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Space Technology and System Management Practices and Tools (4)

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PROCUREMENT CHALLENGES AND LESSONS LEARNED IN THE FRAME OF SATELLITE DEVELOPMENT PHASES

Abstract

Satellites and spacecraft are complex systems and procurement of equipment has to be performed under very limited competition in an Agency regulated market. Due to the high and complex performance and environmental qualification requirements market access is costly and equipment for missions is not feasible until proven with in-orbit life. Furthermore, space equipment outside constellations did not generate continuous production and thus usually involves high non-recurring costs and thus risk, which did not allow for high profitability of market players, finally leading to a market concentration in Europe on only few suppliers. These suppliers partly act as Prime and as equipment / subsystem providers.

The aim of this paper is to show how an independent Prime like OHB needs to act in the market in order to provide a competitive edge for the mission but also to maintain tight financial budgets. What problems and obstacles are found in the setup, how can one deal with these and how is it possible to implement and maintain limited budgets for the procurement of very complex space items like propulsion modules, payloads, etc. Challenges and related lessons learnt will be presented gained during procurement of complex items, where very often a company can be caught in complex situations (i.e. dependence from single sources, multiple interests colliding, very difficult development phases).