Sir Richard Branson has invested in the OneWeb satellite project

VIRGIN GROUP founder Sir Richard Branson and US billionaire Elon Musk, known for his successes with rocket company SpaceX, have both announced plans to launch mega satellite constellations in the next decade providing direct Internet access to the unconnected around the world.

While Sir Richard has stepped in, together with chip-maker Qualcomm, as the enabling investor of the OneWeb project of Californian tech-entrepreneur Greg Wyler, Musk revealed his plans during the opening of a new SpaceX centre in Seattle. That leaves the two space tycoons going head to head over a market of some three billion people in the world’s least connected countries.

The question, however, is whether there is room enough in the low-Earth orbit, for both of the two strikingly similar ventures, each consisting of hundreds of light-weight low-cost satellites.

Wyler is the driving force behind the O3b medium-Earth orbit satellite network, which offers fibre-speed connectivity to voice and data service providers in developing countries. He worked on his plans previously with Google but left the company in mid-2014, only to start discussions with Musk.

Eventually, it seems, the two also parted ways and Wyler found support from Sir Richard, whose not yet fully developed LauncherOne has been signed up to deliver the 650 OneWeb satellites, at 130kg about half the size of the smallest existing telecoms spacecraft, into space.

Google, previously dismissed by Wyler, has in the meantime teamed up with Musk and poured $1bn into its company SpaceX, to support innovation in space transport, reusability and satellite manufacturing. “We're going to try and do for satellites what we’ve done for rockets,” Musk told journalists, referring to SpaceX’s Falcon 9.

However, the Branson-backed OneWeb project seems to be several steps ahead of Musk’s. OneWeb has not only secured the licence to use the part of the radio spectrum needed, it has also completed the preliminary design phase and invited manufacturers to bid for the contract to build the satellites, with a launch date set for 2018.

“I don’t think Elon can do a competing thing,” Branson told Businessweek. “Greg has the rights, and there isn’t space for another network — like there physically is not enough space. If Elon wants to get into this area, the logical thing for him would be to tie up with us, and if I were a betting man, I would say the chances of us working together rather than separately would be much higher.”

But Musk, whose proven Falcon 9 rocket has been rejected as the main launch vehicle for the OneWeb satellites in favour of LauncherOne, maintains that his constellation too could be up and running within five years.

In fact, his plans go far beyond those of Wyler and Branson. His envisaged networks will consist not of hundreds but thousands of satellites more complex than those of Wyler, providing Internet access not only to the surrounding area via a Wi-Fi, LTE, 3G or 2G connection using an operator partner’s licensed spectrum, or only LTE or Wi-Fi on unlicensed spectrum.

The constellation would be ten times larger than the currently biggest satellite fleets in orbit.

The launch contract with Virgin Galactic has positioned LauncherOne to become the most prolific launcher of the not so distant future.

"We have the biggest order ever for putting satellites into space," Sir Richard said in a statement. "By the time our second constellation is developed, the company will have launched more satellites than there currently are in the sky.” LauncherOne, announced in July 2012, is designed to launch small payloads of up to 100kg. Aiming for a 2016 start to commercial operations, the vehicle has already attracted interest, with rides booked by customers including Skybox Imaging, Planetary Resources and GeoOptics.