

ESCC Qualification schemes

What is in it for you?

What are we going to address?

- What is ESCC
- How is it managed and what is its output
- Can ESCC Qualification fit in your plans, project
- ESCC as a system in evolution



Credit = Erik Johansson



What is ESCC about?

- EEE Component crowd-engineering (sort of...) for procurement and qualification testing, derating, radiation hardness assurance, test methods,....
- Helping channel scarce public resources for new EEE space components “made in Europe” to where there is a solid need, present or future
- Establishing a solid suppliers base of EEE parts for European space applications
- Maintaining and supporting the presence of European EEE space components in other markets (ASIA, AMERICA)
- Builds on decades of cooperation, first scc qualifications date back to the 70’s

How does ESCC work and how is it managed?




How is it managed?



Output of ESCC :

technology harmonization in EEE components
and
certified qualifications for parts, manufacturers, technologies

 <https://escies.org/>



The screenshot displays the ESCIES website interface. At the top, the URL <https://escies.org/#&panel1-2> is visible in the browser's address bar. The page features the ESA logo in the top right corner and the ESCIES logo (European Space Components Information Exchange System) in the center. Below the logo, there are navigation tabs for "Our activities", "Technologies", and "Other resources", along with a search bar. The main content area highlights the "ESCC brochure and insert" with a large image of the brochure cover and an open insert. To the right of the image, a text box states: "ESCC brochure. The newly published ESCC brochure and insert have been distributed during the ESCCON 2016 event. Electronic format can be downloaded on ESCIES." Below this, a grid of ten smaller images represents various resources: ESCC Specifications, QPL, QML, EPPL, ESCC brochure, ESA Radiation Activities, EEE components, ECI, PCB qualification, and BMT verification.

Another output of ESCC = standards, specs
Do we have all the standards we need?



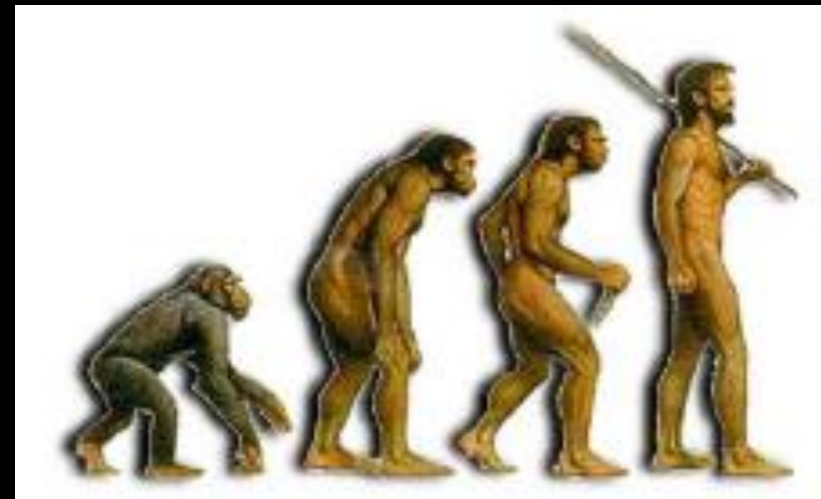
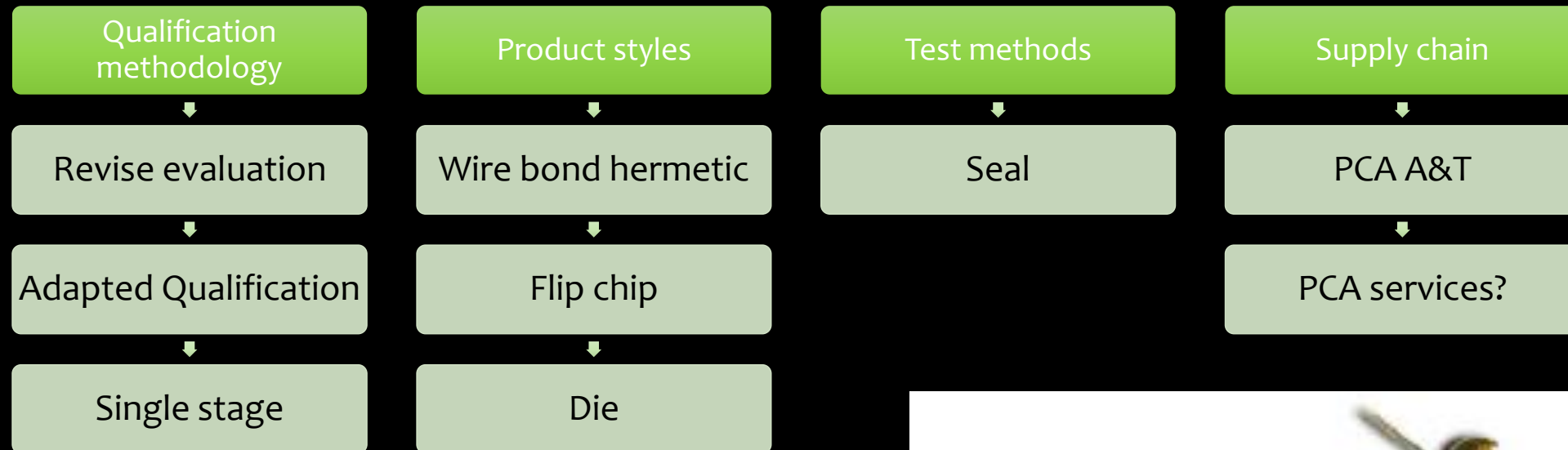
What is ESCC Qualification about?

Facts & figures

- 38 ESCC Qualified Manufacturers
- 131 Active QPL Certificates
- 442 Qualified Part Types
- 681 ESCC Specifications

ESCC Qualification is highly valuable for manufacturers, users and agencies

ESCC is an evolving system, adapting itself to the present in procurement and qualification of microcircuits for space applications:



Conclusions



- Parts chosen from the ESCC QPL, QML, are preferred because
 - parts included in these lists have been evaluated to demonstrate their reliability and operational margins for use in space applications
 - their technologies, design, manufacturing processed materials are defined and kept under configuration control
 - their manufacturer supply chains have been audited by the ESCC Executive, and any deviations are managed and corrected with the involvement of the ESCC executive through an ESCC non-conformance control process.
- The opportunity to rely on the ready availability of ESCC qualified parts from manufacturers with a quality management and product assurance system in place reduces mission risks, engineering and test efforts providing cost savings for the users.
- The ESCC system is in constant revision and re-design of its requirements. European suppliers, users and agencies can use this established cooperation forum to secure access to modern microcircuit technologies for European space applications. New opportunities have opened up recently with the addition of requirements for microcircuit product beyond the classic hermetic bond-wire construction.

