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### Title

## Activities in space electric propulsion at the French Space Agency – CNES

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### Abstract

This paper presents an updated overview of the electric propulsion activities carried out at the CNES (Centre National d'Etudes Spatiales – French Space Agency). The agency supports the development of different types of technologies with different maturity level, from low TRL R&T activities and scientific research with the supervision of doctoral activities to expend our knowledge of the underlying physical phenomena to higher TRL up to in flight mission demonstration and operational life. Not only focused on the thruster's development, efforts are also made to sustain the progress of subsystems such as the fluidic lines (Flow control Regulators -, tanks...) or the power management with the Power Processing Units (PPU). This concerns not only Hall Effect Thruster (HET) for low power, medium power and high power EP systems but also Gridded Ion Thrusters (GIT) and other alternatives solutions for very low power applications such as micro-propulsion for LEO applications. Furthermore, part of our roadmap is briefly presented including use of alternatives propellants to xenon.