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Author: Mr. Lukasz Wilczynski
European Space Foundation, Poland, lukasz@spacefdn.com

EUROPEAN ROVER CHALLENGE – A GIANT LEAP TO THE SPACE SECTOR CAREER

Abstract

European Rover Challenge is an integrated program towards technological development specifically in a topic of space exploration and utilization.

The main part consists engineering project where university teams build robots to compete once a year on extraterrestrially-inspired arena. What is more important, in a background of competitions, ERC is a continuous effort to educate next generation of multidisciplinary engineers, boost innovation in research and business and popularize general knowledge and latest technology advancements, all conceptually placed into future space exploration. Space exploration and utilization is the leading topic because it is representing new, unknown frontier in both human knowledge and technologies and has well proven ability to consolidate people towards sci-fi level ambitious goals.

The main goal of ERC project is to provide support for early-stage career development of entry-level professionals representing different disciplines. Students are familiarized with space engineering project specifics, typical requirements and best practices used in the industry. The challenges attract many ambitious, proactive people and make perfect place for networking. This environment creates unique community working together towards common interests and visions. Responsibility of ERC is to maintain this community and its common focus.

The project is placed between academia and industry so it is excellent opportunity to improve cooperation between both. Naturally, the goal for organizers is to boost people engagement and innovation and provide them with correct environment for new research (new research groups) and business (start-ups) creation. Furthermore, as project represents continuous activity with annual trials, it is well suited for validation of concepts and benchmarking of local, national and international roadmaps especially in topics of early professionals development, various technologies and operations aspects. As mentioned above, ERC is also an excellent tool for STEM popularization stimulating creativity, imagination and courage towards solving most complex challenges of humanity.

All the time, ERC is evolving powered by ambition of its community and recent trends. It should always present challenges of two levels: one, suited with current market needs, showing possibilities to enter markets and career paths in near future (e.g. elements of already planned missions), and second, presenting bold concepts towards non-existing markets and technologies, boosting imagination and extreme innovation (e.g. space mining).

Furthermore, career development programme should also adapt to changing skills needs driven by industry. Aspects like fast decision taking, rapid learning/adaptation, leadership, VUCA (volatility, uncertainty, complexity and ambiguity) needs to be injected into challenge tasks.