

Mastercard Card Quality Management Overview

August 2022

Agenda

1 **Introduction**

2 **Audits**

3 **Labels**

4 **Process**

5 **Others**

Involved products:

- Mastercard EMV cards (ID-1 format)

Involved companies:

- Suppliers of the card vendors (chip, modules, inlays)
- Card manufacturers
- Personalization bureaus

Requirements:

- Quality management
- Product conformity
- Product quality

Methodology:

- Self-assessment controlled by on-site audits
- Corrective actions plan

CQM = Mastercard Card Quality Management

Interoperability

Conformity to physical, mechanical, magnetic, electrical, contactless requirements to meet interoperability with ATM and POS terminals.

Reliability

Resistance to mechanical, chemical, magnetic, ESD, aging stress.

Security

UV print, opacity, hologram, signature panel conformity.

Brand

Mastercard design rules conformity.

Environment

No toxicity.

For the manufacturer

- ✓ Cost reduction (less rework, less defects)
- ✓ Suppliers modular approach
- ✓ Bank tenders' compliance
- ✓ External independent view
- ✓ Corporate quality tool to support and control the remote sites

For the bank

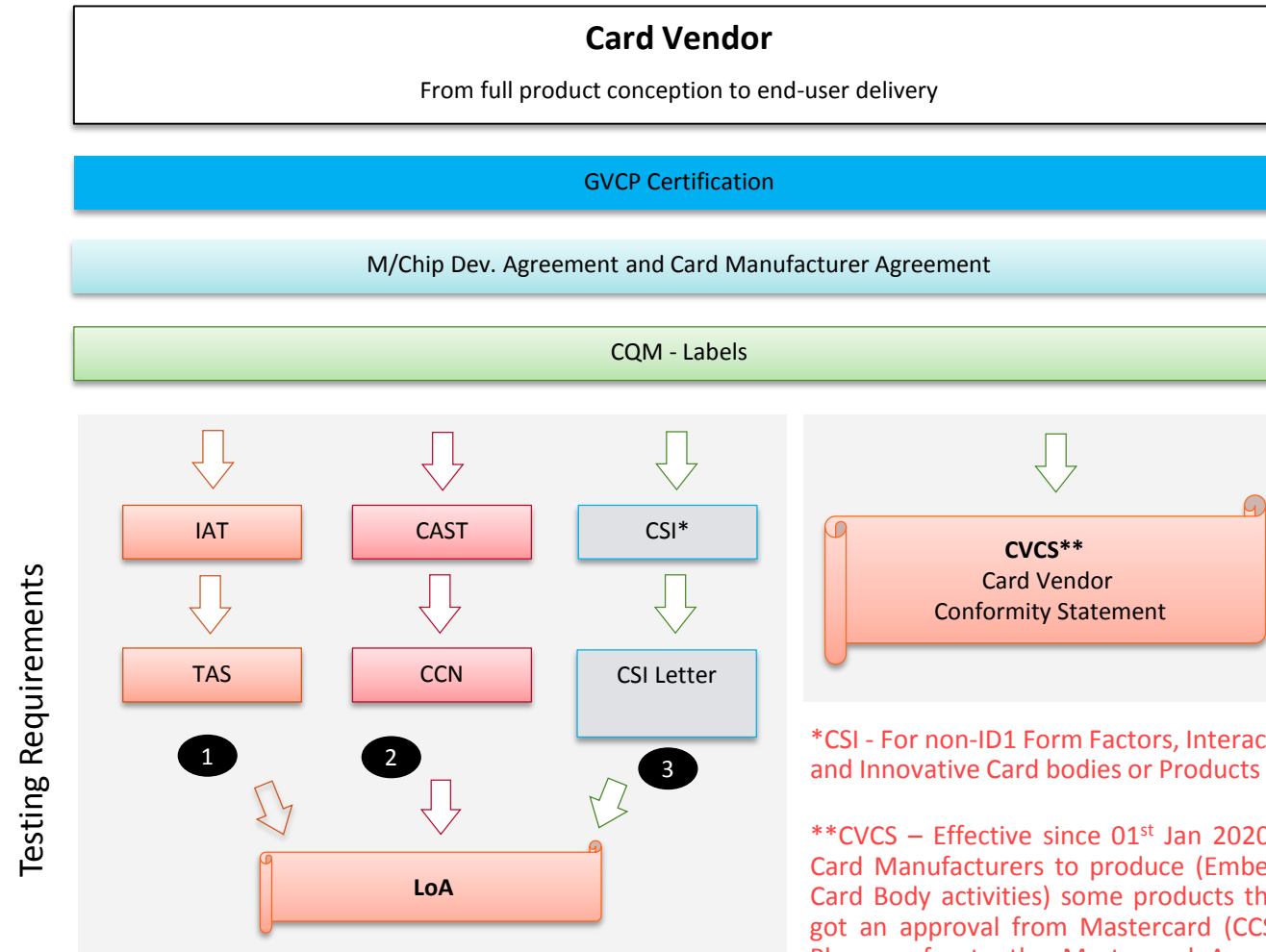
- ✓ EMV compliance
- ✓ Mastercard compliance
- ✓ Card-holder satisfaction
- ✓ Less card replacement

- Overview (this presentation)
- Process
- Registration Form
- List of accredited auditors
- Assessment Plan (quality questionnaire)
- Requirements specification
- Non Disclosure Agreement (NDA) template

*These documents are publicly available on: www.smart-consulting.com/card-quality-management/
Your documentation system shall point this CQM webpage to check last release of the documents.*

Mastercard Approval Overview

	Company Program	Product Program
Global Vendor Certification Program “Physical and Logical Security”	GVCP GVCP-helpdesk@mastercard.com	
Brand and Card Design Rules		Card Design card_design@mastercard.com
Card Structure Integrity and security “Innovative form factors or card bodies”		CSI CSI_Security@mastercard.com
Card Quality Management	CQM cqm@smart-consulting.com	
Compliance And Security Testing		CAST cast@mastercard.com
Interface Security Testing “Functional and RF testing”		IAT chip_certification_chd@mastercard.com



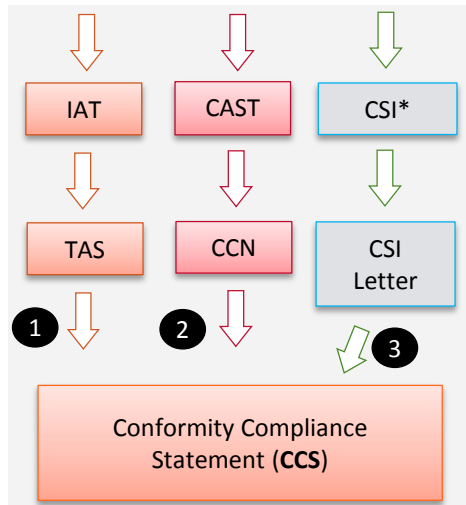
*CSI - For non-ID1 Form Factors, Interactive and Innovative Card bodies or Products

**CVCS – Effective since 01st Jan 2020, it allows Card Manufacturers to produce (Embedding and Card Body activities) some products that already got an approval from Mastercard (CCS or LOA). Please refer to the Mastercard Announcement AN_3253

Module Supplier
Chip + Operating System
+ Payment App

M/Chip Dev. Agreement

CQM - Labels

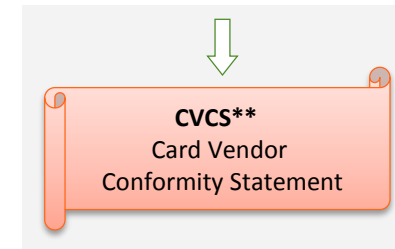
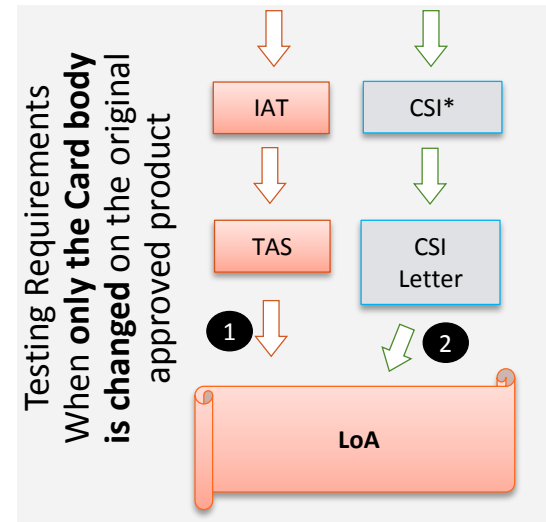


Card Supplier
End-user product manufacturing and delivery based on an approved 'Module + Inlay'

GVCP

Card Manufacturer and OEM Agreement

CQM - Labels



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Accredited Auditors



Updated list is available to www.smart-consulting.com/card-quality-management/

- ✓ **Major non-conformity**
Product functionality might be compromised leading to potential field rejects.
- ✓ **Minor non-conformity**
Others
- ✓ **Recommendation**
Identified issue that should be resolved to reduce the risk of NC. Auditor leaves the decision to the vendor if the vendor wants to resolve/implement it

Grade	Explanation	Due Action Plan Completion	Next audit
A	Pass with limited number of minor NC*		< 3 years
B	Pass with limited number of major NC*	< 4 months	< 2 years
C	Interim Pass	< 4 months	< 1 year
D	Fail	ASAP	ASAP

Starting from the 3rd audit per site, a C grade will lead to a FAIL (decertification)

** NC stands for Non-Conformity*

On-site audits might be replaced by remote audits upon Smart Consulting authorization in case of:

- Travel restrictions (pandemics...)
- Danger to the auditor (war, ...)
- Auditor's visa rejection

A specific remote audit process is defined.

- Available from the auditor on request

Initial remote audit grade cannot be higher than C.

Audit Timeline

Owner	Recipients	Deadline
Auditee	Registration to Smart Consulting	
Auditee + Auditor	Audit Agreement Auditee + Auditor	
Auditee	Audit Preparation to Auditor	2 weeks before the Audit (*)
Auditor	Audit	
Auditee	Action Plan to Auditor	2 weeks after the Audit (*)
Auditor	Final Audit Report to Smart Consulting and Auditee	4 weeks after Audit End
Smart Consulting	Audit Report Assessment to Auditee and Auditor	5 weeks after Final Audit Report
Auditee	Action Plan Completion to Auditor	17 weeks after Audit End (*)
Auditor	Action Plan Completion Report to Smart Consulting and Auditee	19 weeks after Audit End
Smart Consulting	Action Plan Completion Report Assessment to Auditee and Auditor	2 weeks after Action Plan Completion Report

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1 **Introduction**

2 **Audits**

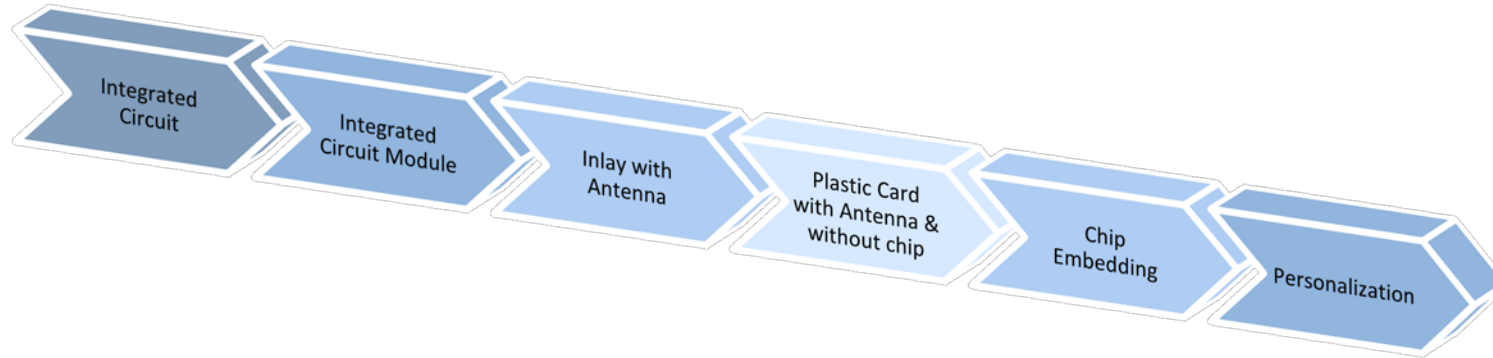
3 **Labels**

4 **Process**

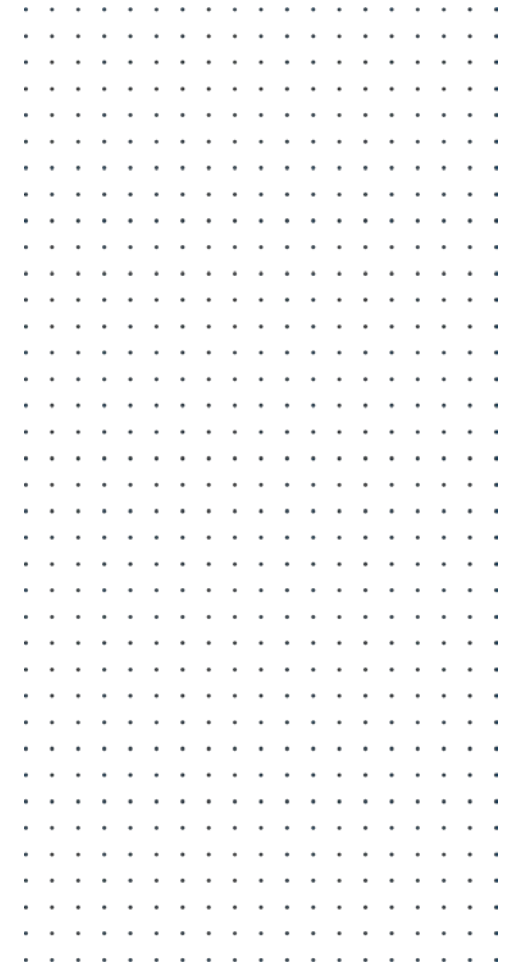
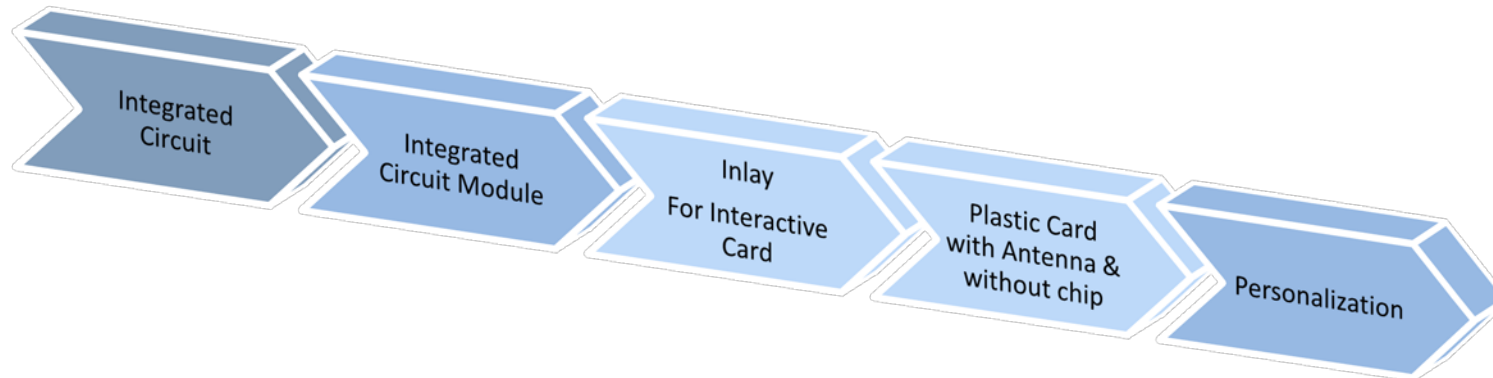
5 **Others**

Manufacturing Flows

Classic Card



Interactive Card



Recognition

CQM Recognition is a 6 months max interim period aimed

- for companies starting the CQM process
- for a new activity started by a CQM certified company

The interim labels are granted to start production until the CQM audit. The assessment plan shall be communicated to both the auditor and Smart Consulting.

Approval

CQM Approval is the step achieved when the audit pass recommendation is confirmed.

Label = CQM Identifier

Labels are granted to a CQM certified company, to identify their certified activity, in a given site.

CQM label structure is “ACCLTTTTS” where:

- A = Activity of manufacturing
- CC = Company
- LL = Location of the manufacturing site
- TTTT = Interface Technology (Contact, Dual, Contactless)
- S = Status (R:interim label for Recognition, A:label for Approval)



Card Quality Management Statement of Quality

Specimen Cards Ltd

Having its principal place of business at

Tokyo bd, 155
9871 Taipei, TAIWAN

has submitted for approval by Mastercard a number of Smart Cards Products and Services in conformity with the Mastercard Card Quality Management (CQM) Requirements. The following CQM labels have been granted.

Site's Country	Site's city	IC		IC Module		Inlays	InterActive Card Inlay		Card Body		InterActive Card		IC Card		Card Personalization	
		Contact-only	Dual	Contact-only	Dual	Dual	Contact-only	Dual	Contact-only	Dual	Contact-only	Dual	Contact-only	Dual	Contact-only	Dual

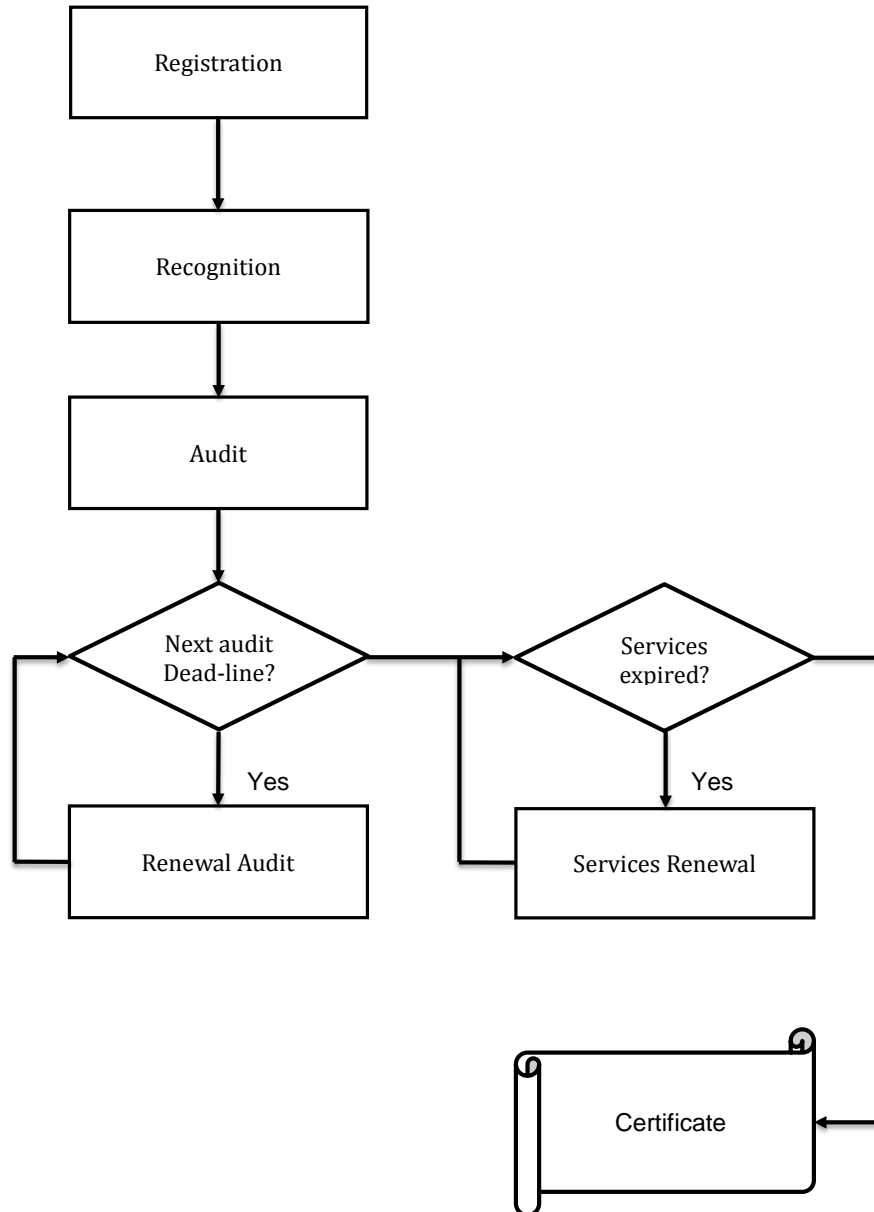
Mastercard
Enterprise Security Solutions
EMV & Digital Devices

This letter is valid until May 28, 2019

Bruno Parfum
Product Approvals Director

Page 1 of 3

The certificate is listing the labels granted to all the sites of a company.



Refer to Process document available to www.smart-consulting.com/card-quality-management/

Newcomer

- ✓ To register immediately for CQM recognition together with Mastercard GVCP registration in order to gain time.
- CQM labels require the related GVCP certification for card manufacturers or perso bureaus

Already Certified

- ✓ The audit date shall be initiated by the auditee directly with the auditor taken into account
 - The last audit acknowledgement issued by Smart Consulting
 - The auditor availability in the region
- ✓ Pay the CQM yearly fees 60 days before the certificate expiration date.
- ✓ Notify changes in real time:
 - new primary contact
 - new location
 - new workshops

Contact the soonest cqm@smart-consulting.com

Certificate is granted after

- All due audit(s) report(s) are received
- All due corrective actions are completed for audits older than 4 months
- Next 12 months audit(s) schedule is agreed by Smart Consulting
- Annual fees are paid to Smart Consulting

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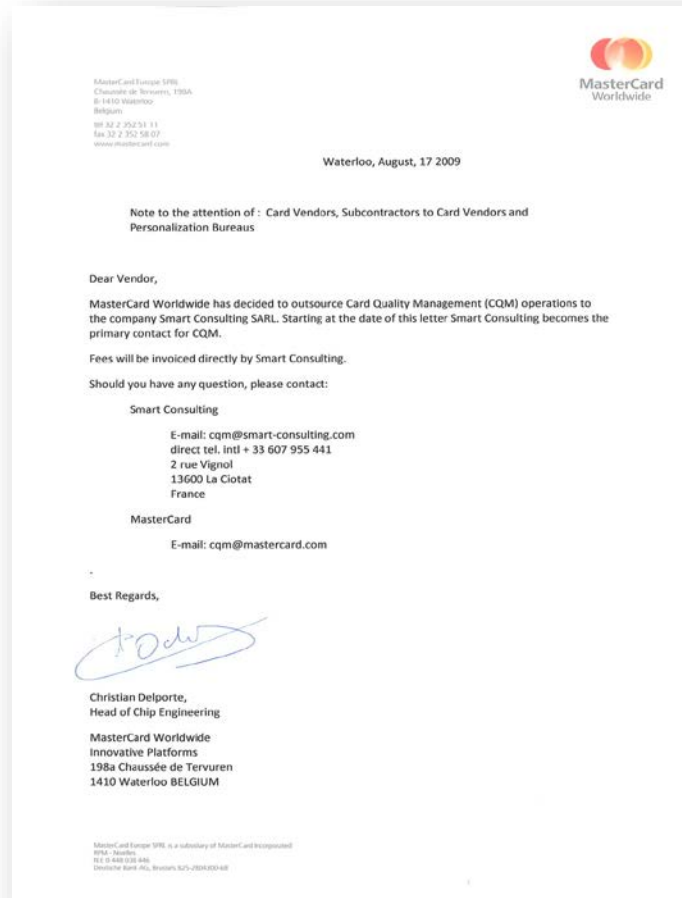
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Mastercard CQM Operations & Pricing



The CQM scheme is owned by Mastercard

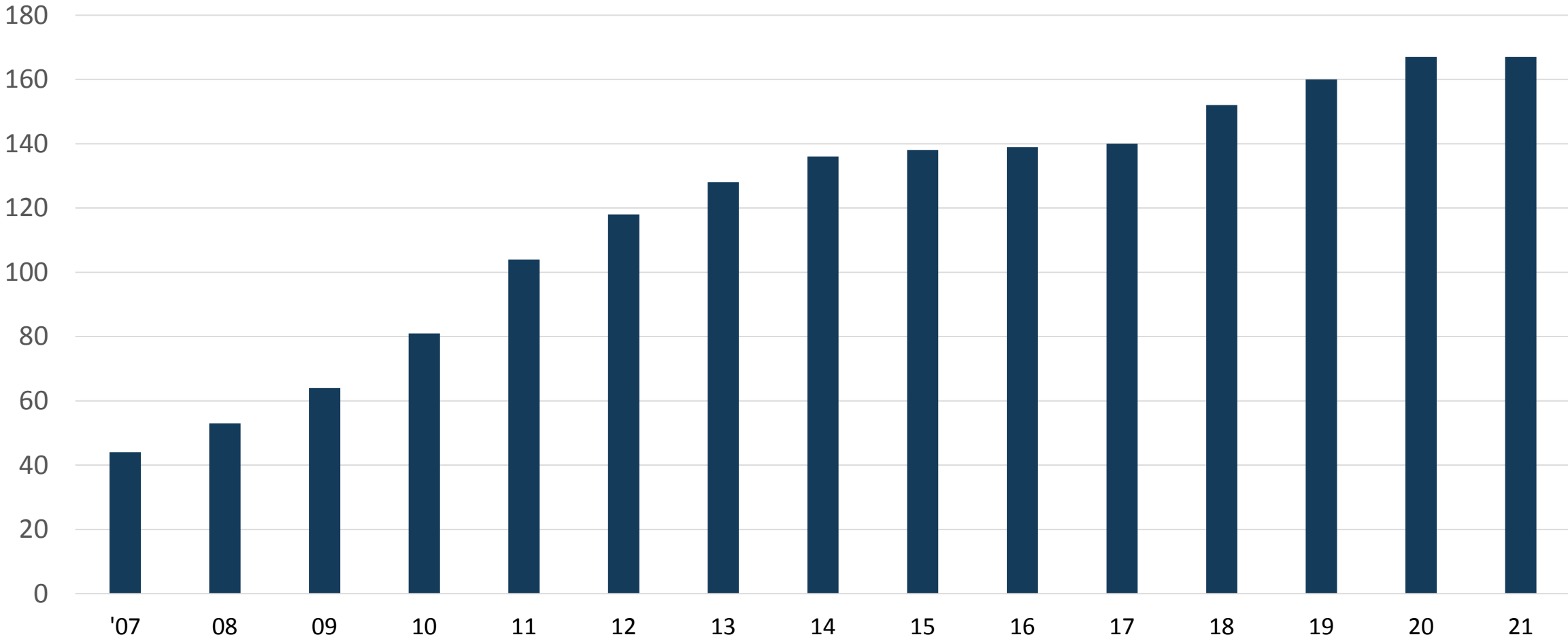
The CQM operations are performed by Smart Consulting

	Auditor	Smart Consulting
Prices	~ 1500€ per day + Travel & Expenses	1040€ annual fees (*) + 590€ per activity (*)
Payment term (new candidates)	Defined by the auditor	60 days after CQM offer date
Payment term (already certified)	Defined by the auditor	60 days before certificate birthday

(*) = tariff for year 2022
Subject to yearly inflation rate adjustment
Non negotiable

CQM Certification Trend

Number of certified companies over years



Mastercard mandates CQM

- worldwide
- for all Mastercard EMV cards with ID1 format
- for every GVCP certified site belonging to the same group of companies

Increasing numbers of bank tenders are mandating CQM

CQM certified companies list is public

- refer to Mastercard GVCP Vendors list
- updated by Mastercard GVCP every month
- available to Mastercard web site

Mastercard Sources: Product Approval Process Guide / GVCP Security Bulletin

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www.smart-consulting.com/card-quality-management



LinkedIn

Thank you!