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MEGAHIT: MEGAWATT HIGHLY EFFICIENT TECHNOLOGIES FOR SPACE POWER AND
PROPULSION SYSTEMS FOR LONG-DURATION EXPLORATION MISSIONS – ADVANCED
PROPULSION ROADMAP FOR HORIZON 2020

Abstract

A significant number of exploration missions require nuclear propulsion for which power sources are essential and enabling key assets. Associated technological developments however require important financial efforts that can probably only take place in the frame of an international collaboration, sharing the efforts as this has been the case for the International Space Station. MEGAHIT, funded by the European Commission under the 7th Framework Programme for Research and Technological Development, is a supporting action aiming at building a European roadmap for Megawatt level nuclear electric propulsion, in preparation of the Horizon 2020 programme. The MEGAHIT approach is driven by the involvement of all interested European and Russian stakeholders (research, industry and agencies) in this road-mapping exercise. This approach will allow building a scientific and technical community on the topic in Europe

and Russia. Potential collaboration opportunities at international level with other space fairing nations will be included.