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SMALL LAUNCHERS - 2025 SURVEY AND COMPETITIVE LANDSCAPE

Abstract

The small launch industry has seen increasing pivots and continued execution challenges since the previous study in 2023. No European company has yet to attempt an orbital launch, but a few should finally happen in 2025. Many continue to announce larger rockets while more firms are becoming dormant. Relativity Space has raised over $1.3 billion and claimed big backlog for Terran-1 in 2021: "most pre-sold rocket in history before launch." However, Terran-1 was cancelled after the partially failed first launch in 2023, after 7-8 years of development. Astra went public in 2021 at about $2.1B valuation but was privatized in 2024 for about $10M. ABL has raised over $500M but had 1 failed launch in 2023 and pivoted to missiles in 2024. Rocket Lab is doing better, reaching a total of 60 launches and achieved breakeven, meaning the revenue per launch is now higher than the cost per launch. Firefly has launched 5 times and raised $175 million in 2024.

NewSpace Index (www.newspace.im) has been tracking small launch vehicles since 2016 and includes 214 entries, up from 203 in the previous survey. The public directory focuses on new private rockets that were, are or will be available on the worldwide commercial launch market. A small launcher is defined as capable of launching up to a 1500 kg payload to a 700 km SSO orbit.

The first half of the paper provides an updated statistical overview of small launch vehicles. Development status, payload to orbit, first launch years, development delays, launch costs, geographical distribution, propellant types, reusability plans, and funding will be reported where available. As of now, no known small launcher companies were founded in 2024 and at least 64 launch companies have received more than $1M in funding.

The second part discusses small launcher trends and evolving competitive landscape. Statements about there being no market in dedicated small launch are imprecise but it is far from the billion-dollar forecasts disseminated in many reports. As the sector matures, the next years will determine who can prove technical execution and business viability. Many small launchers but also larger rockets and space tugs will be coming online, expanding opportunities to get to space, and likely having to undersell to find customers and show revenue.

Other key questions remain: when will a partially reusable small launcher emerge, and how will lower-cost alternatives change demand when compared to Electron's relatively high price of ∼$7.5M?