

2021 Secure elements' global market and 2022 estimates

Eurosmart confirms overall resilience of Secure Elements' market

Disclaimer

Despite the pandemic and ongoing chip shortage, the latest Eurosmart market analysis confirms an overall resilient market in 2021.

During H1 2022, Eurosmart also confirms continued resilience driven by renewed demand in eSIM, contactless payment cards, and governmental and healthcare solutions.

Nevertheless, 2022 faces additional and significant challenges, such as the war in Europe and an acceleration of inflation rates that could exacerbate uncertainties not only on consumers' spending behaviour but also on the demand for consumer devices (like smartphones, tablets, PCs, notebooks, wearables, automotive) and even travel documents. Eurosmart will continue to monitor and consider all these factors with caution in subsequent forecasts.

Telecom

For 2021, Eurosmart estimates around 4.7 billion units were shipped¹ for the combined market of removable SIM (rSIM) and embedded SIM (eSIM).

In 2022, despite a risk in demand for consumer devices, Eurosmart expects the telecom market to remain resilient, with an estimated 4.6 billion units to be shipped. Two opposite dynamics explain the evolution of this market:

- For the eSIM, Eurosmart estimates a continued double-digit growth driven by the penetration of high-end products as well as IoT.
- For the rSIM, Eurosmart foresees a slight decrease due to Covid-related lockdowns in high-demand regions, combined with the chip shortage constraints.

¹ Eurosmart's analysis in telecom sector relies on market monitoring data published by TCA (Trusted Connectivity Alliance) on 4th April 2022 (source: <https://trustedconnectivityalliance.org/trusted-connectivity-alliance-reports-global-esim-growth-in-2021/>)

While the pandemic gave a boost to promising areas of growth such as healthcare, the Industrial IoT sub-segment remains driven by the automotive sector. Shipments of eSIMs for connected cars and smart meters using cellular connectivity experienced double-digit growth in 2021, a trend that Eurosmart expects to continue in 2022.

Device manufacturers

The payment feature that relies on the contactless functionality of a secure element which provides consumers with additional *in-store* payment methods, is at the heart of an increasing number of consumer devices and payment wearables. According to MasterCard², wearable transactions in Europe multiplied by four in two years. Embedded secure elements used in mobile payments, wallets and wearables, showed continuing growth during 2021, reaching 490 million by year-end. In 2022, Eurosmart expects a 6% growth, ending the year at a projected 520 million units.

Financial services

In 2021, the overall growth was confirmed at +2.5%, reaching a global payment card volume of 3.25 billion units. These numbers demonstrate a continuous and strong need for payment cards, a trend Eurosmart estimates will continue throughout 2022. However, this positive momentum occurs in a constrained environment of geopolitical tensions and the ongoing chip shortage.

Contactless payment cards continue to be deployed and confirm global adoption, penetrating significantly in the remaining, less-mature contactless countries. In 2021 they represented a share of 75% of total shipments.

In 2022, a stable market is expected, with an increase in contactless payment cards volumes estimated to reach at least 79% globally vs 75% in 2021. This confirms the behavioural switch and makes contactless the new norm for the payment card industry.

New solutions are driving this market. In 2021, the most significant driver was the take-off of sustainable cards, responding to growing environment-conscious end-users. Eurosmart foresees this momentum to continue in 2022. In parallel, the emerging and increasing adoption of biometric cards should be confirmed through more commercial deployments following last year's pilots.

Government and healthcare

In 2021, market volumes reached 510 million units, or +20% growth.

This market will continue to grow in 2022, reaching 550 million units with the accelerated integration of contactless features in all identity documents as well as in health cards. In 2022, contactless penetration is estimated to reach 70%.

The increasing importance of identity credentials is the main driver of this market as more and more services rely on eID, eHC, eDL, e-voting and digital signatures. Furthermore, ID documents gained preponderance throughout the pandemic as genuine proof of identity. Eurosmart expects an increasing adoption and demand for electronic IDs over the coming years, particularly with a rebound in electronic passports. An acceleration in digitalisation is confirmed with the European Union paving the way with the EU digital wallet/eIDAS-2 regulation, and the mobile Driving License (mDL) in the United States.

Transport

Public transportation levels are improving compared to the decreasing levels experienced in 2021; volumes are expected to reach between 220-245 million units by the end of 2022. These levels will be driven by an economic situation where gas prices for cars are booming, and intense urbanization generates important drawbacks in terms of pollution, car congestion and limited parking spaces, among others. In such a context, public transport is foreseen to expand.

Eurosmart estimated WW μ P TAM - (Mu)

	2021	2022 forecasts
Telecom*	4700	4600
Financial services	3250	3200 - 3300
Government - Healthcare	510	550
Device manufacturers **	490	520
Transport	220	220-245
Others***	155	150
Total	9325	9.240 - 9.360

*MNOs (secure element with a SIM application).

**Device manufacturers represent Original Equipment Manufacturers of mobile phones, tablets, navigation devices without SIM application (Embedded Secure Element without SIM application) - excl. Automotive.

***Others include physical and logical access, and Pay TV.

Eurosmart estimated WW μ P TAM - (Mu) Contactless

	2021	2022 forecasts
Financial	2450	2530 - 2610
<i>share of total</i>	75,4%	79,0%
Government - Healthcare	350	385
<i>share of total</i>	68,6%	70,0%
Transport	220	220-245
Total	3020	3135 - 3235

About us

Eurosmart, the Voice of the Digital Security Industry, is a **European 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.



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