



# New Space for scientific & commercial use

## **A competitive way to access microgravity through flexible, efficient & cost-effective suborbital space flights**

### Microgravity Services **SCIENCE & BUSINESS**

**A new spaceflight industry is growing to exploit high flight frequency and relatively low cost markets. Telespazio VEGA has been actively promoting the rapidly emerging market of commercial suborbital spaceflight over the last decade and has pioneered initial steps to interconnect this growing market with first flight opportunities.**

#### **ACCESS TO MICROGRAVITY**

Historically, the access to high quality microgravity environments in Europe is limited, costly, bureaucratic and time consuming. Both scientific and commercial domains can greatly benefit from performing research & development in microgravity conditions, which subsequently boosts European technology and innovation.

#### **NEW SPACE VENTURES**

New entrepreneurial ventures are developing commercial space launch systems to serve both existing and new markets. These new ventures are focusing their efforts on suborbital reusable launch vehicles (sRLV), capable of crossing the threshold of space (100km) and typically offering 3 to 5 minutes of microgravity with payload recovery. The configuration of the launch systems includes both vertical take-off/landing rockets and horizontally launched winged vehicles.

# New Space

## Microgravity Services

### SCIENCE & BUSINESS

#### THE BENEFITS OF SUBORBITAL VEHICLES

Compared to traditional launcher systems, sRLV's are more technically challenging, but they come with many advantages:

- **Reusability** - sRLVs achieve much higher levels of reliability and safety than expendable vehicles.
- **Flight Frequency** - fly more often, more quickly and more regularly than traditional platforms.
- **Reduced Cost** - Lower unit flight prices as the production costs are amortized over a larger number of flights



Up Aerospace

Every customer has a different set of priorities for their payload - be it quick and cheap suborbital access, or regular, dependable launch services. The common theme among New Space suborbital vehicles is **increased, reliable access to microgravity at a lower cost.**



Virgin Galactic's SpaceShipTwo

#### OUR END-TO-END SERVICES

Telespazio VEGA is currently collaborating with the seven launch providers that are leading the New Space suborbital offer, already providing end-to-end services to European scientific institutions and industry. The scope of the service covers all the key steps required to ensure a successful flight experience:

- Optimal **platform selection** amongst the providers
- **Logistics services** to transport the experimental payload to/from the launch site
- **Integration services** to ensure the payload can operate as expected aboard the vehicle
- **Contractual services** to ensure all legal, regulatory and fiscal requirements are fully met
- **Consultation services** to tailor current and future customer needs to specific flight services