jtsec
BEYOND IT SECURITY

Automating Common Criteria

About me

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- Co-Founder & CTO
- Common Criteria & FIPS 140-2 Expert
- Member of the SCCG (Stakeholder Cybersecurity Certification Group)
- ICCC Program Director
- Editor at thematical group "IACS Cybersecurity certification ".
- Editor at JTC13 WG3: "Cybersecurity Evaluation Methodology for ICT products"
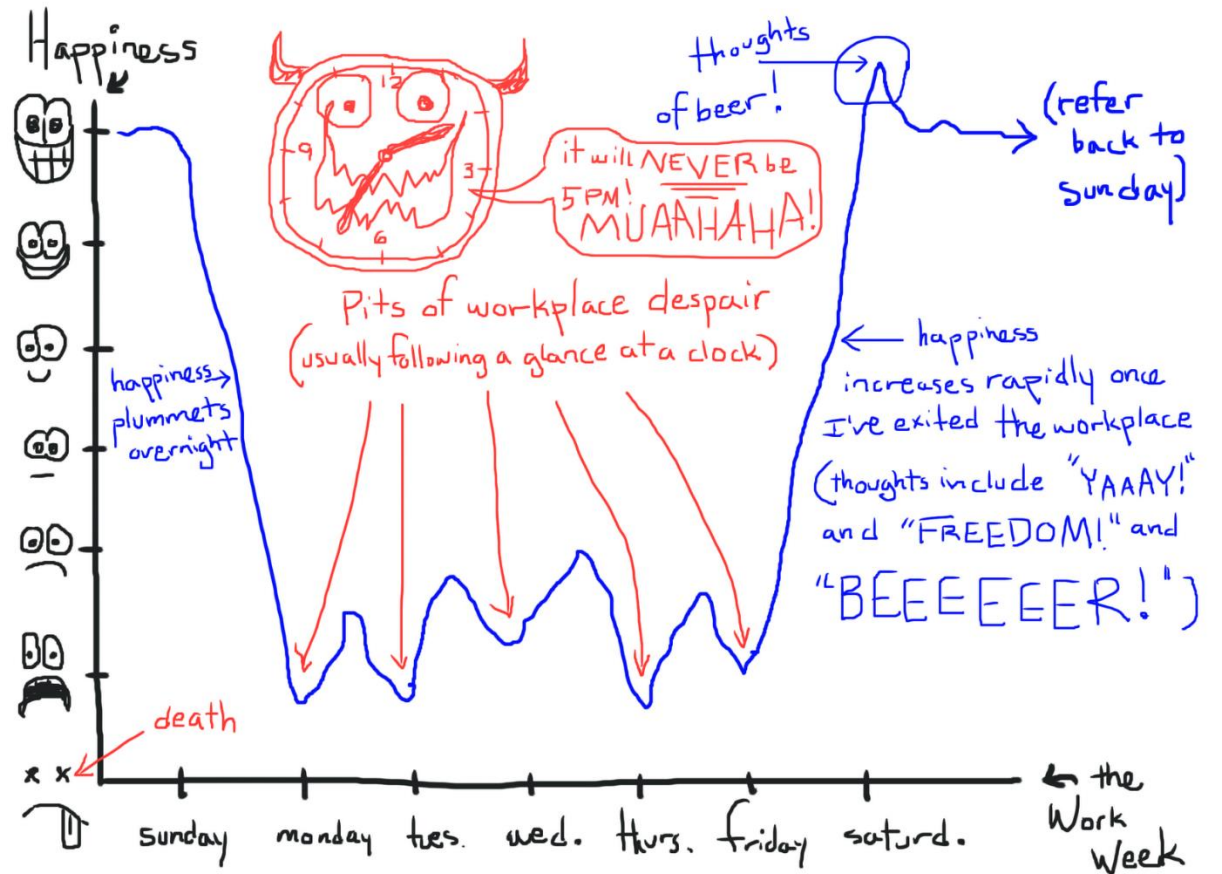
Why automatization tools for Common Criteria?

❑ **Scalability Issues** in the industry
  ❑ Not enough engineers in the industry!
  ❑ We may expect an increase of Cybersecurity certifications in the following years

❑ **Reduce Paperwork time** consuming activities!
  ❑ Less time to obtain the certificate
  ❑ Lower cost for manufacturers
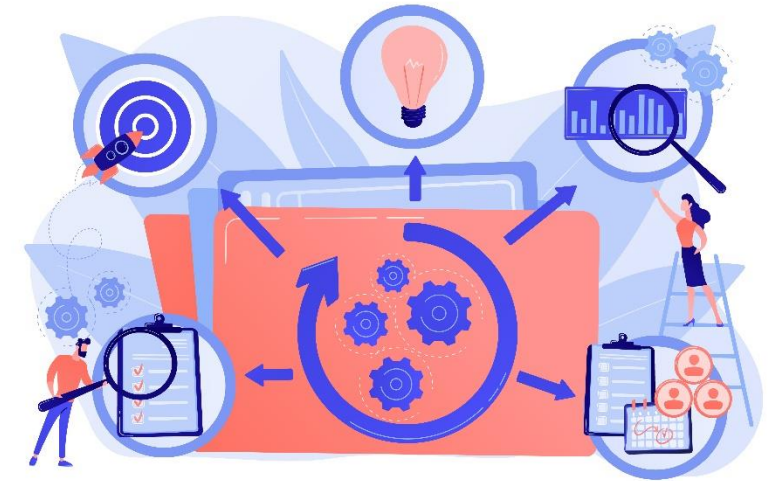
# Why automatization tools for Common Criteria?

Make Engineers Happy!

Automation, an old acquaintance

❑ NIST announced a project called, "Automation of the Cryptographic Module Validation Program (CMVP)" for FIPS methodology.

❑ Other labs have done some tools for certain part of the process of Common Criteria, like Lighshipsec, with the creation of a Conformance Automation tool covering the testing part

❑ NIAP is developing a tool for automating Security Targets.

Deadline is here and I don´t have time to deliver it.
What can I do?

Don't worry, be happy and use automation tools

Automation, part of our NDA

❑ Developers of **LinceToolbox**, a tool that automates LINCE (Spanish lightweight evaluation and certification methodology for ICT security products)

❑ Currently developing CCCAB, which will allow Common Criteria CABs to smooth the certification process.

❑ Developers of CCToolbox, the all-in-one framework for Common Criteria.
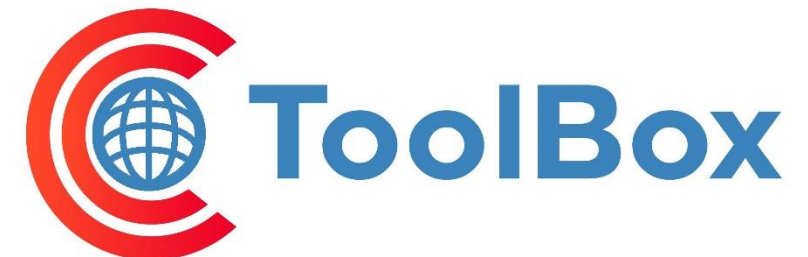
CCToolbox, the all-in-one solution for Common Criteria
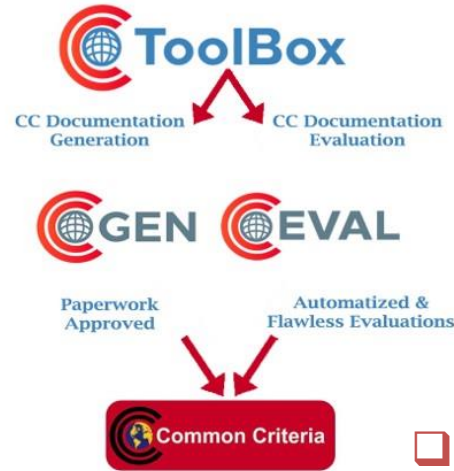
❑ Perfect tool for **Developers and Engineers**

❑ **Simplifies** most tedious part, **CC Documentation**

❑ **Ensures** that all the Common Criteria **requirements are met**

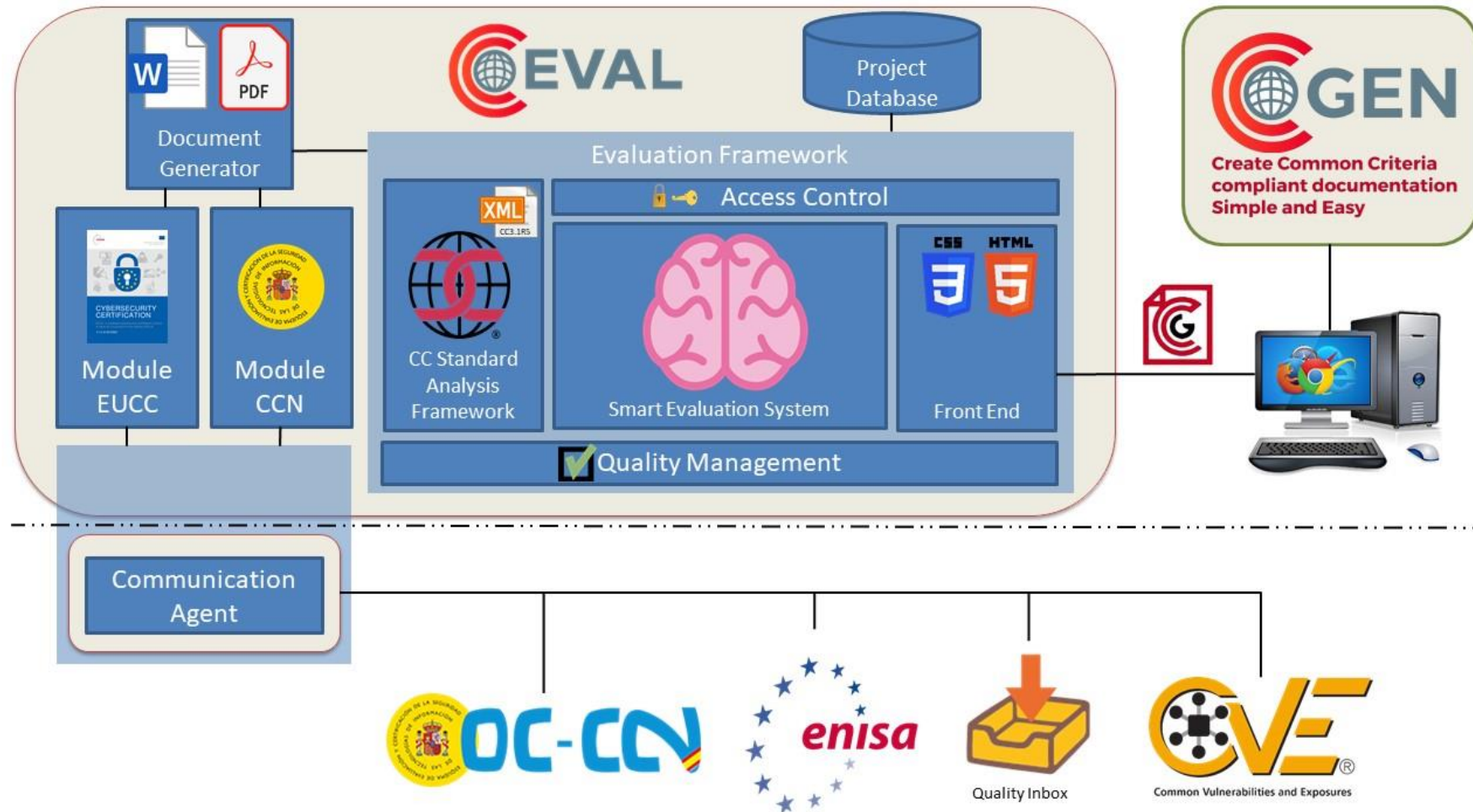❑ **CCGen: 40% save of the CC documentation development time**

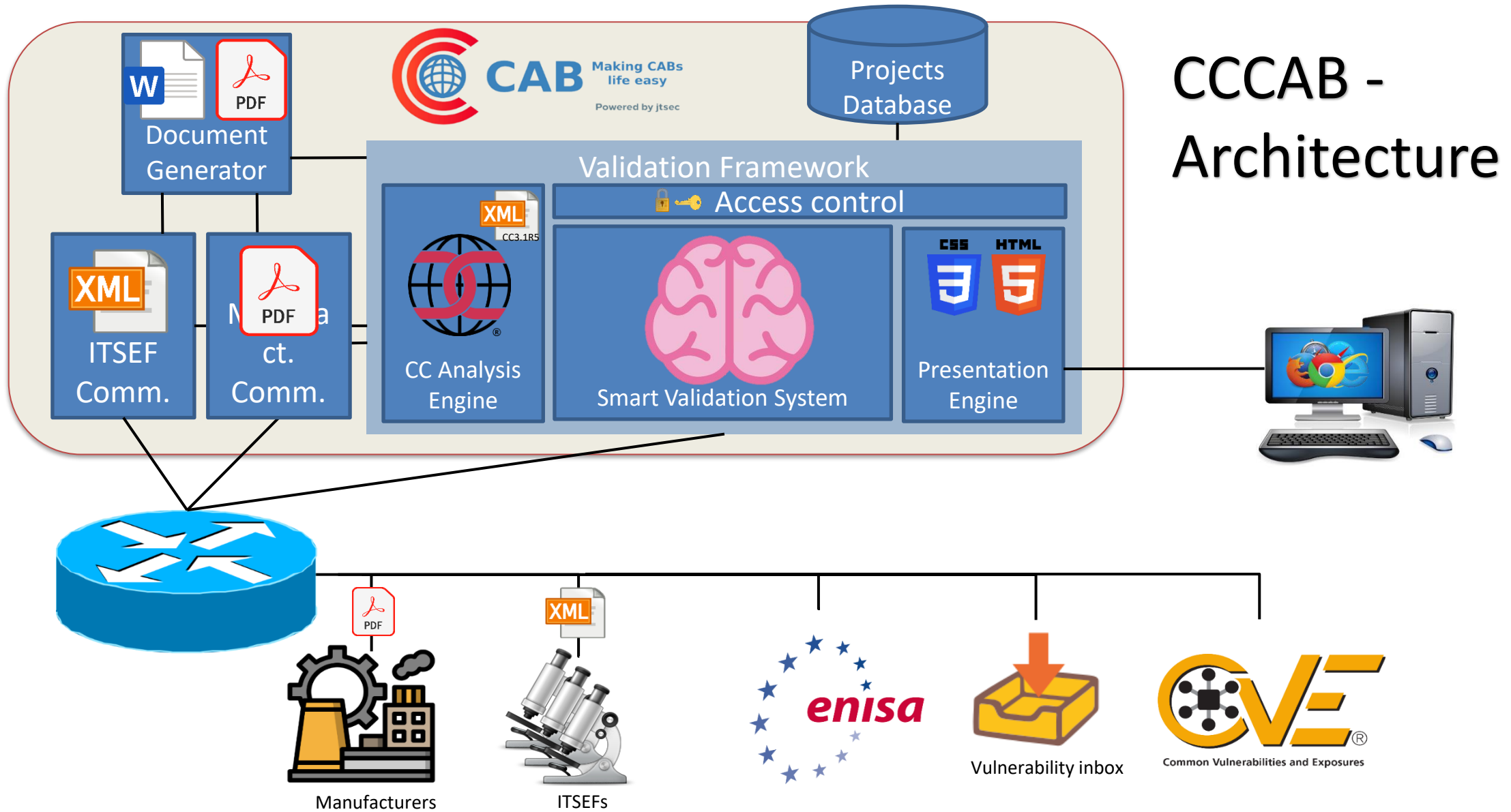❑ Excellent and intuitive tool, aimed at **CyberSecurity labs**

❑ Focused on the **technical aspects offering** evaluation technical report **consistency**

❑ **Automatization** of some of the evaluation activities

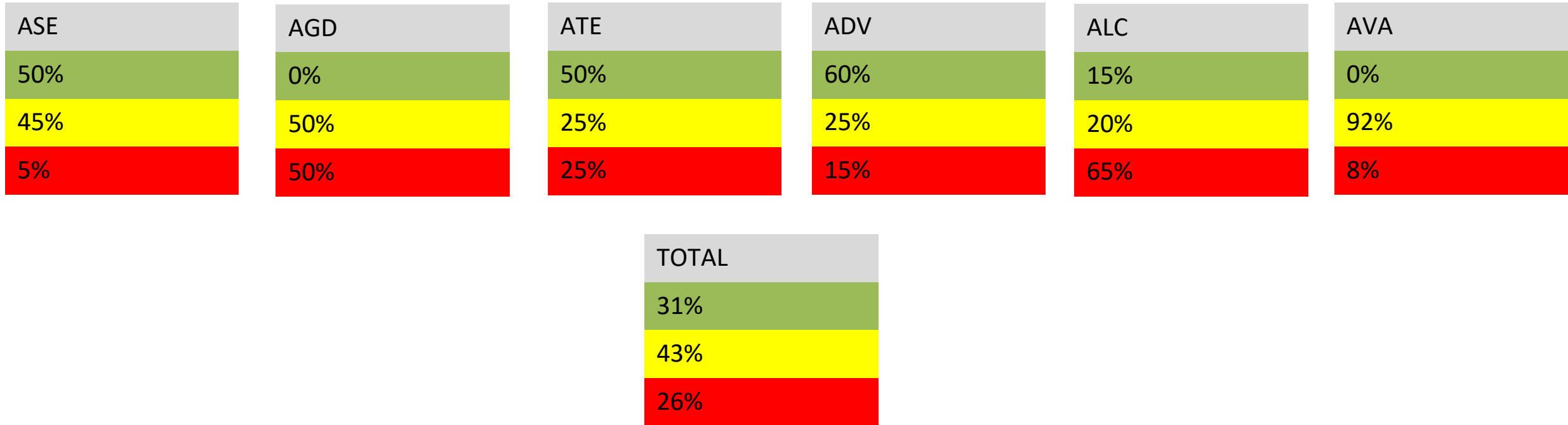❑ **CCEval: Save from 15% to 40% in the evaluation time**

CCEval - Architecture

CCCAB - Architecture

CCToolBox Benefits

ASE		
50%		
45%		
5%		

AGD		
0%		
50%		
50%		

ATE		
50%		
25%		
25%		

ADV		
60%		
25%		
15%		

ALC		
15%		
20%		
65%		

AVA		
0%		
92%		
8%		

TOTAL		
31%		
43%		
26%		

(green)	% of work that will be filled by CCEval and it's not necessary to review the evidence
(yellow)	% of work that will be filled by CCEval but it's necessary to review the evidence
(red)	% of work that is partially filled by CCEval but it's necessary to add content in the workbook

CCToolBox Indirect Benefits

❑ Added value to your customers
  ❑ **Increase confidence** that the certification will be smoother and quicker
  ❑ Make **CCGen available to your customers**

❑ Speed up validation process
  ❑ Forget about **consistency** problems

❑ Internal:
  ❑ Make your **engineers happy:** Let them focus on the real security problems and
  ❑ Speed up the **learning curve** of engineers

01 **Be on time**
Go faster than your competence. Speed up time on market

02 **Save money**
Manage your Common Criteria certification saving up to 50% costs

03 **100% reliability**
Avoid inconsistencies, non conformities on your project
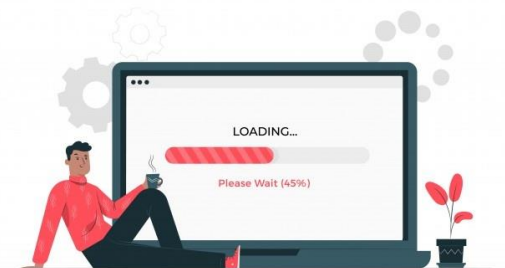
04 **Happy engineers**
Just making Common Criteria easier

CCToolBox Direct Cost Reduction Simulation

CCGen + CCEval		EAL 2	CCEval	
Evaluation Price	100K		Evaluation Price	100K
Evaluator workload cost for EAL2	60K		Evaluator workload cost for EAL2	60K
CCGen + CCEval reduction (25% of the cost)	*15K*		*CCEval reduction (15% of the cost)*	*9K*
Evaluator workload cost **with** CCGen + CCEval	45K		Evaluator workload cost **with** CCEval	51K

Deployment mode

- ❑ Software as a Service
    - ❑ CCToolbox is available online providing unique access to each user

- ❑ On Premise
    - ❑ Delivery of the CCToolbox appliance with a ready to use product

Packages and features included

Feature	Packages		
	Per project	Yearly	Lifetime
Invoicing by tokens[1]	✓	-	-
Yearly Invoicing	-	✓	-
One Time Payment	-	-	✓
Available On Premise and Software as a Service	✓	✓	✓
No projects limit	✗	✓	✓
Tools updates/improvements included	✓	✓	✗[2]
Bugs fixing	✓	✓	✓
Initial workshop setup	✗	✓	✓
	Perfect for companies that have a reduced number of projects per year	Perfect for companies that have a high number of projects per year and wants to keep the tools up to date.	Perfect for companies that have a high number of projects per year and prefers not to have a yearly payment.

Conclusions

- ❑ "Old way of doing Cybersecurity Certifications"
    - ❑ Not scalable!
    - ❑ Not attractive for engineers!
    - ❑ Cost-effectiveness Issues

- ❑ Automation – Key factor for the future of Common Criteria
    - ❑ More initiatives/resources are needed!

TAKE ACTION
NOW!

Contact

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