

Despite the COVID-19 crisis, Eurosmart confirms a resilient market for 2020 worldwide shipments of secure elements

Eurosmart, the voice of the Digital Security Industry, issued its 2020 figures for Secure Element worldwide shipments. Despite the COVID-19 crisis, which makes it difficult to size the market dynamics in detail, the monitoring of Eurosmart over the last few semesters shows that the digital security industry has been resilient.

For 2021, Eurosmart will continue to monitor the economical and industrial impacts over the next months. Eurosmart's global overview points towards renewed demand with recovery primarily expected in the eSIM, automotive, government and contactless payment markets.

Disclaimer: Exceptionally, Eurosmart will not publish 2021 outlook figures due to the current uncertainty generated by the pandemic and chip shortage. In this context, Eurosmart prefers to provide comments on the main trends driving 2021, focusing on the demand side and not actual shipments, which remain uncertain. The 2021 shipment figures will be published at a later date.

Telecom

The telecom market closed 2020 with around 5,1 billion units shipped¹, including eSIMs which experienced a significant increase.

In 2020, a decrease in smartphone shipments affected SIM and eSIM markets, delaying the introduction of 5G devices except for a major smartphone maker. And while improvements on the SIM market were made by year-end, it was clear they were not enough to compensate for the effect of the

¹ Published in March 2021, Trusted Connectivity Alliance's (TCA) 2020 Market monitoring reports 309 million units shipped for eSIM and a 4,8 billion units for SIM form factor.

<https://trustedconnectivityalliance.org/trusted-connectivity-alliance-reports-global-esim-growth-in-2020/>

first lockdowns in H1. Nevertheless, 2020 was marked as the 1st year of widespread 5G SIM deployments.

In 2021, new 5G networks will continue to launch despite the global pandemic and associated economic constraints. Also, the disruption of the distribution channels that started in 2020, led MNOs to absorb the economic hit by increasing contract cycles while end-users modified their renewal appetite. This is likely to continue. This trend applies to several verticals but seems particularly true in the telecom sector, where part of the sluggish development can also be explained by the closure of stores, which ultimately limited consumption from end-users.

Financial Services

The Payment market remained resilient in 2020 (3.17 billion units shipped) with increased demand in 2021 thanks to the deployment of innovative products in response to the new consumer expectations.

In 2020, the deployment of sustainable cards started. And, as reported by the “Smart Payment Association”, this type of product, including recycled components, will grow strongly in the coming years.

Nascent interest in biometric cards also marked 2020. These products not only enable users to make touch-free secure payments with no transaction limit, but they are also an effective response to the health measures linked to COVID.

Contactless usage in general has been adopted as a good health practice in light of the pandemic. It is now firmly part of people’s payment habits, and demand is expected to move the share of contactless products above 72% in 2021 expanding the trend into less mature markets.

Government

In 2020, the issuance of identity documents was mostly impacted by lockdowns, reduced budgets, lower demand due to economic crisis and official movement restrictions. However, thanks to the recent implementation of the EU regulation harmonising identity documents, the contactless share has been increasing. This trend is expected to continue in 2021.

Restrictions on international travel drastically impacted the demand for ePassports; new projects were delayed and fewer passports were issued globally. Nevertheless, demand for identity and driving license documents was less affected thanks to their domestic usage.

As vaccination programs gather pace, and despite remaining travel restrictions, a recovery in demand is expected in 2021.

Device Manufacturers

In 2020, this segment was supported by mobile payments, wallets and wearables, showing continuous growth. In the harsh context of the pandemic, sales of embedded secure elements have shown pretty good resilience. In 2021, the overall device manufacturer segment is expected to experience a significant return to demand.

Transport

The lockdown measures drastically affected the transit card market, leading to very few mass transit passengers in many countries in 2020. Eurosmart believes that demand reached its lowest level and

will stabilise in 2021 according to demand forecasts. The growth will come from regions where the citizens have few options other than mass transit in the daily life, such as some parts of Asia or Latin America compared to more mature markets like Europe.

Climate protection initiatives favouring low-emission mass transit (metro, train) will bring some growth for contactless transit cards as governments deploy environmental strategies.

Industrial and automotive IoT

The sector has been mainly impacted by temporary production shutdowns in the automotive industry. In 2020, the sector showed good development supported by an increase in eSIM shipments including, for instance, growth of car connectivity - even faced with weak car demand in light of COVID. In 2021, with an increasing number of devices to be connected, a demand rebound is forecasted for eSIM, led by the dynamics in automotive and smart meters.

Eurosmart WW μ P TAM - (Mu)

	2020
Telecom*	5100
Financial services	3170
Government- Healthcare	425
Device manufacturers**	450
Transport	230
Others***	165
Total	9540

* MNOs (secure element with a SIM application) – Source TCA, March 2021

** Device manufacturers represent Original Equipment Manufacturers of mobile phones, tablets, navigation devices, wearables and other connected devices without SIM application (Embedded Secure Element without SIM application)

*** Others include physical and logical access and payTV.

Eurosmart WW μ P TAM - (Mu) Contactless

	2020
Financial services	2200
Government Healthcare	280
Transport	230
Total	2710

Eurosmart WW μ P TAM - (Mu) Industrial IoT

	2020
Industrial IoT *	135

*Industrial IoT: SIMs, eUICC, M2M form factors (MFF2, ...) currently limited to M2M usage in automotive, smart meters.

About us

Eurosmart, the Voice of the Digital Security Industry, is an **international non-profit association located in Brussels**, representing the **Digital Security Industry** for multisector applications. **Founded in 1995**, the association is committed to expanding the world's digital secure devices market, developing smart security standards and continuously improving the quality of security applications.

Our members

Members are designers or manufacturers of secure elements, semiconductors, smart cards, systems on chip, High-Security Hardware and terminals, biometric technology providers, system integrators, secure software and application developers and issuers. Members are also involved in security evaluation as laboratories, consulting companies, research organisations, and associations.

Eurosmart members are companies (**BCA, Bureau Veritas, CYSEC, Fingerprint Cards, G+D Mobile Security, IDEMIA, IN GROUPE, Infineon Technologies, NXP Semiconductors, PayCert, Prove & Run, Qualcomm, Real Casa de la Moneda, Samsung, Sarapis, SGS, STMicroelectronics, Synopsys, Thales, Tiempo Secure, TrustCB, Trusted Objects, TrustSEC, WISEkey, Winbond, Xilinx**), laboratories (**BrightSight, Cabinet Louis Reynaud, CCLab, CEA-Leti, Jtsec, Keolabs, Red Alert Labs, Serma**), consulting companies (**Internet of Trust**), research organisations (**Fraunhofer AISEC, Institut Mines-Telecom – IMT, ISEN – Institut Supérieur de l'Électronique et du Numérique Toulon**), and associations (**SCS Innovation cluster, Smart Payment Association, SPAC, Mobismart, Danish Biometrics**).

Eurosmart is a member of several European Commission's expert groups: Radio Equipment Directive, eCall, Multistakeholder platform for ICT standardisation, and Product Liability.

Eurosmart and its members are also active in many other security initiatives and umbrella organisations at the EU level, such as CEN-CENELEC, ECIL, ETSI, ECSO, ESIA, ETSI, Global Platform, TCA, ISO, SIA and TCG.

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