

How will we be paying in 2020

The 12 Points

Lorenzo Gaston, SPA Technical Director, March 2015



Who we are

The Smart Payment Association addresses the challenges of today's evolving payment ecosystem. We offer leadership and expert guidance to help members and their financial institution customers realize the opportunities of smart, secure and personalized payment systems and services - both now and in the future.

Since 2004

Members:



What we do

- ▶ The SPA works in partnership with global standards bodies, its own vendor community, and an expanding ecosystem of established and emerging brands; offering an ever-growing portfolio of advisory and support services.



Fig 1
Extending advisory and support across the evolving community, the SPA is addressing today's challenges and shaping the future direction of payment technologies, standards and business models.

How we do it



- ▶ Providing a comprehensive portfolio of consulting, marketing and advocacy services
 - An ever-growing library of expert technical resources and thought leadership collaterals to shape the future of payment
 - The market's most accurate barometer of payment trends – annual analysis based on actual manufacturer data



- ▶ Defending member interests from a regulatory perspective, while addressing issues of standardization, certification and security to drive the technologies and business models that are shaping the future of payment.
 - Engagement in industry bodies and standardization organizations across the world – offering guidance on best practices, providing the 'vendor' perspective and ensuring regulatory initiatives are beneficial to the efficiency of the ecosystem



- ▶ Opening to encompass a rapidly evolving and broad payments community addressing new verticals and geographies
 - Controlled expansion of membership – consolidating its influence on the payment issuing value chain and extending its support to a new generation of internet-based secure payment solutions and service providers.

Business Workgroups

Market Monitoring

Contracts

Retail

eCommerce

US Chapter

Technical Workgroups

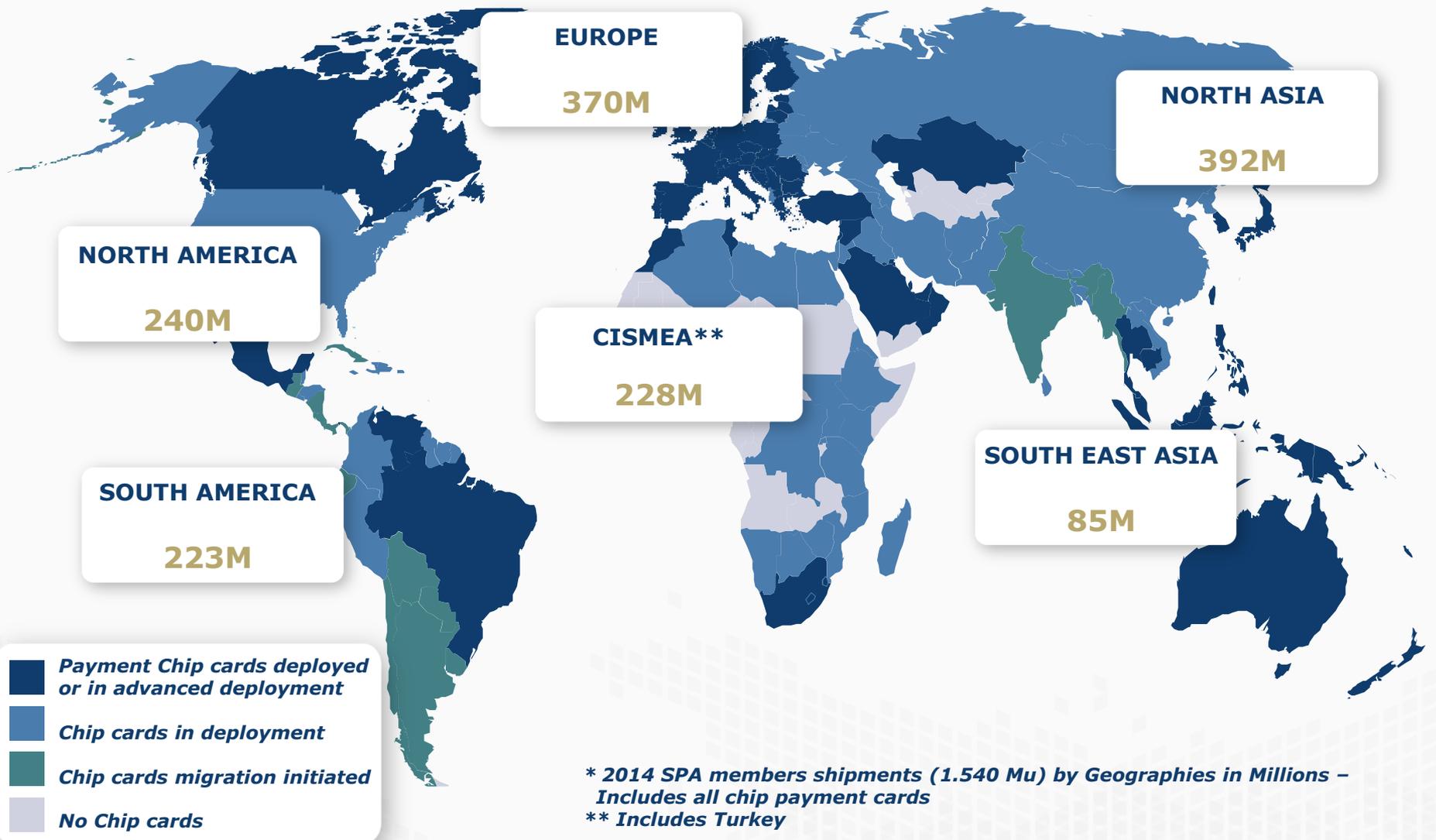
Specifications

Certification

Quality &
Manufacturing

Security

SPA shipments > 1.5 Billion units in 2014*

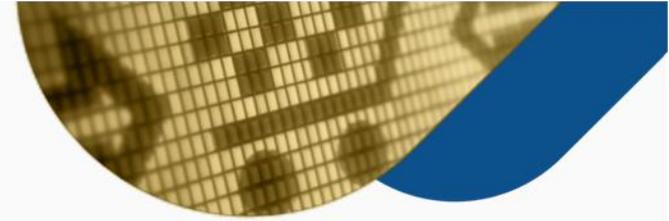


* 2014 SPA members shipments (1.540 Mu) by Geographies in Millions – Includes all chip payment cards
** Includes Turkey

- ▶ NEW! A COMPETITIVE MARKET FOR INTEROPERABLE MOBILE WALLETS
- ▶ How we will be paying in 2020
- ▶ Tokenization
- ▶ Cloud versus Card
- ▶ Biometrics for financial services
- ▶ Instant Issuance
- ▶ UICC Application Lifecycle Management
- ▶ Software to Chip Fallback Solution
- ▶ Security Certification for Mobile Platforms
- ▶ Security for Mobile Payments
- ▶ PIN by SMS
- ▶ Private Label Payment Solutions
- ▶ Business Continuity in the Payment Card Issuance Industry



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www.smartpaymentassociation.com



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1. Card-based technology will still be the dominant form factor

- ▶ Card technology remains the best compromise cost-security to sustain payments with global interoperability
- ▶ The « zero-fraud » experience for card present payments should be exported to the card-not-present domain
- ▶ Cards issued in different form factors will coexist and be used in separate contexts
- ▶ EMVCo Next Gen enables interoperability for contact, contactless and mobile contactless payments
- ▶ With the US move to smart card complete the overall picture
- ▶ For SEPA, « the Volume » issued by the EPC-CSG describes a whole range of payment cards services



2. Dematerialization of money will continue to progress

- ▶ Money is data that requires a strong security protection for storage and transmission
- ▶ Dematerialization of cash has been around since the late 80's with specific cryptographic mechanisms
- ▶ Experiences in the use of electronic money have not been conclusive despite a favourable legal framework
- ▶ Bitcoin is the first serious attempt to create a decentralized virtual currency
- ▶ But at the time where everything becomes digital, money will follow
- ▶ Issuance, acceptance, security and compensation in central bank money still requires a global solution and worldwide collaboration between regulators



3. Policymakers will play a more direct role in retail payment systems supervision

- ▶ After the 2008 crisis, growth has returned to the financial industry but additional controls are being put in place
- ▶ Policymakers have been adopting an increasing leadership position further monitoring retail payments practices
- ▶ Classical areas for intervention were fight against financial crime and controls for the stability of the financial system
- ▶ Retail payments were not considered as raising systemic risks but changes in the market structures and new technologies results in further supervision
- ▶ Central Banks are releasing security requirements to minimize risks of innovative payment methods
- ▶ Payment technology vendors are seeking for more collaboration with the central banks



4. Non-bank entrants in the retail payments market will stay and consolidate

- ▶ They already have a strong position in some markets in developing countries
- ▶ In developed countries they must offer payment products convenient, interoperable, safe and cheap
- ▶ They should gain access to clearing & settlement infrastructures to compete
- ▶ Internet and mobile payments, including P2P transactions, are privileged channels for incomers
- ▶ The PSD2 is intended to regulate access to customer bank accounts by a third party
- ▶ The knowledge of consumption patterns and customer solvability will boost new complex personalized services



5. Mobile wallets will constitute the bond between retailers and their customers

- ▶ Retailers will benefit from embedding loyalty cards in mobile wallets, offering program rewards
- ▶ The ability to collect huge amount of data will be at the core of the competition between different wallet implementations
- ▶ The wallet will constitute a privileged channel for retailers to advertise personalized products and services
- ▶ Wallet technology offerings will continue to co-exist until users decide which business model will dominate
- ▶ SPA is concerned with a “wallet war” leading to excessive market fragmentation
- ▶ The market will privilege m-wallets that are secure, easy to use & accepted in all of the places customers want to shop



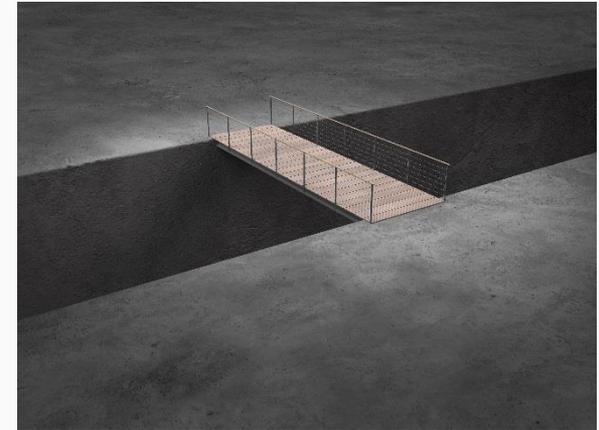
6. Commercial banks will retain the lead in the provisioning of payment services

- ▶ Customers are conservative to pay and banks core expertise is risk management
- ▶ Banks are still in the best position to issue and operate payment instruments minimizing users's risks
- ▶ Banks are under close monitoring by Central Banks and will only propose trusted payment products
- ▶ Banks are offering online services with a large customer acceptance
- ▶ Banks are already interconnected through payment networks and clearing & settlement facilities
- ▶ Banks become less physically visible and instead promote virtual services, but they will remain central in the retail payment market



7. Central and commercial banks will lead financial inclusion

- ▶ Mobile Operators have performed very well to offer convenient payment means to unbanked populations
- ▶ Even in these cases, the financial authorities are driving the process to supervise mobile payments
- ▶ The ultimate goal remain however the integration of unbanked populations in the financial system
- ▶ In this medium-term objective, banks will be playing a central role offering payment accounts accessed by mobile
- ▶ The collection of transferred funds, eg through cross-border mobile remittances will finance small credits
- ▶ This collaboration between MNOs and commercial banks under Central Bank supervision will gain momentum



8. Fraud patterns will be a moving target

- ▶ Smart card payment fraud has been minimized to almost zero worldwide
- ▶ Fraud patterns historically move to channels and payment instruments considered as vulnerable
- ▶ Interoperability of payments drives the need to harmonize best security practices for the whole payment chain
- ▶ In the reality migration towards more secure payment systems takes time and depends on market specificities
- ▶ Cyber security in the networked world requires harder countermeasures against threats, regularly re-evaluated
- ▶ Payment Service providers are likely to undergo "stress testing" to prove resistance to cyberattacks



9. The shared economy will drive mobile person-to-person payments

- ▶ Sharing economy is developing at pace, expected to grow to hundreds of billions of dollars by 2025
- ▶ Mobile technology enables P2P experience, and discovery of locally-based items to rent or services to provide
- ▶ Persons with shareable assets with a significant level of demand may become small business owners
- ▶ Mobile P2P applications will become a convenient way to transfer a limited amount of money
- ▶ Low or no transaction cost, immediate availability of funds for the payee , payer control and security are key
- ▶ Even if these payments may be largely local , ISO 12812 is standardizing mobile P2P to enable market growth



10. Interoperable real-time payment infrastructures will be the rule, not the exception

- ▶ The main advantage of the card for the retailer is that transaction authorization guarantees the payment
- ▶ The "be paid right now is better than later" principle is no doubt appealing.
- ▶ Immediate availability of funds is a second feature usually less important even if faster transfers are desirable
- ▶ Policymakers are examining the pro's and con's to promote « real time payments » or « almost-instant payments »
- ▶ The millennium generation has grown up in a real-time world and social networking; be paid immediately is "natural"
- ▶ Interoperable real-time payment infrastructures are likely to be the rule, even if this migration takes time



11. Mastering effective e-payment risk management will be a key strategic advantage

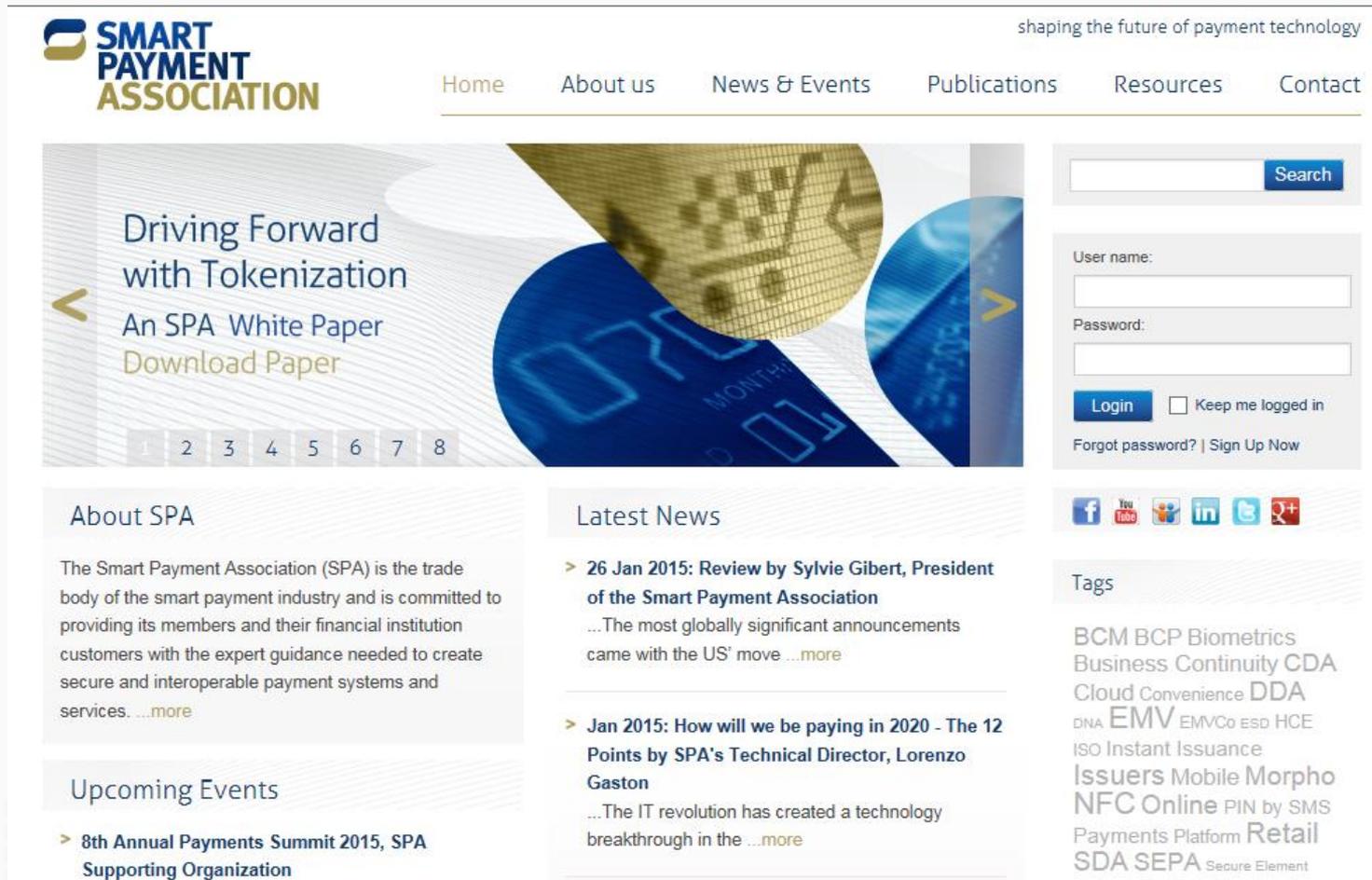
- ▶ Secure real -Time payments involves real-time risk management
- ▶ Transaction risk management requires to take into consideration many different parameters
- ▶ Real-time risk management will represent a challenge for non financial payment service providers
- ▶ A more interventionist policy by the regulators, in terms of processes to apply to manage risk may be expected
- ▶ The ability to anticipate requirements and deploy efficient risk management systems will differentiate
- ▶ Those succeeding will be taking an increasingly dominant position in the retail payments market



12. EMV next generation protocols will overcome their present drawbacks

- ▶ EMV protocols have been progressively solving different security threats in an efficient way
- ▶ This high level of security is to be exported to new vulnerable channels thanks to EMV Next Gen program
- ▶ One key feature of the EMV system is to provide evidence to the different entities to solve disputes
- ▶ This evidence is also to be provided in card not present acceptance contexts
- ▶ Mobile Technology such as Apple Pay enables to emulate a face-to-face EMV transaction in a mobile remote context
- ▶ The design and implementation of secure channels will further protect the customer right to privacy





The screenshot shows the homepage of the Smart Payment Association website. At the top left is the SPA logo. To its right is the tagline "shaping the future of payment technology". A navigation menu includes links for Home, About us, News & Events, Publications, Resources, and Contact. A large banner features a white paper titled "Driving Forward with Tokenization: An SPA White Paper" with a "Download Paper" button. Below the banner is a pagination bar with numbers 1 through 8. On the right side, there is a search bar and a login section with fields for "User name:" and "Password:", a "Login" button, and a "Keep me logged in" checkbox. Below the login section are social media icons for Facebook, YouTube, LinkedIn, and Twitter. A "Tags" section lists various payment-related terms such as BCM, BCP, Biometrics, Business Continuity, CDA, Cloud Convenience, DDA, DNA, EMV, EMVCo, ESD, HCE, ISO, Instant Issuance, Issuers, Mobile, Morpho, NFC, Online, PIN by SMS, Payments Platform, Retail, SDA, and SEPA.

Contact: info@smartpaymentassociation.com