ALC Mutualization

Christophe Bouly, Thales ITSEF.

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ANSSI

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SERMA TECHNOLOGIES

THALES

ALC Mutualization

- Speaker

Christophe Bouly (THALES)

- CC Team manager

- Other stakeholders

François Guerin (GEMALTO)

- Certification Manager

Michael Dulucq (Serma Technologies)

- CC project manager

ANSSI

THALES ITSEF

- A Common Criteria ITSEF licensed by ANSSI up to EAL7 for hardware and embedded software and recognised under CCRA up to EAL4 and SOG-IS up to EAL5+
- Licensed also by banking schemes (Mastercard, Visa,EMVCO), PayTv schemes, Telecom schemes (AFSCM)

ALC Mutualization: Agenda

- Introduction
- Method presentation
- The process approach
- The building process
- Four stakeholders
  - The developer in charge of product evaluations
  - The laboratory in charge of the process site visit (mutualization report)
  - The laboratory in charge of the TOE site visit (rapport consolidation)
  - The certification body in charge of the validation
- Conclusion and questions

ALC Mutualization: Introduction

Objective

- **Follow developers to improve CC evaluations**
  - In particular to reduce site visits number
  - Permit and make easier mutli ITSEF site visits
  - Allow reuse of ALC activities
- **Site certification (CCDB-2007-11-001) alternative method**
- **Increase the confidence in case of ALC re-use between different laboratories**

ALC Mutualization: Method presentation

- **Useful concepts**
  - Life cycle
    - Declare the sites, procedures (generic and local) involed within CC evaluations
  - A process approach to have a clear view with the scope
    - All the sites used by a developer are described in term of processes (support and development/production processes)
  - Technologie approach (USIM, inlays…)

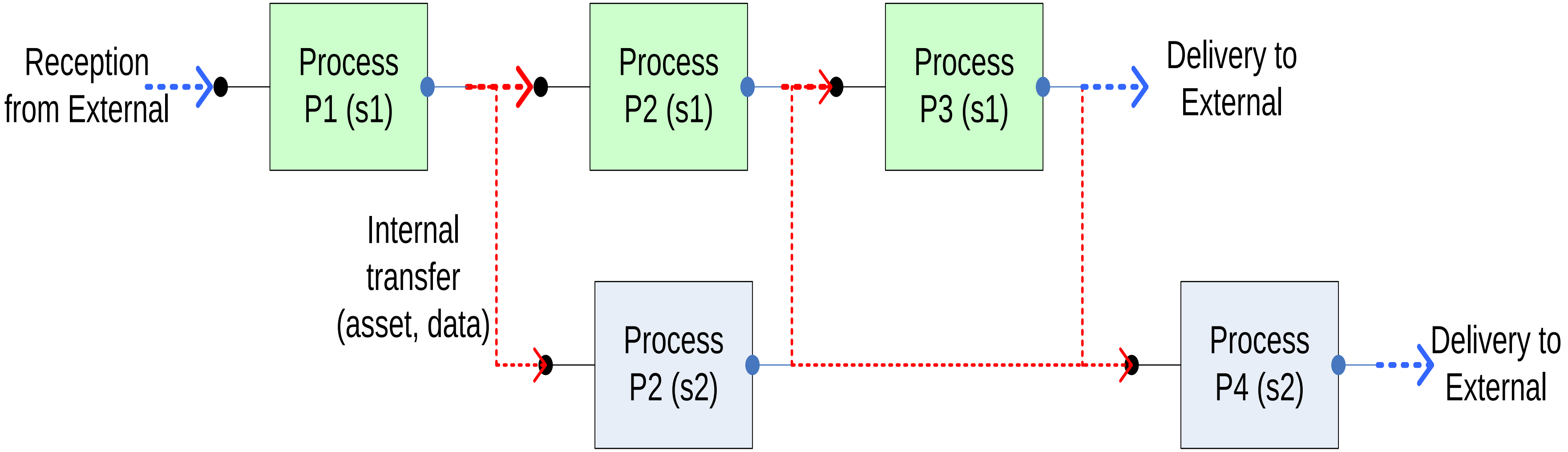
- **A trial use method within the French scheme**
  - Application Note – v2.0 – March 2013. A new version discussed
  - Actors at the initiative: ANSSI, Gemalto, ITSEF (Thales, Serma)

ALC Mutualization: the process approach

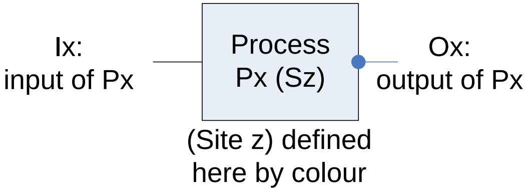
The process approach

- Describe the manipulation of the TOE in term of processes
  - Support and developement/production processes.
- ALC relevant elements must be applied to each process in order to check what is generic, specific and what can be verified during site visits
  - ALC_CMC
  - ALC_CMS
  - ALC_FLR
  - ALC _LCD
  - ALC_TAT
  - ALC_DEL
  - ALC _DVS

ALC Mutualization: the process approach



Legend :



There are different cases:
1) same processes on different sites (or not) to generate one TOE
2) different processes on same site used for different types of TOEs
3) different processes on different sites for different types of TOEs

Examples of TOE generation and production :
1) TOE 1 : P1 (s1) + P2 (s1) + P3 (s1) or P1 (s1) + P2 (s2) + P3 (s1)
2) TOE 1 and TOE 2 : P1 (s1) + P2 (s1) + P3 (s1) only
3) TOE 2 and TOE 3 : P1 (s1) + P2 (s2) + P3 (s1) + P4 (s2)

ALC Mutualization: the building process
Generic vs Specific

Composant	Requirement	Tâche d'évaluation	Catégorie	Commentaire
ALC_CMC.4				
	ALC_CMC.4.1C	ALC_CMC.4-1	SPECIFIC	
	ALC_CMC.4.1C	ALC_CMC.4-2	SPECIFIC	
	ALC_CMC.4.2C	ALC_CMC.4-3	GENERIC	
	ALC_CMC.4.3C	ALC_CMC.4-4	SPECIFIC	
	ALC_CMC.4.4C	ALC_CMC.4-5	GENERIC	
	ALC_CMC.4.5C	ALC_CMC.4-6	GENERIC	
	ALC_CMC.4.5C	ALC_CMC.4-7	GENERIC	
	ALC_CMC.4.6C	ALC_CMC.4-8	GENERIC	
	ALC_CMC.4.7C	ALC_CMC.4-9	GENERIC	
	ALC_CMC.4.8C	ALC_CMC.4-10	GENERIC	
	ALC_CMC.4.9C	ALC_CMC.4-11	GENERIC	
	ALC_CMC.4.10C	ALC_CMC.4-12	GENERIC	
	ALC_CMC.4.10C	ALC_CMC.4-13	GENERIC	Visit
			SPECIFIC	Confirmation
ALC_CMC.5				
	ALC_CMC.5.1C	ALC_CMC.5-1	SPECIFIC	
	ALC_CMC.5.1C	ALC_CMC.5-2	SPECIFIC	
	ALC_CMC.5.2C	ALC_CMC.5-3	GENERIC	
	ALC_CMC.5.3C	ALC_CMC.5-4	GENERIC	
	ALC_CMC.5.4C	ALC_CMC.5-5	SPECIFIC	
	ALC_CMC.5.5C	ALC_CMC.5-6	GENERIC	
	ALC_CMC.5.6C	ALC_CMC.5-7	GENERIC	
	ALC_CMC.5.6C	ALC_CMC.5-8	GENERIC	
	ALC_CMC.5.7C	ALC_CMC.5-9	GENERIC	
	ALC_CMC.5.8C	ALC_CMC.5-10	GENERIC	
	ALC_CMC.5.9C	ALC_CMC.5-11	GENERIC	
	ALC_CMC.5.10C	ALC_CMC.5-12	GENERIC	
	ALC_CMC.5.11C	ALC_CMC.5-13	GENERIC	
	ALC_CMC.5.12C	ALC_CMC.5-14	GENERIC	
	ALC_CMC.5.13C	ALC_CMC.5-15	GENERIC	
	ALC_CMC.5.14C	ALC_CMC.5-16	GENERIC	
	ALC_CMC.5.15C	ALC_CMC.5-17	GENERIC	
	ALC_CMC.5.16C	ALC_CMC.5-18	GENERIC-	
	ALC_CMC.5.16C	ALC_CMC.5-19	GENERIC	Visit
			SPECIFIC	Confirmation
	ALC_CMC.5.2E	ALC_CMC.5-20	GENERIC-	Visit
			SPECIFIC	Confirmation
ALC_CMS.4				
	ALC_CMS.4.1C	ALC_CMS.4-1	SPECIFIC	
	ALC_CMS.4.2C	ALC_CMS.4-2	SPECIFIC	
	ALC_CMS.4.3C	ALC_CMS.4.3	SPECIFIC	
ALC_CMS.5				
	ALC_CMS.5.1C	ALC_CMS.5-1	SPECIFIC	
	ALC_CMS.5.2C	ALC_CMS.5-2	SPECIFIC	
	ALC_CMS.5.3C	ALC_CMS.5-3	SPECIFIC	

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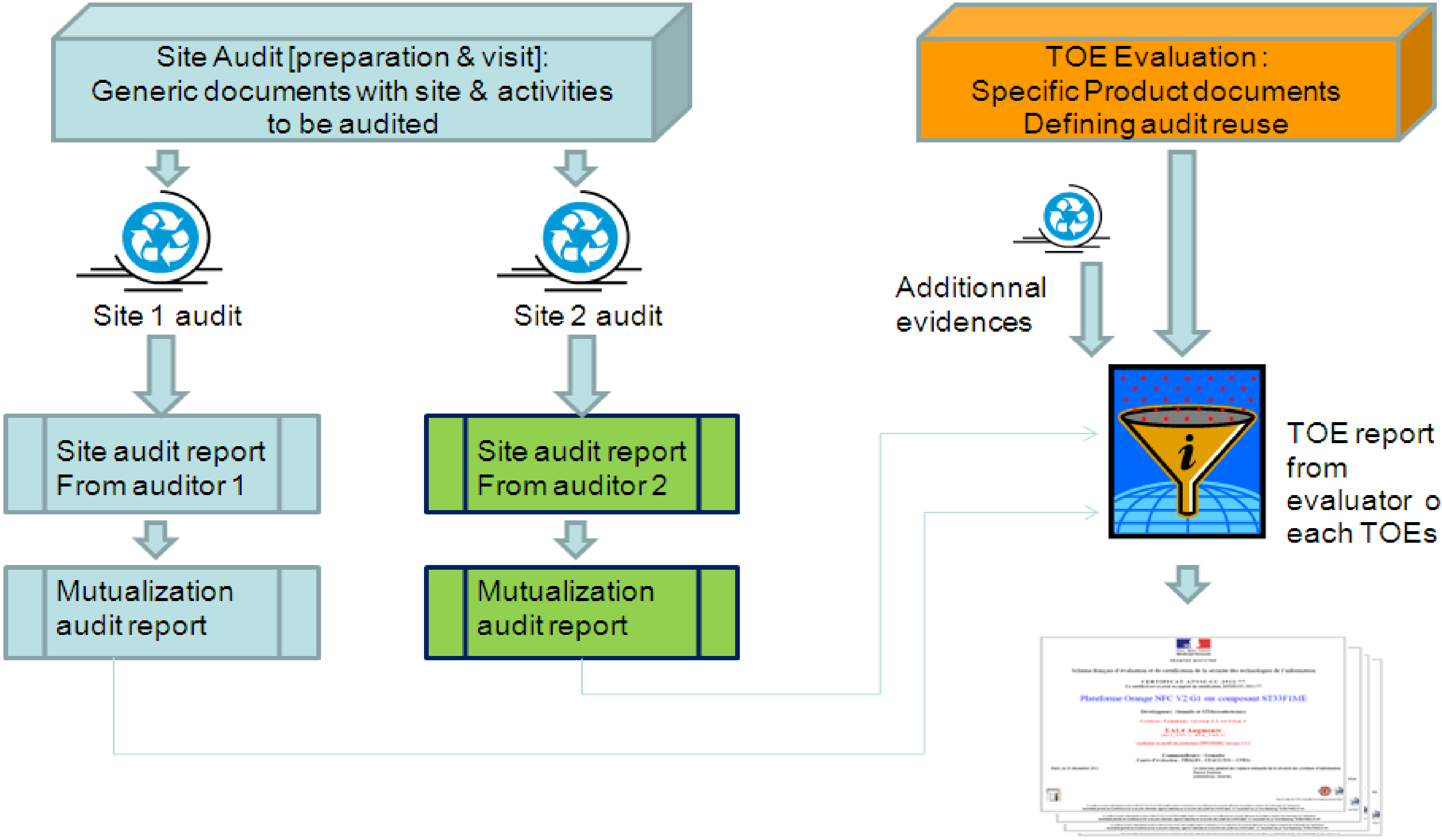
ALC Mutualization: the building process
Generic vs Specific

ALC_DEL.1				
	ALC_DEL.1.1C	ALC_DEL.1-1	GENERIC	
	ALC_DEL.1.2D	ALC_DEL.1-2	GENERIC	Visit
ALC_DVS.1				
	ALC_DVS.1.1C	ALC_DVS.1-1	GENERIC	
	ALC_DVS.1.1C	ALC_DVS.1-2	GENERIC	
	ALC_DVS.2.2E	ALC_DVS.1-3	GENERIC	Visit
ALC_DVS.2				
	ALC_DVS.2.1C	ALC_DVS.2-1	GENERIC	
	ALC_DVS.2.2C	ALC_DVS.2-2	GENERIC	
	ALC_DVS.2.2C	ALC_DVS.2-3	GENERIC	
	ALC_DVS.2.2E	ALC_DVS.2-4	GENERIC-	Visit
ALC_LCD.1				
	ALC_LCD.1.1C	ALC_LCD.1-1	GENERIC	
	ALC_LCD.1.2C	ALC_LCD.1-2	GENERIC	
ALC_LCD.2				
	ALC_LCD.2.1C	ALC_LCD.2-1	GENERIC	
	ALC_LCD.2.2C	ALC_LCD.2-2	GENERIC	
	ALC_LCD.2.3C	ALC_LCD.2-3	SPECIFIC	
ALC_TAT.1				
	ALC_TAT.1.1C	ALC_TAT.1-1	GENERIC	
	ALC_TAT.1.2C	ALC_TAT.1-2	GENERIC	
	ALC_TAT.1.3C	ALC_TAT.1-3	GENERIC	
ALC_TAT.2				
	ALC_TAT.2.1C	ALC_TAT.2-1	GENERIC-	
	ALC_TAT.2.2C	ALC_TAT.2-2	GENERIC	
	ALC_TAT.2.3C	ALC_TAT.2-3	GENERIC	
	ALC_TAT.2.2E	ALC_TAT.2-4	GENERIC	Visit

ALC Mutualization: the building process



Site Audit [preparation & visit]:
Generic documents with site & activities
to be audited

Site 1 audit

Site 2 audit

Site audit report
From auditor 1

Site audit report
From auditor 2

Mutualization
audit report

Mutualization
audit report

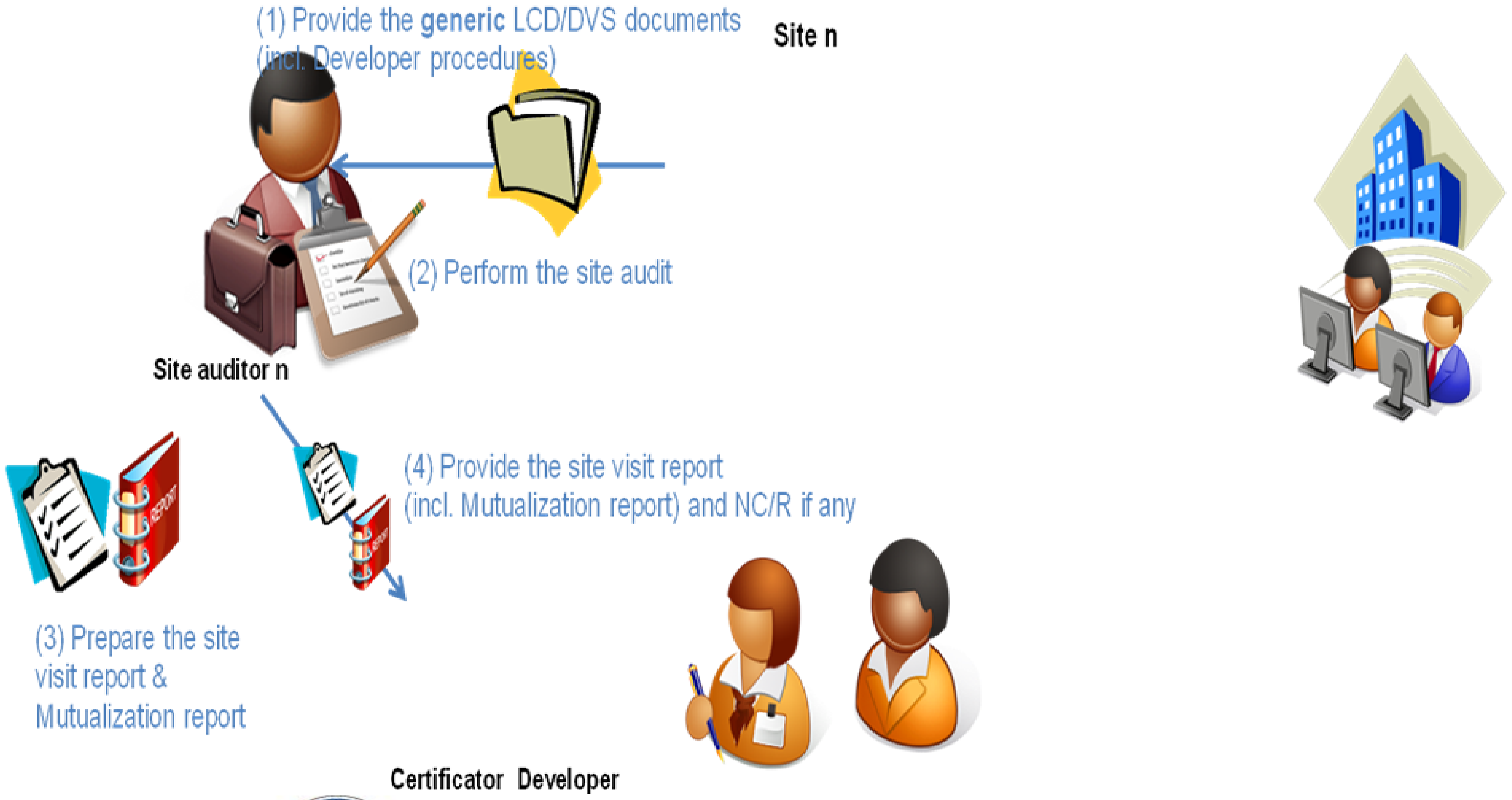
TOE Evaluation :
Specific Product documents
Defining audit reuse

Additionnal
evidences

TOE report
from
evaluator of
each TOEs

ALC Mutualization: the building process
Site visit

Process for Site audit – applicable to each site


(1) Provide the generic LCD/DVS documents (incl. Developer procedures)
Site n
(2) Perform the site audit
Site auditor n
(4) Provide the site visit report (incl. Mutualization report) and NC/R if any
(3) Prepare the site visit report & Mutualization report
Certificator
Developer

ALC Mutualization: the building process the mutualization report

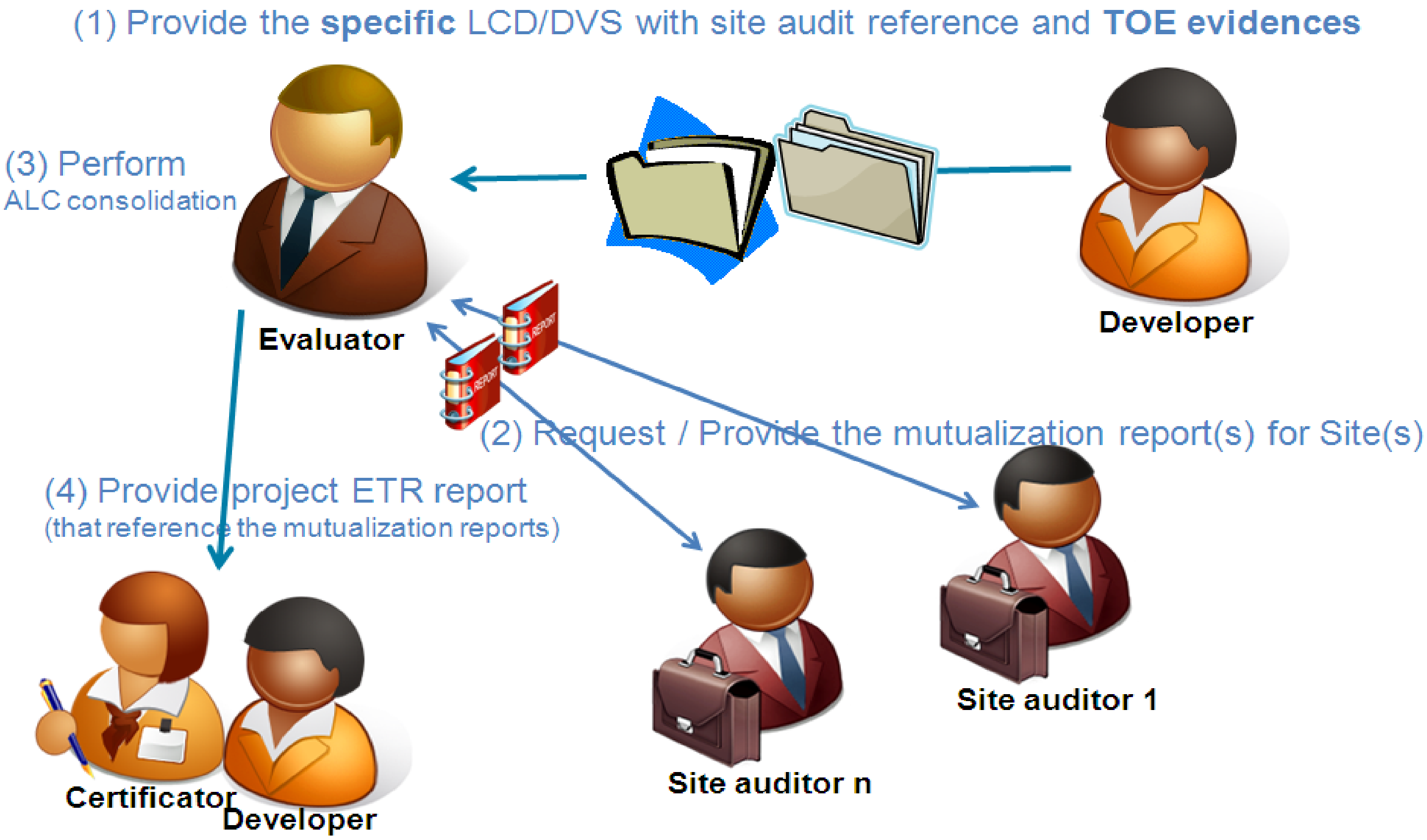
Content of Mutualization report

- Site visit summary with:
  - address of the audited site
  - name of auditors
  - date of current audit
  - Information/Cards on previous visit (if any)
  - Reference previous report (if any)
- Site visit result summary:
  - List of audited processes and applicability
  - List of procedures applicable to each process
  - List of related process tied to evaluated one
  - Result of procedure evaluation for each process
  - Conclusion of audit including final verdict

Site Visit Result (details available only in complete site audit report)

ALC Mutualization: the building process the TOE evaluation

Process for TOE Evaluation


(1) Provide the **specific** LCD/DVS with site audit reference and **TOE evidences**
(3) Perform
ALC consolidation
Evaluator
Developer
REPORT
REPORT
(2) Request / Provide the mutualization report(s) for Site(s)
(4) Provide project ETR report
(that reference the mutualization reports)
Certificator
Developer
Site auditor n
Site auditor 1

ALC Mutualization: four stakeholders

The stakeholders and their points of view

- The developer
- At least two ITSEF
- The certification body

ALC Mutualization: Developer point of view

- gain
  - decrease the site visits number
  - increase site auditors
- constraints
  - a process to build with different stakeholders
- results :
  - Some results but too early…

ALC Mutualization: ITSEF point of view

- A formal representation on how the TOE is built
- Generic process and procedure: a workload for the ITSEF but an investment too
- Results : An increase of confidence

ALC Mutualization: Conclusion

- Increase the confidence between serveral stakeholders by providing a shared method
- Permit to decrease site visits
- Site certification alternative

ALC Mutualization: Q/A