



Giesecke+Devrient
Creating Confidence

Next generation payment made easy – globally

Fintech-focused innovative payment solutions





700

financial institutions worldwide have benefited
from our projects and solutions

Fintechs and G+D: partnership for success

As a leading global provider of physical and digital authentication and payment solutions, Giesecke+Devrient (G+D) is well placed to support any Fintech business, whether it's early stage inception, design and launch, or scaling, growth and customer retention. We have delivered projects and solutions for over 700 financial institutions worldwide, and this experience has led us to develop our approach to working with Fintech providers as partners – an approach that we feel will enable our partners to deliver results, fast.



Fast

We believe that rapid deployment and quick onboarding is crucial to our partners success. That's why we focus on quick onboarding and timely project execution.



Digital

One facet of our particular expertise is the delivery of solutions and services that enhance or enable the customer experience. These types of solutions are important to the success of any Fintech, and we can effectively and efficiently support our Fintech partners in their development.



Flexible

Innovative solutions require a flexible approach. Our technology and software services are designed to build a tailored, bespoke solution for our partners, specific to their needs both now and in the future. From fast track payment card programs, to high-end, top-of-wallet services, we can help.



Global

Our position as a leading global provider means that we can offer support at any level of implementation – from regional implementation to global expansion strategies. We can support any Fintech throughout every stage of their growth.

Delivering a striking customer experience

As digital solutions and the convenience afforded to customers by mobile and digital payments have become more common, today's customers have become more discerning and demanding.

Convenience

Our busy lives mean that we need to access payment services quickly and easily, whenever, and wherever we need. According to the National Retail Federation, 97% of customers have, at one time or another, abandoned a purchase because the service or process was not convenient¹.

Personalization

Customers want to be treated like an individual. Whether that's choosing a customized plan or service that's tailored to their needs, or deciding how a card, application or process looks and feels, building choice and a personal approach into a solution can be very attractive. Research for Salesforce indicates that 84% of customers say being treated like a person, not a number, is very important to winning their business².

Eco-conscious service

An eco-friendly response to climate change and sustainability are rapidly proving to be key differentiators in attracting customers. In a recent survey, 83% of survey respondents felt it was 'important to extremely important for companies to design environmentally conscious products, and 72% of respondents said they were actively buying more environmentally friendly products³.

Global

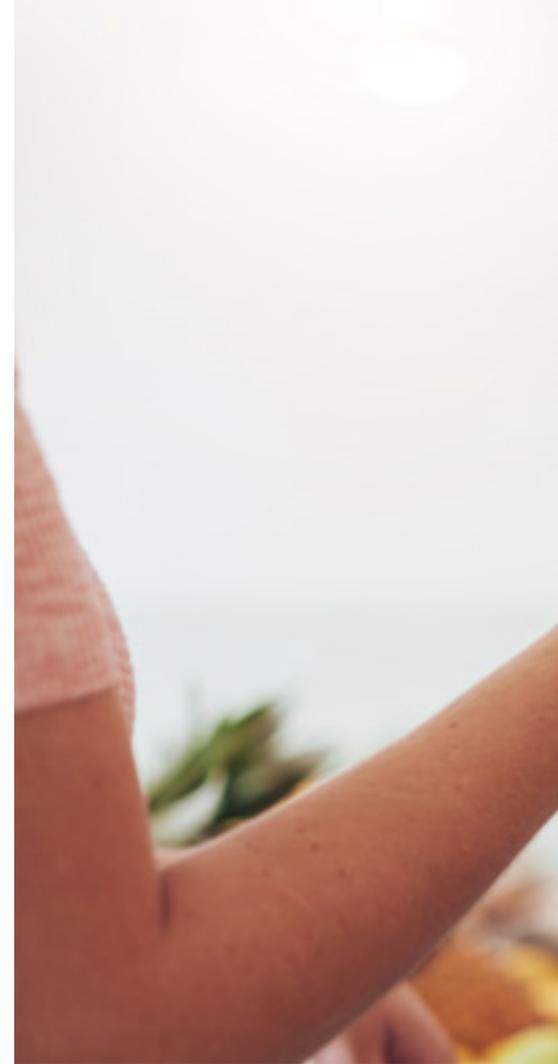
Your customers expect that national borders are no barriers to payment services. Whether they are paying for services from a local supplier or an international provider, their expectations remain the same; seamless, rapid, easy payment completions.

Digital first

The global digital transformation means that offering digital services isn't a value-add, it's a fundamental part of the customer experience, so just having services is not enough, they need to be seamless, secure and easy to use. Build these services, and your business will reap the benefits. Adobe indicate that digital-first companies are 64% more likely to achieve their business goals than their peers⁴.

Valued

One of the most telling differentiators in the market is the ability of a business to make its customers feel valued. From premium service offerings to VIP onboarding experiences, customers are willing to pay a premium for luxury or perceptions of value. In fact, a recent PWC report indicates that customers are willing to pay a price premium of as high as 18% for luxury and indulgence services, simply by receiving a great customer experience⁵.





Security

With more and more of our lives being shared online, customers are increasingly concerned about privacy and security. Protecting their data, and their money is a top priority. Banking legislation and practice is responding to this need by changing globally to strengthen customer protection, for example the use of Strong Customer Authentication (SCA) for transactions.

G+D's range of payment solutions can help you build an offering that fulfills these consumer needs and offer a truly differentiated service.

97%

of customers have, at one time or another, abandoned a purchase because the service or process was not convenient².

¹ <https://nrf.com/research/consumer-view-winter-2020>

² <https://www.salesforce.com/research/customer-expectations/>

³ <https://www.businessnewsdaily.com/15087-consumers-want-sustainable-products.html>

⁴ <https://www.adobe.com/ee/modal-offers/article-digital-trends-2019.html>

⁵ <https://www.pwcc.com/us/en/advisory-services/publications/consumer-intelligence-series/pwcc-consumer-intelligence-series-customer-experience.pdf>

At the forefront of payment technology for over 160 years

We support and enable technical innovation across every part of the payment process.



Here's why partnering with G+D makes sense:



Global reach

G+D have a presence on every continent, operating in 33 countries to support truly worldwide payments.



Trusted expertise

Support any market approach - no matter how sophisticated.



Broad solution portfolio

Our portfolio of payment solutions are designed to meet any need, from physical payments to innovative, customer- focused digital payment and authentication solutions.



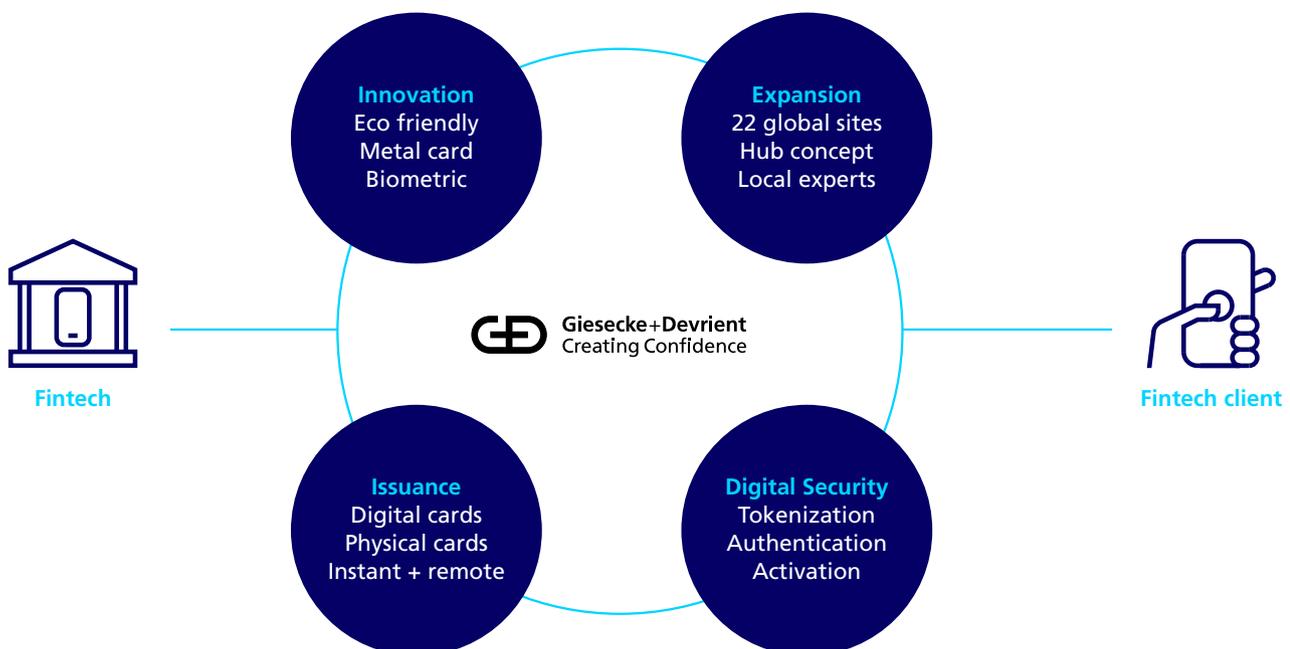
Fast, efficient market deployment

We know time to market is critical for Fintechs, so we have designed our range of solutions to support speedy market deployment.



The building blocks for customer-centric payment innovation

G+D offers solutions to meet your customers' needs in every part of the payment ecosystem and at every stage of the customer lifecycle:



Solutions supporting Fintech innovation

We offer a complete range of solutions and services to support our Fintech partners in building innovative solutions for their customers. Here are just a few of the services in our portfolio that can help:

Premium personalized cards

A range of options to customize and configure payment cards for true differentiation.

Issuance solutions

Supporting customized cards with a range of solutions to optimize PIN delivery and printed material.

Convego® Connect APIs

Our API and SDK developer portal offers a simple, secure foundation for Fintech innovation.

G+D Hub

A one-stop payment card issuance solution for global Fintech deployment.

Sustainability solutions

Convego® Beyond offers sustainable, eco-friendly products and services to attract, engage and delight your eco-conscious end customer, and help to save the planet in the process.

Smart authentication

Convego® Tap is a simple to implement secure customer authentication solution that provides a frictionless way for your customer to access your services and authorize payments.



A man with short dark hair and a beard, wearing a dark blue button-down shirt, is shown in profile from the chest up. He is looking down at a tablet device he is holding with both hands. The background is a blurred brick wall. The lighting is soft, coming from the side, highlighting his face and the texture of his shirt.

61%

of customers want an easy onboarding to their digitalized banking services and a frictionless management of the same.

57%

of mobile banking users are concerned about how their data is managed.

Premium, personalized cards

In the modern, digital-focused world, payment cards are often the only concrete, physical link that customers have to financial services brands. The experience that customers have with these cards, from first receiving them to using them every day, informs their opinion about the brand, the business and their decision to remain loyal.

That's why it is important to ensure that your payment or loyalty card stands out. G+D offers a complete range of materials and designs to give your cards the 'wow' factor, ensure you remain top-of-wallet and deliver the right brand experience for your customer. Whether you want to promote your eco-conscious credentials with recycled or natural materials, or offer a premium, VIP feel with metal cards, we can help.

Our full range of cards are also able to be designed in multiple weights, thicknesses colours and orientations, as well as sophisticated print and finishing technologies, so you can bring a truly unique card to the market, no matter which materials you choose.

Creating VIP experiences

Metal cards allow issuing companies to differentiate their premium service with a physical symbol; giving customers solid, tangible proof of their value to the bank. The metal card's premium, weighty feeling reinforces your customer's value perception and helps you to remain top of wallet. The metal card can help transform your customer's experiences in many ways:

- Reward loyal customers with a premium experience
- Signify high-status or VIP customers with tangible proof of their value
- Offer a metal card as a part of a premium value-add offering



Metal



Enhancing customer excitement and loyalty with metal cards

One of our clients, a leading regional pre-paid VISA card provider, wanted to expand and deepen their customers' loyalty and reinforce the perceived value of their premium offering.

Already known for the striking, clean visuals of their existing payment card range, our client started with the look and feel of their most popular card, and re-envisioned it with a premium, metallic finish. They then offered this card with a premium fee, however with the

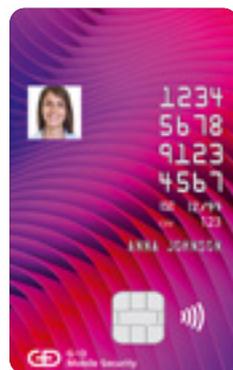
explanation that this fee was lower than the average annual banking fees that were paid in their region. They also offered this product with lower fees subject to successful customer referrals.

This combination of premium product and clever market tactics enabled a 'luxury for everyone' market positioning, generating excitement amongst existing and new customers and boosting both revenue and customer base with a successful referral program.

Finishing techniques



Classic



Classic+



Visual

Did you know...

»G+D offers a complete range of materials and designs to give your cards the 'wow' factor.«

Issuance solutions

Payment card issuance can be a long, complex process with multiple considerations to factor in to completing the customer journey from card order to first use.

G+D's range of issuance services are designed to take the complexity out of the equation, so you can offer a smooth, seamless service to your customers, while also ensuring that your internal and external process remain efficient and effective. Our issuance solutions also enable you to offer truly differentiating additional services that will transform your customers' experiences and ensure you remain top-of-wallet:

Convego® ePin

The Convego® ePIN service reduces the time between card activation and first use, as well as reducing the amount of printing and logistics needed to generate and supply PINs for your customer. A fully digital solution, ePIN allows the customer to securely and quickly receive their PIN through SMS, using a one-time password based on the data you hold for them. The PIN is sent to the customer within seconds of the request being made, so they can use the card straight away.

Convego® Smart Document Generation (SDG)

Fintechs can use our SDG solution to leverage the rich data they already possess about their customer to include micro-targeted, on demand printed carriers and

inserts. This includes custom printed, per-customer carriers and other inserts, such as T+C's, brochures, letters or booklets to inform and educate customers about other products and services. This custom approach can also be leveraged to interface with banks' digital offerings, with the opportunity to embed custom QR codes or use augmented reality technologies. With SDG, you can design the appearance of your carriers and fulfillment portfolio, using our convenient and user-friendly online portal.

Managed card issuance services
From one of our 22 certified card production facilities, we can manage the full end-to-end process of card issuance for any Fintech provider. We supply a full-featured management portal, where everything from card, packaging and carrier design, to stock, fulfillment, logistics, and KPIs can be managed and monitored, with real-time controls to ensure that your personalization processes can react to any urgent changes. Our Convego® Connect API services can help to integrate these rich features into your current digital estate for a seamless and sophisticated experience.





Digital First

Convenient, user-focused solutions are key to creating a first-class customer experience, and with Digital First your customers will receive the fastest card issuance on the market. Digital First enables you to offer your customers a digital copy of their new payment card that they can use straight away, while in the background their physical card is being personalized.

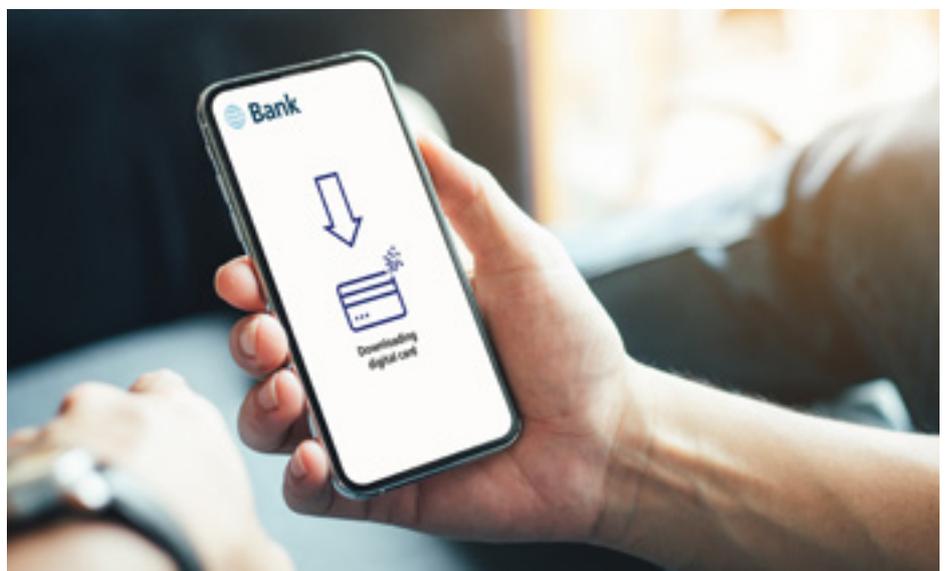
The Digital First solution uses a powerful, secure API to make the digital card available and leverages the existing architecture and data that is used to create the personalized physical card. This digitized card can then be displayed within a mobile application for the cardholder to carry out eCommerce transactions or pushed to a mobile wallet for contactless mobile payment in-store. The Digital First solution also allows you to keep your customer up to date with the progress of their physical card personalization, so that they feel valued and 'in control'.

For the customer, the benefits are clear. Digital First reduces the time between customer acquisition and first use of their payment card, offering a rapid, flexible, and convenient solution. For our Fintech partners, the cardholder being able to transact sooner can potentially result in early revenue generation from day one.

Did you know...

38%

of mobile banking users are worried about compromising or stolen data. With security by design your customers can feel safe using your services.



Convego[®]

Connect APIs

Today's consumers prioritize customizable, flexible, real time solutions and services which enable on-demand access to banking, financial services and payment technology whenever and wherever they need it.

APIs enable this real-time interaction across different applications without the need for end-user input. For businesses, APIs add new capabilities to everything: from operations to development of new products and solutions and new opportunities for partnership strategies.

As part of our commitment to supporting and enabling the financial services technology ecosystem we created Convego[®] Connect. Convego[®] Connect is our central marketplace which enables you to create digital products that transform your consumer experiences.

Our APIs and SDKs enable providers to extend their market reach and expand the range of products in the marketplace, giving your customers more reasons to use their cards and banking services. From a customer's perspective, API powered payment personalization services offer choice and flexibility in payment methods. These can vary from plastic to environmentally conscious alternatives or premium metal cards; from tokenized credentials in wearable devices to digital wallets.

With our portal, you'll discover a new world of card issuance and digital banking solutions to turn your digital transformation vision into a reality. Our aim is to provide all the needed resources for plug-and-play, so you can extend your digital banking experience to meet the needs of your partner institutions and their customers.



The benefits of Convego[®] Connect



Speed

Reduce the customer onboarding time for financial products and services.



Smooth integration

Ease integration processes across all touch points and receive real-time information.



API partner programs

Provide partnership opportunities to maximize business growth and customer reach.



End customer retention

Create omni-channel solutions to enable your new end-customer attraction and boost loyalty.



Customer focused services

Specific solutions built around customer needs.



Improved visualizations

Customers can receive quick access to more products and services with improved user experience.



Flexibility

Customers can make use of banking services anywhere with platform agnostic solutions.



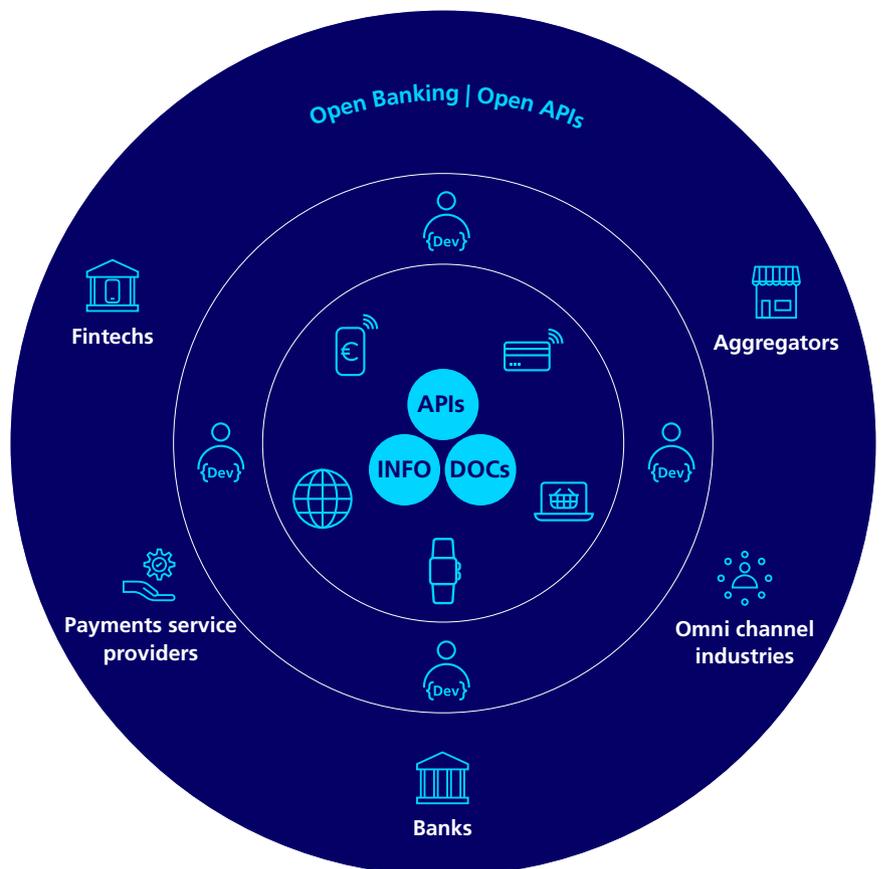
Security

Enhanced privacy controls so customers can manage the granting of their data rights on a per-service basis.

Open API for financial innovation

Convego® Connect is G+D's developer portal. With the use of our APIs and SDKs, you can connect all the processes involved in card issuance and our digital financial services portfolio – from the time a customer places an order of a card to its activation, usage and renewal process. We have designed our portal to provide an open, accessible platform for Fintech innovation.

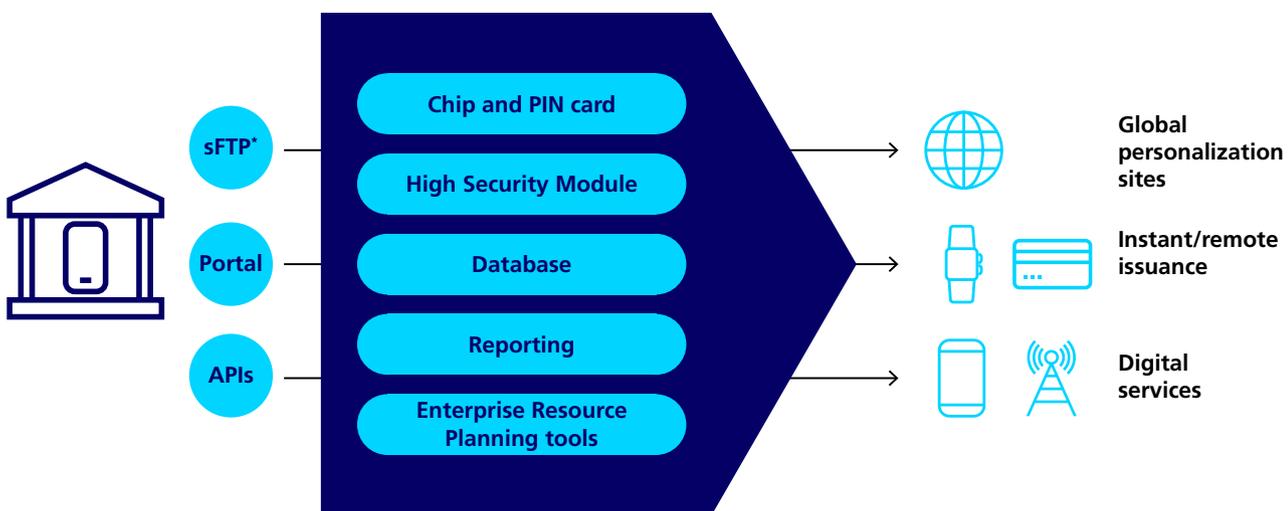
Visit: <https://dev.api.gi-de.com/>



G+D Hub: One data delivery point for global card issuance

The G+D Hub makes it easy for processors to manage the issuance process from one central data delivery point. The hub will manage, through either a Convego® Connect API endpoint or the portal, the relationship between the processor and their client's personalization data and the issuance and production process. The Hub takes care of the pre-process, validation, EMV process and data loading, providing all the needed information for the smooth production of cards, all in one place. It also quickly and efficiently allows splitting of production and data generation for regional deployment of specific cards.

HUB: Integrated and personalized experience across all channels



*Secure File Transfer protocol

Payment solutions for global players

Our client, one of the world's biggest payment service providers (PSP), wanted to explore the process of supplying direct payment cards to their customers in select geographies to enable global payments. Traditionally, this PSP acted as an intermediary between their end customer's traditional bank account and merchants. With their new card, they enabled their B2B customers to pay directly for goods and services from the balance held with the PSP, without the need to interface with the traditional bank account. The card can be used both online and at point of sale (POS), and with no fees for use at home or abroad. The PSP used G+D Hub to enable the card issuance process in a smooth, efficient manner.

Did you know...

2.4bn

customers expected to use digital banking by 2021, the digital payment solutions market is expected to triple its current volume and grow to \$1,330 in 2022.

<3%

the average conversion rate for e-commerce sites is less than 3%, so customer satisfaction is crucial.



Build your sustainability strategy with Convego® Beyond

In just a few short years, sustainability has transformed from something of a fringe issue in the banking industry, adopted primarily by image-savvy firms in an effort to bolster their reputation with customers, to a necessity, not a luxury, for all financial institutions.

In particular, Fintech start-ups, by virtue of their position as new, innovative market entrants, are expected to have a coherent, well-thought out sustainability strategy, and are also expected to have a product portfolio that delivers on that strategy. G+D offers a range of smart, easily deployed eco-friendly solutions that can help Fintechs embed sustainability throughout their entire operation.

Sustainability through partnership

G+D, a world leader in payment technologies, has partnered with Parley, a movement committed to taking action to 'raise awareness for the beauty and fragility of our oceans and collaborate on projects that can end their destruction', to develop solutions that help to tackle the growing problem of plastic in our ocean.

The Parley approach to ocean plastic is AIR:

- Avoid plastic wherever possible
- Intercept plastic waste
- Redesign the material itself

This is an approach that G+D wholeheartedly support, and we are working with Parley to explore and implement concrete card issuance solutions that deliver on this approach. The release of our recycled ocean plastic card, Convego® Ocean Parley, is an important first step to delivering on this approach.

Did you know...

»G+D has partnered with Parley to create an ocean plastic card.«



Eco-friendly cards



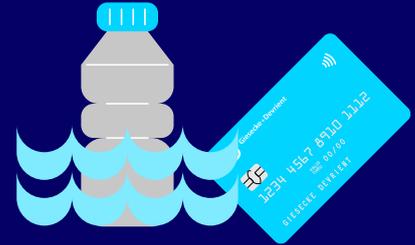
Convego® Recycled

The card body layers of our recycled PVC cards use 100% recycled materials to create a full-featured payment card offering. The materials come from different industries such as packaging, printing, window manufacture or the automotive industry and help to ensure that waste generation and management is as sustainable as possible.



Convego® Natural

G+D's Natural card is made from polylactic acid (PLA) which is made from renewable resources such as corn starch or sugar cane and is completely bio-degradable. These cards have been developed to be just as robust and long-lasting as their PVC counterparts while also being carbon neutral. G+D Natural cards are VISA and Mastercard approved and will show your consumers that you're taking considered and conscious steps towards making a better world.



Convego® Ocean Parley

Today, 8 million metric tons of plastic are dumped every year into the ocean around the world. By 2050, Ocean Plastic will outweigh all the ocean's fish. To help to counteract this, plastic dredged from the ocean can be repurposed for other means – such as the creation of payment cards.

G+D can move your bank towards a greener alternative

For your average payment card to be issued to a consumer, the following steps take place:



Smart authentication with Convego® Tap

One of the most challenging parts of creating a customer-first financial services solution is balancing security and authenticity requirements against customer desire for convenient, easy-to-use services. Creating a frictionless way for customers to manage online banking authentication, secure app onboarding, and banking card activation without sacrificing security is the ideal solution for customers, and for Fintechs.

Convego® Tap allows your customers to use their mobile banking app and their contactless payment card together to enable authentication and activation. Both of these services are already known and trusted by the customer, so adoption and use should be simple and straightforward. This approach is not only compliant to two-factor authentication regulations, such as PSD2, but also provides superior usability combined with high security. As Convego® Tap uses the cards that have already been issued to customers, Fintechs can implement this simple to use authentication option without the cost implication of card replacement.

Convego® Tap usage examples:

- Card activation
- Online banking authentication
- App signup and onboarding
- Transaction authorization

Convego® Tap benefits:

- Intuitive, convenient and secure authentication
- Higher card activation rates and improved service
- Compliant two-factor authentication
- Higher transaction values thanks to simplified two-factor authentication
- Cost efficient as using existing hardware and no need to send Transaction numbers (TAN) and one-time passwords (OTP)





Did you know...

»Convego® Tap allows your customers to use their mobile banking app and their contactless payment card together to enable authentication and activation.«

Why choose G+D as your perfect payments partner?

We know that the next generation of Fintechs need the next generation of payment solutions – and with our more than 160 years of passion for payments, G+D are well placed to provide.

We pride ourselves on being easy to work with, offering our vast payments experience and expertise to help guide and develop Fintechs as they build and grow. As a family-owned business with a truly global footprint, G+D can provide stability and opportunity to Fintechs to build, develop, expand and grow. Our solutions are configurable, flexible and modular, so you can quickly and effectively tailor them to your requirements, only using the services you need. This can help to reduce your time to market.

With G+D, not only do you gain access to a complete set of end-to-end payment solutions, but also the sophisticated range of technologies and solutions that form part of our card issuance portfolio. These include a range of customer-focused

options, from offsite, secure preparation of PIN mailer and customer data files, easing your technological burden, to sophisticated integrations with technologies such as wearable tech, digital wallets and Augmented Reality (AR) enhanced carriers and carrier inserts.

We offer our Fintech partners full support from expert installation and setup support, to in-life management support and guidance. This support also extends to disaster recovery and contingency planning. No matter how complex or demanding your requirements, our winning combination of technological solutions and payment expertise means that we can help to enable your Fintech vision, help you grow and help you deliver a unique customer experience.

Did you know...

»With G+D, not only do you gain access to a complete set of end-to-end payment solutions, but also the sophisticated range of technologies and solutions that form part of our card issuance portfolio.«



Unconsciously used by billions of people every day

G+D technology is unconsciously used by billions of people every day! With more than 700 global financial institutions putting their trust in G+D and our offerings, we enable secure and convenient transactions for everyday usage.

Founded in 1852 in Leipzig as a printer of bank notes, now with headquarters in Munich, G+D is a global powerhouse in payments - be via cash, card or digital services. Our safe payments technology, elegantly combined with smooth customer experiences throughout the whole customer journey, secures the daily life use of financial services. And also creates customer obsession for our clients!

We are: pioneers in payments, an industry leader and an innovating partner for the financial sector.

G+D makes payment for billions of people more secure:

- We provide a unique end-to-end offering along the whole physical, electronic and digital payment cycle
- We are the starting point for billions of secure transactions
- We are a leading global provider of physical and digital authentication and payment solutions
- We are experts at supporting your digital payment journey



Award holders

ICMA^{*}

Proving innovation leadership
in card tech

Juniper^{**}

Platinum award in the category
"Best Digital Wallet"

* International Card Manufacturers Association (ICMA)

** Juniper Research



Did you know...

2024

payments operationalized by direct-from-bank schemes

79%

millennial online shoppers are concerned they'll be victims of online fraud

The perfect Fintech partner

+550_m

annual production
of cards globally

400_m

annual personalized
cards globally

#1

issuer in France
(EMV root market)

11.5_k

talents worldwide

+17%

increase in
patents granted

50_{years}

ago invented the EC
card system (with DB)

20_m

virtual payment cards enabled
over the past 5 years

>1.4_{bn}

closed-loop loyalty
transactions processed in
China in 2019 for merchants

76

subsidiaries and
joint ventures

>18

flagship banks are using our
digital issuance services

+50_m

card based
accounts enabled

2.45_{bn}

Euro sales

20₊

certified production and
personalization sites and
data centers worldwide

33

presence in 33 countries

Did you know...

20%

millennials highly value flexibility in payment options when it comes to online payment

95%

amount of tokenized e-commerce payments by 2022



Creating confidence

Giesecke+Devrient (G+D) is an international Group providing security technology and headquartered in Munich, Germany. Innovations by G+D make the lives of billions of people in the digital and physical world more secure. With its products and solutions, G+D is one of the market and technology leaders in payments, connectivity, identities, and digital infrastructures.

Established in 1852, the company achieved sales of €2.45 billion in the fiscal year 2019 and employs 11,500 people. G+D has a presence in 33 countries. Its customer base includes central and commercial banks, mobile network providers, automotive manufacturers, health insurance companies, and governments and public authorities.



Giesecke+Devrient
Creating Confidence

Giesecke+Devrient Mobile Security GmbH
Prinzregentenstrasse 159
81677 Munich
Germany

www.gi-de.com

www.gi-de.com/en/contact

Follow us on:



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