



# REQUIREMENTS of EEE COMPONENTS NEEDED in the GLOBAL MARKET

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All the space you need



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# INTRODUCTION

Astrium is a leading and global equipment supplier providing standard products as well as customer specific products for the Space Market.

Astrium has huge and long experience on proven flight hardware with



- more than 70 different platform and payload products
- more than 30 years of production experience
- several decades of lifetime for most products without any mission loss causing failure
- a customer portfolio including all the leading Primes, worldwide

In this context the following presentation is addressing requirements needed in the Global Market to increase European Equipment competitiveness.

# CURRENT SITUATION

As of today an equipment is using EEE components in a range of between 40 to 70% with respect to the value (and also quantity in average) of a product.

This means the equipment overall is significantly driven by EEE components w.r.t. cost, reliability and timely availability.

The equipment **price**, the **delivery time** are key criteria to be selected on the open market.



# EUROPEAN STANDARDS

In Europe, there is an initiative established to develop a coherent, single set of user-friendly standards called ECSS "European Cooperation for Space Standardization".

In Europe, there is also a normative system for EEE components called ESCC "European Space Component Coordination " to improve the availability of strategic components with the required performance and affordable costs for space programs.

To increase the competitiveness of its equipment, Astrium actively supports both these standards for project requirements (ECSS) and for the procurement of EEE parts (ESCC).

# THE ECSS SYSTEM TO PROVIDE STANDARDIZED REQUIREMENTS

**The containment of cost of EEE components used in equipment depends on the application of standards for program requirements.**

**ECSS shall be used to offer a set of standard requirements for EEE parts for a wide range of programs, from very demanding programs (zero risk) to programs accepting risk/cost compromises.**

**As an equipment-manufacturer, the possibility for Astrium to standardize its fabrication in two or three categories, based on ECSS standards, is essential to propose competitive products.**

**The evolution – “standardization” – has to go on!**

# THE ESCC SYSTEM TO DELIVER EFFICIENT NORMS

The ESCC system has to provide an attractiveness allowing the European components suppliers to sell ESCC components worldwide due to competitive prices, adequate reliability, acceptable delivery times with good acceptance and recognition.

Consequently, this will have a positive impact on the total cost of equipment.

So, we have to continue – with more power and emphasis – to work on the European system to further adapt with a closer link to the need of the fast growing technologies and their need.

The evolution – “normalization” – has to go on!



# WHAT HAS TO BE ACHIEVED

In order to achieve such an evolution, the system has to consider

- **a consequent reduction of the number EEE standards based on mission profile without further tailoring of requirements by projects**
- **the worldwide promotion & recognition of the European system (consistency, reliability, standardization, commercial, ...)**
- **an adaptive system to follow-technology trends and the needs of the space industry and its customers**
- **the need for European qualified components timely available on the market**



# WHAT ARE THE MAIN QUESTIONS

- (1) We have to question the **cycle times of qualifications** of more than two years (and even very often significantly longer) as adequate to the speed of the market need?
- (2) We have to question if the technologies available in Europe are **competitive, reliable and attractive worldwide**?
- (3) We have to question if the **EEE components standards** are following the need and are they "State-of-the-Art" also for new technologies?
- (4) We have to question where are the areas we have **to concentrate** our funding in order to achieve the maximum benefit for the European Space Industry?
- (5) We have to question why some customers (including agencies) are tailoring the existing standards for EEE parts requirements?

# Some elements to answer

- (1) Removing obsolete requirements (ballast) introduced by former technologies but no longer applicable.

Adaption of the qualification procedure to the technology need by using existing experience and data from the high volume industry.

- (2) Strong continuation of reviewing and adapting the European Standards to become "State-of-the -Art" to be used for new technologies in order to drive the competitiveness of European systems and products.

- (3) The fact is - budgets are limited - therefore the selection process for technologies to be funded has to be justified more strongly in considering industrial and commercial aspects

- (4) Evaluating in Europe existing technologies (and capabilities) for their attractiveness and their advantages versus non European.

- (5) The dynamic update and the strict application of EEE parts requirements by agencies and industries will motivate other customers (Europe and RoW) to apply ECSS standards as are



# CONCLUSION

Of course, a lot of initiatives are already started and Europe is probably already on the right path but we have to concentrate more of our efforts in the near future in getting faster benefits for our competitiveness through

- Technical advantages
- Commercial advantages
- Schedule advantages



**Thank you very much for listening**