Evaluating a watermelon: mitigating the threats through the operational environment

11th ICCC Turkey

José Francisco Ruiz Gualda

Agenda

- Introduction
- Creating Watermelons
- Watermelons
- COTs
- Watermelons from different points of view
- Conclusions

Introduction

Assets

Security Objectives for the TOE

Threats

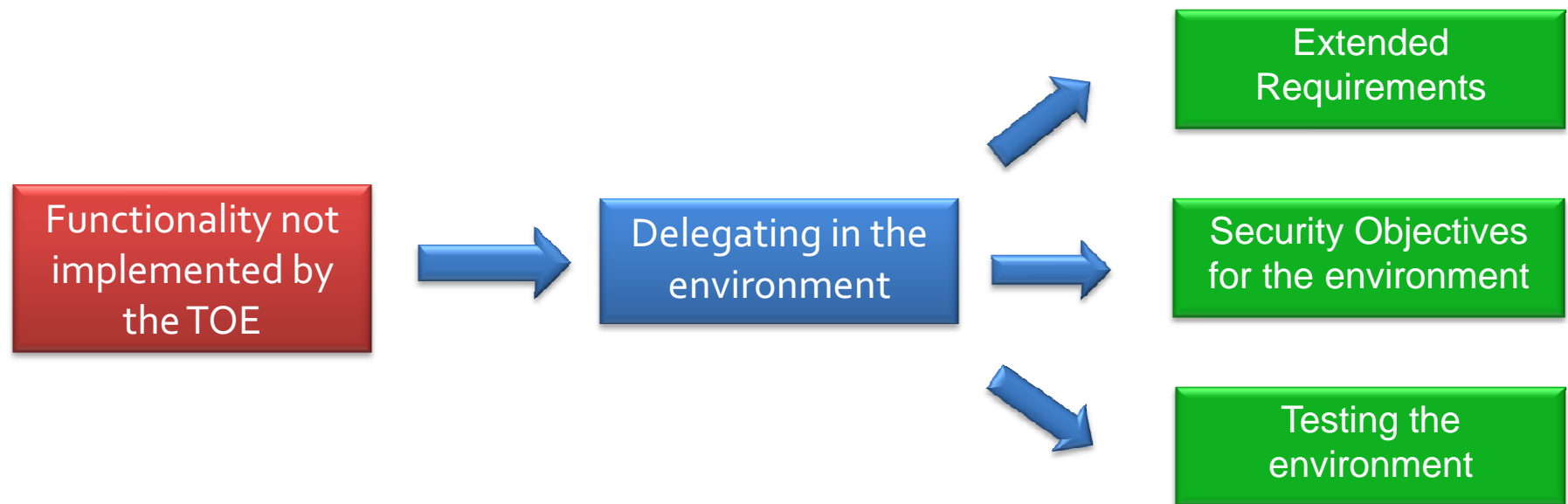Security Objectives for the Operational Environment

Introduction

- Security objectives for the TOE -> SFRs

- Security objectives for the operational environment
  - NON-IT
  - Pre-Evaluated
  - Costs not affordable
  - Assumptions
  - And...

Creating Watermelons

Functionality not implemented by the TOE → Delegating in the environment → Extended Requirements / Security Objectives for the environment / Testing the environment

**Creating Watermelons
(Security Objective for the environment)**

- Security Objectives for the environment:
  - **OE.RESIDUAL_INFORMATION** -> FDP_RIP.2 Full residual information protection

Creating Watermelons
(Extended Requirements)

- Extended Requirements:
  - **OE.CRYPTOGRAPHY**-> FCS_CRM_FPS_(EXT).1 FIPS compliant cryptographic module

Creating Watermelons
(Testing the environment)

- Testing of external entities
  - **Assurance of the fulfillment** of the environment

Watermelons

- Definition

Good Watermelon
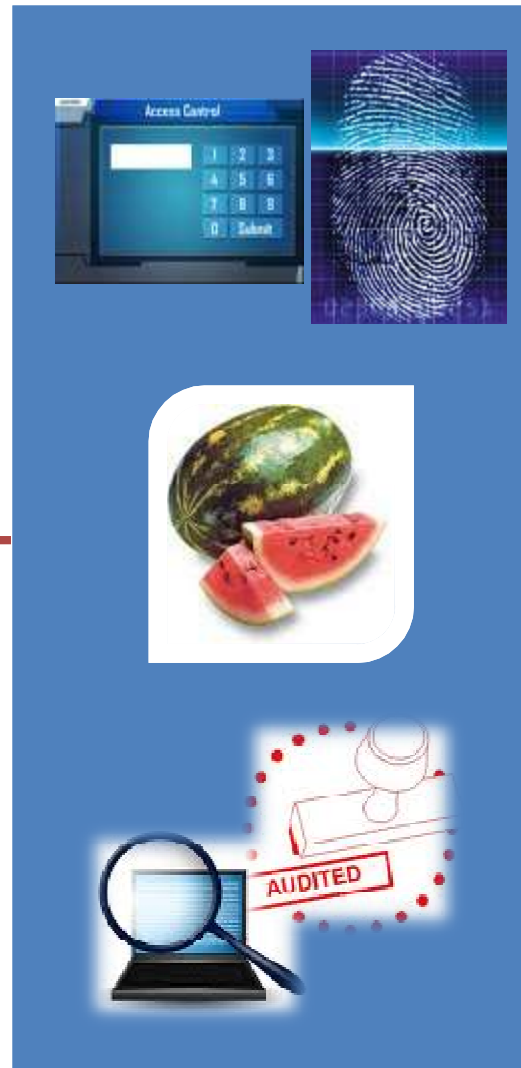
Operational Environment

TOE

Bad Watermelon

TOE

Bad Watermelon

CC popularity

COTs

Certified

Included in the TOE

Open Source
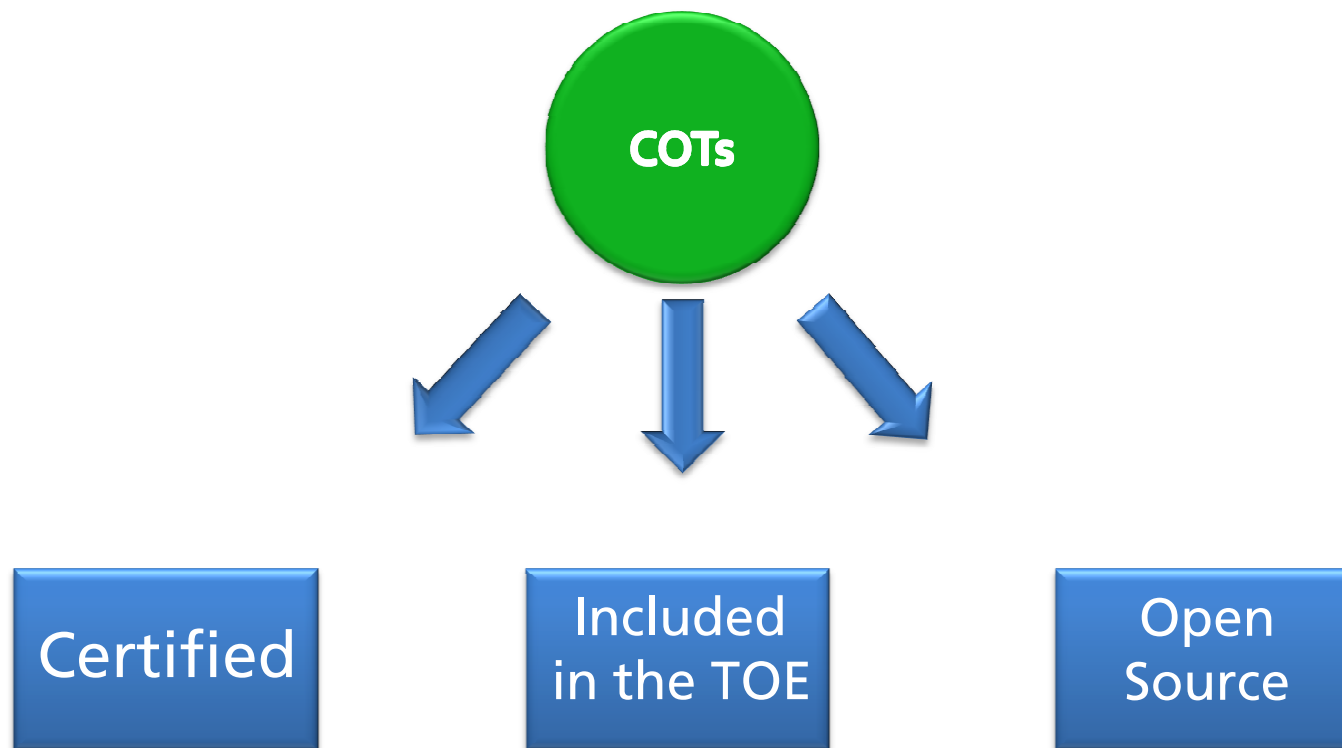
Watermelons from the developer's point of view

Low Cost → Easy success → ?

Watermelons from
the evaluator's point of view

EPOCHE & ESPRI

Security Target
Review

ATE_IND:
SFR testing

Watermelons from the end-users' point of view

EPOCHE&ESPRI
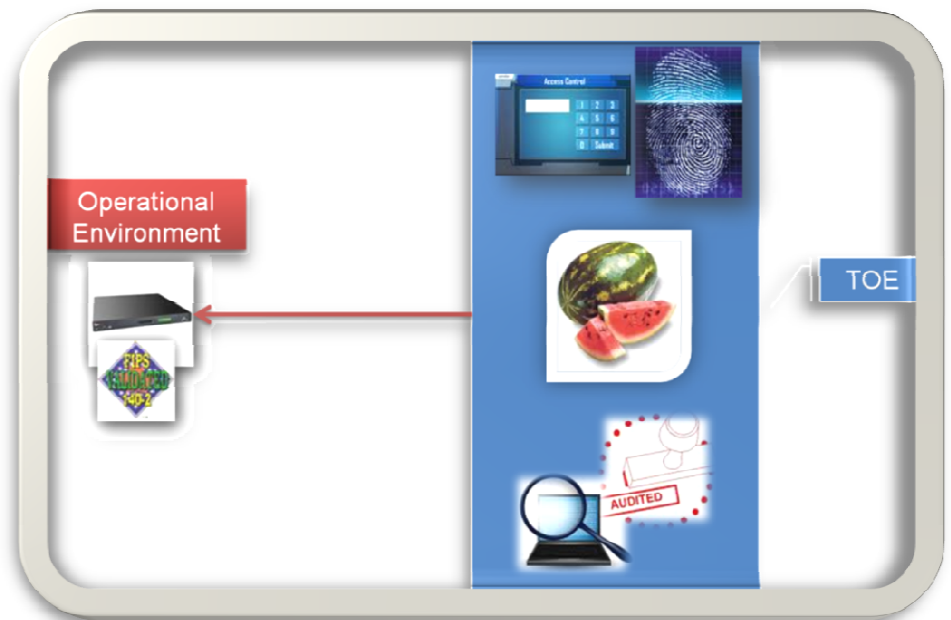
What has been

End-User:
responsible of the

Watermelons from differents points of view

Bad WaterMelon

Good WaterMelon

Conclusions: *System Evaluations*

System

TOE

Conclusions: System Evaluations

Conclusions

Certified

Common Criteria flexibility

End User Responsability
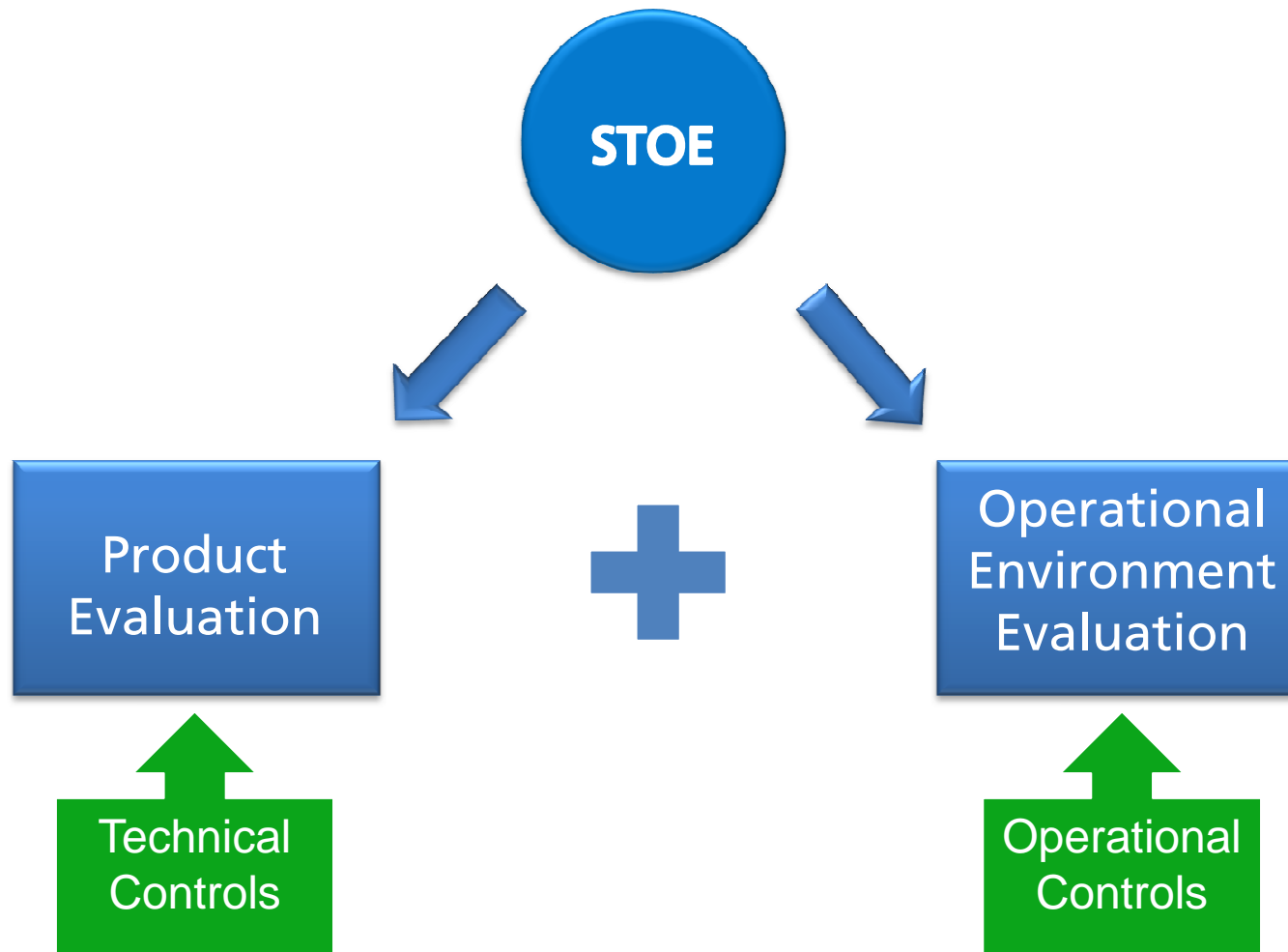
Thanks for all!!

?

José Francisco Ruiz Gualda

eval@epoche.es