mentioned mobile and online banking availability figures are published quarterly by the Dutch Payments Association on its website.



From 2015, bank-specific availability figures will also be published. For this purpose, the seven participating banks will provide monthly information on the availability of their mobile and online banking systems. Furthermore, the Dutch Payments Association also publishes real-time information on the availability of mobile and online banking in a dashboard on <https://beschikbaarheid.betalvereniging.nl/>. This enables users to quickly check whether something is going on nationwide or whether they should look for the error closer to home (broken router? bad network connection?).

Activities - Security in the payment system

Collaboration and information sharing

Security is essential for a well-functioning electronic payment system. The sector continuously invests in security measures. This contributes to fraud prevention and maintains public confidence in the electronic payment system. The security of the payment system in the Netherlands is high in a European perspective. Payment service providers are challenged to balance the safety of their payment methods with ease of use for customers.

The Dutch Payments Association and its members work together intensively to take full advantage of each other's knowledge and experience in the field of security and fraud prevention. The cooperation also extends to cyber security companies, other vital sectors, various government institutions and universities. For example, knowledge and information is shared in the areas of incidents, vulnerabilities, risks and threats, fraud mitigation, modus operandi, fraud trends and best practices. Such national public-private cooperation is an important building block for security strategies in the Netherlands and unique in Europe. More information about this is provided on our website.

Agreements on security principles were made with our members in 2019, originating from the Dutch Payments Association's cyber security strategy.

Agreements on principles of cyber security strategy

1. Payment service providers and payment institutions do not compete on security¹⁰
2. Payment service providers actively cooperate with each other in the Netherlands
3. Payment service providers connect with other participants in the payment system, concerning cyber security.
4. Payment service providers actively cooperate in the public-private domain
5. Payment service providers actively cooperate internationally
6. Collective information by the Dutch Payments Association on (cyber) incidents is preferable to individual information.
7. Payment service providers also steer on consumers' own responsibility
8. Payment service providers actively seek to maintain the current low level of fraud
9. Confidence of both consumers and businesses in electronic payments remains high
10. Minimal loss of payment traffic, mobile and online banking due to cyber attacks
11. The NIST Cyber Security Framework¹¹ serves as the starting point for the collective approach.
12. We are prepared for a crisis

¹⁰ In doing so, competition law rules shall be observed.

¹¹ The NIST Cyber Security Framework provides a policy framework of computer security guidelines to prevent, detect and respond to cyber attacks.

Information

Good consumer information through the Safe Banking campaign remains important. In addition to the measures taken by banks to prevent fraud, consumers are also expected to behave safely. This is elaborated in five uniform safety rules. In 2019, the rules were adapted to the introduction of PSD2. In addition, six information videos were brought to the public's attention in 2019. These provide information about the most common methods used by criminals to steal payment cards and personal details of consumers and about how to prevent this.

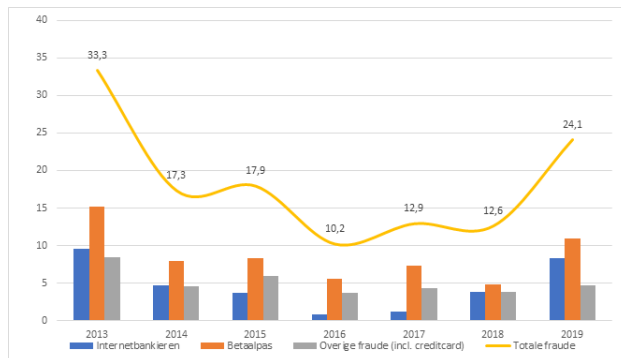


Furthermore, the Dutch Payments Association has frequently issued warnings about current phishing methods and supports campaigns by organisations with which it collaborates, such as the Europol Money Mule campaign and the government's 'Check first, then click' campaign. The latter campaign took place within the framework of the Cybercrime Covenant that the Dutch Payments Association and various members signed during the year under review.

The security of the Dutch payment system is high in a European perspective. Damage caused by fraud, however, increased sharply compared to 2018. Total fraud¹² in payment transactions almost doubled in 2019. After a substantial reduction in fraud in the period 2014 - 2018 (in 2012: €81.1 million, in 2013: €33.3 million), the damages in 2019 rose by 91% to a level of

¹² This concerns direct (excluding handling costs) and actually suffered (after deduction of damages recovered from third parties, money mules, etc.) banking damages. The figures do not show collateral damages (such as replacement cards and other repair costs). Damages as a result of internal fraud at banks are not included either, nor are damages suffered by consumers or businesses who were misled to make payments under false pretences. The fraud report will change to comply with PSD2.

€24.1 million. From a historical perspective, the fraud losses are lower than in 2013, but higher than in 2014.



Graph: Damages from payment fraud, 2011-2019, per year, in millions of euros

Highest damages for debit card fraud and phishing

Criminals continue to look for the weakest links in the payment chain. With the help of social engineering techniques, they know how to cause a lot of damage. They respond quickly to new developments in the Dutch payment system. In 2019, for example, criminals abused push payments and QR codes. They approached their victims via email, text messages, social media (Instagram, Facebook, WhatsApp) and online trading platforms. This led to a lot of phishing fraud and so-called debit card mailing fraud. In addition, there was a lot of credit card fraud related to rapidly increasing e-commerce.



Of the total fraud, 45 percent (in 2018: 39 percent) comes from debit card fraud. Within this category, most fraud involves stolen or lost debit cards (6.6 million euros). The total damage from debit card fraud amounted to 10.9 million euros. In 2019 this damage rose sharply by 123 percent compared to 2018. This increase is mainly caused by what is known as card mailing fraud. This entails that consumers are urged by email or text message to replace their card for 'security reasons' and to mail it to an alleged recycling plant. The victims are also misled to enter their PIN on a fake web page. As in 2017, debit card fraud was also caused by criminals who successfully applied for (extra) payment cards on behalf of their victims. The damage in this category increased from 190,000 euros in 2018 to 2.6 million euros in 2019.

In 2019, there was a further increase in non-banking financial fraud and internet fraud. This type of fraud aims to mislead the victim to make payments under false pretences. Victims are approached by fraudsters through various channels and are then misled to transfer money. The resulting damages are not included in the figures in this chapter.

With a total loss of € 8.4 million, online banking fraud more than doubled compared to 2018 (€ 3.9 million) when it had already tripled compared to 2017. Phishing caused almost all the damages within this category, with € 7.9 million.

There are several reasons for this sharp increase. With the shift towards digital services from authorities, companies and banks, crime is shifting in that direction. Trading platforms where consumers can sell or buy goods have also become popular. Consumers and businesses are no longer startled by messages from companies or persons via email, text message, WhatsApp or social media. Furthermore, criminals cleverly manipulate the hesitation and confusion of consumers. Their messages are now of high quality (language, design) and relevant in terms of content (card replacement, direct debit, profitable offer, etc.). Criminals misuse human characteristics such as curiosity, trust and greed in order to obtain confidential information (login details) or to elicit certain actions from their victims.

Because developments in payment transactions are actively monitored by criminals, new variations on phishing have been observed in the past year. For example, push payment fraud, in which criminals send fake requests-to-pay to consumers, has become very common. Criminals also use ready-made online toolkits that can be used to set up phishing campaigns at little cost.

The 'other fraud' category (EUR 4.8 million) includes remote card payment fraud. This so-called Card Not Present fraud (CNP fraud) increased by 5% compared to 2018, with a loss of € 2.1 million.



CNP fraud is related to the growth of e-commerce. Dutch consumers shop more at foreign web shops where they use their credit card relatively often. The European Union's PSD2 Directive stipulates that electronic payments must be approved with strong customer authentication. This also applies to

online cards. This should eventually lead to less CNP fraud.

The damage caused by fraud involving transfer orders on paper rose from € 0.2 million in 2018 to € 0.6 million in 2019. Despite the measures that have been taken, such as cooperation between the banks and tighter transaction monitoring, criminals still find opportunities to defraud.

Although online banking fraud increased in 2019, the damage remains low in view of the increase in mobile and online banking. If a consumer fell victim to online banking fraud, in

almost all cases (99.2 percent) the victim was compensated by his bank. This percentage is above that of 2018 (96 percent).

In addition, consumers can also suffer financial and emotional damage as a result of deception and swindling by criminals. Among other things, with the introduction of the IBAN Name Check, banks help to protect their customers against such fraud.

In cases where the customer makes payments to fraudsters himself, a bank can compensate the loss out of courtesy, if only partly. All circumstances that led to the fraudulent transaction are taken into account.

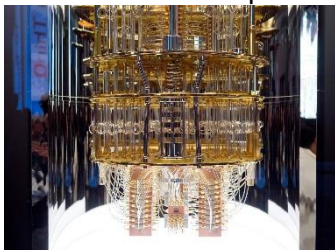
In order to reverse the trend of increasing fraud in payment transactions, there is intensive cooperation both within the sector and with public and private institutions outside the sector. In addition, the Dutch Payments Association offers the public sound advice against the most common forms of fraud via the Safe Banking campaign.

Other activities

The European directive for reporting fraud under PSD2 has been in force in the Netherlands since 1 July 2019. From now on, banks and payment institutions will report fraud damages to De Nederlandsche Bank (DNB). This reporting will be more comprehensive than the fraud reports that the Dutch Banking Association (NVB) and the Dutch Payments Association have so far received from banks. Following the reporting method in the United Kingdom, payments made by consumers or businesses themselves, as a result of manipulation or fraud, will be included. The NVB and the Dutch Payments Association will adjust their joint fraud reporting accordingly. Preparations for this start in 2019.

In 2019, steps were taken to make public and private institutions, including our members, less vulnerable to DDoS attacks. In a public-private partnership, knowledge was shared and the initiative was taken to set up a so-called fingerprint database. This database contains characteristics of DDoS attacks that can be used to mitigate attacks and prevent future attacks. In addition, a pilot was carried out to warn potential perpetrators in their orientation phase.

The advent of the quantum computer could eventually pose a threat to the security of payment



transactions, as common encryption algorithms are no longer secure for quantum computers. In order to be prepared for this threat, the Dutch Payments Association has launched a quantum readiness program with its members. This programme closely monitors developments and proposes and monitors measures for

both the short and longer term. The Dutch Payments Association works closely with national and international organisations, universities and the government.

In recent years, a lot of damage has been caused by internationally operating criminals who pretended to be helpdesk employees on the phone and then managed to obtain security codes from their interlocutors. In the fight against this so-called help desk fraud, the government and private parties, such as providers, Microsoft and banks, have joined forces. Together they take technical and financial measures to disrupt and prevent scams such as Tech Support Scams (help desk fraud). This cooperation started in March 2018. Since then, the damage caused by help desk fraud has halved¹³. In 2017 victims reported 6 million in damage, in 2019 it was 3 million.

Cryptography is an indispensable building block for a secure modern digital society. Cryptography ensures reliable and secure identification, communication and data storage in virtually all digital applications and is essential in the security of our digital infrastructure and in current privacy laws and regulations. In 2019, the Payments Association organised a four-day course in Applied Cryptography for its members and other interested participants from the IT sector. The Dutch Payments Association will provide this popular training again in 2020.

The Dutch Payments Association monitors and contributes to developments in regulations in the field of cyber security or related policy areas, including digitisation and technological developments. In doing so, it responds with its members to consultations with legislators and regulators, among other things.

¹³ These figures are not included in the fraud statistics of the NVB and banks. It is not considered a banking loss.

Board of directors and management

Board of Directors

The three independent board members are:

- Lex Hoogduin (1956), chairman, professor at the University of Groningen, chairman of the chairman of LCH Group, LCH Limited, LCH S.A., chairman CIR and former CEO of the De Nederlandsche Bank (DNB)
- Guus Slik* (1958), former director Superunie
- Gerjoke Wilmink (1960), director-manager at Alzheimer Nederland (appointed on 14 November 2018)

Members of the board of directors on behalf of the members:

- Anne Marie Magis (1965), Managing Director Digitalisation Commercial & Corporate, ABN AMRO
- Alexander Baas (1966), treasurer, Customers, payments and Savings Director at De Volksbank, representing the medium-sized banks
- Enny van de Velden (1961), CCO CCV/Chair of the Board of Directors of the CCV Group, representing the payment organisations
- Michiel Kwaaitaal (1974), Director Payments and savings at Rabobank
- Frank Stockx* (1969), Managing Director ING Belgium
- Daniël Köhler* (1980), Director Retail Banking, Triodos Bank Netherlands

Resigned:

- Henk van den Broek (1952), vice-chairman, former Detailhandel Nederland board member (resigned on 22 April 2020)
- Vincent van den Boogert (1969), CEO, ING Nederland (resigned on 5 Februari 2020)
- Edwin Hartog (1966), Head of Cash Management Corporates, Deutsche Bank Nederland, representing the smaller banks (resigned on 22 April 2020)

A representative of the NVB attends meetings of the board of the Payments Association as observer. DNB no longer attends meetings.

*to be appointed in next General Members' Assembly

Directors

- Piet Mallekoote (1954), director
- Gijs Boudewijn (1958), assistant director
- Marco Demmink (1961), secretary to the board

Governance

The Dutch Payments Association is a small and efficient organisation, which works to ease the burden on its members. It was set up as an association. The Dutch Payments Association comprises several organs:

General Members Assembly (GMA)

Parties on the supply side of the Dutch market that focus on corporate or private end users can become members of the Dutch Payments Association. They fund the Dutch Payments Association and can take part in the GMA. The GMA's primary activities concern determining strategy and approving the annual accounts.

Board of Directors

The Board of Directors takes substantive decisions on important issues, establishes policy frameworks and advises the Executive Board. Its other important duties include appointing and dismissing members of the Executive Board, approving the annual plan and budget, and monitoring how well the Dutch Payments Association carries out its tasks.

Executive Board

The Board of Directors appoints the Executive Board, which is responsible for operational organisation and day-to-day business. The duties of the Executive Board include drafting policy proposals, taking decisions regarding the admission of new members, developing the certification policy and monitoring compliance with regulations.

Advisory Council

The Advisory Council advises the Executive Board – on request or otherwise – on the Payment Association's policies and activities.

Working groups

The working groups are responsible for preparing tactical and operational policy, in collaboration with specialists from the supply side. The working groups can advise the Executive Board, both upon request and of their own initiative. The main working groups are Giro-based Payments, Cards, Cash Payments and Security. Other working groups are active in legal affairs and in communications information campaigns.

Appeals Board

An independent Appeals Board makes it possible to appeal against decisions regarding acceptance and certification when parties are unable to reach agreement with the Executive Board, the Board of Directors or the Appeals Committee of the Board (in that order).

List of members

April 22th 2020, the Dutch Payments Association had the following members that provided payment services.

ABN AMRO	China Construction Bank (Europe)	Mizuho
Acapture	Citco Bank Nederland	MUFG Bank
Achmea Bank	Citibank	Nationale Nederlanden Bank
Aegon Bank (incl Knab)	CM.com	Nederlandse Waterschapsbank
American Express	Commerzbank	NIBC Bank
Amsterdam Trade Bank	Credit Europe Bank	PaySquare
Bank Nederlandse Gemeenten	De Volksbank (SNS, ASN and RegioBank)	Rabobank
Bank of America Merrill Lynch	Demir Halk Bank	Société Générale Bank Nederland
Bank of Chaabi du Maroc	Deutsche Bank	Svenska Handelsbanken AB
Bank of China	GarantiBank International	Triodos Bank
BinckBank	GWK Travelex	Lloyds Bank
Bitsafe	HSBC Bank plc	Moneyou
BNP Paribas	Industrial Bank of China	Online Betaalplatform
Brand New Day	ING	Uber
Buckaroo	INGENICO Payment Services	Van Lanschot Bankiers
bunq	InsingerGilissen Bankiers	Volkswagen Bank
CCV Group	KAS BANK	
	KBC Bank Nederland	
	LeasePlan Bank	



Dutch Payments Association

