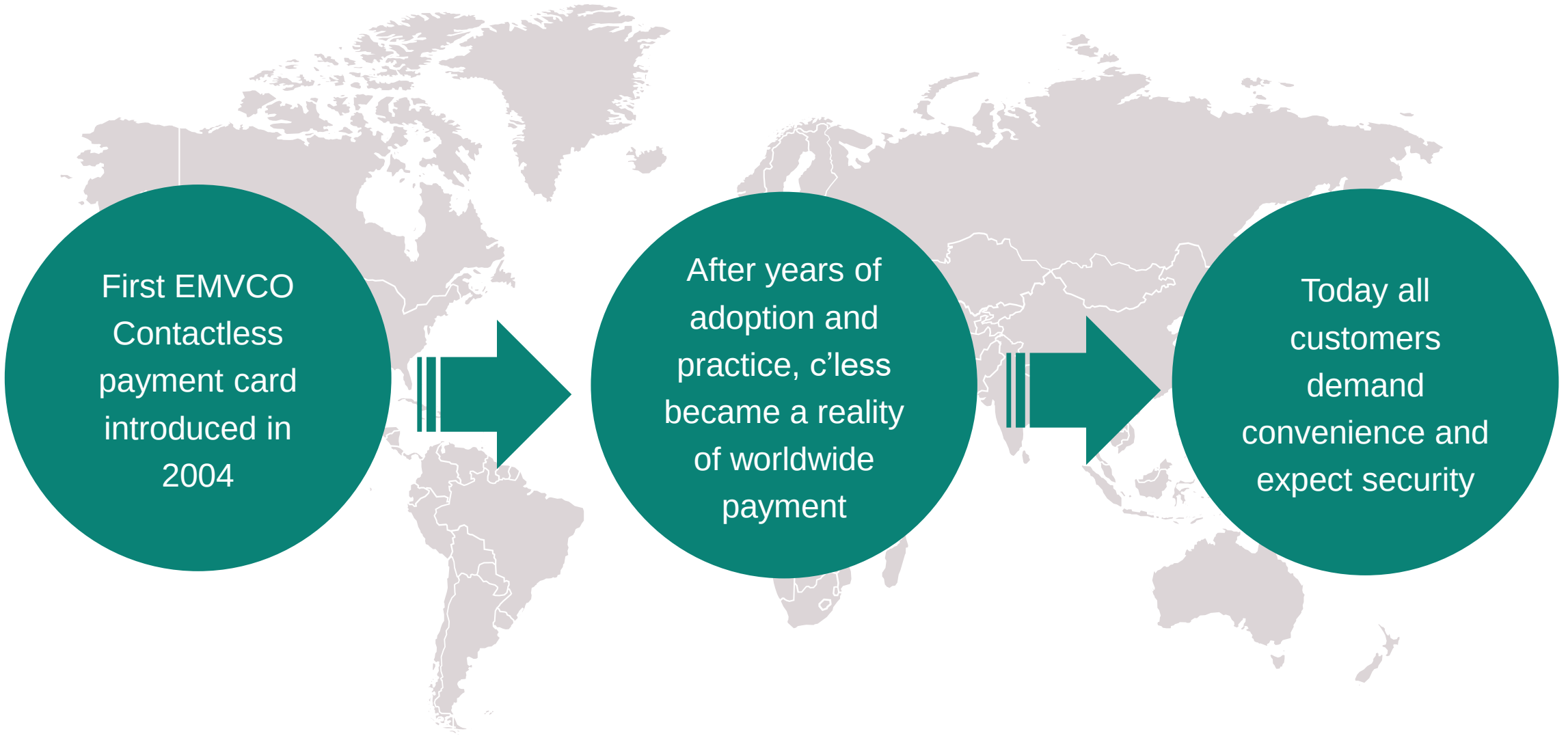


What are the popularity drivers for biometric payment cards

Lu-Ruhbach, Fang

April 24th, 2024

Biometric payment card adoption of global contactless trends



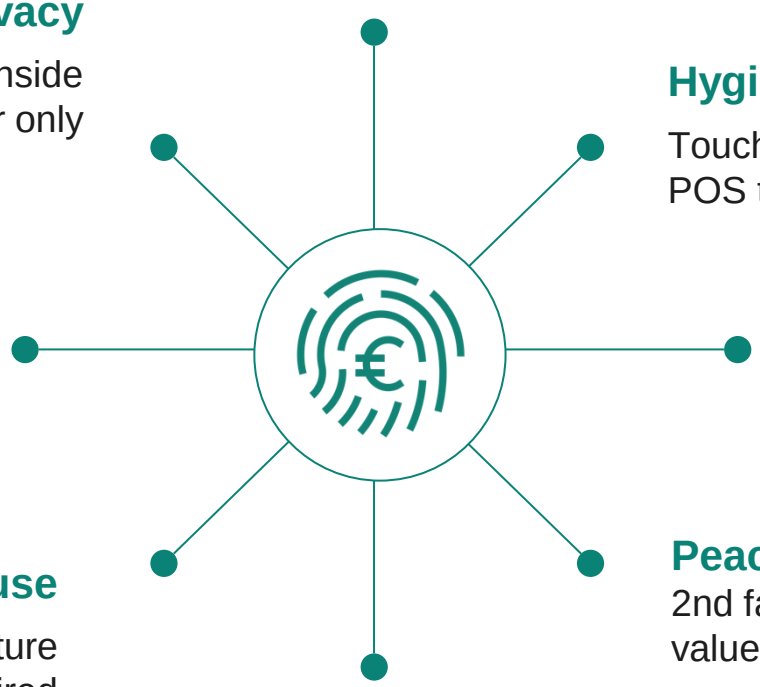
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Benefits of fingerprint authentication solutions on payment cards

Convenient
Biometric 2nd factor authentication

Privacy
Allows fingerprint data to be processed inside the security controller only

Hygienic
Touchless interaction with POS terminal



Data protection
Biometric credentials are stored in the card, not in the background system

Fast
Biometric 2nd factor authentication can be used as a PIN alternative

Ready to use
No infrastructure upgrade required

Peace of mind
2nd factor authentication even for low value transactions

Consumer interest
77% of consumers are satisfied with the use of biometric authentication*

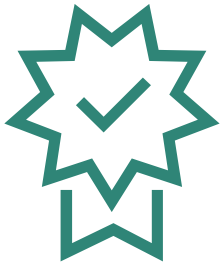
* Source: https://www.paymentscardsandmobile.com/consumer-acceptance-of-biometrics-gaining-traction/

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Three key enablers for the success of a biometric payment card solution



Simple implementation



High quality



Enrollment solutions

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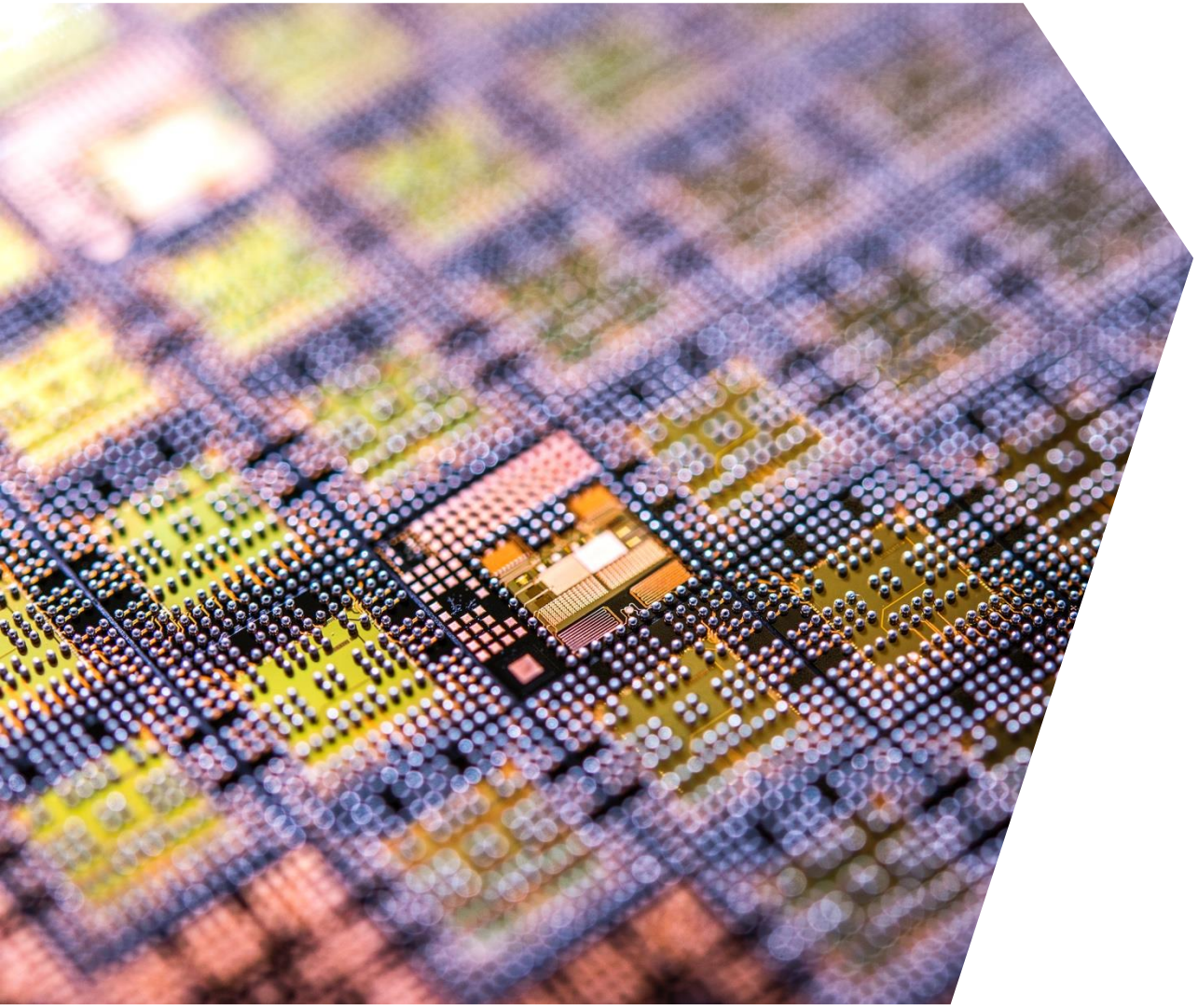
Simple implementation in production

- Customers stipulate requirement to be able to use existing card production lines
- Easy to adapt to existing production processes
- Must not cause additional logistics complexity



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High product quality needed



- Market requirement for high-quality card product
- High value cards production requires low failure rate
- Card manufacturers and card holders expect high quality and high-quality looking banking cards

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Enrollment solutions are a key success factor

- The enrollment concept and performance is another key success factor
- It needs to be easy to use and easy to deploy
- It needs to be cost-efficient and environmentally friendly
- Supporting diverse enrollment options



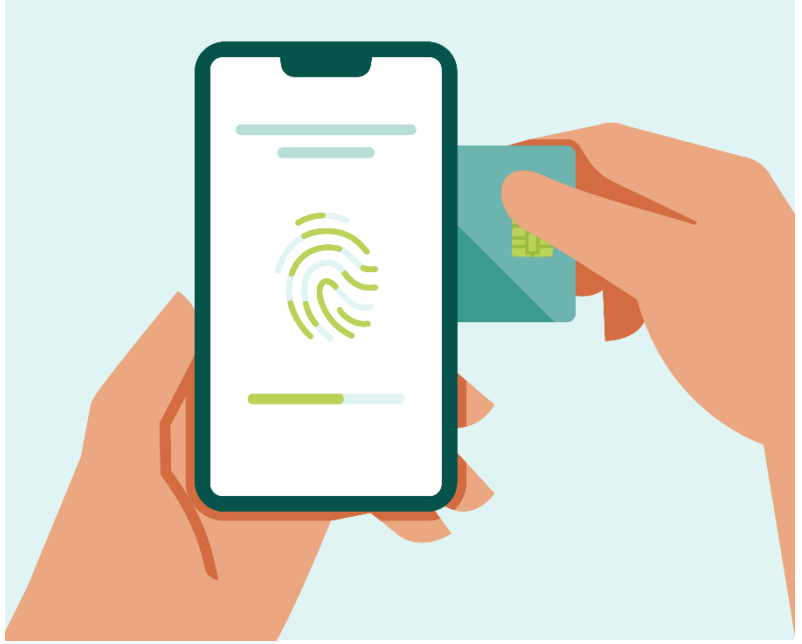
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Enrollment is the key
There are various enrollment options

Sleeve enrollment (CB only)



Smartphone enrollment (CL)

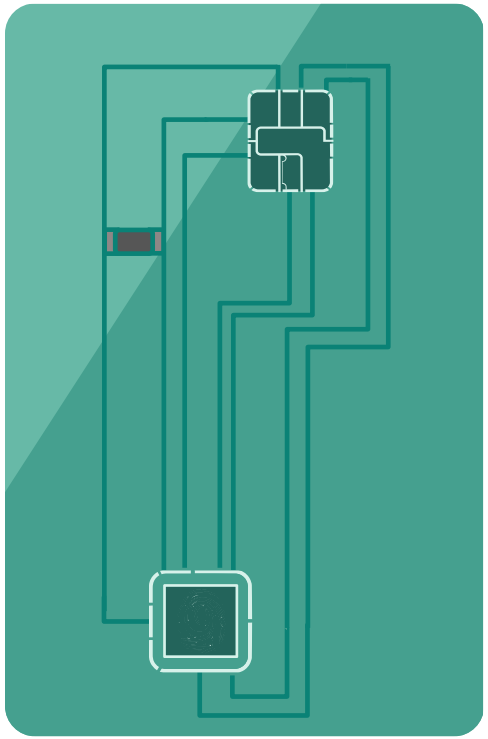


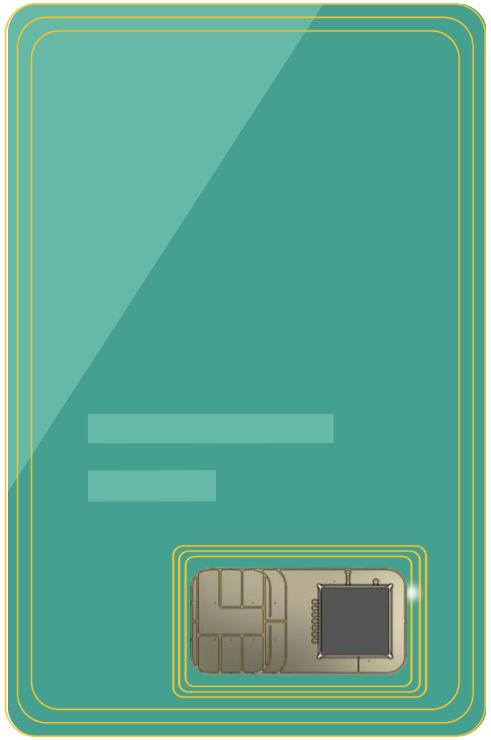
In-field enrollment



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Biometric payment card leveraging innovations step-by-step





Biometric payment card today

- Security controller + fingerprint sensor in a biometric payment card system
- High performance and sensor agnostic Secure Element (e.g. SLC38B, SLC39B) combining with advanced fingerprint sensor technologies

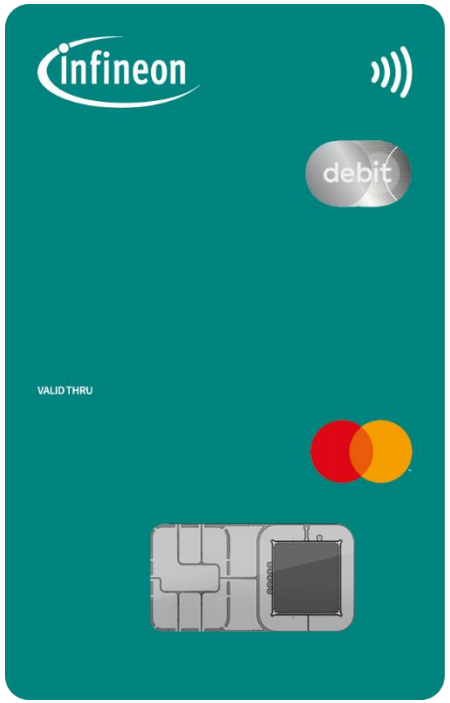
Example of Biometric card of tomorrow

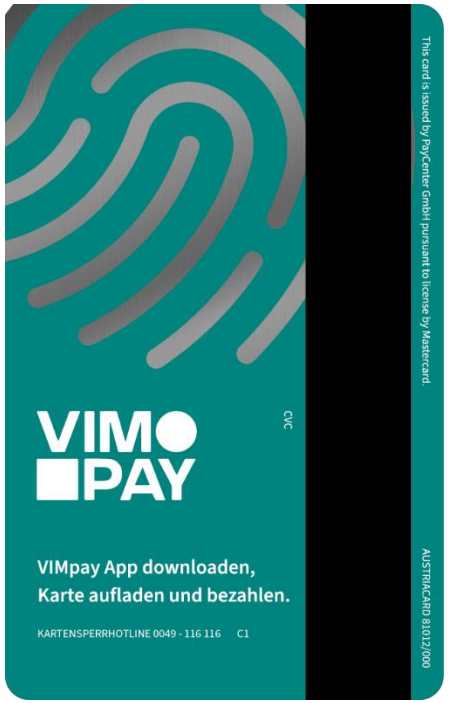
Leveraging extensive innovations, including:

- System-on-Chip (e.g. SLC39B),
- System-in-Package (SiP)
- System-in-Module (e.g. Infineon Biometric Coil on Module (BCoM))

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Biometric payment card pilot with SECORA Pay Bio





Card design of Infineon's pilot project in cooperation with Mastercard, Petafuel and Austriacard

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Let's turn the latest market trends into best-in-class solutions together

Find out more about SECORA™ Pay Bio

https://www.infineon.com/cms/en/product/promopages/payments-in-motion/#secora-pay-bio-solution




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