



CC Statistics 2023

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# About Us



Applus+ Laboratories is a division of the Applus+ Group that provides testing and certification services from a network of multidisciplinary laboratories in Europe, Asia, and North America. Our cybersecurity laboratories support developers of ICT products, components, and systems to demonstrate the compliance of applicable requirements and standards in cybersecurity. With our cutting-edge facilities found worldwide, and technical expertise across industries such as aerospace, defense, automotive, payment, identification and telecommunications, our services facilitate market access at the speed of development.

[www.appluslaboratories.com](http://www.appluslaboratories.com) | [itlabs@applus.com](mailto:itlabs@applus.com)



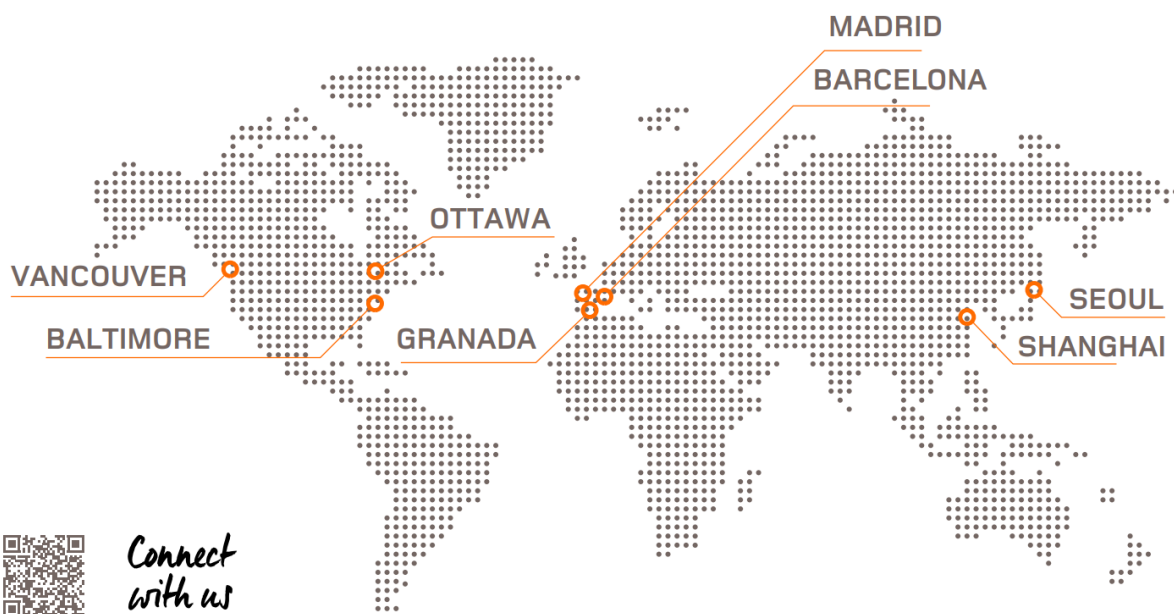
jtsec joined Applus+ Laboratories in 2022. A cybersecurity lab based in Granada, Spain, deeply involved in standardization committees at European and international level. jtsec specializes in evaluations for Common Criteria and Lince schemes, and has developed automated tools that facilitate paperwork activities for developers, consultants, labs and certification bodies. It is also an accredited lab for key industrial and IoT standards.

[www.jtsec.es](http://www.jtsec.es) | [hello@jtsec.es](mailto:hello@jtsec.es)



Lightship Security joined the Applus+ group in 2022. Founded in Ottawa, Canada, Lightship is an accredited Common Criteria and FIPS 140 laboratory that specializes in accelerating Protection Profile conformance for the NIAP Product Compliant List (PCL). They developed an industry-leading test automation platform that codifies their extensive experience to drive certification results for speed, thoroughness and quality that was previously not possible.

[www.lightshipsec.com](http://www.lightshipsec.com) | [info@lightshipsec.com](mailto:info@lightshipsec.com)



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# Cybersecurity Services

jtsec Beyond IT Security (Spain) and Lightship Security (Canada and USA) has recently joined Applus+ Laboratories. Together we offer a wide range of cybersecurity services:

## COMMON CRITERIA FASTER & EASIER



### Accredited Laboratories

Evaluations up to **EAL 6+**

**cPP & NIAP PP** evaluations

**SOG-IS** Technical Domains

Accredited laboratories under the Spanish, Canadian and US Schemes



### Automation Tools

**CCToolBox**: an automation platform for CC documentation generation, evaluation and validation

**Greenlight**: a conformance automation platform for CC testing

## ACCREDITED FOR 20+ CERTIFICATION SCHEMES

### FIPS 140-3

NVLAP accredited and recognized by the CMVP.

### LINCE & CPSTIC LISTING

Accredited for Lince Evaluations. Support for products listing in the Spanish CPSTIC catalog.

### PAYMENT SCHEMES

Accredited by EMVCo, PCI-PTS and other payment schemes. SE, Platforms, Cards, POS & Mobile Apps evaluations

### IOT & INDUSTRIAL SCHEMES

First accredited ETSI EN 303 645 laboratory for consumer IoT.

IECEE CB accredited lab for IEC 62443-4 industrial cybersecurity.

Accredited for SESIP Evaluations for IoT platforms.

Accredited lab for PSA Certified for IoT chips, software and devices.

## INDEPENDENT SERVICES

✓ **Vulnerability assessments:** Thread Analysis & Risk Assessment, Design Review (source code included), Vulnerability Analysis & Pen Testing

✓ **Gap Analysis**

✓ **Site Audits**

✓ **Product Life Cycle Evaluation**

# Introduction

## *Why this report?*

Historically, the Common Criteria Portal web (<https://www.commoncriteriaportal.org>) has contained the list of evaluated products. Each Certification Body is responsible for sending each new certified product to the web, along with its Certification Report and Security Target.

All this information is provided on the web, which even provides a Statistics section. This section, however, provides no graphical representation of the numbers and there is room for improvement regarding, for example, the evaluation laboratory, evaluation trends regarding the type of products certified (a categorization is provided, but it does not reflect state-of-art in security products), most used protection profiles, assurance levels chosen to meet the certification and other things, so we thought that an “all-in-one” report would be great for the Common Criteria community!

Throughout the different editions International Common Criteria Conference (ICCC) we have been presenting the corresponding reports and analyzing the data extracted. Last year we showed the report in the ICC2023 with the talk “2023 CC Statistics Report, Has Common Criteria reached its peak?”

## *How is it created?*

CC Scraper is a python script that analyses automatically the information from the CC portal using OCR capabilities, pdf reading and other features providing a comprehensive statistics report of the CC certifications.

The current version still depends on Common Criteria portal contents, and therefore a mismatch between each CB certified products and the statistics shown in this report may appear if the Certification Bodies do not timely send new updates to the web or the webmaster does not update the product list.

CC Scraper outputs a CSV file from where this report is semi-automatically created.

## *Contribute!*

Feel free to share the results shown in this report, and do not hesitate to tell us any error that you find, we will correct it as soon as possible.

If you want to know a specific statistic or you think that it could be interesting for the community, please share it with us and we will include it in next versions of this report.

It is not allowed to use the report or parts of the report without providing a direct link to the report and naming jtsec Beyond IT Security.

# Research & Collaboration

At **jtsec- An Applus+ Company**, we have always believed in innovation and collaboration in the field of cybersecurity. We are true experts in the Common Criteria methodology. We have been working more than 20 years in the methodology. We are former program director of ICCC (International Common Criteria Conference), active editors of the methodology in ISO, only Spanish member of the EUCC Ad-hoc WG (European Common Criteria Scheme) and members of the SCCG being advisors of the European Commission in Cybersecurity Certification.

Some of the most important [examples of talks](#) related to the CC Methodology are here:

- (EN) **ICCC23** [2023], "The new cryptographic evaluation methodology created by CCN and how to apply it for Common Criteria"
- (EN) **ICCC23** [2023], "Experiences evaluating cloud services and products"
- (EN) **ICCC23** [2023], "2023 CC Statistics Report, Has Common Criteria reached its peak?"
- (EN) **ICCC22** [2022], "Is automation necessary for the CC survival?"
- (EN) **ICCC22** [2022], "CCCAB Tool — making CABs life easy — chapter 2"
- (EN) **ICCC22** [2022], "2022 CC Statistics Report: Will this year beat last year record number of certifications"
- (EN) **ICCC21** [2021], "Automating Common Criteria" :
- (EN) **ICCC21** [2021], "2021 CC Statistic Report" :
- (EN) **ICCC21** [2021], "CCCAB tool, Making CABs Life Easy" :
- (EN) **ICCC 2020** [2020], "Industrial Automation Control Systems Cybersecurity Certification - Chapter II"
- (EN) **ICCC 2020** [2020], "2020 Statistics Report. Is the industry surviving to lockdown?"
- (EN) **ICCC 2020** [2020], "Towards creating an Extension for Patch Management for ISO/IEC 15408 & 18045"
- (EN) **18th CCUF Workshop** [2020], "Creating cPPs with CCGen" :
- (EN) **Paris - SC 27 / WG3 meeting** [2019], "Contribution on SP for Evaluation criteria for connected vehicle information security based on ISO/IEC 15408" :
- (EN) **Paris - SC 27 / WG3 meeting** [2019], "Patch Management in ISO/IEC15408 & ISO/IEC18045"
- (ES) **ICCC 2019 Singapur** [2019], "2019 Statistics Report. What's Happening in the Common Criteria World?"
- (EN) **International Common Criteria Conference 2019** [2019], "Industrial Automation Control Systems Cybersecurity Certification Is CC the Answer?"
- (EN) **XVII International Common Criteria Conference. Amsterdam** [2018], "Full Common Criteria Statistics Report with CC Scraper" :
- (EN) **XVII International Common Criteria Conference. Amsterdam** [2018], "Using Common Criteria for procurement - International Procurement Initiatives"
- (EN) **ICMC18 International Cryptographic Module Conference. Canada** [2018], "Spanish Catalogue of Qualified Products: A New Way Of Using CC For Procurement"
- (EN) **Common Criteria Users Forum. Amsterdam** [2018], "High EALs, Lightweight Certifications, Low EALs, cPPs - European and American View - Do we understand each other?"
- (EN) **XVI International Common Criteria Conference. UK** [2015], "Is CC ready to lead the future of mobile Security?"
- (EN) **XIV International Common Criteria Conference. USA** [2013], "Lower EALs Evaluations: Are you kidding me?"
- (EN) **XI International Common Criteria Conference. Turkey** [2010], "Overflowing attack potential: scoring defence-in-depth"
- (EN) **XI International Common Criteria Conference. Turkey** [2010], "Evaluating a watermelon: mitigating the threats through the operational environment"
- (EN) **X International Common Criteria Conference. Norway** [2009], "Vulnerability Analysis Taxonomy: Achieving completeness in a systematic way"
- (EN) **X International Common Criteria Conference. Norway** [2009], "The public domain and the CEM attack potential mismatch"

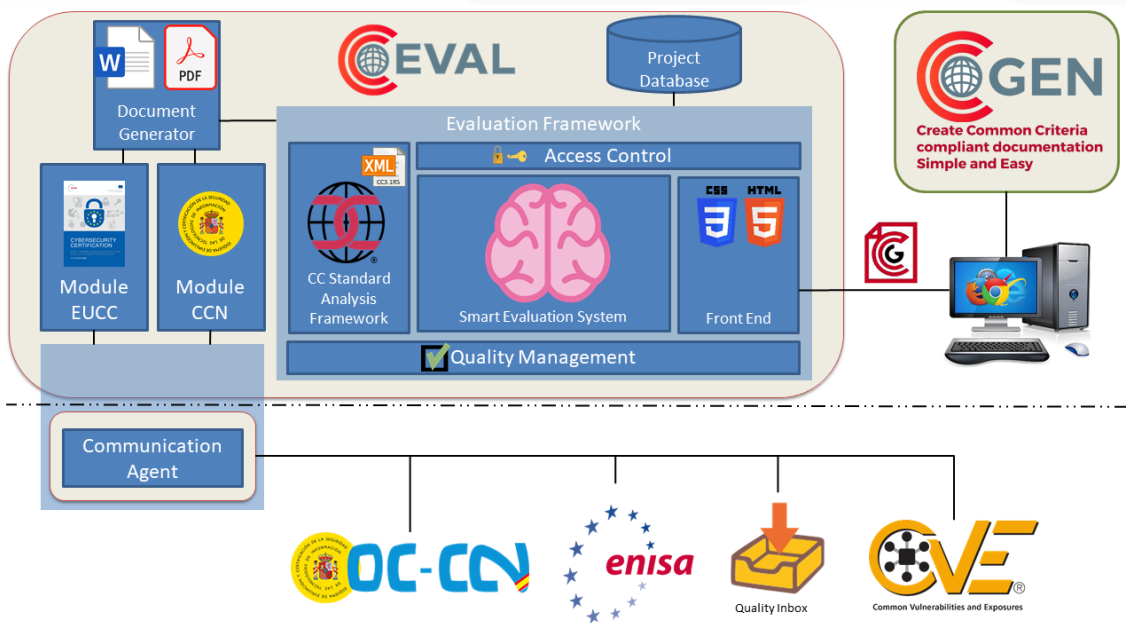
jtsec- An Applus+ Company belongs actively to the following associations:





# Other Common Criteria tools

**CCScraper is not the only tool for Common Criteria developed by jtsec.** We have created **CCToolBox** which is composed of two tools: **CCGen** and **CCEval**. CCGen allows generating all the CC evidences and CCEval allows jtsec to speed up and smooth the evaluation. CCToolBox is a web-based tool framework using the most advanced state-of-art web technologies.



## CCGen:

One of the most problematic issues one may find during the CC documentation creation phase is the constant reappearance of inconsistencies (for example, changing the name of an SFR iteration, the name of an objective or the code of a test). Consultants can lose lot of time, avoiding inconsistencies instead of employing it in creating quality documentation that eases the understanding of the product internals and can pass the evaluation without problems.

With a wizard like Approach, CCGen will guide consultants' step by step, taking care of every possible inconsistency in the documentation process, accompanied of expert comments and tips and hints regarding how to easily fulfil the CC standard for a product.

## CCEval:

CCEval allows jtsec to write and generate evaluation reports in a very consistent and quick way.

Moreover, if CCGen has generated the documentation, CCEval allows carrying out automatically some evaluation tasks.

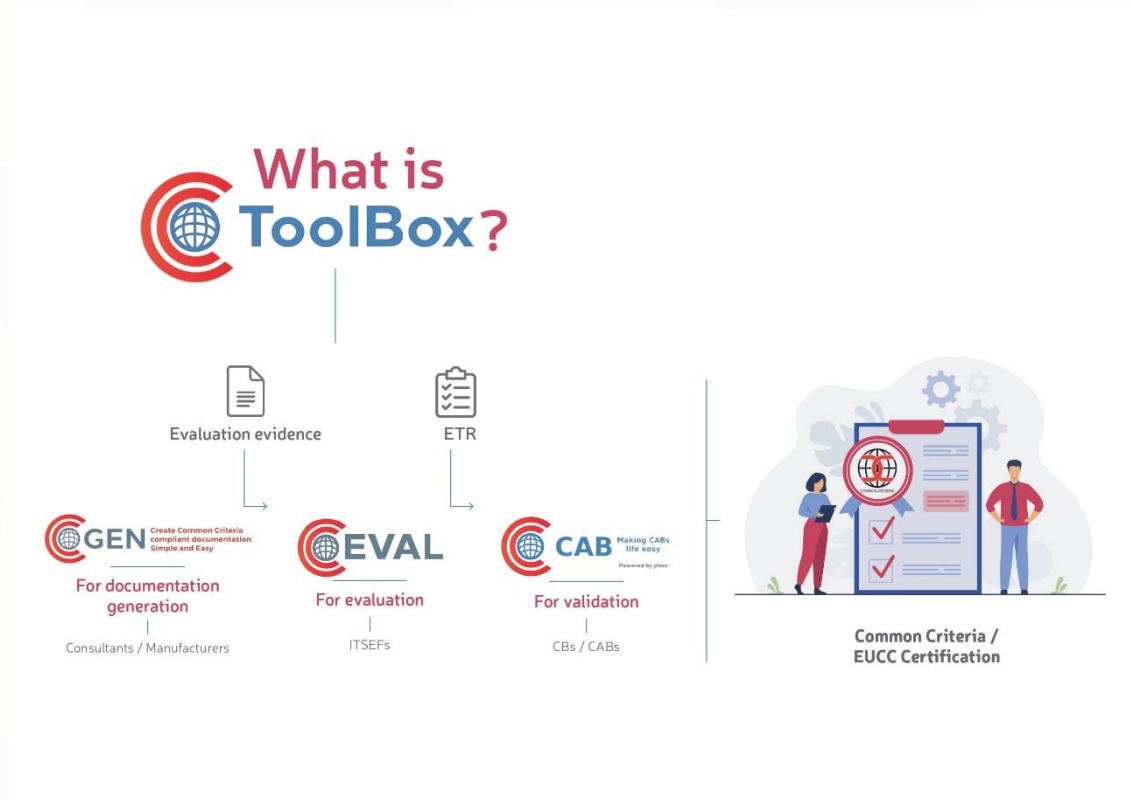
This tool is important for two main reasons:

1. Because evaluation reports are validated by the Certification Body and the Appearance of inconsistencies may delay the process in unexpected ways.
2. Because the use of automated tools allows providing the best time-to-market, ensuring that the certification process is always on time.



## CCCAB:

CCCAB will allow Common Criteria CABs (Conformity Assessment Bodies) to facilitate the validation and certification process of ICT products, assisting the certifier and reducing the effort and time required in each process. CCCAB will be key because the workload and specialization required for this type of project means that certification bodies have a high workload per certifying specialist, and the lack of personnel is a major risk for the sector. The development of this tool is funded by the European Commission in the framework of the Connecting Europe Facility (CEF) program. The tool will be released as open source free of charge to all public or private CABs interested in the initiative. The CCCAB project started in April 2021 and will run for a period of two years, so this tool is expected to be available by April 2023.



# CC Statistics for 2023

These are the statistics on Common Criteria certifications for 2023. CCScraper has gathered the latest information about Common Criteria certified products and has generated related statistics up to 2023-12-31.

In 2023, **470** products have been certified, while 387 were certified in 2022. These numbers vary from those published solely in [commoncriteriaportal.org](https://commoncriteriaportal.org), since CCScraper also takes into account those products published in the web portals of Certification Bodies websites.

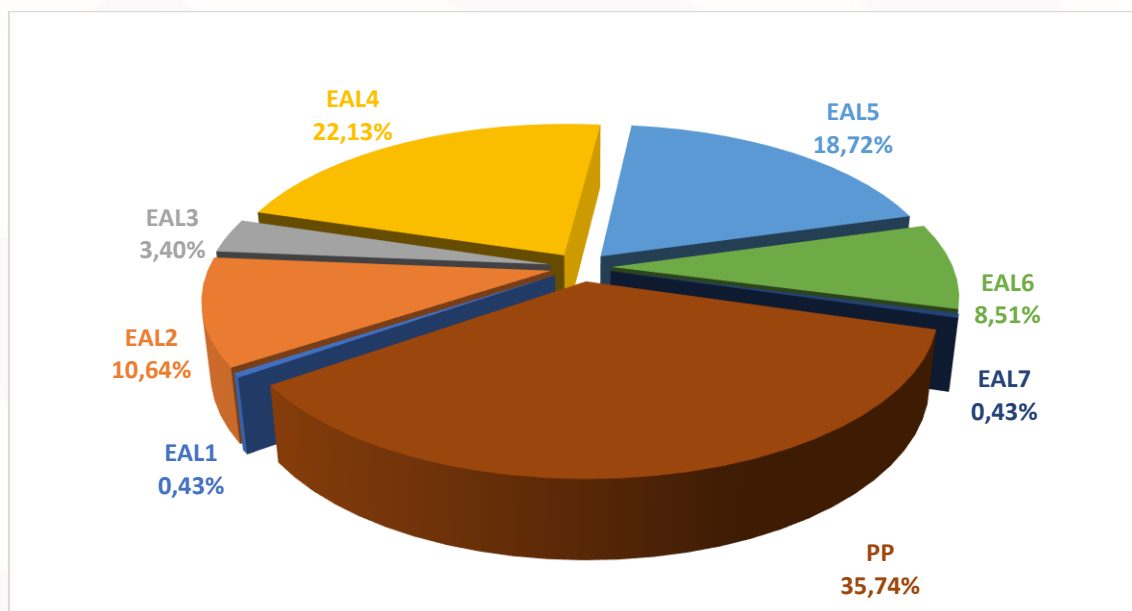
The details on those certifications are provided throughout this report.

## Assurance levels

In 2023, 234 high assurance evaluations (EAL4-EAL7) were carried out. Among those, we can find 104 EAL4 evaluations, 88 EAL5 evaluations, 40 EAL6 evaluations and 2 EAL7 evaluations. In total, about 50% of the certifications were high-assurance.

A total of 68 products were certified using low assurance evaluations (EAL1-EAL3), representing around 14% of all the evaluations. The most frequent low assurance EAL was EAL2, with 50 certifications.

On the other hand, the trend to use Protection Profiles on evaluations has been even larger in 2023. Certifications using a Protection Profile with no EAL assigned were very frequent in 2023. In total, 168 products were certified with a Protection Profile without assigned EAL, representing about 36% of all certifications in 2023.

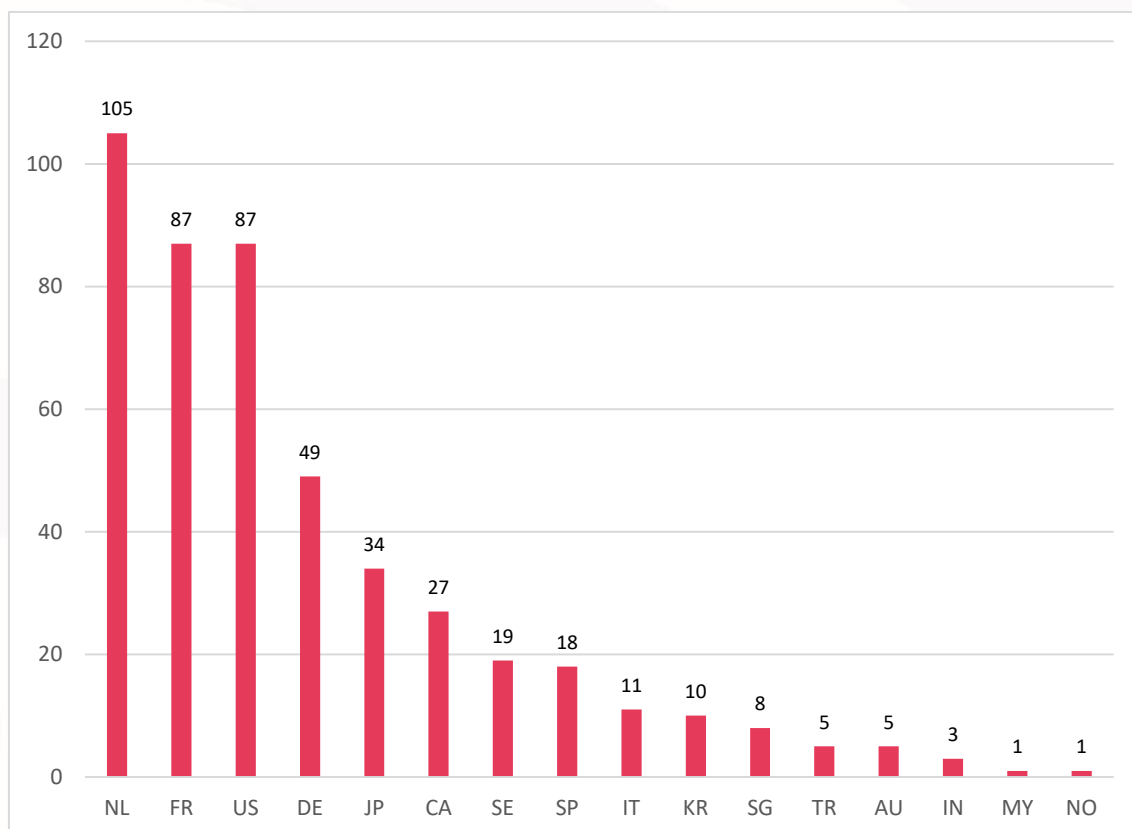


\*If a product has been certified under different assurance levels or protection it will be listed in all of them, so the same product could be listed more than once. This fact must be taken into account throughout the report.

### Top Certifying Schemes

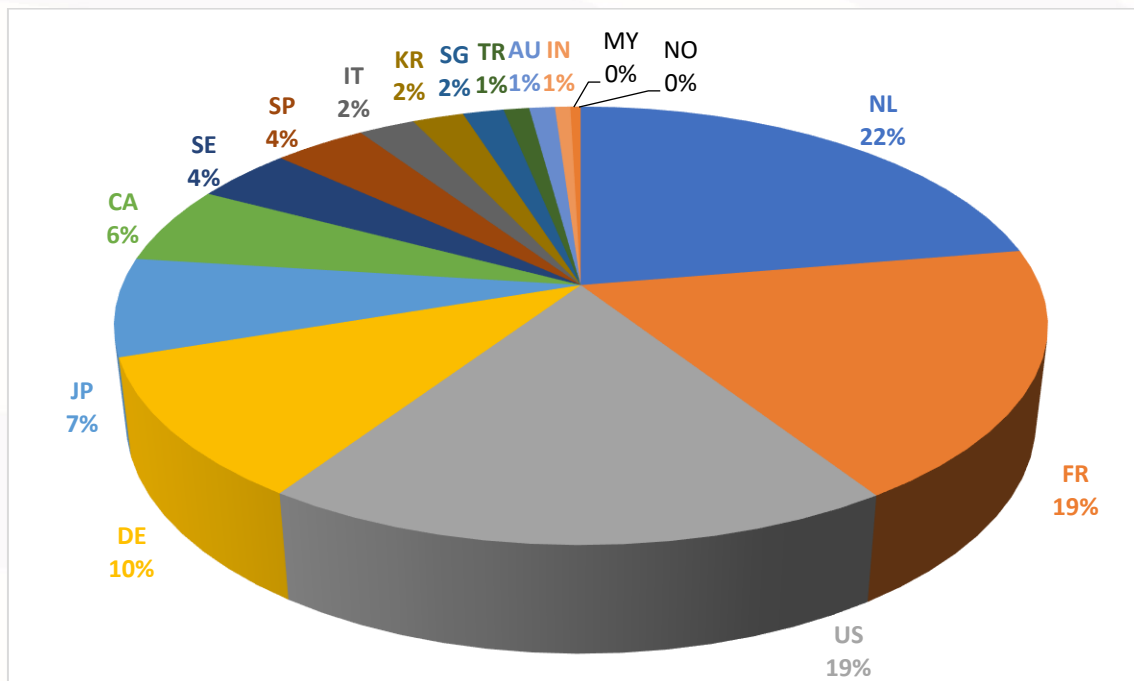
The top-three certifying schemes in 2023 were Netherlands with 105 products, France and United States (both with 87 products certified respectively). So, Netherlands overtakes France as the world leader in the number of Common Criteria certifications.

These are followed by Germany (49), Japan (34), Canada (27), Sweden (19) and Spain (18).



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In terms of percentages, Top 3 schemes occupy 60% of the certifications, while the next three schemes summed 23%. Spain drops a place and is in the 8<sup>th</sup> position, overtaken by Sweden (7<sup>th</sup> place). After Spain we can find Italy and Korea completing the top 10. Singapore, Turkey, Australia, India, Malaysia and Norway complete all the countries certifying products in 2023.



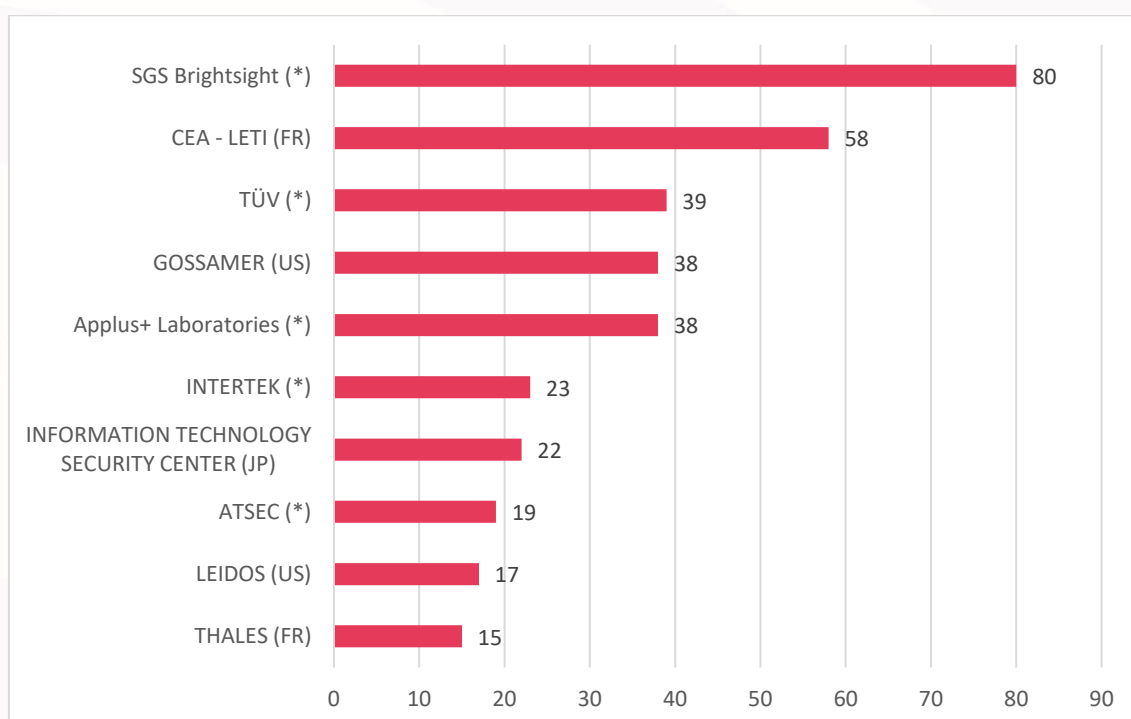
### Top evaluation laboratories

The lab that evaluated the most products during 2023 was SGS Brightsight. The Swiss laboratory took the first place with 80 products evaluated; CEA-LETI (58) is in the second place. TÜV completes the podium with 39 certifications. Applus+ Laboratories and Gossamer (38) are in fourth place. Intertek (23), ITSEC (22), ATSEC (19), LEIDOS (17) and Thales (15) complete the top 10.

Note:

- Laboratory names are followed by their country of origin in parentheses. If a laboratory has multiple locations in different countries, an asterisk '\*' is used to indicate this.
- Applus+ Laboratories also includes Lightship and jtsec labs and INTERTEK includes Acumen, EWA and Acucert labs.

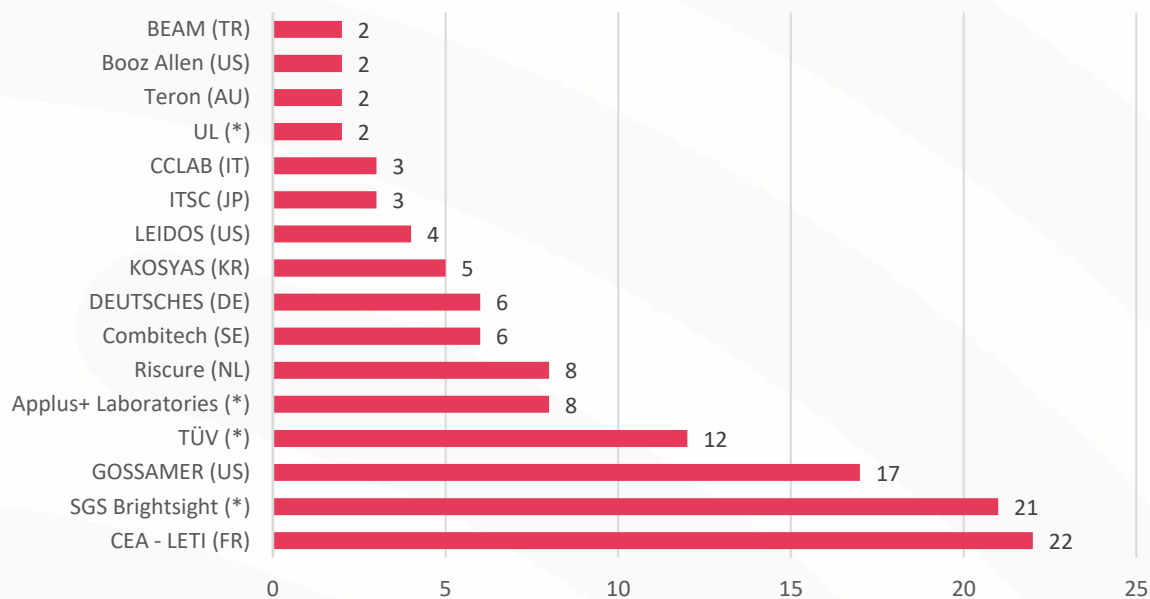
(This applies to all the following graphs).



In this year's version we have created some new graphics showing the growth and decrease in the number of certifications by laboratories comparing 2022 to 2023.

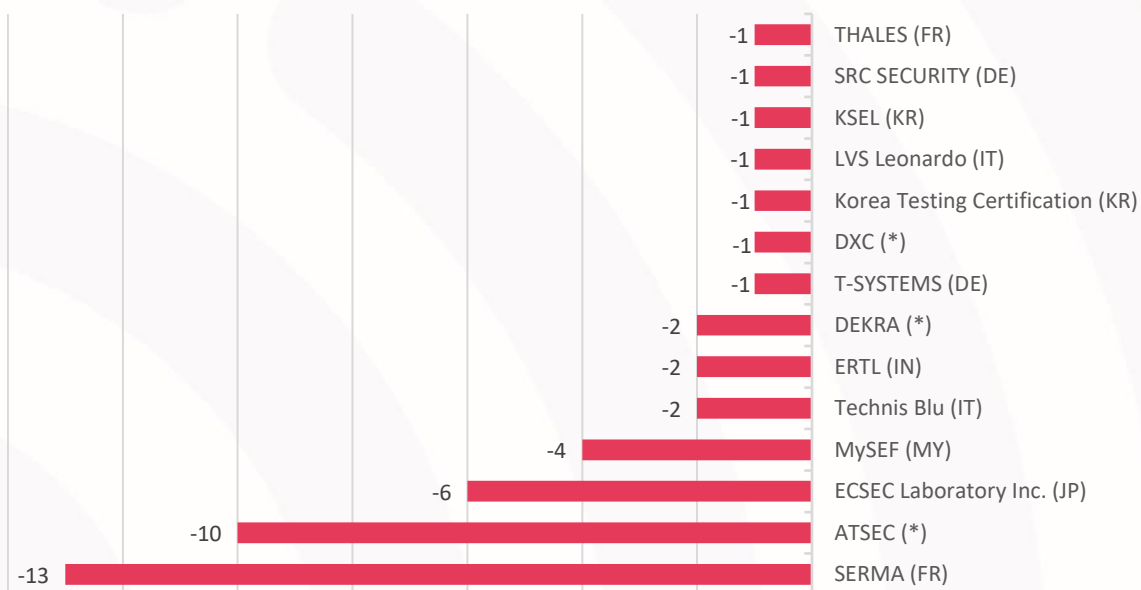
This one shows the lab growth, as we can see CEA-LETI, Brightsight and Gossamer are in the top 3, followed by TÜV, Applus+ Laboratories and Riscure.

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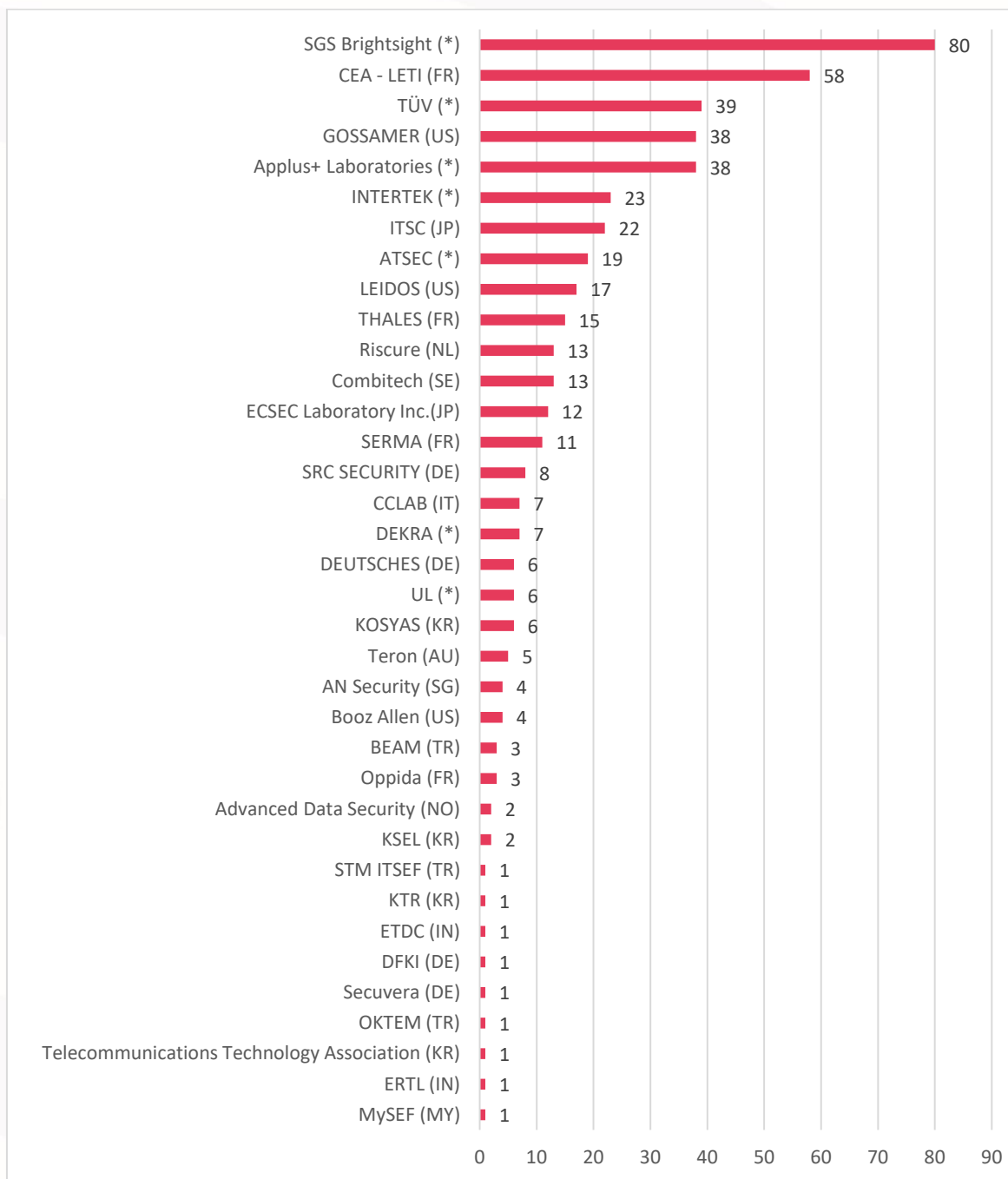
This graph shows the reverse trend for those laboratories whose number of certifications has decreased in 2023 compared to 2022.

Serma has been the laboratory with the steepest decline, followed by ATSEC and ECSEC. MySEF has also experienced a significant decline.



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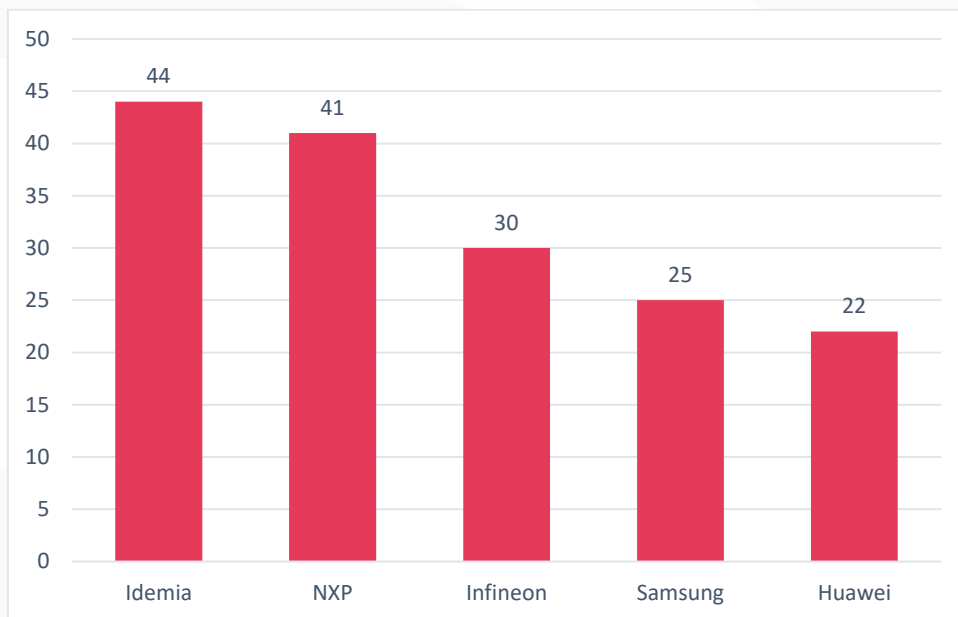
## Evaluation laboratories in 2023



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### Top manufacturers



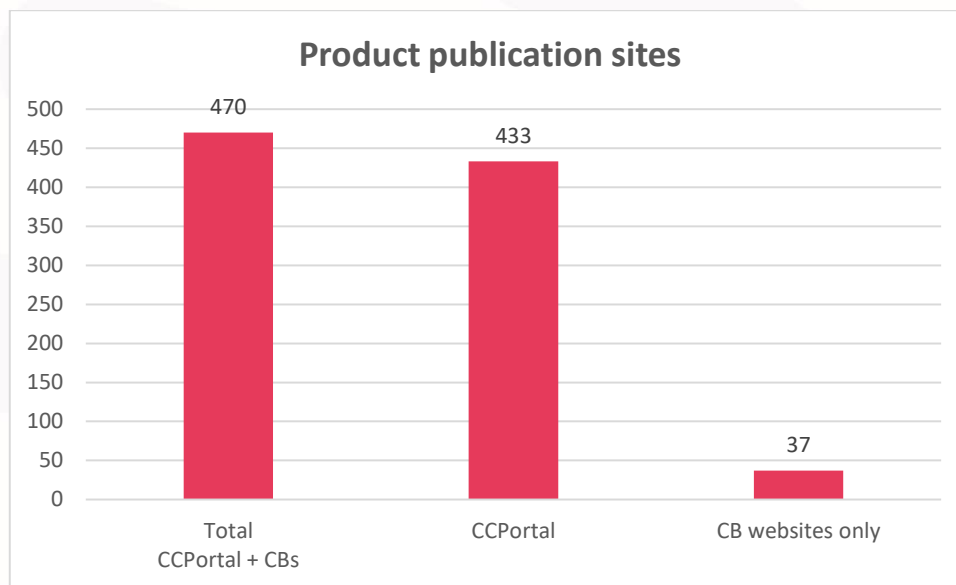
In the manufacturers ladder, we have Idemia in first place with 44 certified products. NXP is in second place (same position in 2022) with 41 products certified. Completing the podium, we find Infineon with 30 certified products, followed by Samsung with 25 and Huawei with 22.

The next ones in the list, although they are not represented in this chart, we can find Cisco with 19 products, Thales and Ricoh with 17 products.

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### CCScraper statistics vs Common Criteria Portal statistics

CCScraper has counted 470 products certified in 2023. However, if we check the statistics of Common Criteria Portal, only 433 are reported as certified during 2023. This is because the data gathered by CCScraper include those products that are also published in the web portals of the different Certification Bodies. 37 products out of 470 were reported only in the websites of the different Certification Bodies and not in commoncriteriaportal.org.



Among them, some products were duplicated, meaning the same product was reported multiple times either in Common Criteria Portal and/or in their respective Certification Body Portal. In Common Criteria Portal, some products are reported multiple times for different categories. This case is not common in the websites of Certification Bodies, nonetheless, one duplicated product was found in one of those websites. CCScraper takes care of this situation and correlates the duplicated information, in different websites or on the same website, in a smart way.

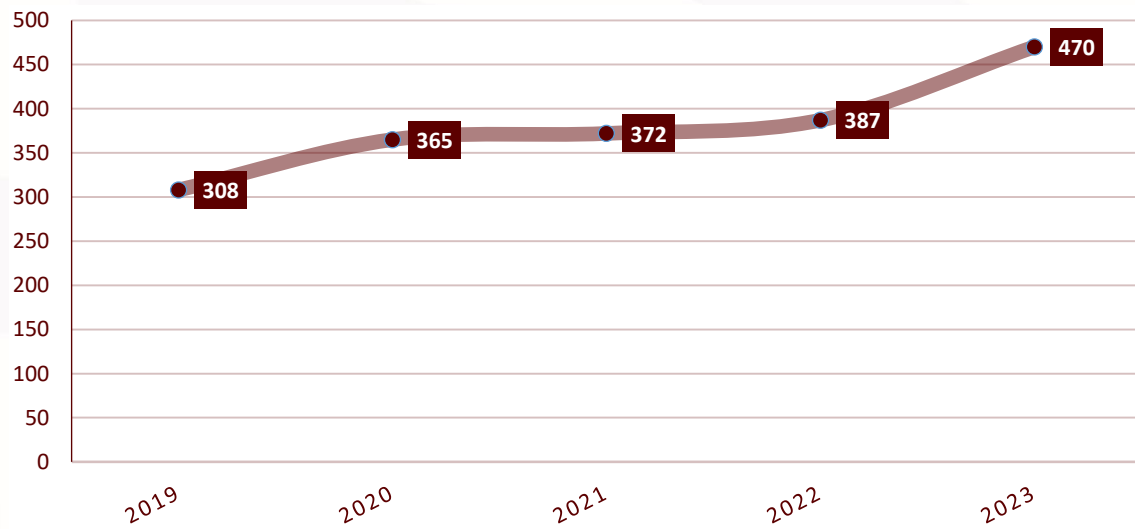
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## Statistics for 5 years

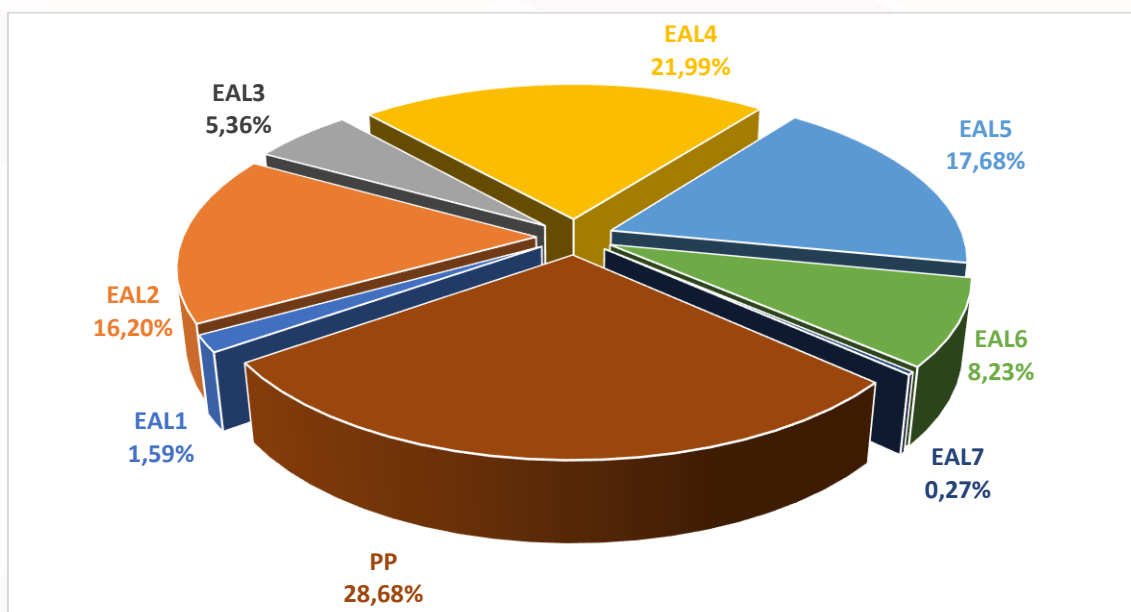
This section contains the trends in the last 5 years of Common Criteria, including products with certificate issued between 2019 and 2023, both included.

As we can see, the number of certifications is gradually increasing year after year, with a big positive jump in 2023.

### *Total certified products in the last 5 years*



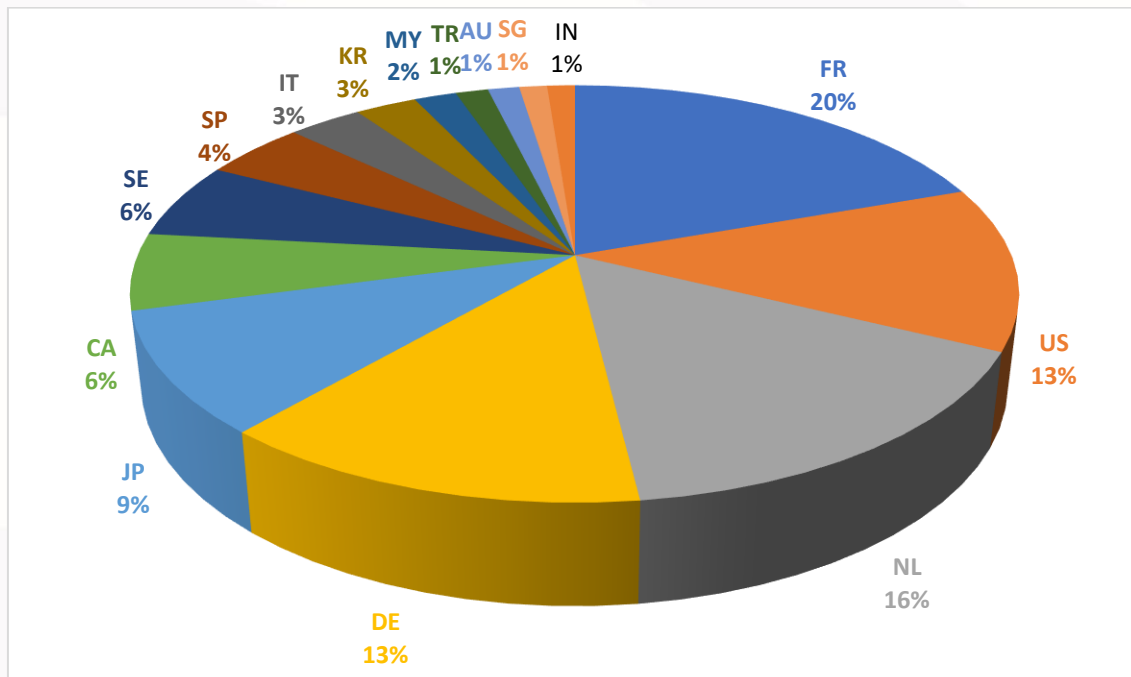
### Most used assurance levels in the last 5 years



The trend during the last 5 years indicates that about 29% of the products are certified as PP-compliant (with no EAL assigned). EAL2 (16,20%) was the most used low assurance EAL, EAL4 (21,99%) is the most used high assurance EAL. Regarding all the low assurance EAL (from EAL1 to EAL3) add up to a total of (23,15%), while high EALs (48,17%) were very frequent with EAL4 being the most used. The number of certificates achieved under a PP give the figure of 28,86%.

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### Top certifying schemes in the last 5 years

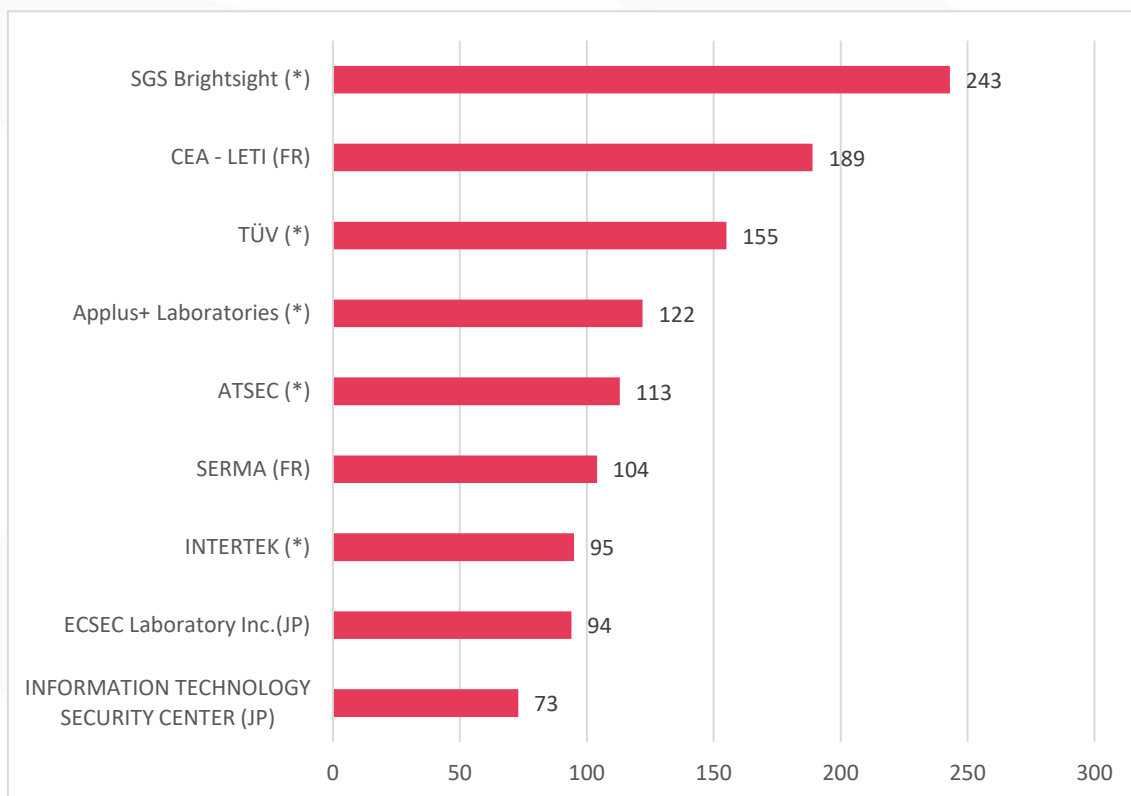


The French scheme is the one with most certifications during the last 5 years (20% out of total) followed by Netherlands (16%) and US and Germany (13% each one), Japan completes the top 5 with a 9%. Canada and Sweden (6%), Spain (4%), Italy and Korea (3%) complete the top 10. After them, we can find the rest of the countries certifying Common Criteria.

Those countries whose number of certifications is less than 1% have been omitted from this chart.

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### Top laboratories in the last 5 years



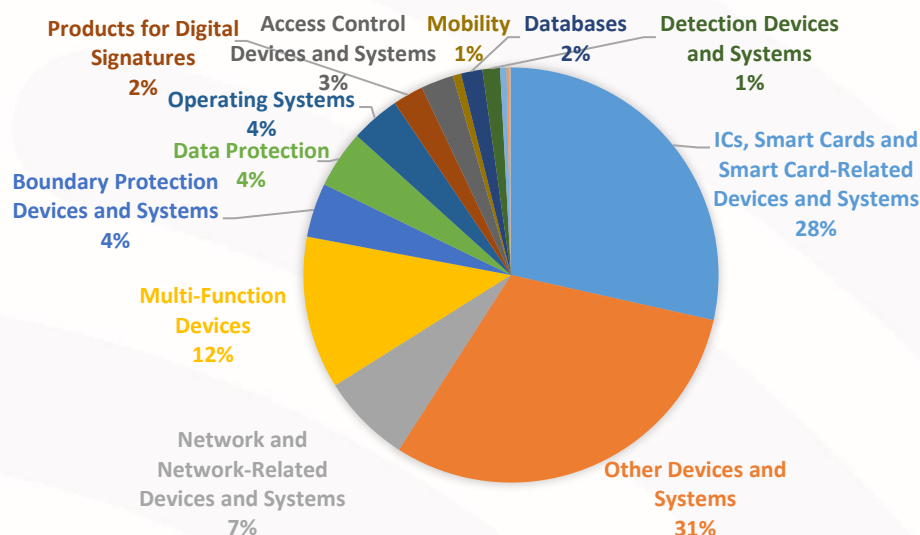
The trend for top laboratories shows SGS Brightsight in the first place, followed by CEA-LETI and TÜV in the podium. Applus+ Laboratories climb to fourth place followed by ATSEC, SERMA, Intertek, ECSEC and ITSEC.

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# Historical trends

This section contains historical trends from the very beginning of Common Criteria. Archived products (products where the certificate status is no longer valid) are included for the sake of completeness.

## Product categories



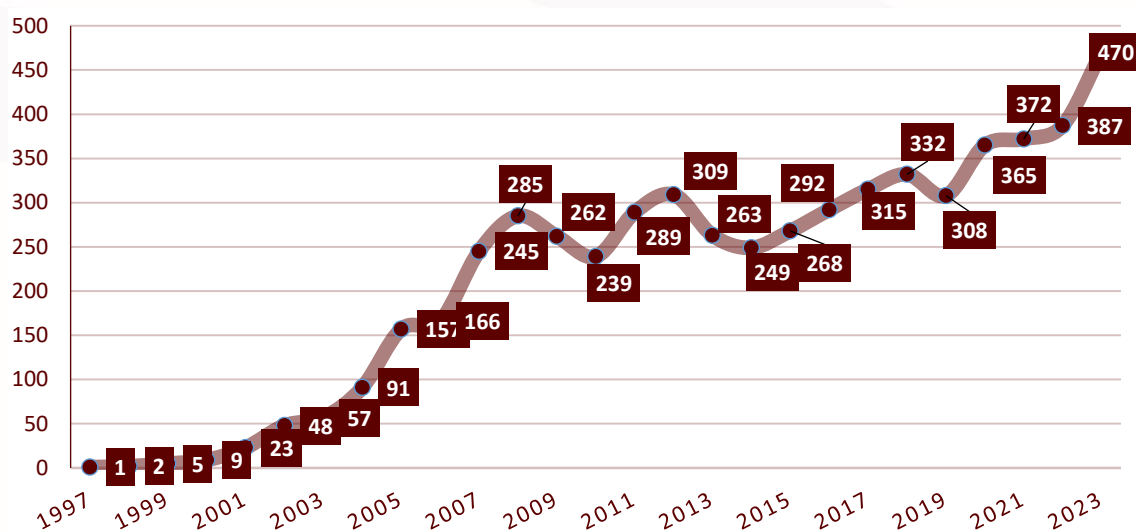
High-security ICs, smartcards and similar devices are the top certified category, with 28% of the total number of certifications. Multi-function and Network devices complete the top 3.

There is an assortment of categories that add up to the rest of the total, but none of them reaches 5%. Among these we can find: Boundary Protection Devices and Systems, Operating Systems and Data, Access Control Devices, Digital Signatures or Databases, for example.

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Total number of certified products by year:



The overall historical shows that Common Criteria certifications have been generally increased, although there have been occasional years in which the number of certifications has decreased, being the latest the year with the most certifications in history. However, in 2019 we noticed a slight decrease, from this year to 2023 the growth is noteworthy due to 2023 is the fourth consecutive year of growth.

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