A bit about our company…

Introduction

Skyrora is a private launch vehicle provider that plans to capitalise on the backlog of satellites awaiting launch into orbit.

Skyrora is currently developing two rockets;

- a sub-orbital rocket, the SK-1;
- a larger model for orbital launches, the Skyrora XL.

The startup company has received investment from private UK-based companies and has obtained signed letters of intent with numerous clients where launches are anticipated to begin in 2020. Skyrora has successfully launched two small rockets and test-fired an engine, demonstrating proof of technology.

Market Research

The target market for Skyrora is the rapidly growing small satellite industry. Current market analysis depicts an 8-fold increase in small satellite production from 2012 to 2018, with trends expected to continue. In 2014/15 total income of the UK space industry was £13.7 billion, growing at an average rate of 8.1% per annum since 1999/00[1]. *"With 10,000 satellites to be launched into orbit by 2025, there's a market for high-performance launch technologies to meet this ambition"* [2], writes HM Government as it commits to investing £99 million in the aerospace industry. There is currently no dedicated small satellite launcher available within Europe - Skyrora aim to tackle this market with the Skyrora XL vehicle.

Customer Profile

Skyrora's client base falls into the category of small satellites (<500kg) used for commercial or government communication, micro-gravity scientific experiments, meteorology, navigation and Earth observations. Skyrora offer a range of trajectories to the client, including the commercially popular polar orbits. These trajectories are sought-after amongst the scientific community but are scarcely available amongst other launch providers as they require launch from northern locations such as Scotland which bring with them volatile and harsh weather. Skyrora's versatile technology has been adapted to cope with this challenging climate, providing clients with the unique opportunity to tap into these exclusive trajectories.

Broadband operators are increasingly rolling out mega-constellations to provide high-speed internet on a global scale. Skyrora anticipate growing demand for hyper-speed connectivity and, with this, predict technological advancements in telecommunication satellites with increased launch frequency.

Business Structure

Skyrora was founded in June 2017 and, as of Q3 2018, boasts a team of 17 skilled and talented employees. Based in Edinburgh, Skyrora comprises of a management team, a technical team and a business development team, alongside an advisory board and subsidiary co-working centre in Dnipro, Ukraine, to support the

development of new technology. A well-established funding team work hard to attract funding in the form of investments and grants from private and national institutions.

Financial Performance

Skyrora have conducted a sensitivity analysis on the financial predictions from FY 2018 to FY 2030. This incorporates 10,000 randomised calculations of revenues, costs, funding and predicted number of launches per year.

The suborbital SK-1 is in the final stages of development and Skyrora anticipate launches to begin in 2020. SK-1 is not the main workhorse in the company but a developmental stage on the route to the production of Skyrora XL. Nonetheless, SK-1 will generate early revenue by launching sub-orbital payloads of 100kg up to altitudes of 100km. Skyrora are also exploring potential revenue generation from a military testing role for this vehicle. Launch costs for SK-1 will be around £22,000 per kilogram.

Skyrora XL is expected to begin commercial launches in 2023 and is set at a highly competitive £23,000 per kilogram. Skyrora XL can launch payloads of 315kg up to altitudes of 500km.

Whilst the dedicated funding team seek investment and grants, further revenue prior to Skyrora XL launches will also be generated through supply chain spin-off projects being developed by the Enabling Technologies Unit (ETU). The unit are currently developing an exciting eco-aviation fuel manufactured using waste plastics which combusts with minimal pollutant. ETU are also developing additive manufacturing processes to allow more economical and versatile launches. These projects have attracted interest from Bombardier and Leonardo.

Marketing Strategy

Skyrora believe direct contact with prospective clients is the most effective marketing strategy, given the niche nature of the market. Through this method, Skyrora has obtained letters of intent with 16 companies corresponding to £160 million worth of contractual agreements.

[1] http://londoneconomics.co.uk/wp-content/uploads/2019/07/LE-Industry-4.0-and-the-Future-of-UK-Space-Manufacturing-Final-Report.pdf

[2] https://www.gov.uk/government/collections/industrial-strategy-challenge-fund-joint-research-and-innovation#manufacturing-and-future-materials