

Agenda	Description	Date de début	Date de fin
Welcome		04/04/2019 13:40	04/04/2019 14:00
Ariane 6 and beyond : Ariane roadmap for the 2020ies	The talk will explain Ariane strategy for dividing by two launch costs over the next decade, in any format (from Nano-birds to big-birds). Along this roadmap, the presentation will introduce Prometheus ultra-low-cost engine, Callisto reusable experiment, Themis modular stage as well as the ArianeWorks "skunkworks-like" organization to speed-up future developments.	04/04/2019 14:00	04/04/2019 14:45
Low cost Avionics for an European micro Launcher	European operational launchers and current launchers under development in Europe (ARIANE 6 and VEGA C) will guarantee independent access to space for the high-end satellite market. These launchers are, however, less focused towards small and micro satellites classes services, especially in terms of offering a dedicated launch service within affordable price. In order to foster the dynamic growth observed since 2013 and up to 2018 in the small satellite domain, the market will need to provide more launch opportunities and increase the portion of launches servicing secondary payloads or to develop Microlaunchers fully dedicated to the small satellites market. In this view, PLD Space is developing a two stages micro launcher (MIURA 5) based on liquid propulsion with a reference mission delivering a payload mass of 300 kg into LEO, 500 km circular orbit. Since beginning 2017 GMV has decided to back the project of PLD Space and take a stake in this space company. GMV is also developing key technology systems for the Microlaunchers under development. In particular GMV is in charge of the complete avionics including all vital subsystems as Power subsystem (from energy storage up to power distribution), Data Handling subsystem (from sensor conditioning and acquisition up to telemetry transmission to ground including bus communication and processing capability), Guidance, Navigation and Control (GNC) subsystem (based on COTS inertial sensors), Onboard Software, and harness for both launchers under development. GMV is also in charge of the flight segment of the Safety System (Flight Termination System). GMV's team will also be participating jointly with PLD Space in the microlauncher integration, qualification and launching-support operations, during the phase of test flights and commercial flights. These operations are scheduled to start in the last quarter 2019 with the maiden flight of the suborbital launcher MIURA 1 from the "El Arenosillo" launch base in Huelva, Spain	04/04/2019 14:45	04/04/2019 15:15
Break		04/04/2019 15:15	04/04/2019 15:30
Evolution of the Launcher Market for Telecom Satellites: Impact on Mission Analysis and Flight Dynamics Operations	Airbus Defence and Space has been performed Launch and Early Orbit Phase of their Telecom satellites for many years now. Chemical propulsion transfers and more recently Electric Orbit Raising are handled in the Toulouse Space Operation Center. The processes used in Mission Analysis and in Operations by the Flight Dynamics team were originally tailored for the historic launchers. This presentation shows how these processes were updated to account for the use of new launchers, such as Falcon 9 and its Minimum Residual Shutdown mode, for the transfer of Telecom satellites.	04/04/2019 15:30	04/04/2019 16:00
Vector's Dedicated Low-Cost Launch Vehicles	Vectors proposed solutions for low cost dedicated launch solutions are presented discussing the vehicle payload capabilities and achievable orbits. A brief coverage of Conops will profile the simplicity and flexibility of Vectors system.	04/04/2019 16:00	04/04/2019 16:30
Bloostar, the enabler for more efficient lightweight satellites	There is a huge boom in the number of microsatellite and nanosatellite concepts and missions in development. The mass efficiency of small satellites has increased significantly in the last decades. Nanosatellites, which used to be considered ideal for the university classroom, are now being proposed for interplanetary missions. Bloostar is launches from Near Space which implies a much more benign launch environment than that the one encountered with existing or proposed ground and aircraft based launch systems. This, less shaky, gentler ride, coupled with Bloostar's oversized fairing, allows to launch satellites that have very high surface area, with relatively low mass. Satellite designers can, for once, design satellites with geometries, materials and components, that are optimal for LEO operation, but don't need to survive a conventional launch. This compounded with the added flexibility to launch from almost anywhere in the sea, makes Bloostar a very versatile platform for the commercial development and replenishment of constellations of light payloads in LEO.	04/04/2019 16:30	04/04/2019 17:00