

# HV-EPESA

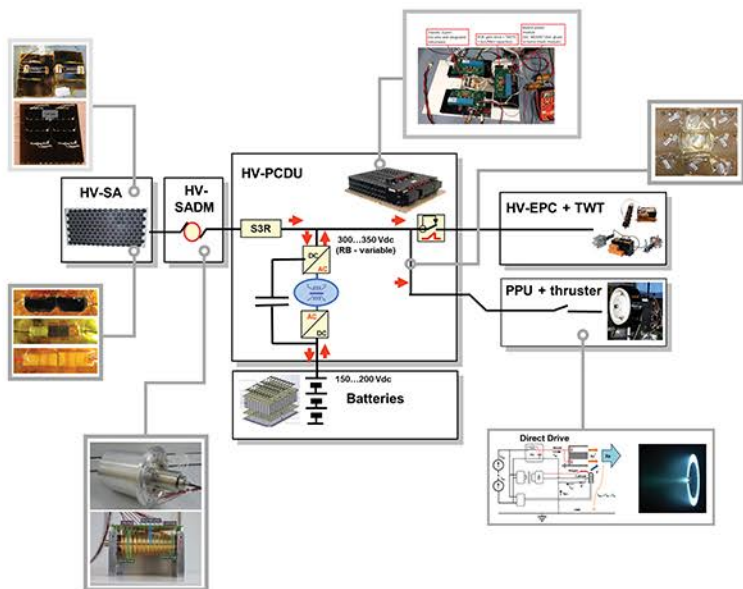
## High Voltage Electrical Power System Architecture

*HV-EPESA is a study in the frame of the call H2020-COMPET-2015, topic « Bottom-up space technologies at low TRL », and line « High performance and reliable electronics to boost on-board power ». This is a two years project, ending in december 2017.*

### Main objective

HV-EPESA is a major step forward into satellite electrical architecture, paving the way to very efficient and powerful systems. Targetting a primary bus voltage from 300V to 600V,

compared to the regular 100V bus, it provides the necessary voltage allowing « direct-drive » topology for electrical propulsion based on Hall Effect Thrusters.



### Results

HV-EPESA project has shown very promising results, and will enable the direct-drive application for very powerful electrical propulsion system. The development of future Very High Throughput Satellite, SpaceTugs or interplanetary carrier will need a lot of electrical power, and High voltage bus will become mandatory.