



eSIM Compliance Report 2024

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1.0

Executive Summary

By combining functional and security certification of the software, hardware, and site elements as well as the platform of the eSIM ecosystem, undertaken by trusted organisations and GSMA security partners, the GSMA eSIM Compliance Process verifies the quality of the eSIM products and authorises the issuance of digital certificates so that GSMA-certified eSIM products can securely interact once on the market.

Each year, GSMA certifies a high volume of eSIM products including eUICC, SM platforms and eSIM device models. This report is an analysis of the GSMA's eSIM product certifications listing, which provides insight into current trends in the

eSIM Consumer, M2M and IoT markets as well as some conclusions and brief information on the likely trends into 2025.

Abbreviations:

ABBREVIATION	DESCRIPTION
CI	Certificate Issuer
eSA	eUICC Security Assurance
eSIM	Embedded SIM
eUICCs	Embedded Universal Integrated Circuit Card
IoT	Internet of Things
M2M	Machine to Machine
PKI	Public Key Infrastructure
SM	Subscription Manager
SM-DP	Subscription Manager Data Preparation
SM-DP+	Subscription Manager Data Preparation+
SM-DS	Subscription Manager Discovery Server
SM-SR	Subscription Manager Secure Routing

2.0

What is eSIM Compliance Process

Recognising the need to demonstrate eSIM product compliance to technical specifications in a common accessible way, the GSMA developed back in 2017 a compliance framework for eSIM capable Devices, eUICCs and Subscription Management servers.

The GSMA Industry Specifications SGP.24 for eSIM Consumer and IoT Products and SGP.16 for eSIM M2M Products detail the compliance requirements, and expected means to demonstrate compliance, for products designed to the eSIM Consumer, M2M and IoT specifications. These industry specifications provide declaration templates to be completed and submitted by product manufacturers, developers, and service providers to GSMA once an eSIM product has proven its functionality, security and robustness via the indicated functional and security certification programs, software and hardware certification, interoperability, and other required elements.



3.0

eSIM Compliance Process Overview

The compliance requirements focus on security assurance, functionality, and interoperability. The result of a successful SGP.24 (Consumer and IoT Products) and SGP.16 (M2M products) declaration of compliance is a recognised achievement plus eligibility to use an eSIM digital certificate (PKI). This is used for authentication between eUICCs and eSIM Subscription Management servers (SM-DP+ and SM-DS) once in the field.

The eSIM Compliance Process overview is as follows (example for eUICC product) :



4.0

eSIM Compliance Products

GSMA certified eSIM Products are listed on the eSIM Compliance database accessible to GSMA members on the GSMA Member Gateway Platform.

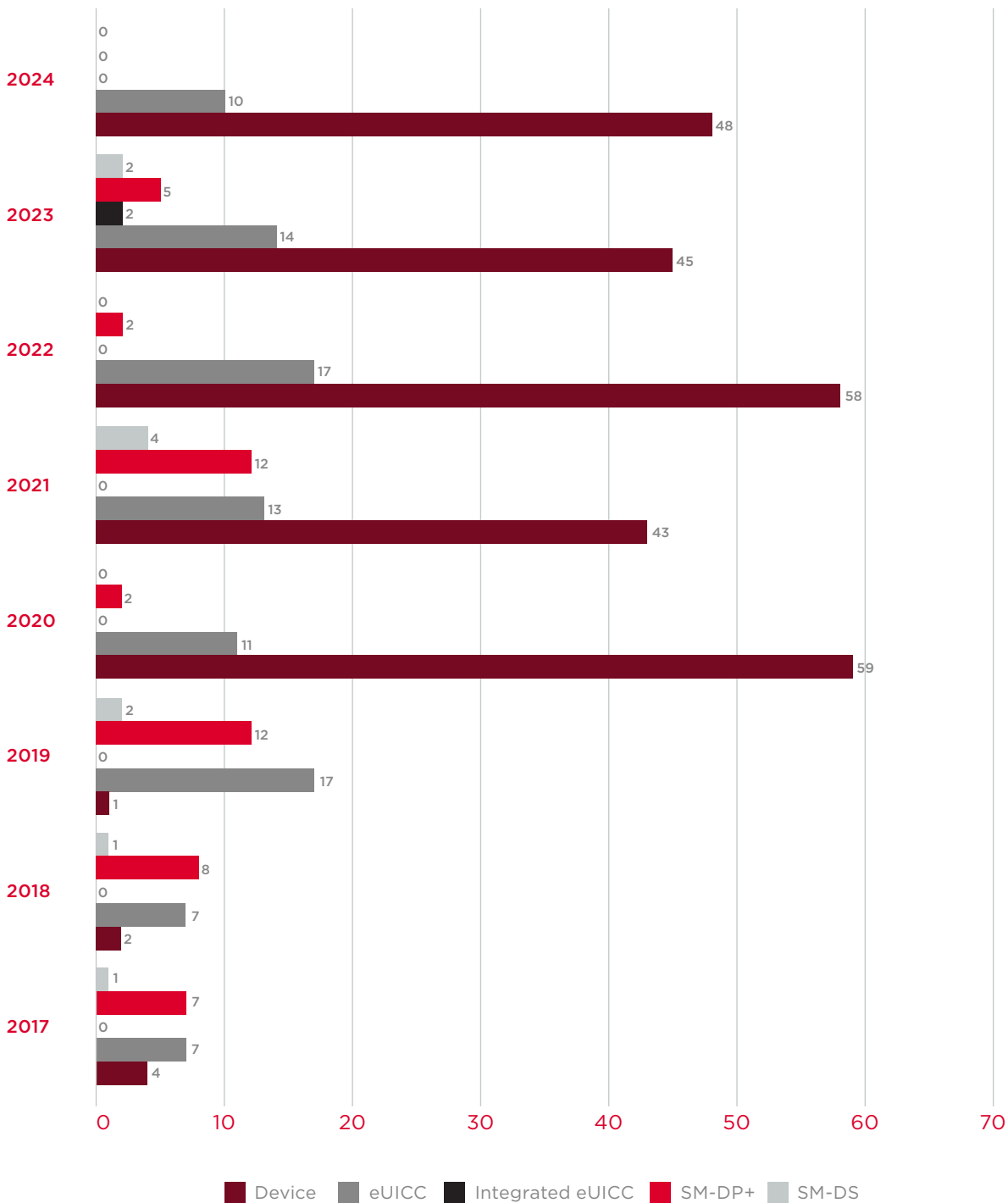
The statistics presented in this report represents the number of eSIM Consumer Products (Devices ,eUICCs, SM Servers) that have declared compliance against the GSMA Compliance Process for Consumer and IoT (SGP.24) and M2M (SGP.16) between 2017 and 2024.



Consumer eSIM Products

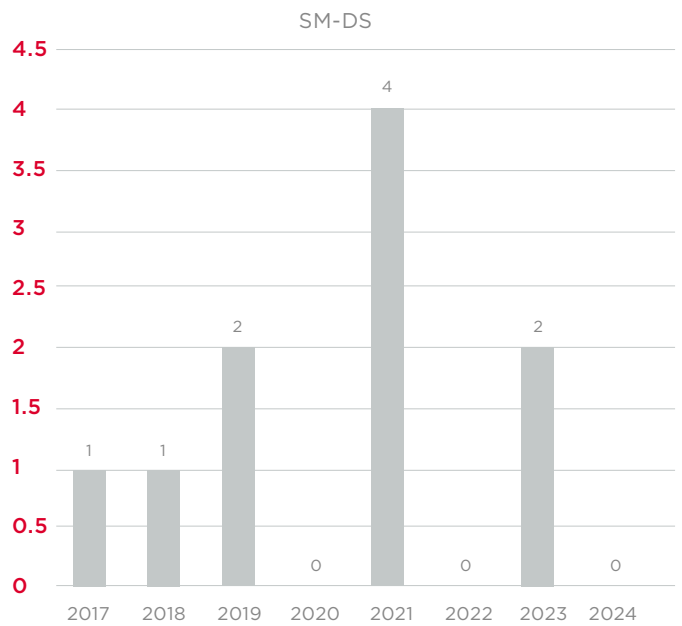
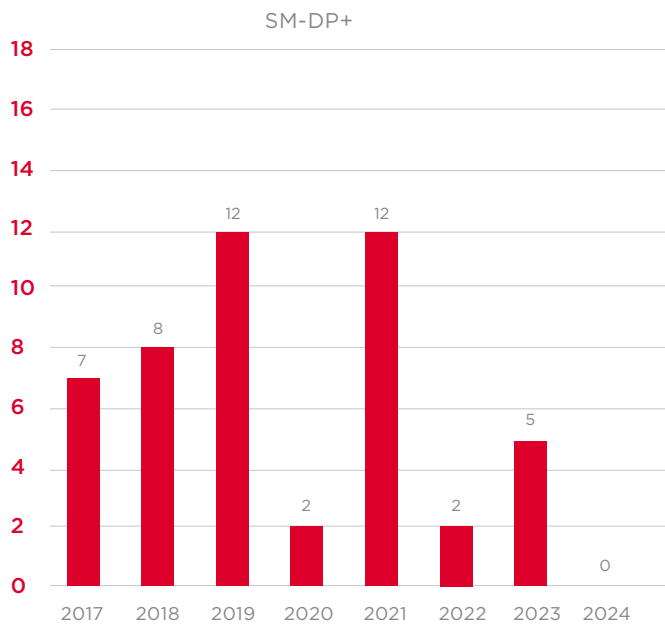
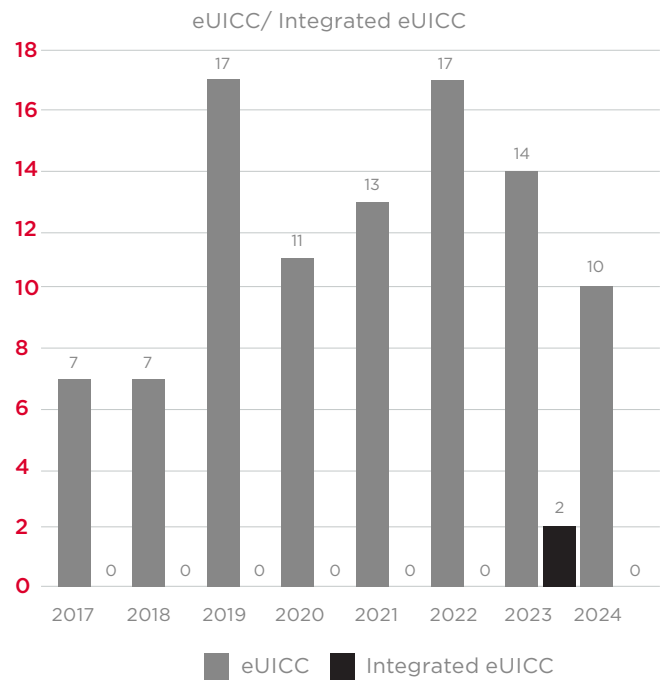
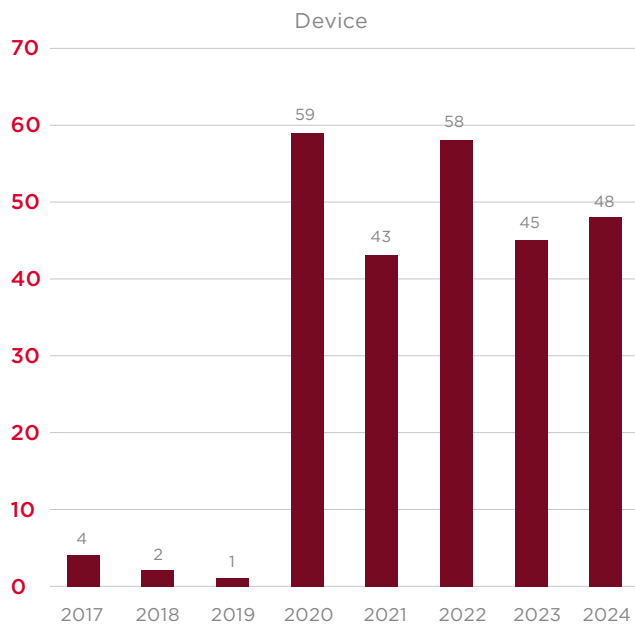
4.1 eSIM Certified Products Per Year

The below graph illustrates the total number of eSIM products declared to GSMA from 2017 to 2024 of all eSIM Consumer product types: Devices, eUICC, Integrated eUICC, SM-DP+ and SM-DS.



4.2 eSIM Certified Products Per Type

Divided by product type, the below graphs illustrates the number of GSMA eSIM Consumer products declared to GSMA from 2017 to 2024.

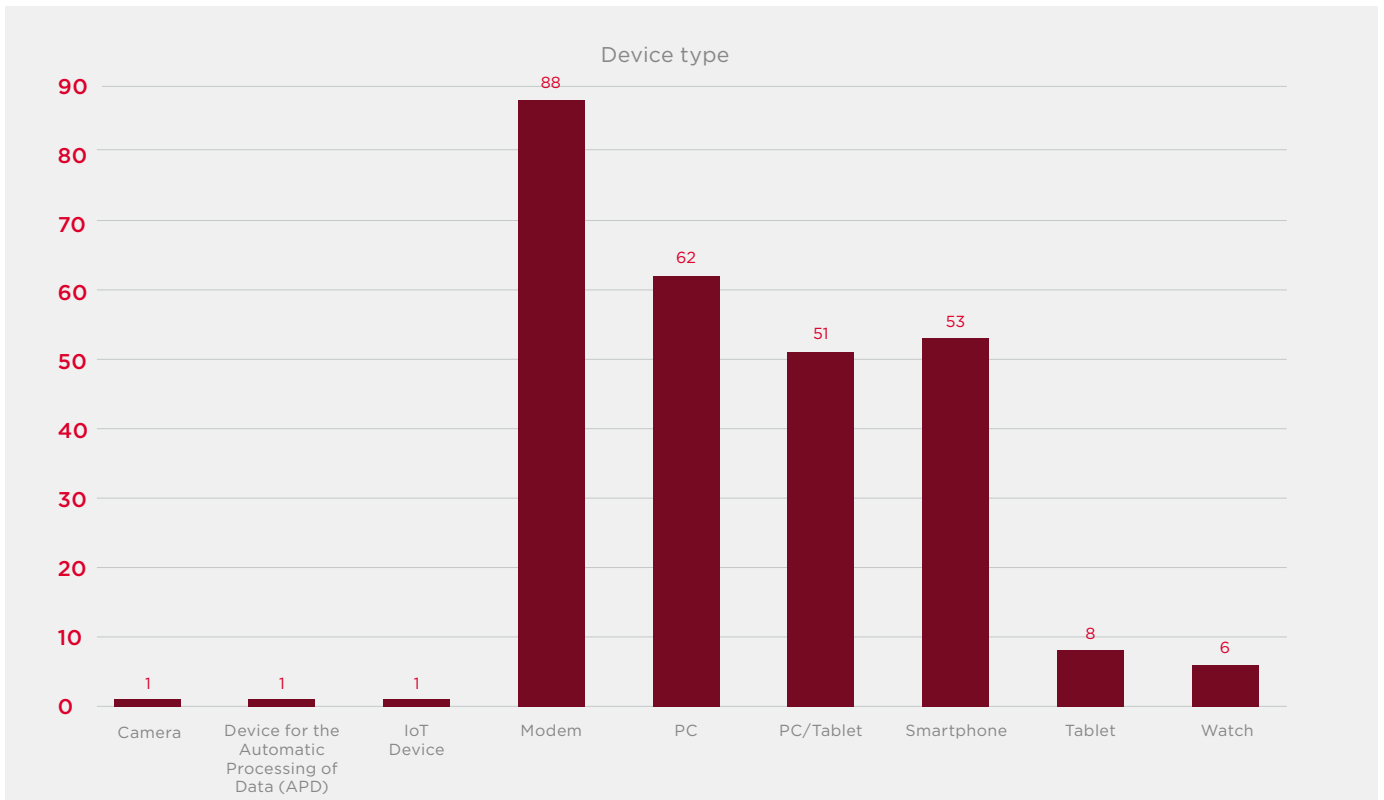


This data can also be visualised in a table as follows:

PRODUCT TYPE	2017	2018	2019	2020	2021	2022	2023	2024	TOTAL
Device	4	2	1	59	43	58	45	48	260
eUICC	7	7	17	11	13	17	14	10	96
Integrated	0	0	0	0	0	0	2	0	2
SM-DP+	7	8	12	2	12	2	5	0	48
SM-DS	1	1	2	0	4	0	2	0	10
No. of individual companies	6	7	6	9	7	9	3	2	49

4.3 eSIM Device Product Types

Focusing on the eSIM device products declared to GSMA from 2017 to 2024 this chart shows that the most declared eSIM device products are PC, modems, tablets and smartphones.

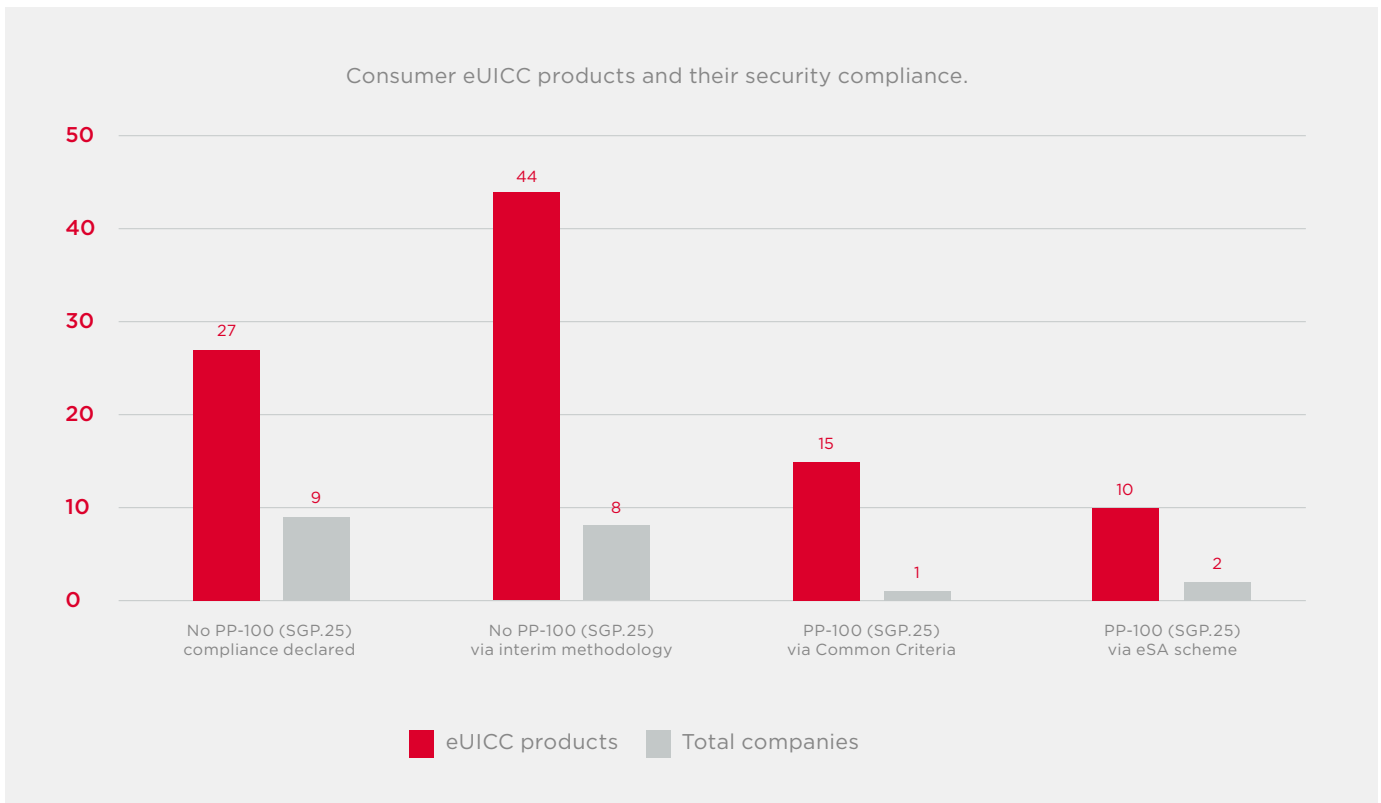


4.4 Software Security on eUICC Products

The software security requirement within the eSIM Compliance Process mandates that the GSMA Consumer and IoT Protection Profile (Common Criteria PP-0100/SGP.25) needs to be fulfilled. Over the years, GSMA allowed 4 methodologies to demonstrate this software security requirement:

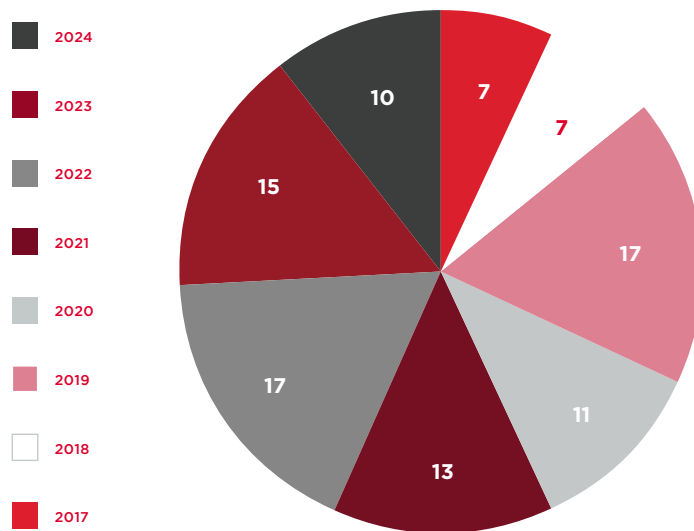
1. No compliance declared (early adopters)
2. eUICC Statement of Security Evaluation Completion (interim methodology solution)
3. Common Criteria Certification
4. eSA scheme certification

Only options 3 and 4 are now possible but the following statistics indicates the number of Consumer eUICC products certified with each of these methodologies:



	eUICC PRODUCTS	TOTAL COMPANIES
No PP-100 (SGP.25) compliance declared	27	9
PP-100 (SGP.25) via Interim Methodology	44	8
PP-100 (SGP.25) via Common Criteria	15	1
PP-100 (SGP.25) via eSA Scheme	10	2

Number of eUICC



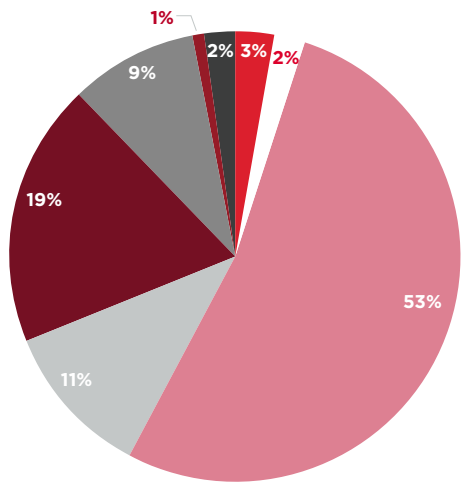
4.5 eSIM Consumer Specification

There are several consumer specification published for the requirements, technical, testing, and compliance specifications. Each of these releases were developed based on a set of use cases required by the industry. The GSMA

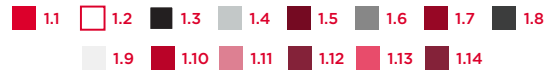
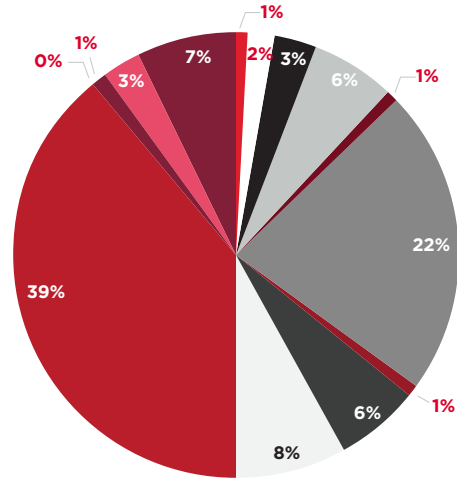
eSIM Consumer certified products are based on a variety of them, reflecting the need of the market to develop the most up to date specification.

The below charts show the percentage of products developed based on each of them:

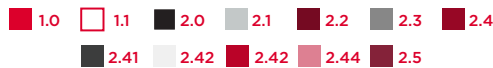
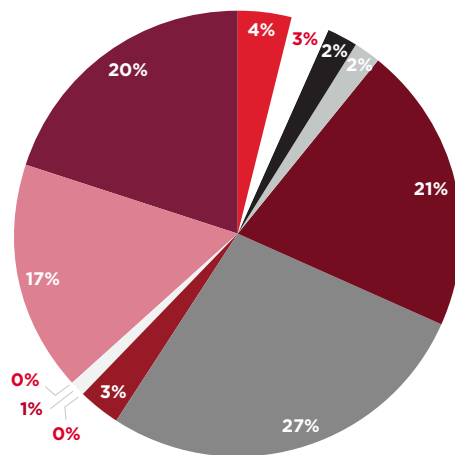
SGP.21/22 Versions



SGP.23 Versions



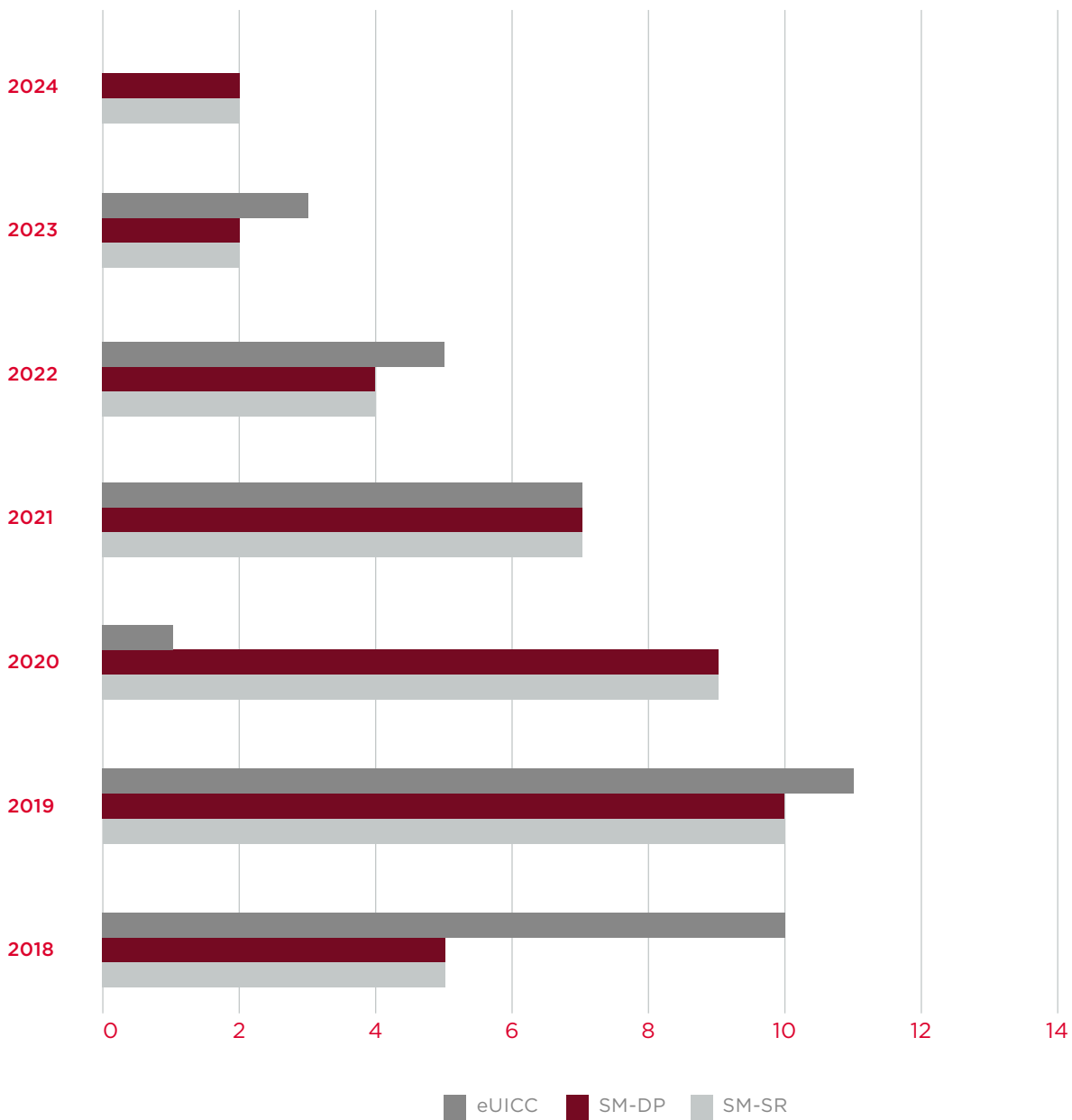
SGP.24 Version



M2M eSIM Products

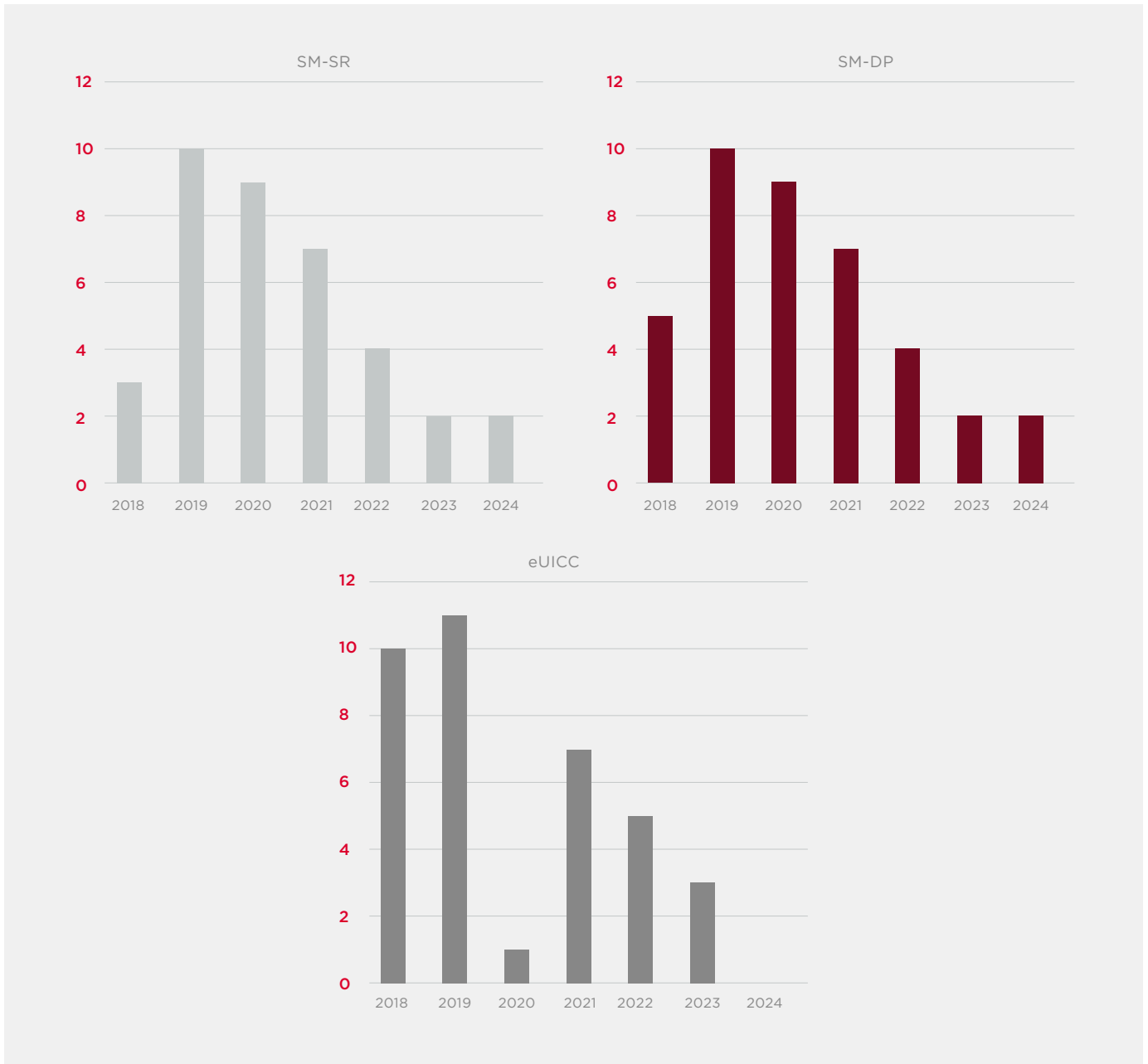
4.6 eSIM Certified Products Per Year

The below graph illustrates the total number of eSIM products declared to GSMA from 2018 to 2024 of all eSIM M2M product types: eUICC, SM-DP and SM-SR.



4.7 eSIM Certified Products Per Type

Divided by product type, the below graph illustrates the number of GSMA eSIM M2M products declared to GSMA from 2018 to 2024.



This data can also be visualised in a table as follows:

PRODUCT TYPE	2018	2019	2020	2021	2022	2023	2024	TOTAL
eUICC	10	11	1	7	5	3	0	37
SM-DP	5	10	9	7	4	2	2	39
SM-SR	5	10	9	7	4	2	3	37
No. of new companies	8	6	5	3	4	1	1	28

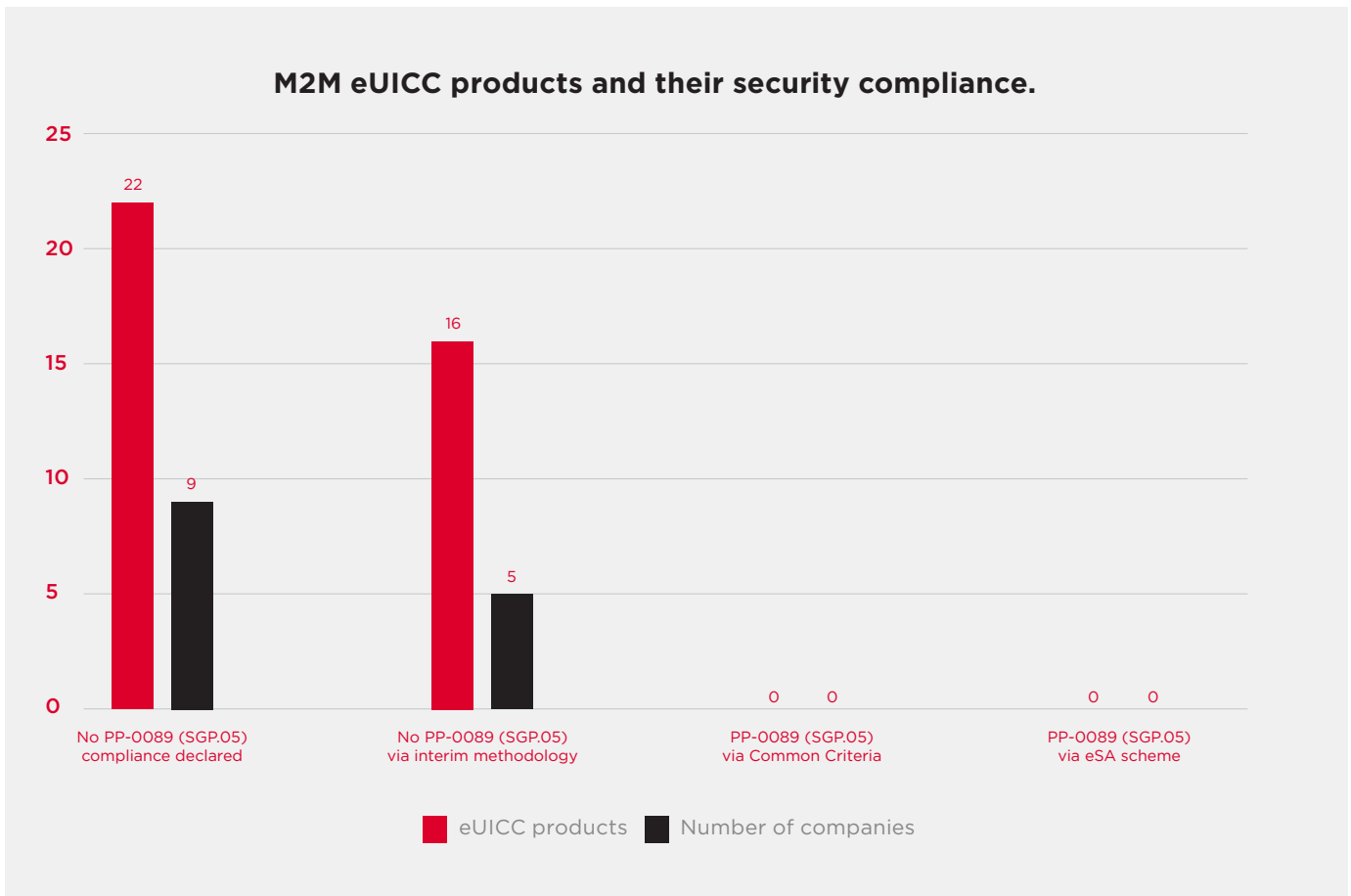


4.8 Software Security on eUICC Products

The software security requirement within the eSIM Compliance Process mandates that the GSMA M2M Protection Profile (Common Criteria PP-0089/SGP.05) needs to be fulfilled. Over the years GSMA allowed 4 methodologies to demonstrate this Software Security Requirement:

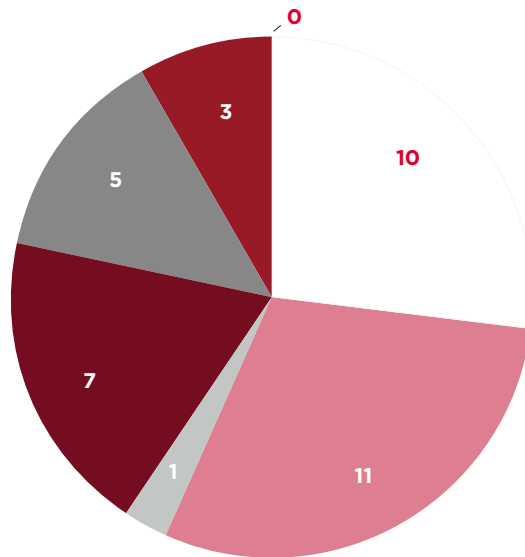
1. No compliance declared (early adopters)
2. eUICC Statement of Security Evaluation Completion (Interim solution)
3. Common Criteria Certification
4. eSA scheme certification

Only options 3 and 4 are now possible but the following statistics indicates the number of M2M eUICC products certified with each of these methodologies:



	eUICC PRODUCTS	TOTAL COMPANIES
No PP-0089 (SGP.05) Compliance Declared	22	9
PP-0089 (SGP.05) via interim methodology	16	5
PP-0089 (SGP.05) via Common Criteria	0	0
PP-0089 (SGP.05) via eSA scheme	0	0

Number of eUICCs

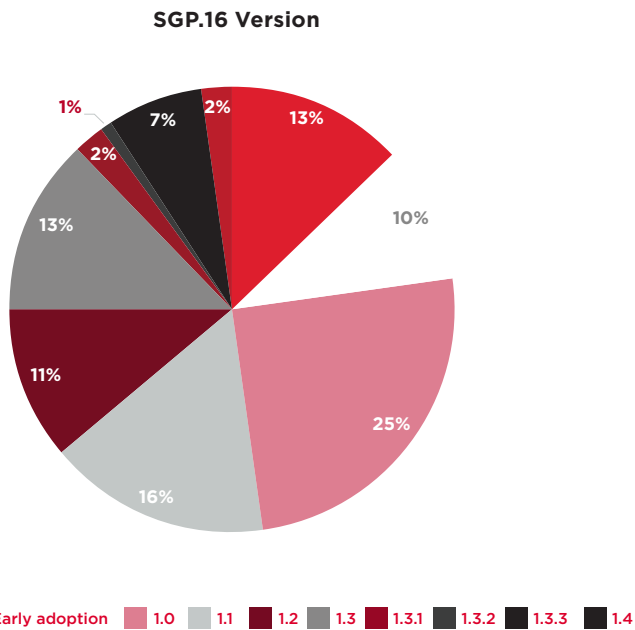
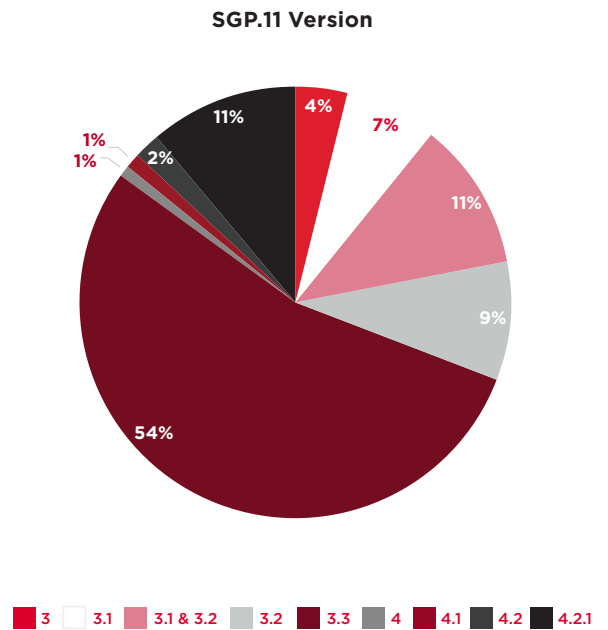
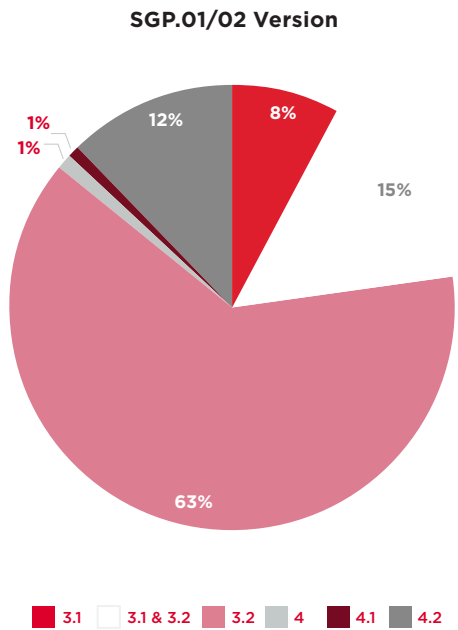


4.9 eSIM M2M Specification Versions

There are several M2M specifications published for the requirements, technical, testing, and compliance. Each of these releases were developed based on a set of use cases required by the industry. The GSMA eSIM M2M certified products

are based on a variety of them, reflecting the need of the market to develop the most up to date specification.

The below charts show the percentage of products developed based on each of them:





5.0

eSA Scheme Certified Products

eSA stands for eUICC Security Assurance and the eSA scheme is GSMA’s security scheme for the certification of the eUICC software. The eSA scheme sets out these universal security certificate for all software developers, based on the Common Criteria approach. Yet crucially, it’s more condensed – making it faster and more efficient for the dynamic product that eUICC is.

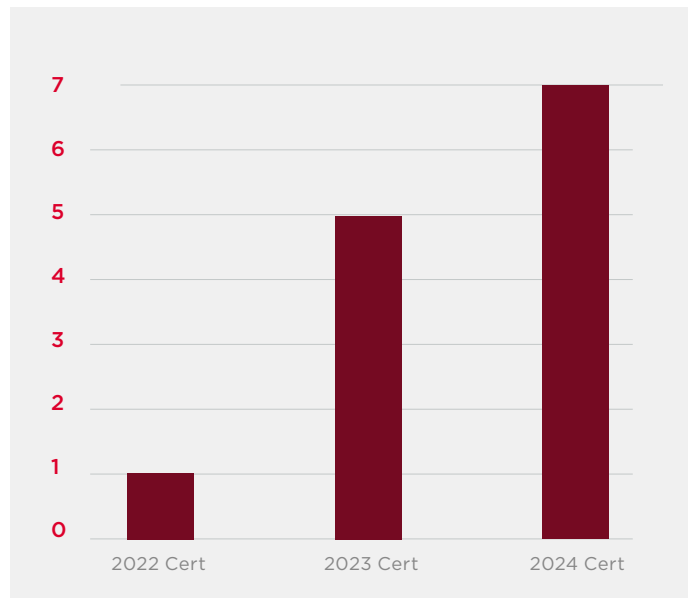
This scheme is characterised for:

- Being universally recognised
- Providing security robustness
- Being a fast and efficient service
- Driving security improvement
- Being independently valued
- Meeting the industry security needs

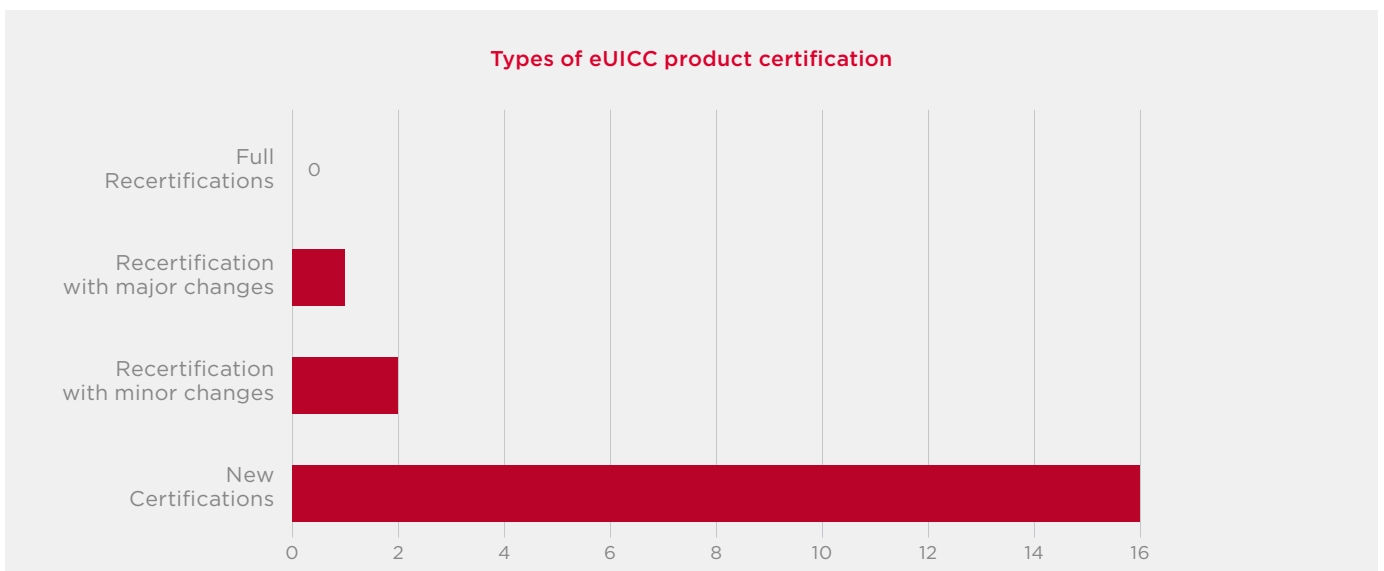
The eSA Scheme is, one of the two acceptable methods to demonstrate eUICC software security to GSMA. Since its launch in 2021 a number of eUICCs have been certified each year, as illustrated in the graph opposite.

The number of eUICC products certified by the eSA scheme include both new and recertified eUICC products as follows:

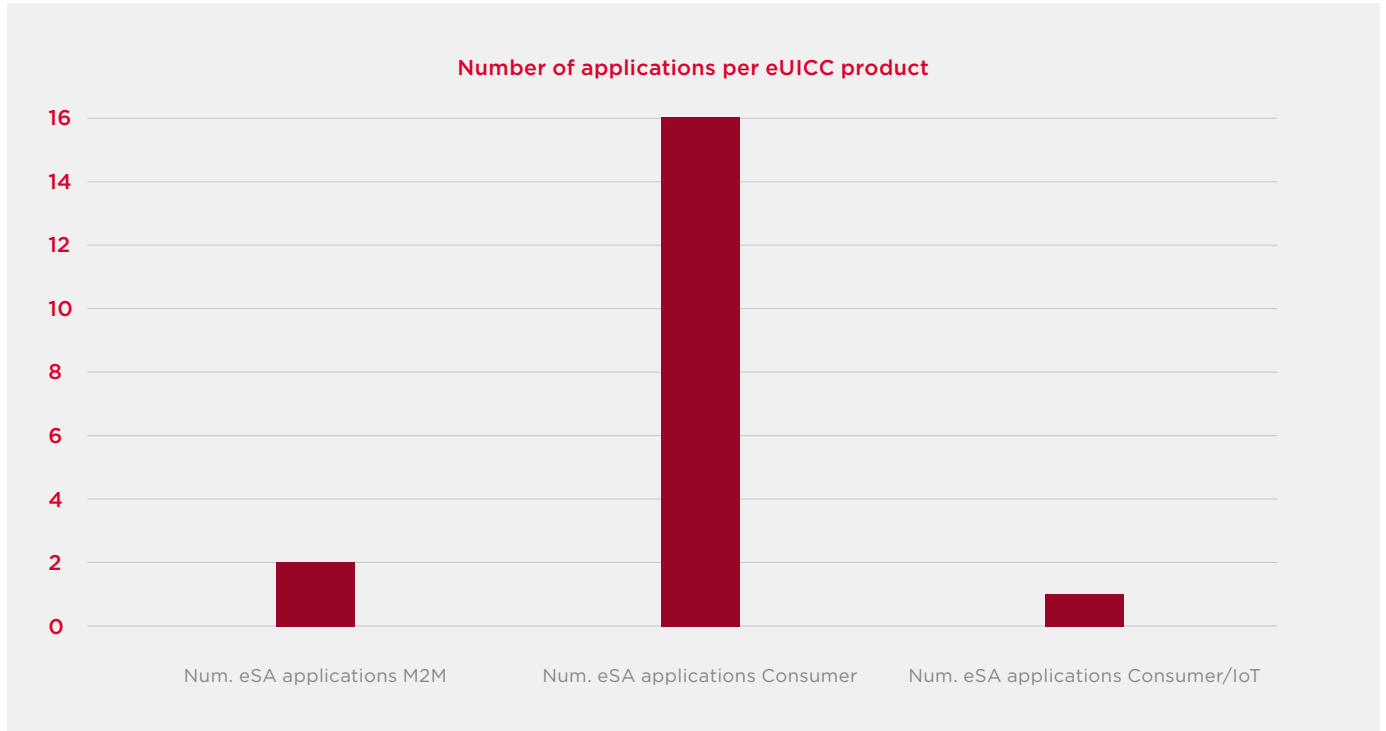
Certifications per Year



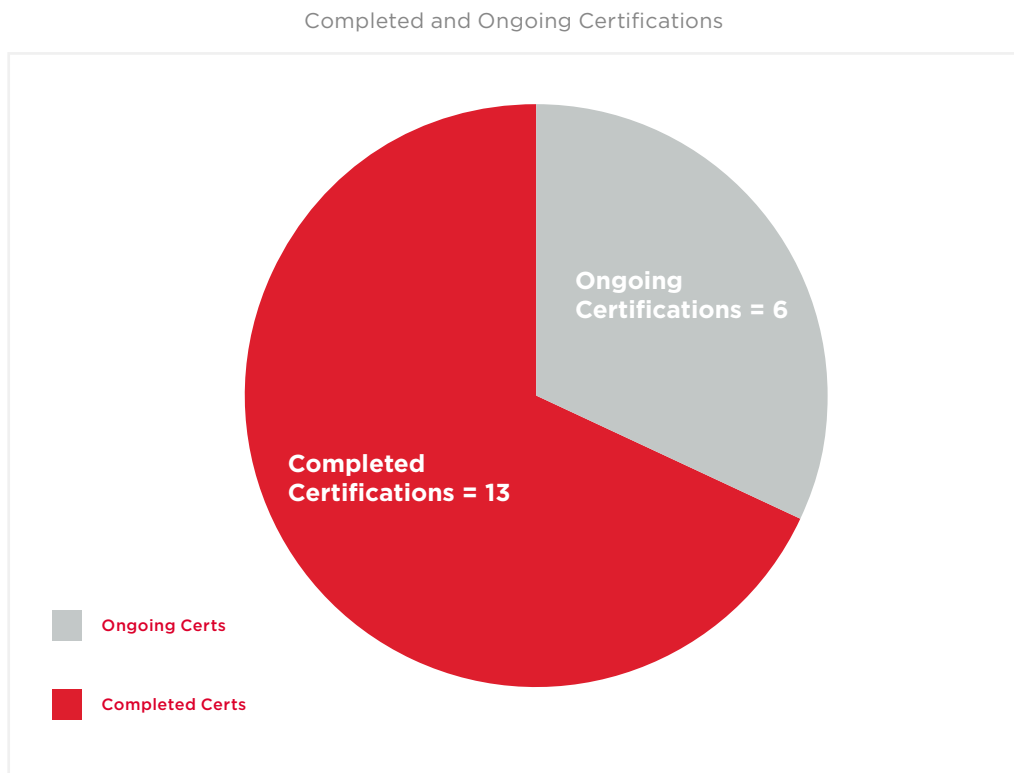
Types of eUICC product certification



The scheme is applicable to eUICC products developed for M2M, Consumer and Consumer/IoT and the total number of eUICC products certified for each are:



The number of completed and ongoing eUICC certifications is illustrated in the pie chart below:



For more information on the eUICC certified products using the eSA Scheme you can check the available list [HERE](#).

6.0

Conclusions

In an ever-changing mobile ecosystem embracing new SIM connectivity such as eSIM, the GSMA eSIM Compliance Process provides the means of ensuring that eSIM products satisfy the industry needs for secure and robust solutions based on industry recognised certifications. This guarantees that eSIM products will interoperate correctly with different networks, eSIM devices and meet the quality expectations of the mobile industry and end users.

GSMA will continue to improve its range of processes and services to help the mobile industry achieve its goals and expectations for security and compliance of its products.

Follow [GSMA Industry Services](#) for more information.

Related Information

- [eSA Scheme](#)
- [eSIM Consumer Compliance Process](#)
- [eSIM M2M Compliance Process](#)
- [eSIM Report 2024](#)
- [eSIM Guide](#)
- [eSIM Page](#)



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