2022 CC Statistics Report

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- CC data collection with CCScraper
- CC statistics for 2022
- CC Statistics for 5 years
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About me

- **José Manuel Pulido:**
- Lead Cybersecurity Consultant and Senior Cybersecurity Evaluator at jtsec
- Common Criteria expert
- CCToolbox developer
- More than 10 years of experience in cybersecurity technologies
- Speaker at several conferences including ICCC20 and ICCC21

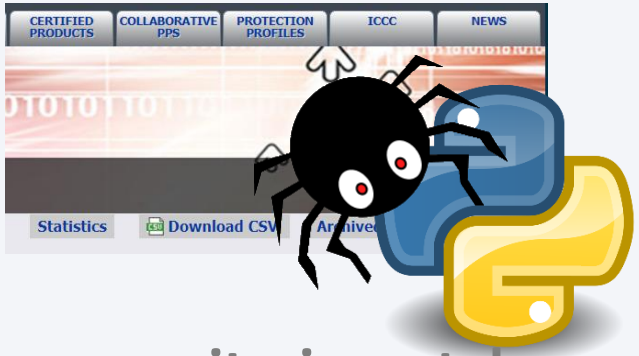
About us

jtsec
BEYOND IT SECURITY

- Cybersecurity **evaluation** & consultancy **services**
- Common Criteria, LINCE and ETSI EN 303 645 accredited lab.
- Developers of the most powerful tool for Common Criteria, CCToolbox.
- **Involved in standardization** activities (ISO, CEN/CENELEC, ISCI WGs, ENISA CSA WGs, CCUF, CMUF, ERNCIP, …)
- Members of the SCCG (Stakeholder Cybersecurity Certification Group)

CC data collection with CCScraper

What is CCScraper



- Web scraper written in Python. Created in 2018 by jtsec.
- CCScraper collects data about certified products from **commoncriteriaportal.org** and from the **websites** of the **Certification Bodies.**
- **Tons of interesting data** collected: date of certification, EAL, PP, Product Category, certification lab, etc. and even SFRs used or technical terms in the ST!
- Data is interpreted and organized / merged into a **list of unique certified products.** We generate the statistics from that data.
- We don't generate statistics of site certifications (yet).

CCScraper history

- **CCScraper v1.0** was first presented here in the ICCC in 2018.
  - Only data from **commoncriteriaportal.org** was collected.

- **CCScraper v2.0** was presented in ICCC 2019.
  - Main feature: add information from CB websites and merge into unique products

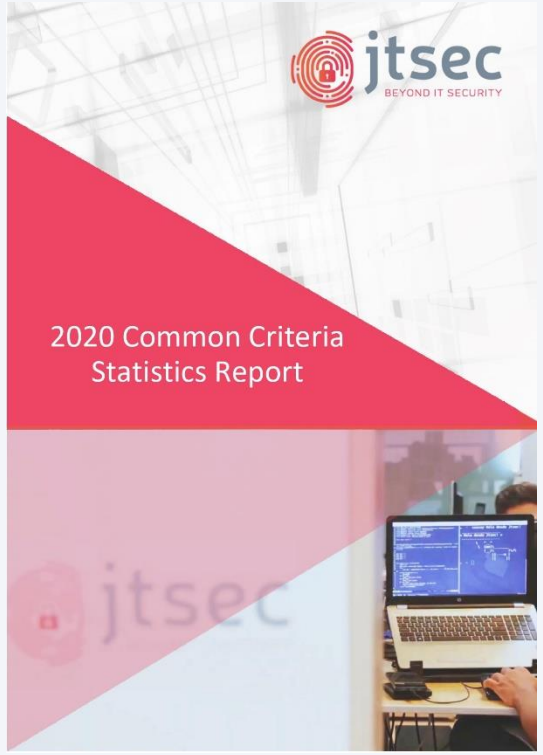
- **CCcraper v2.1** was presented in ICCC 2020, with mainly efficiency improvements and email alerts.
- **CCScraper v2.2** was presented in ICCC 2021, with improvements in CB website parsers and detection of false duplicates.

- This year we present **CCScraper v2.3** with some upgrades for ICCC 2021.
  - Stability improvements parsing NIAP website.
  - German language support in parsing BSI website.
  - IPA scraper was completely rewritten due to changes in the website.

CCscraper reports

- With the statistics generated, we publish CC statistics reports in jtsec webpage, at least once per year.

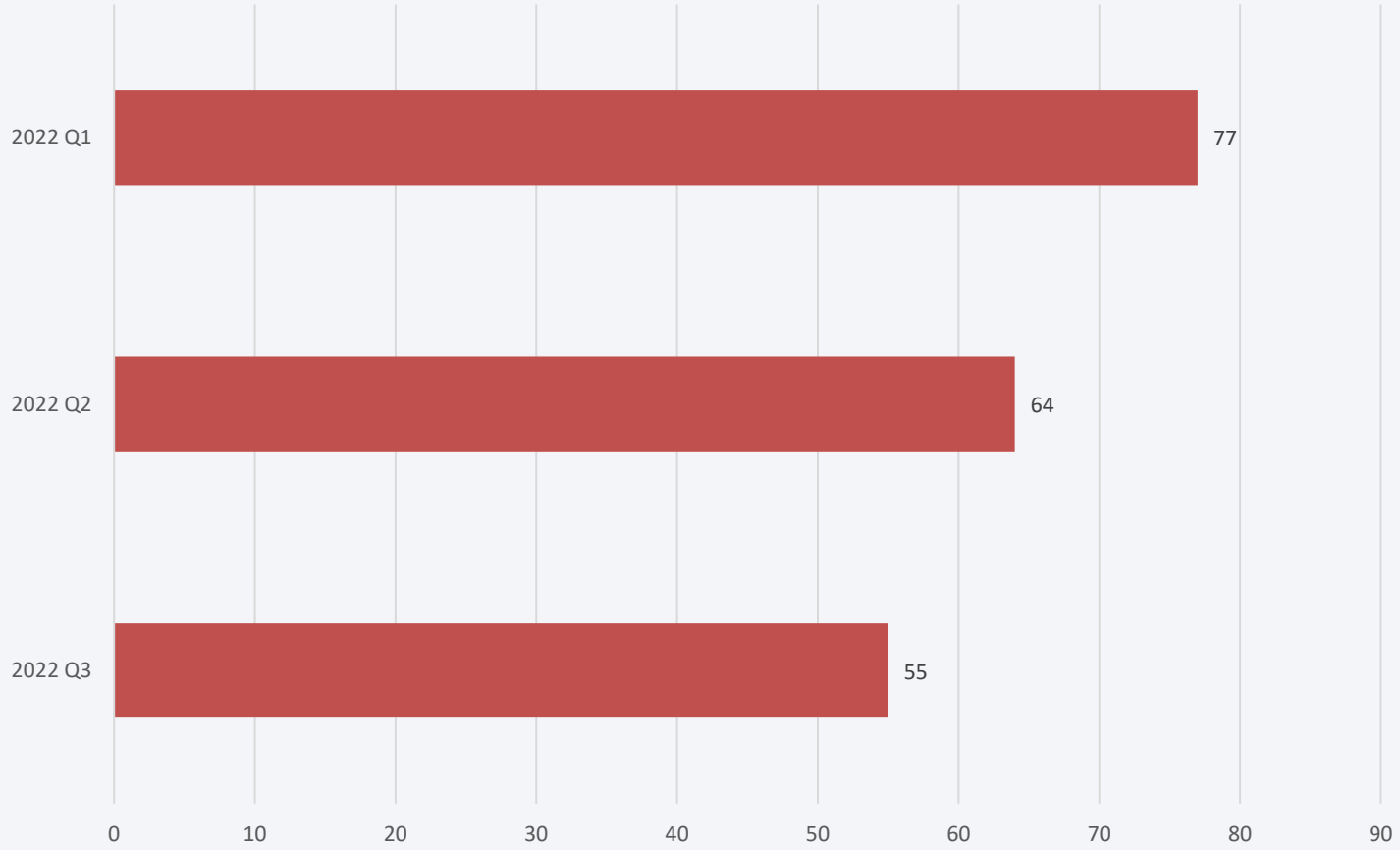
- https://www.jtsec.es/blog-entry/44/common-criteria-statistics-report-for-2019
- https://www.jtsec.es/blog-entry/85/common-criteria-statistics-report-for-2020
- https://www.jtsec.es/blog-entry/106/common-criteria-statistics-report-for-2021



CC Statistics for 2022

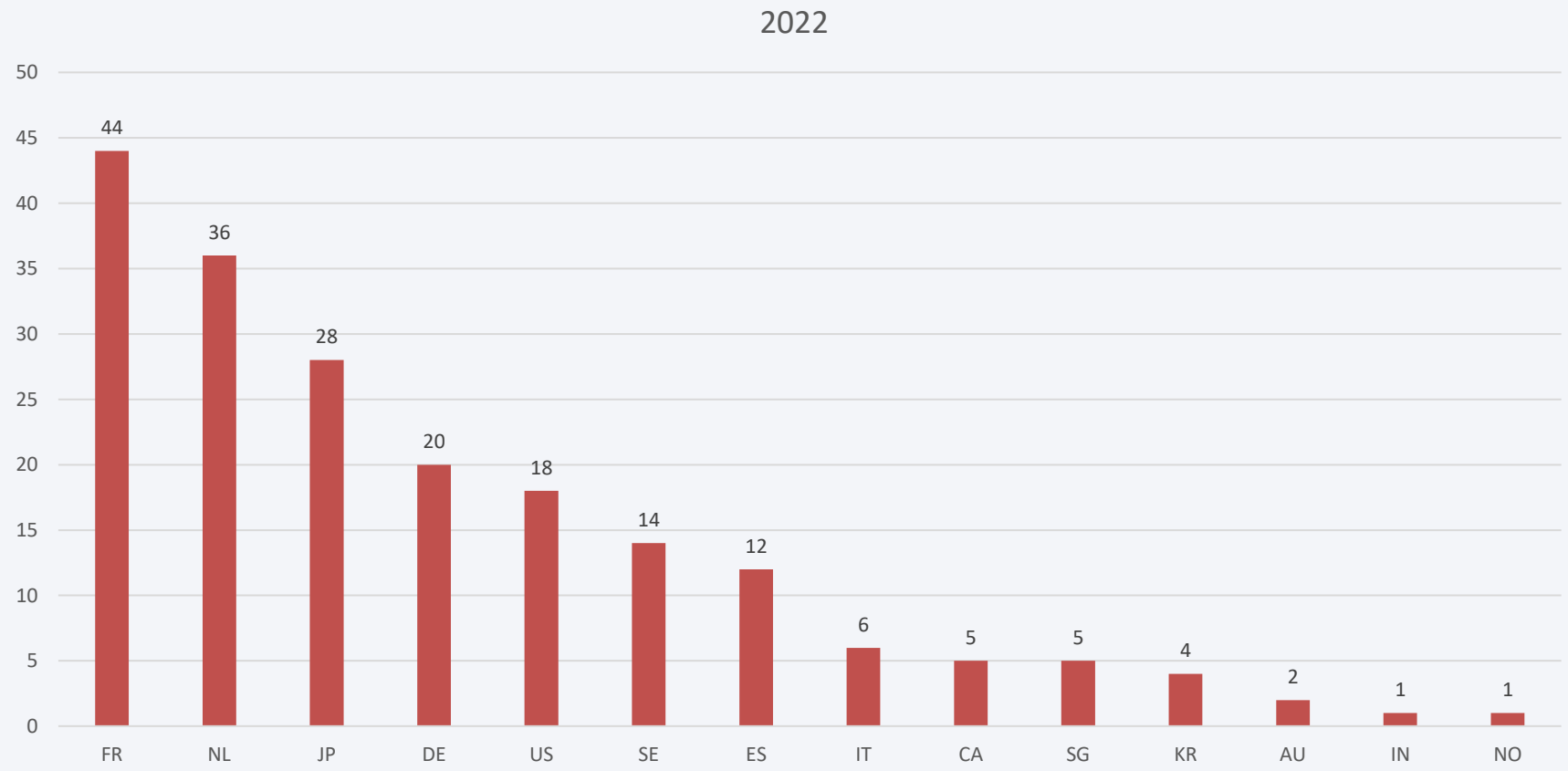
Statistics – 2022 (9 months)

- **196** products certified during 2022 (data until 30/09/2022)



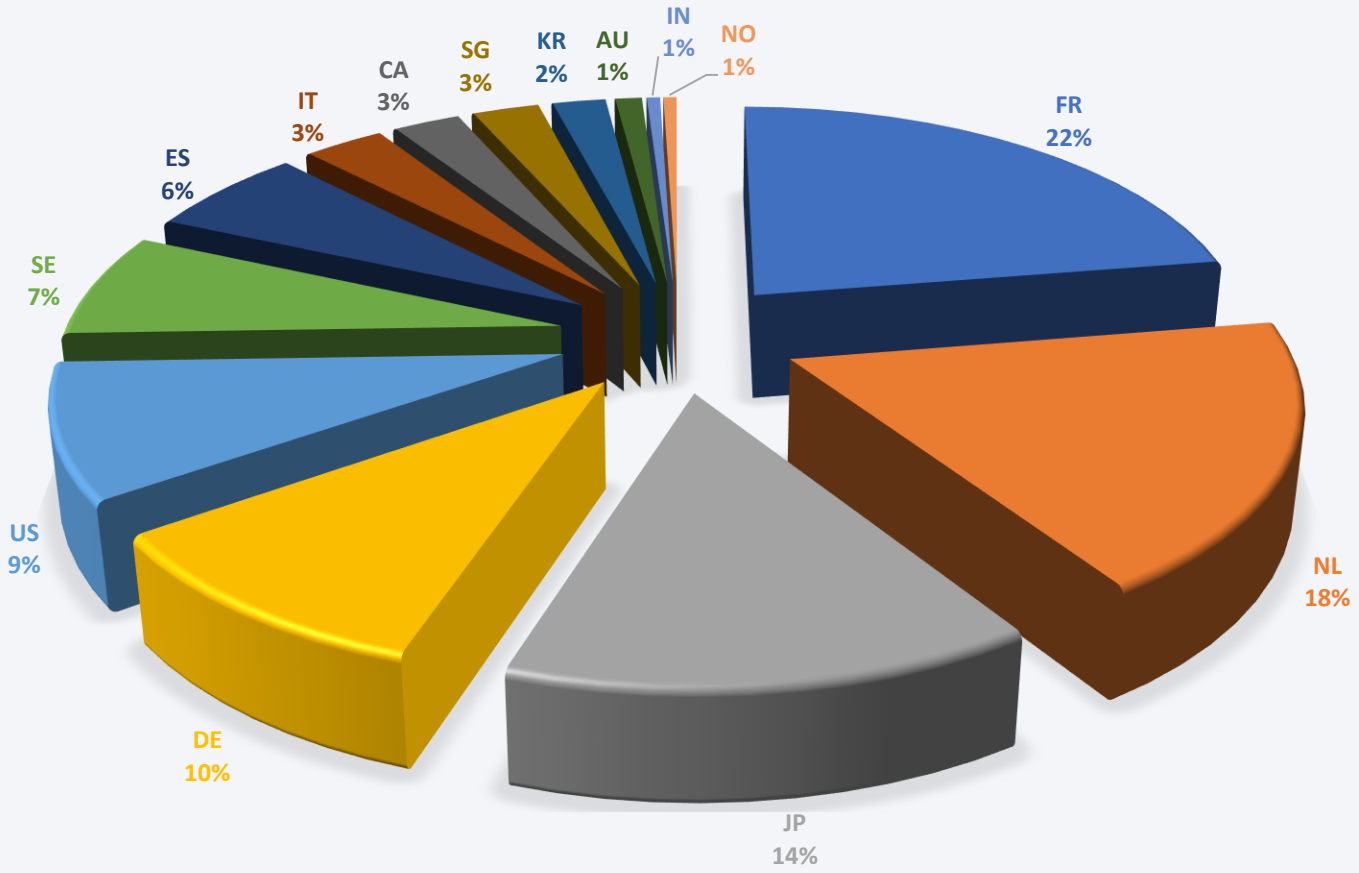
Statistics – 2022 (9 months)

- Top certifier schemes in 2022



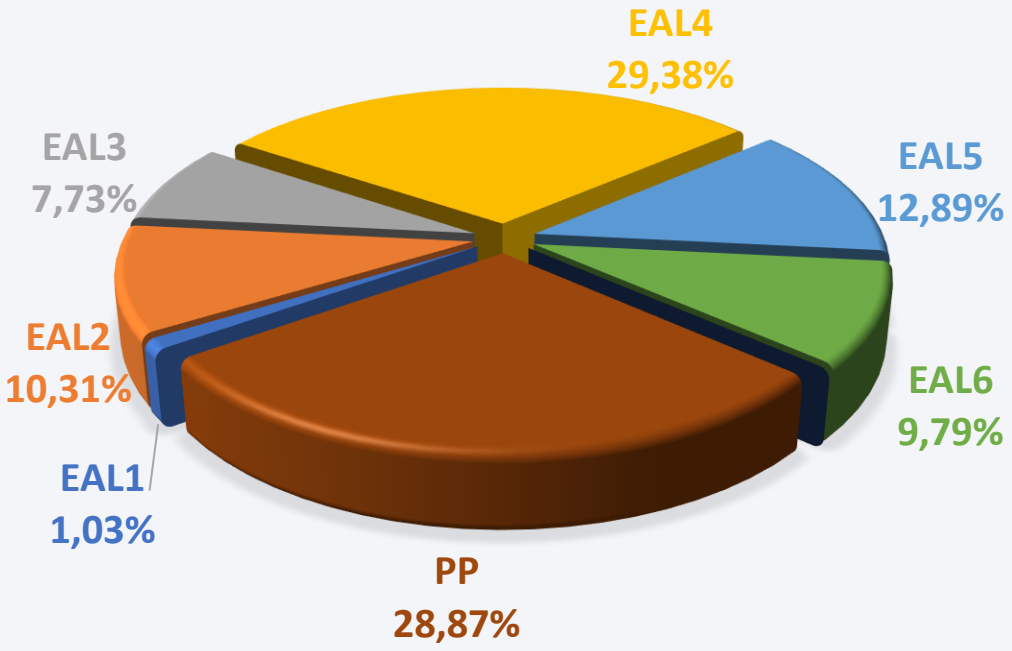
Statistics – 2022 (9 months)

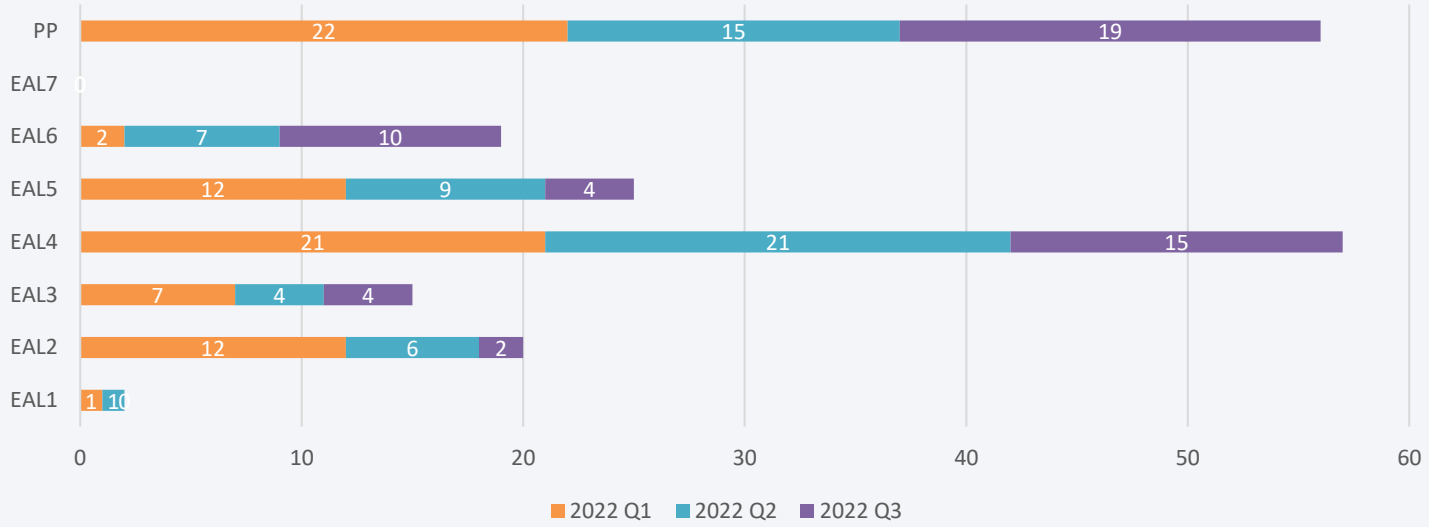
- The top 2 schemes add up to 40% of the certifications!



Statistics – 2022 (9 months)

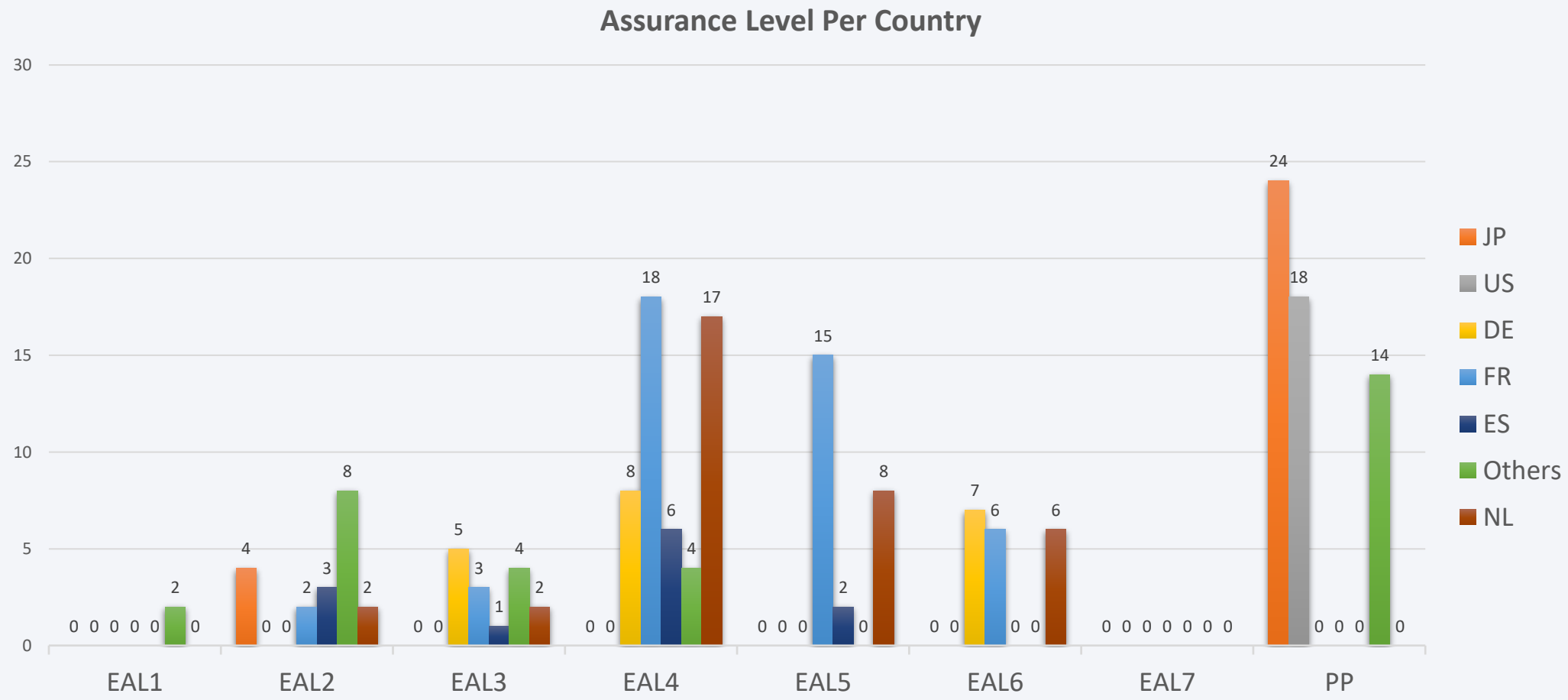
- Certified products compliance in 2022





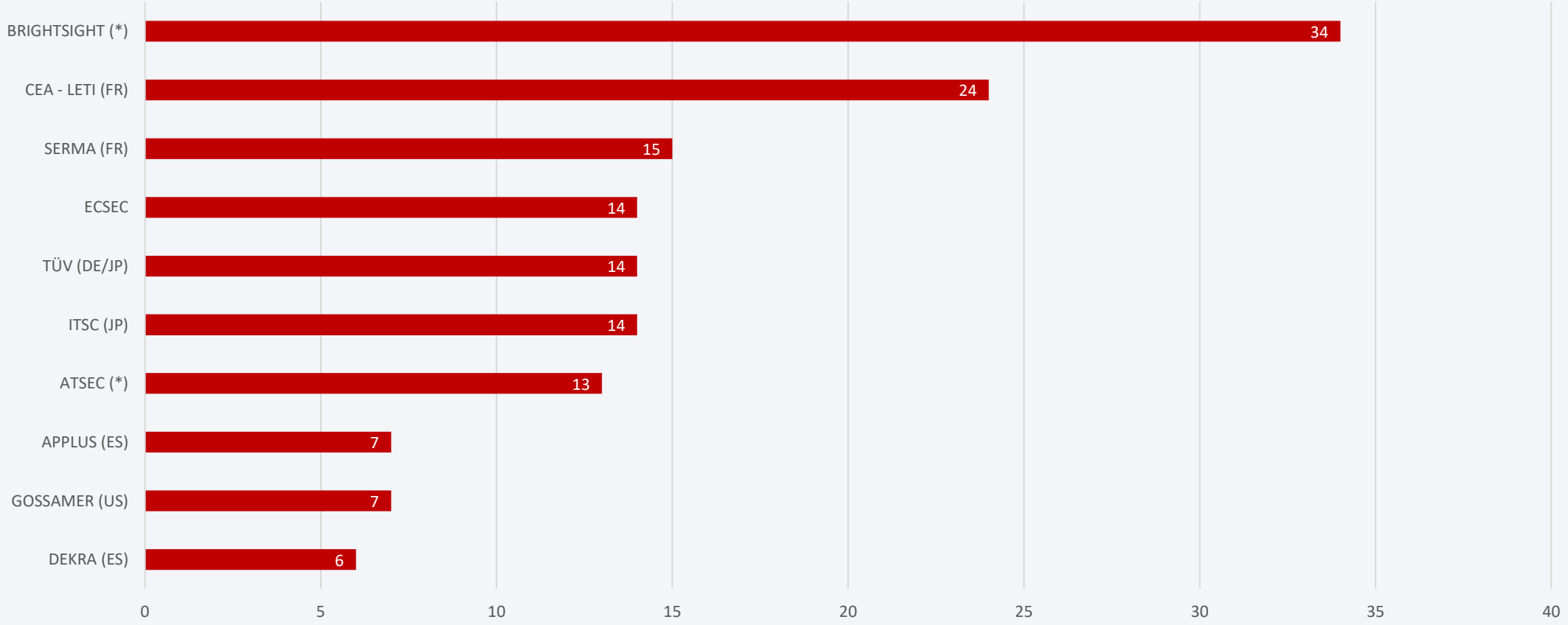
Statistics – 2022 (9 months)

- Product assurance level per country during 2022



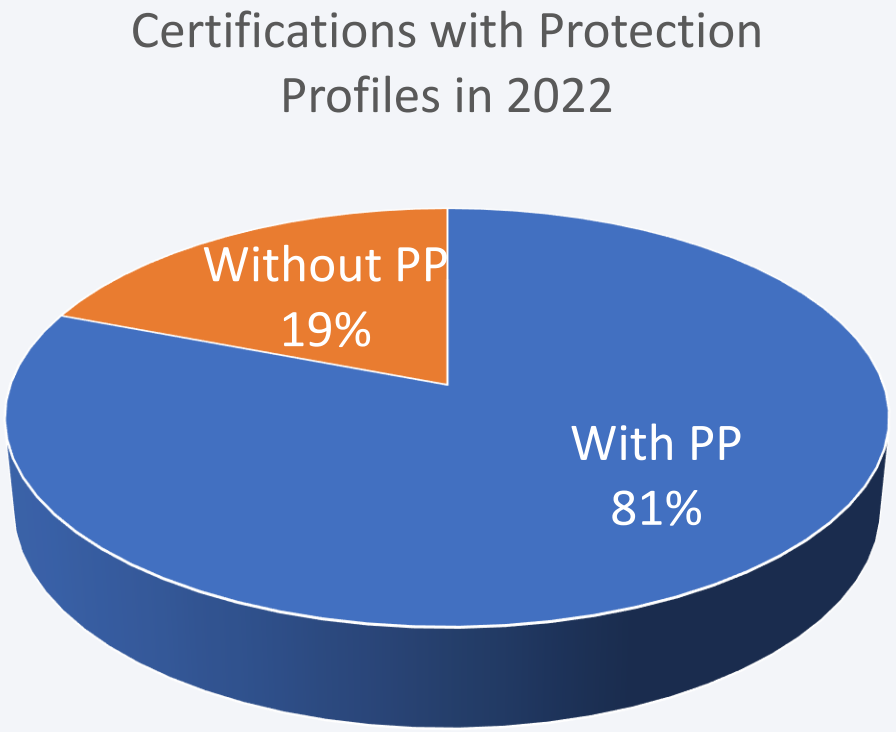
Statistics – 2022 (9 months)

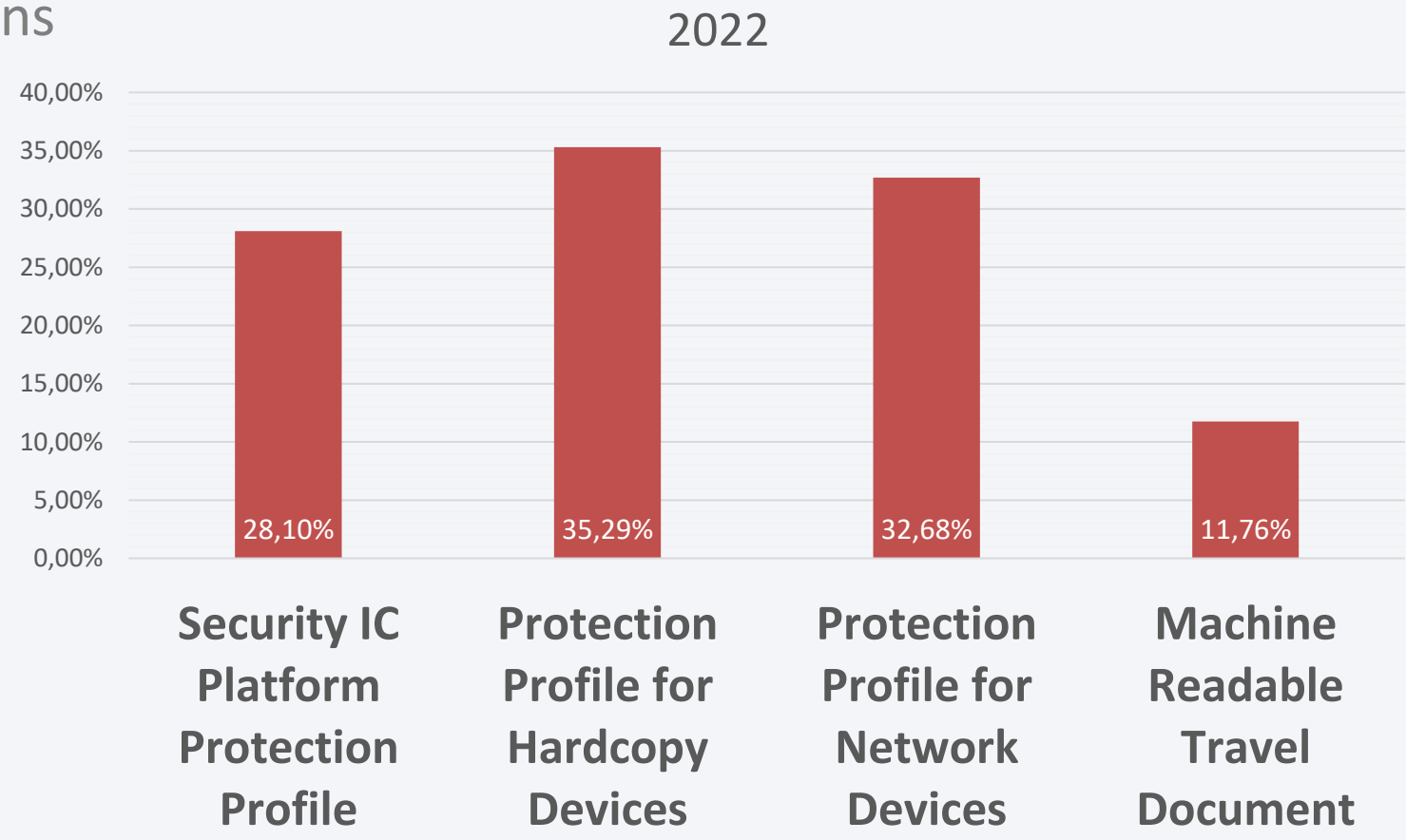
- Top 10 Laboratories (2022)



Statistics – 2022 (9 months)

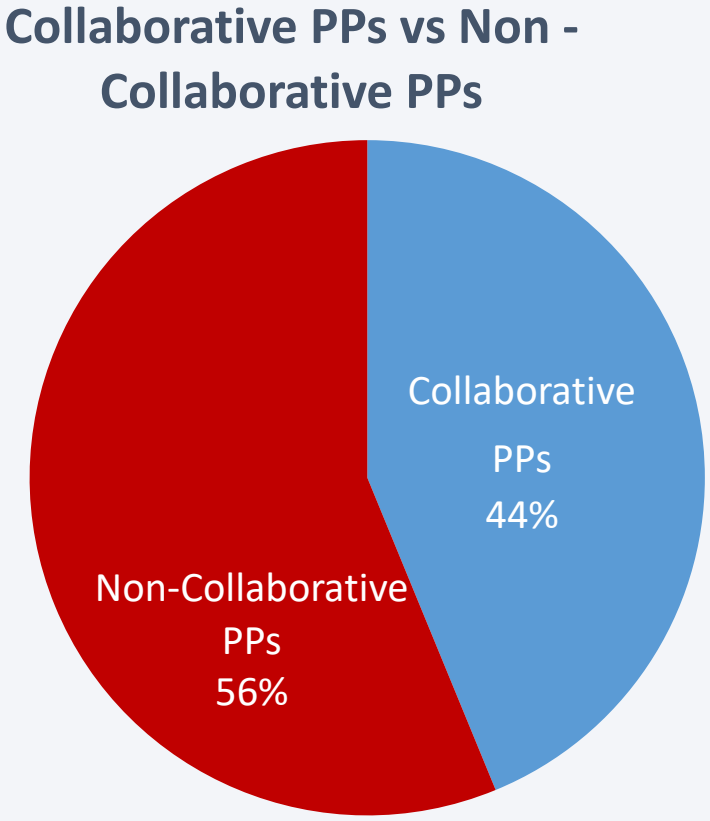
- Protection Profile certifications

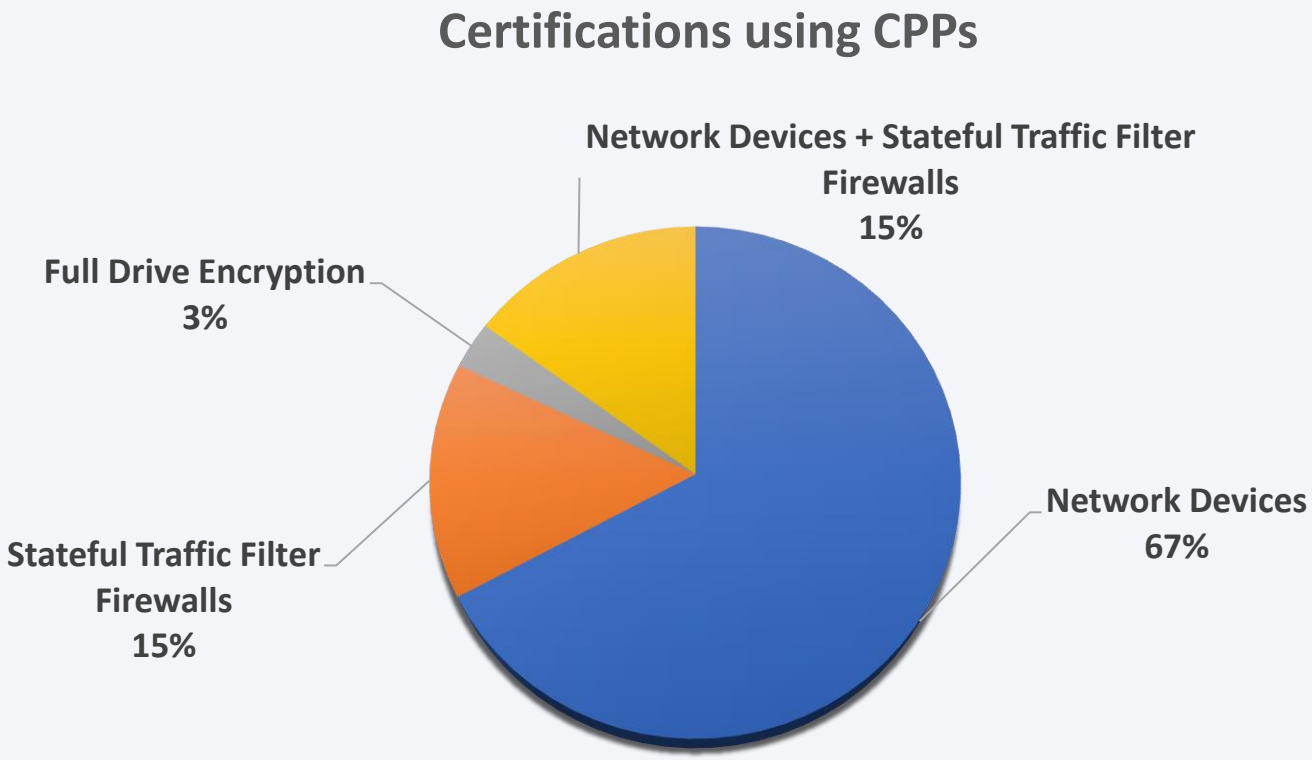




Statistics – 2022 (9 months)

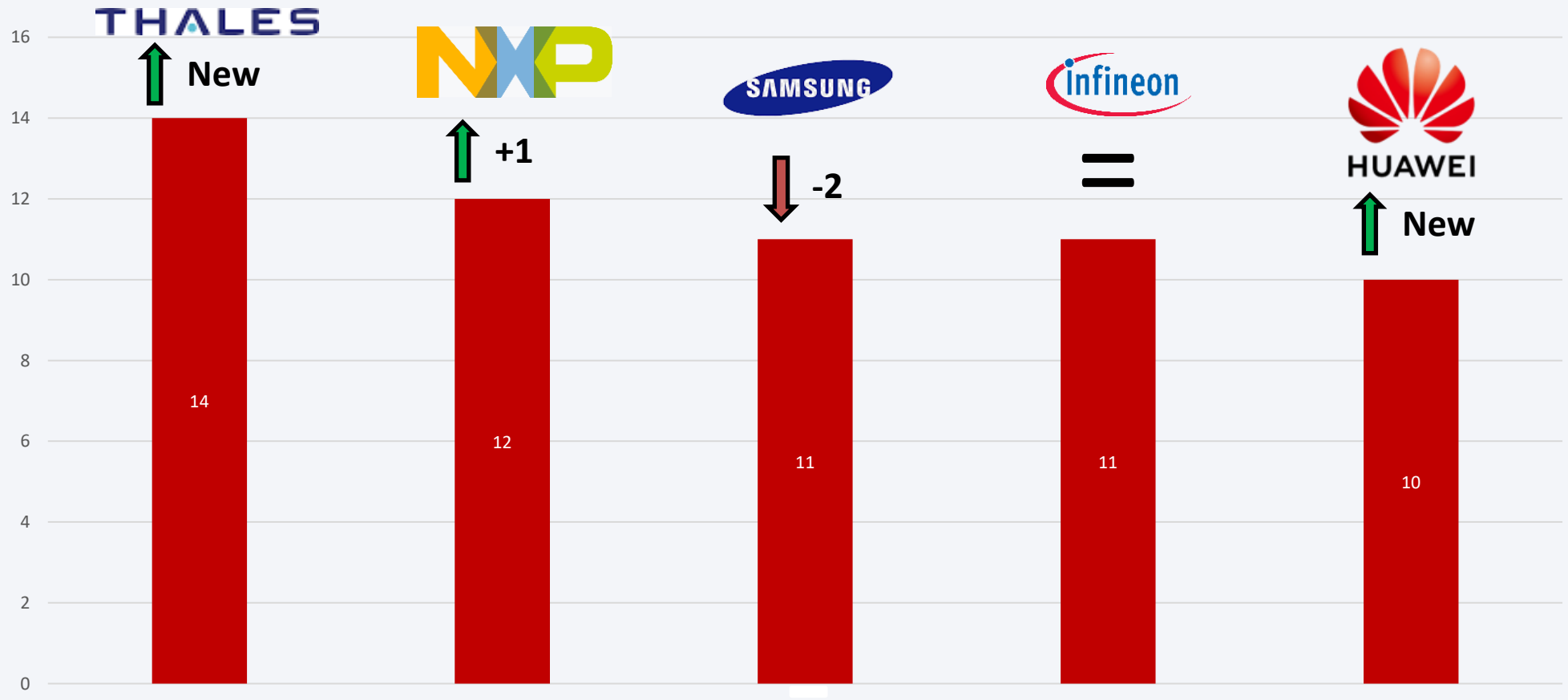
- PP and cPP compliant certifications in 2022





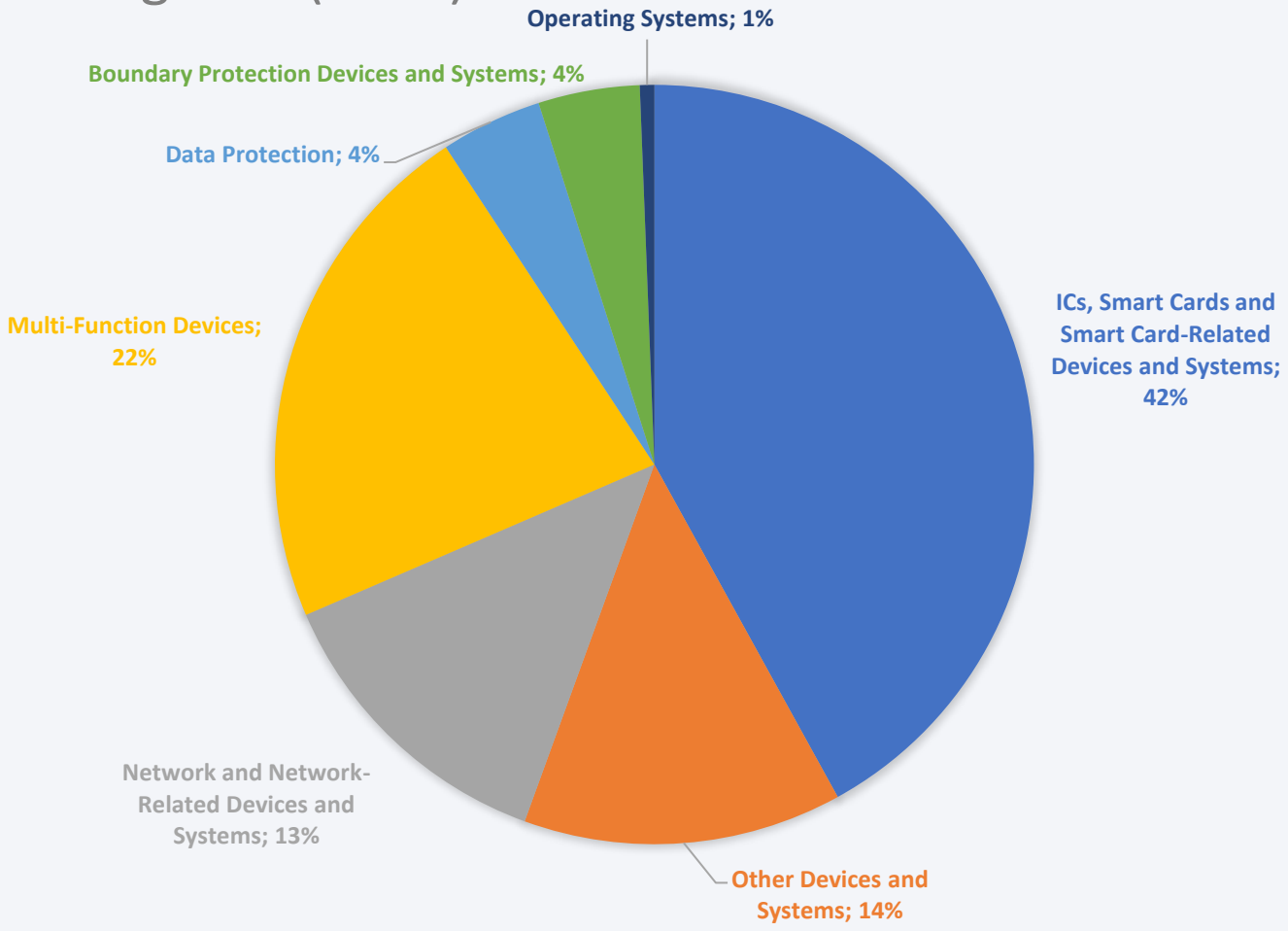
Statistics – 2022 (9 months)

- Top 5 manufacturers of certified products (2022)



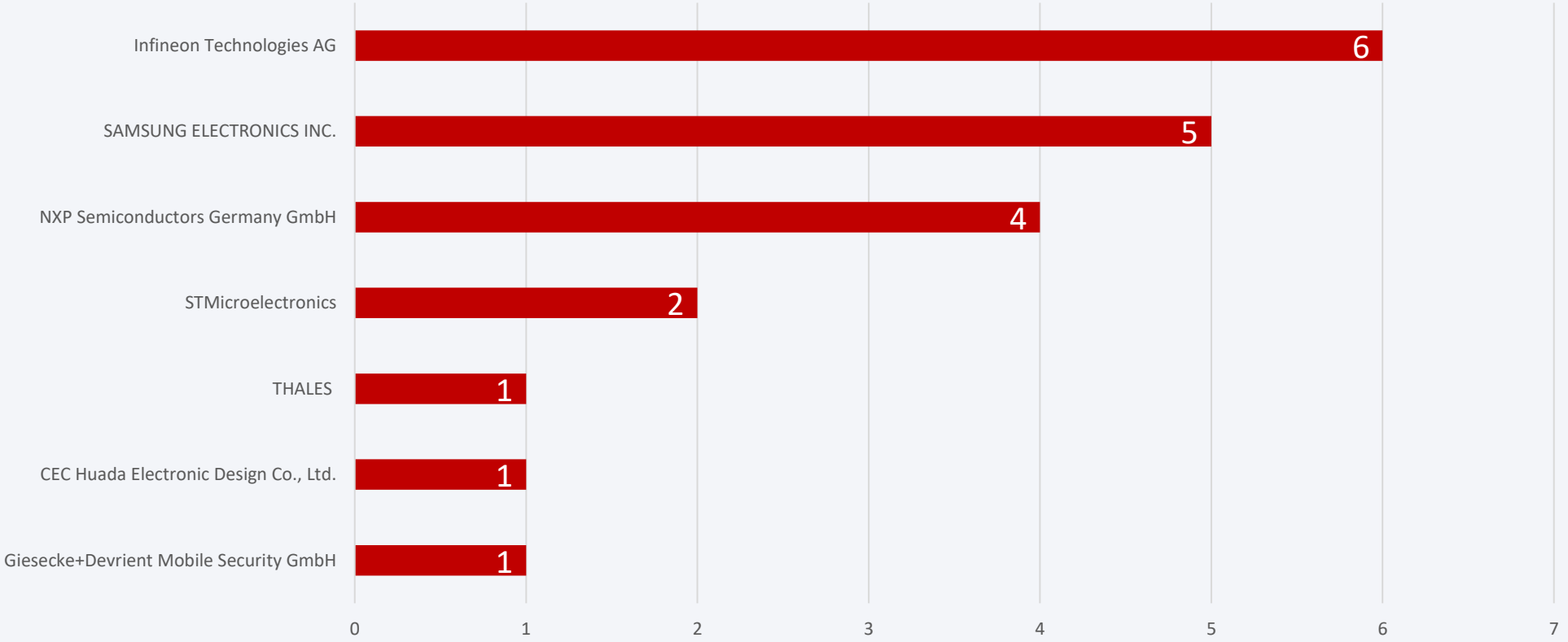
Statistics – 2022 (9 months)

- Top product categories (2022) and their evolution



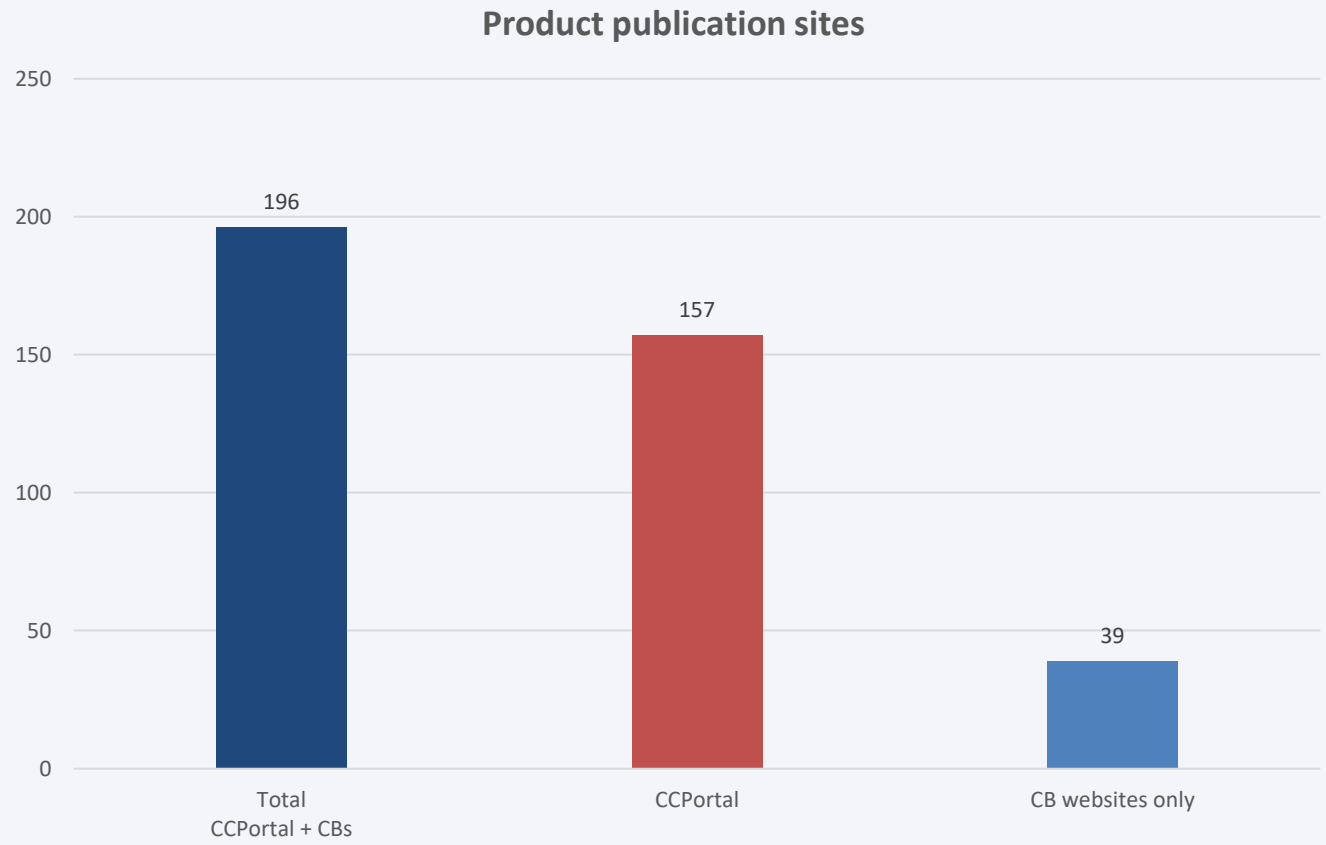
Statistics – Higher EAL manufacturers

- Manufacturers and categories that obtained EAL6



Statistics – 2022 (9 months)

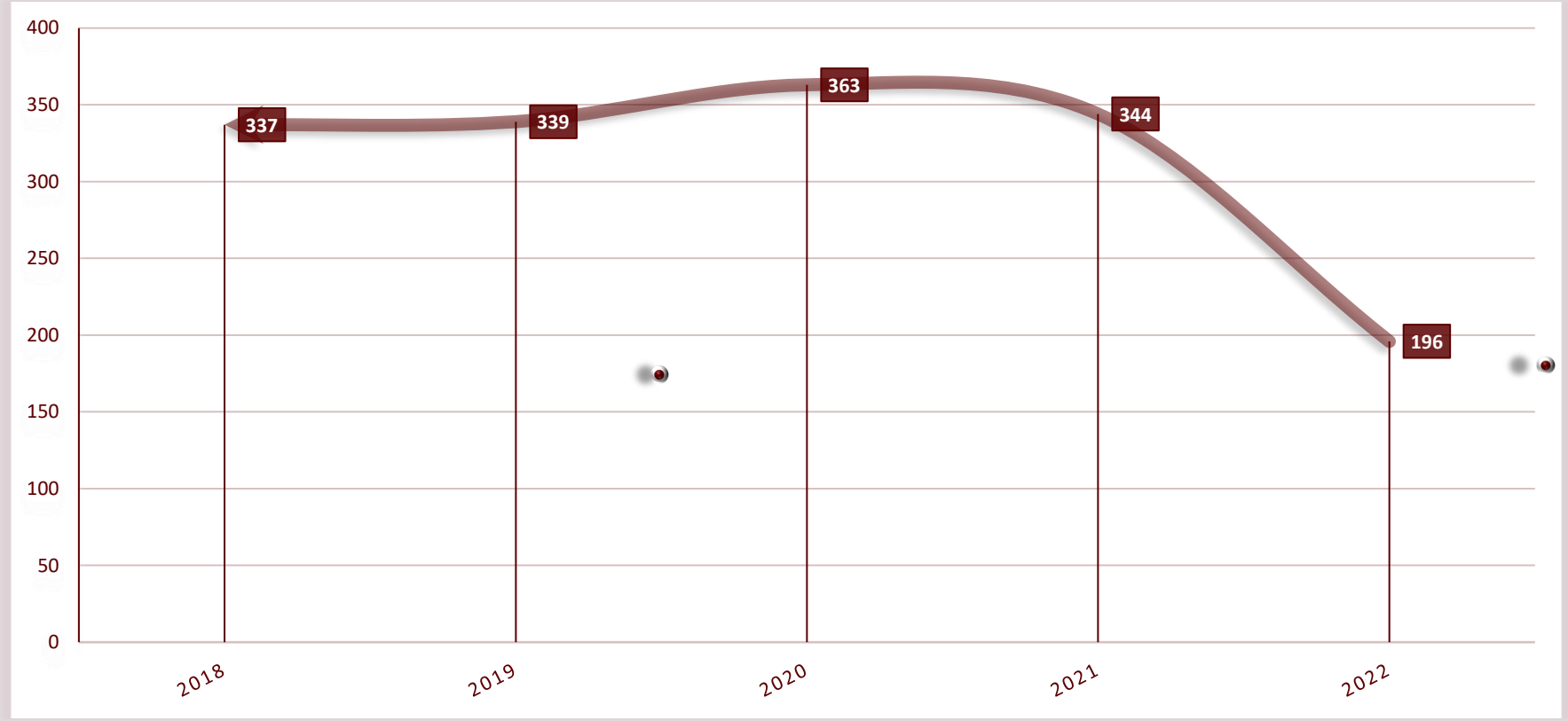
- Products uploaded to CC Portal vs products only in CB websites



CC Statistics for last 5 years

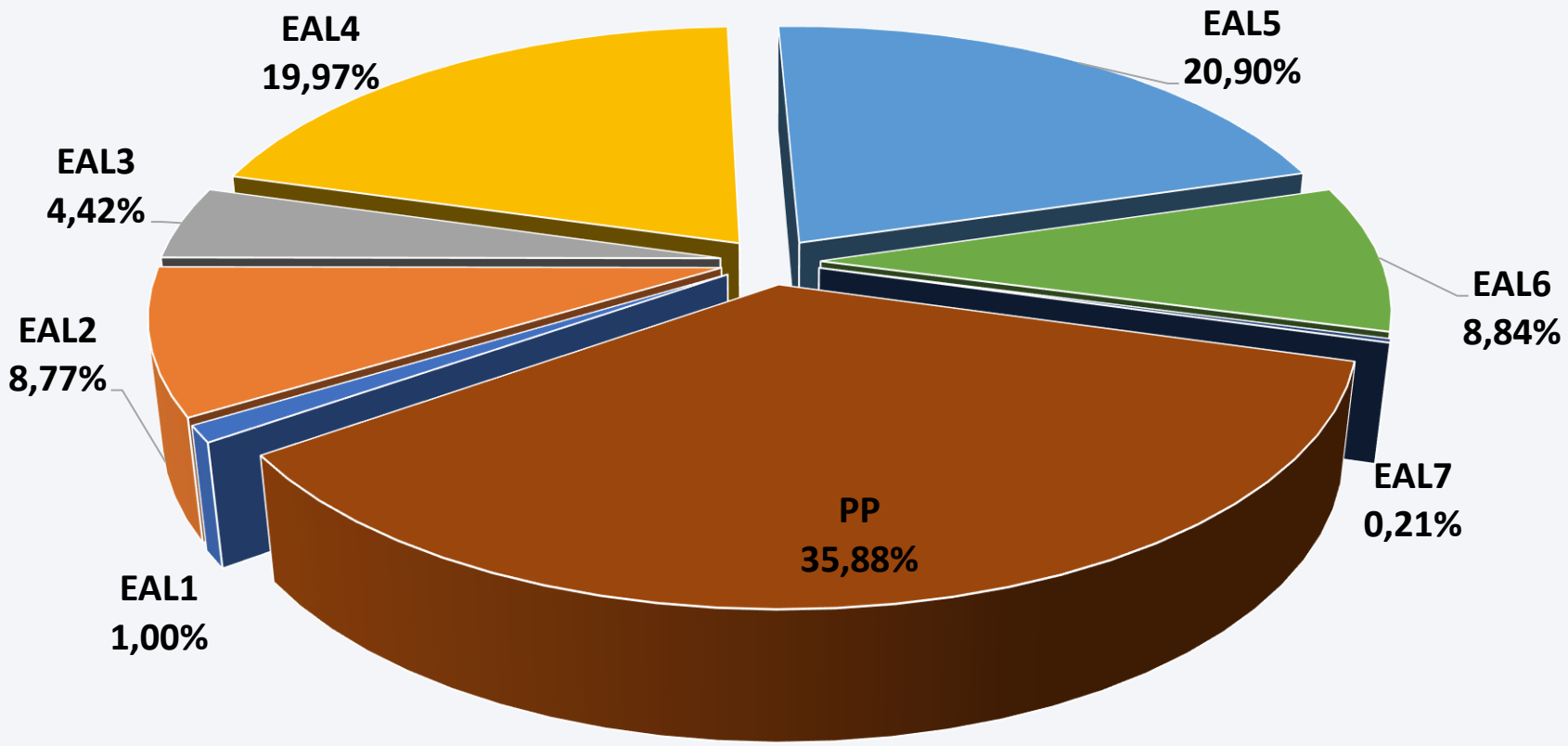
Statistics – 5 years trend

- Number of certifications in the last 5 years Will 2022 be the **worst year** of the last five?



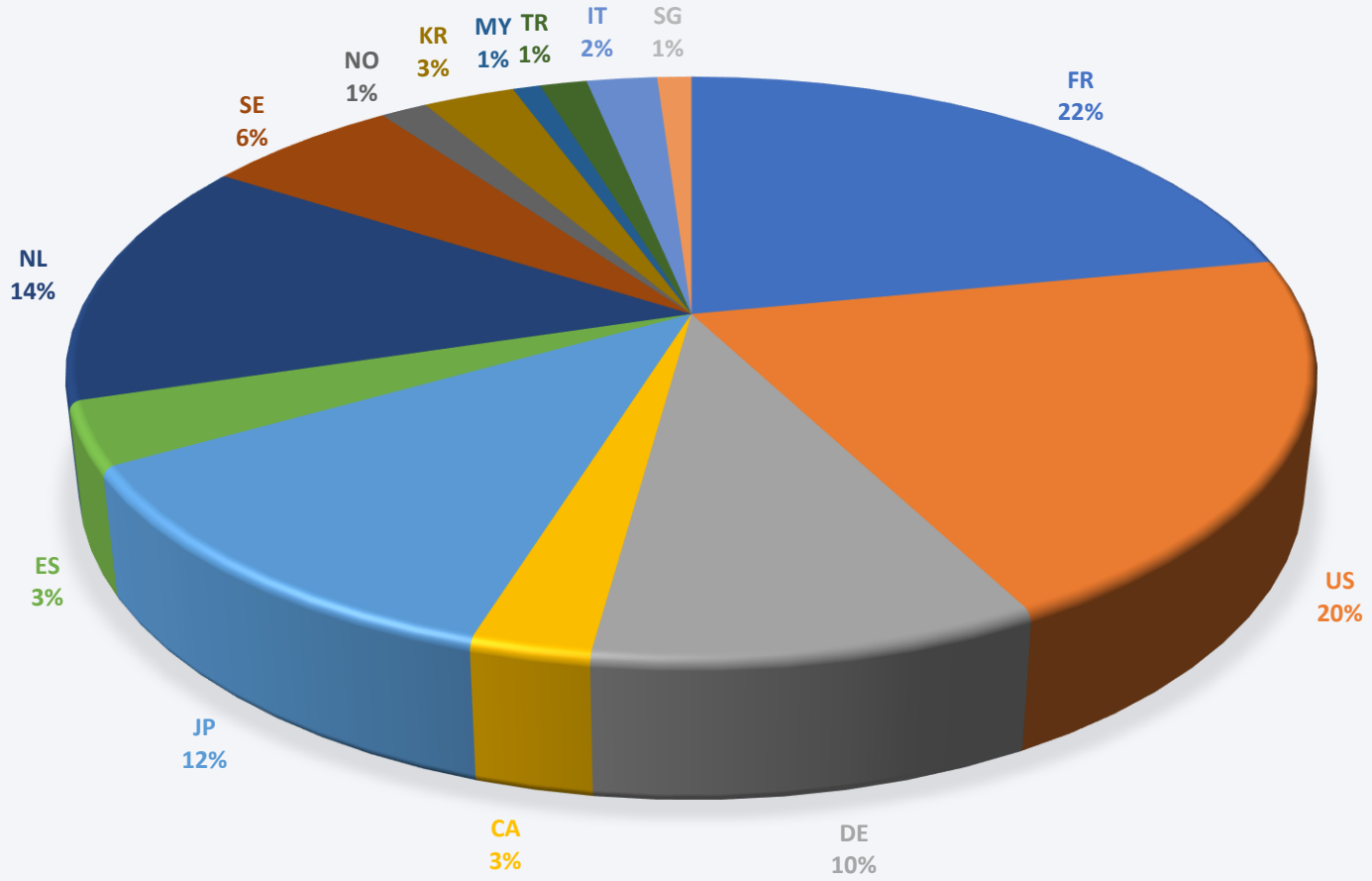
Statistics – 5 years trend

- Compliance with EAL or PP of certified products (5 year)



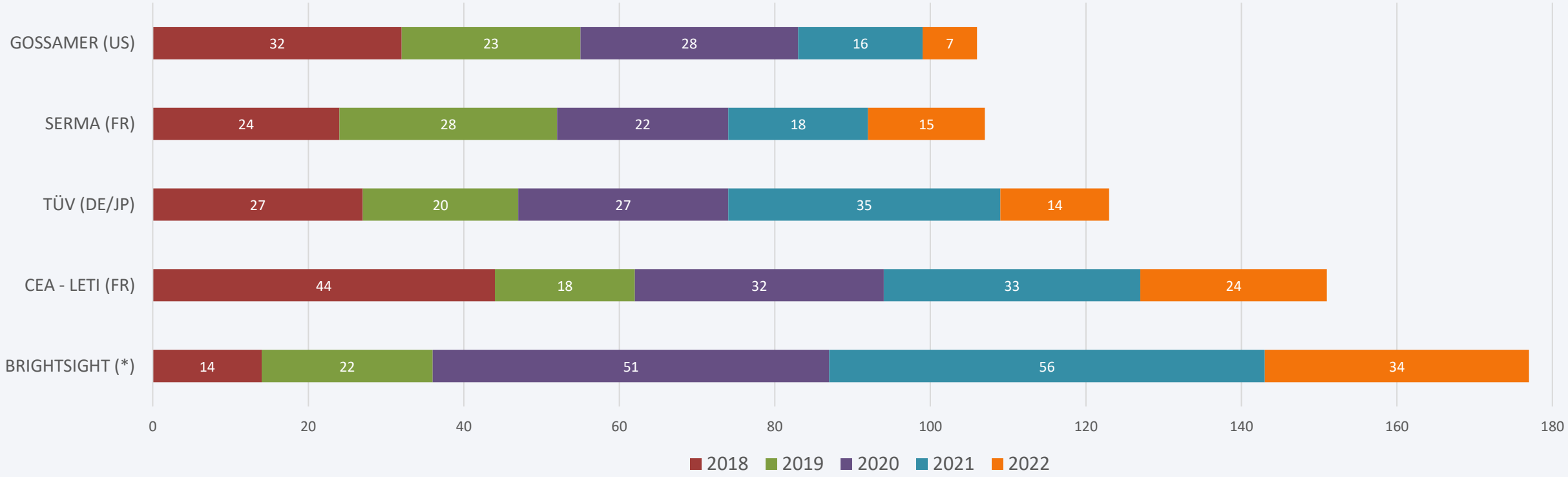
Statistics – 5 year trend

- Certifications per country scheme in the last 5 years



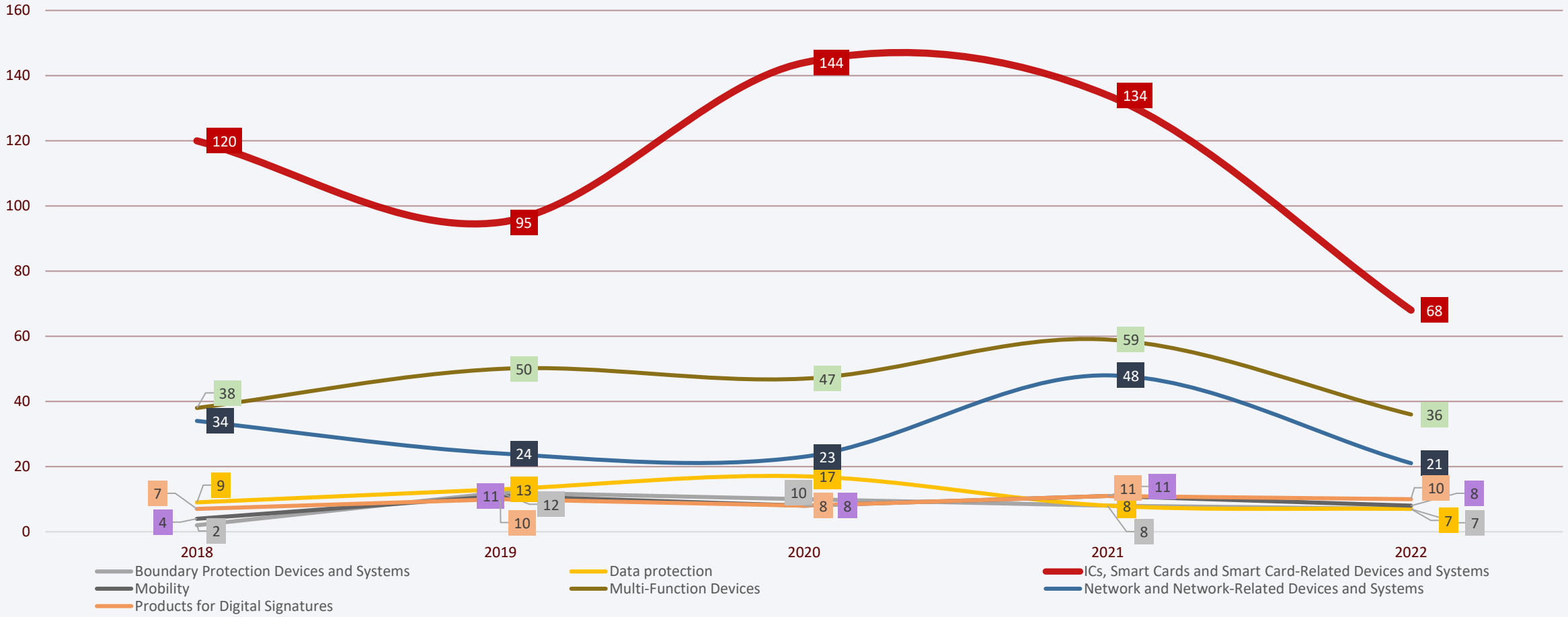
Statistics – 5 year trend

- Evolution of top 5 laboratories



Statistics – 5 year trend

- Evolution of top product categories (five years)



Conclusions

Pessimistic global numbers and changes in top 10

- 2022 will probably end with **much lower numbers** than 2021 (286 by ICCC21, 344 at the end of the year)
- The **top certifying schemes:** US had the biggest drop; Other countries have slightly lower numbers than in 2021.
- Except for #1 lab, there have been **many variations within the top 10** of laboratories. 2 French labs are back in the top 3.
- Smartcards and Hardcopy devices were **the most certified categories**.
- Top #5 vendors are **almost smartcard and Security IC vendors**. Several ICs were certified using EAL6+.

Why has the number of certifications dropped?

- Raise of **other certifications** in Europe
  - National lightweight certifications are swifter;
  - Vendors waiting for EUCC to be a reality.
- The industry trend is cloud-based. Cloud-vendors demand certifications.
- The shadow of COVID pandemics: developments started in 2020/21 were certified on 2021/22; however, other products were never finished due to the pandemics.
- 2022 will be a negative year, after two remarkable ones.

Contact

jtsec Beyond IT Security

Granada & Madrid – Spain

hello@jtsec.es

@jtsecES

www.jtsec.es

“Any fool can make something complicated. It takes a genius to make it simple.”
Woody Guthrie