

Panel Session on Supply Chain

Ana Collado TEC-EDC

ESCCON 2021

March 10th 2021

ESA UNCLASSIFIED – For ESA Official Use Only



➤ Segmented Supply chains

- Segmented supply chains have brought new challenges to the components purchasing.
 - Interfaces – Segmentation generates interfaces in the supply chain – communication and management becomes an issue
 - Knowledge transfer – specialist knowledge of EEE in space
 - Geographical – facilities all over the world
- Space market business do not have enough leverage on big industrial players to request special requirements
- Complexity of the qualification process increases with supply Chain segmentation

➤ Electronic components production shortages

- Delay in Development activities due to low priority in semiconductor foundries.
- Increase in components cost
- Increased pressure on Space market for the usage of standardized /COTS components.

- ESCC already addresses the Capability Approvals for independent actors within the components manufacturing chain.
 - Semiconductor processes
 - Assembly Processes
 - Test Houses (e.g. ESCC 2567000 Requirements for Process Capability Approval of Assembly and Test Houses)
- To evolve from two-phases Qualification (Evaluation + Qualification) to a Single Phase Qualification
- Standards update:
 - ECSS-Q-ST-60-13 to include other components apart from microcircuits.
 - ESCC9000P for molded components and Flip-Chip on organic substrate
- ESCC objective is to built robust Supply Chains (preferably within Europe)