Policy and Standardization Working Group report

François VACHER

Head of the EEE components qualification & policy section – CNES (French space agency)
What is PSWG?

PSWG is an European working group made of:
- Parts manufacturers
- Parts procurement companies
- Parts users
- Space agencies

4 meetings per year

It mainly aims at approving new ESCC generic specifications and at improving the ECSS standards regarding component procurement.
PSWG recent achievements

Many new generic specification were approved by PSWG during the last years:

As this presentation is the last ESCCON one, recent achievements will be not described in detail. Let us look at the future.
Context

Faster better cheaper revival
Context: Faster, smaller, cheaper revival

The space market is changing.
To be or not to be “customer oriented”?
That is a question for ESCC
To be or not to be “Customer oriented”

In my opinion, here are the 3 drivers of the ESCC system:

1. **Readability – trustworthy**: ESCC is a kind of brand. Confidence in the ESCC parts quality shall be high.

2. **Parts manufacturer oriented**: ESCC shall support European component suppliers.

3. **Parts customer oriented**: ESCC shall support space projects by providing innovative and competitive parts. ESCC shall bring added value in the supply chain.

ESCC system has 3 different “customers”. These 3 drivers are (of course) not always aligned.

To find the right balance between these drivers is a challenge.
Audits of High volume manufacturing line
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- Audits of manufacturing line are mandatory to qualify a part in the ESCC system.

- However, audits of high volume production line looks questionable (in particular, audit of very large wafer fab).

- It induces the following question:

A « one size fits all » audits policy looks questionable.

A future challenge would be to clarify this audit policy.
ESCC specification for plastic parts
For performance and cost reason, plastic packaging of rad tolerant parts looks very interesting.

Plastic packaging assembly is made in high volume assembly lines.

Two qualification ways of these plastic parts are under study:

ESCC9000-P

- ESCC9000 principle:
  - PID+ evaluation
  - periodic LAT
  - 100% burn-in

- This qualification way looks usual and comforting. But is it adapted to high volume plastic assembly line?

Enhanced Commercial Level

- “Enhanced Plastic” Principle:
  - strong evaluation
  - Periodic data review: PID change study, qualification results obtained for non space customers.

- No periodic LAT, no screening.

- This qualification way => major change

Two qualification ways of parts in plastic package are under study.
ECSS standard for COTS procurement
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- Standardization can help to maximize compatibility, interoperability, safety, repeatability, or quality. It creates the conditions for competition.

- Ongoing modification of the ECSS standard regarding COTS procurement. (ECSS-Q-ST-60-13)

- 3 main topics:
  - Authorization of pure tin parts without retinning.
  - Automotive level recognition
  - Commercial passive parts introduction

- Main difficulties:
  - How to measure trust in a part?
  - Passive COTS => High diversity of parts technologies.
  - Test at board level to be introduced?

COTS procurement rely on trust assessment.

We hope to issue a new COTS procurement ECSS standard in 2019 but it is not an easy task.