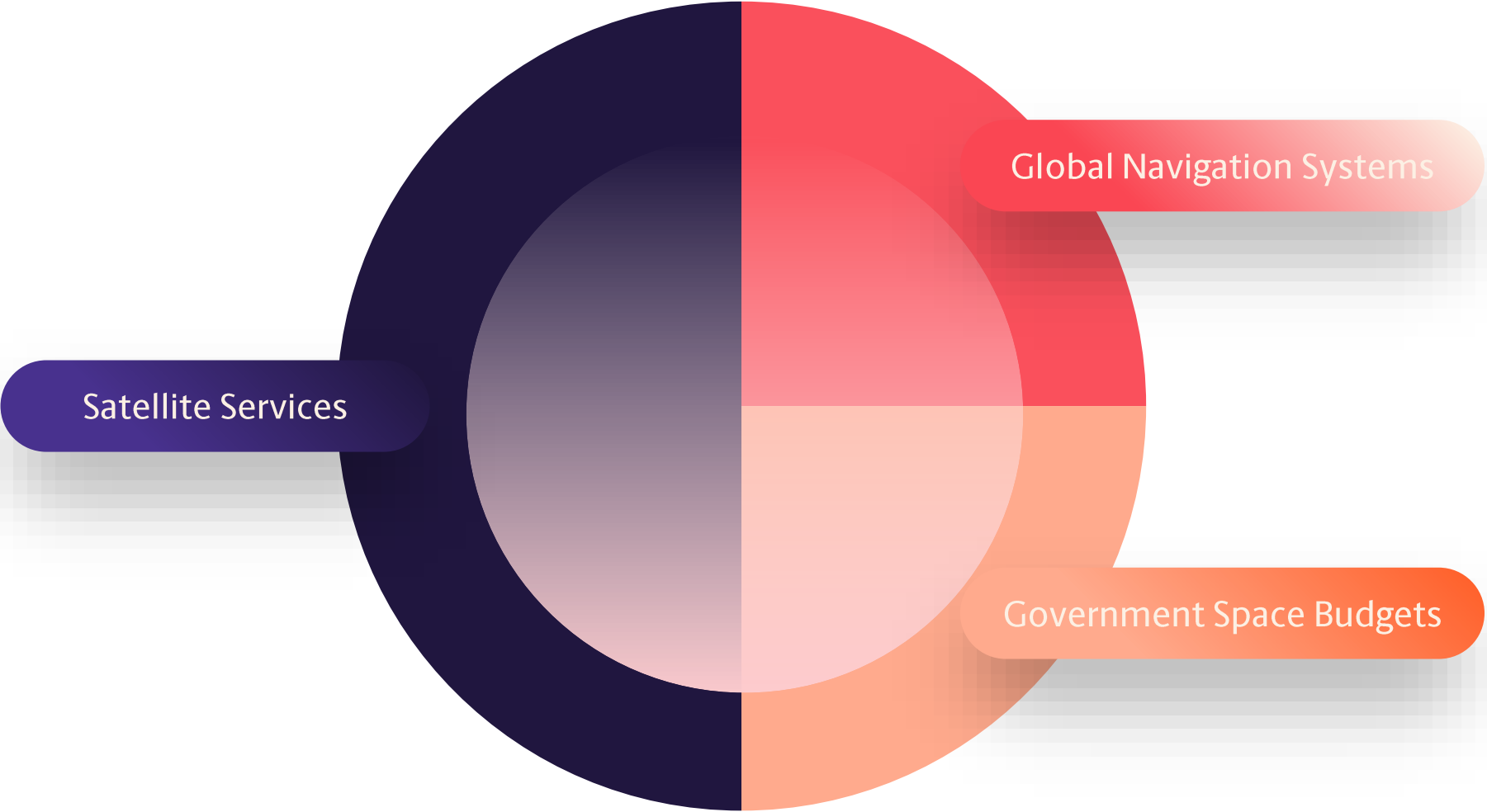OneWeb

Pioneering Connectivity from New Space

OneWeb

'The challenge of this age is that the threats are complex, multilateral, asymmetric and constantly changing. Even the last SDSR underestimated the speed at which the threats we face today would develop.'

Penny Mordaunt, former UK Sec. Of State for Defence
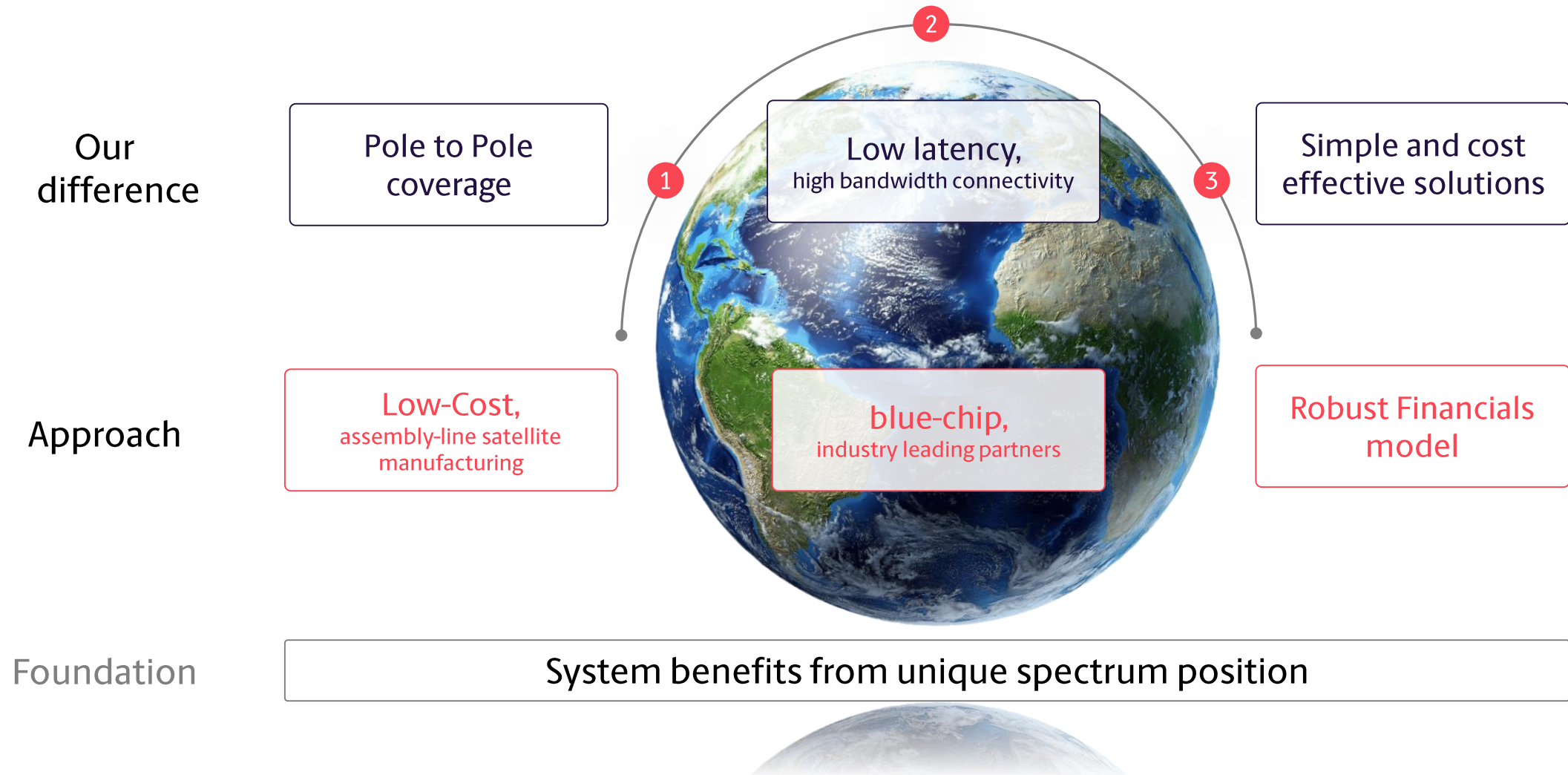
Connectivity from Space - a $335bn industry

Satellite Services

Global Navigation Systems

Government Space Budgets

OneWeb

'Space Superiority is he future of warfare. We cannot win a war without controlling the high ground, and the high ground is space'

General Lance Lord, former US Commander of Air Force Space Comd

OneWeb

OneWeb – Greater mission impact everywhere

OneWeb

Our difference

Pole to Pole coverage

1

Low latency,
high bandwidth connectivity

2

3

Simple and cost effective solutions

Approach

Low-Cost,
assembly-line satellite manufacturing

blue-chip,
industry leading partners

Robust Financials model

Foundation

System benefits from unique spectrum position

Global adoption of new technologies

OneWeb

3.4 bn internet users globally

2 bn people on social networks

48% of global population not yet connected

70% of global population to use smartphones by 2020

The data race in a deeply interconnected world…

Situational awareness

Real time decision making

Reliably sending communications in the most challenging environments

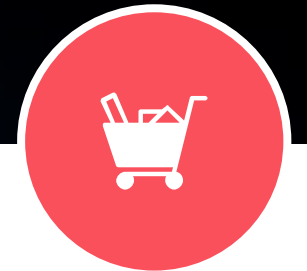More adaptive command and control networks

Challenging what's gone before

Aligning connectivity to cost
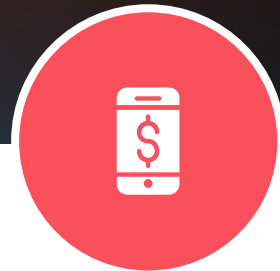
Integrated into payload applications

Safety and reliability

Time to market

OneWeb

OneWeb

OneWeb Network - How it works

Rapid Response Satellite Production

Satellite Final Assembly Line (FAL)

01

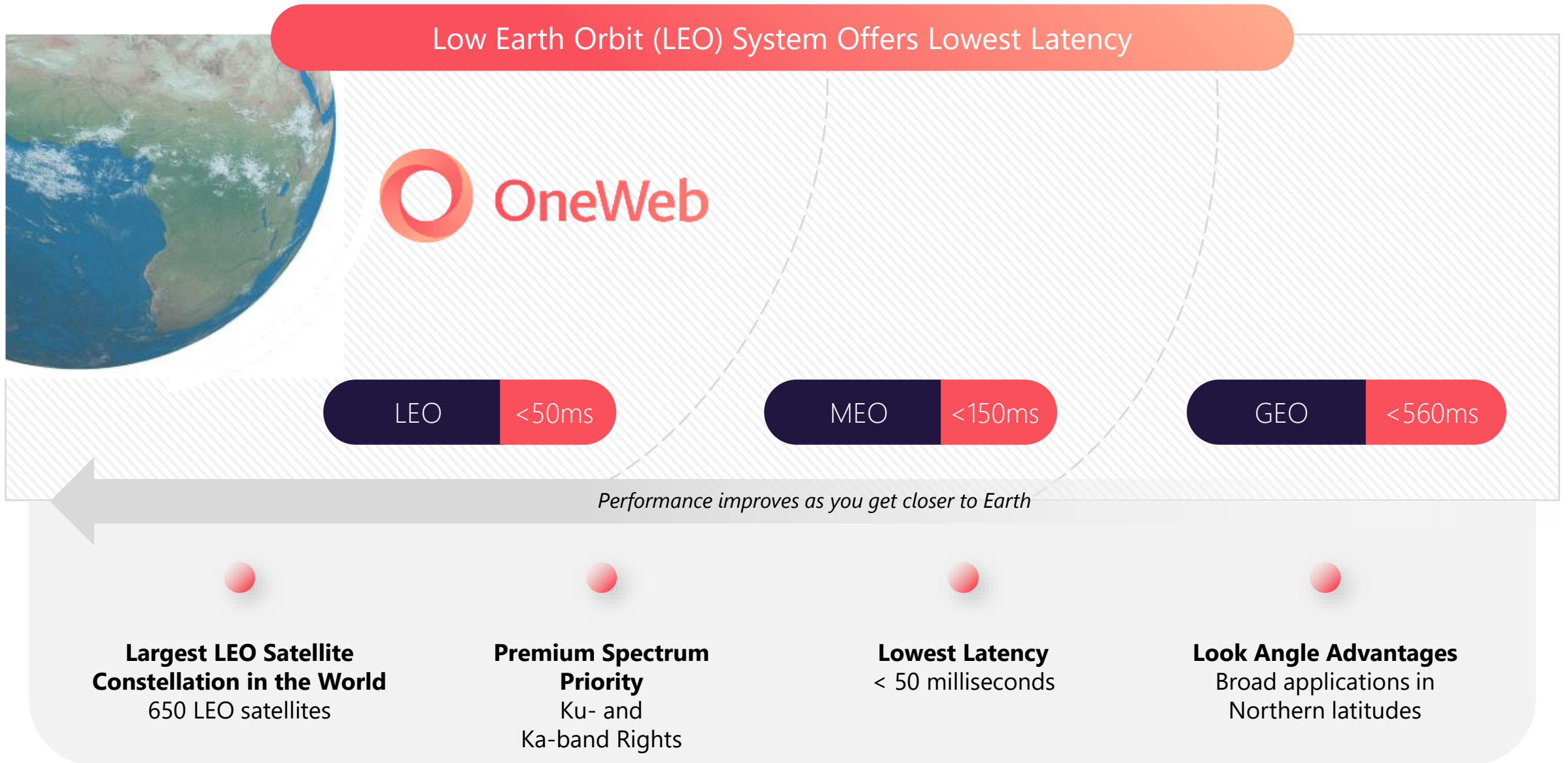OWS Factory located on Space Florida KSC Exploration Park campus

02

Production commenced 2019

03

Mass production high volume facility

Benefits of LEO constellations in New space sector

OneWeb

Low Earth Orbit (LEO) System Offers Lowest Latency

OneWeb

LEO	<50ms
MEO	<150ms
GEO	<560ms

Performance improves as you get closer to Earth

Largest LEO Satellite Constellation in the World
650 LEO satellites

Premium Spectrum Priority
Ku- and Ka-band Rights

Lowest Latency
< 50 milliseconds

Look Angle Advantages
Broad applications in Northern latitudes

Innovative and resilient communications infrastructure
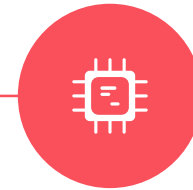
OneWeb

Requirements for a touchless architecture
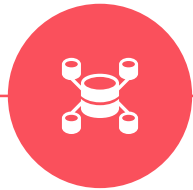
OneWeb

bandwidth intensive applications

near real time command and control
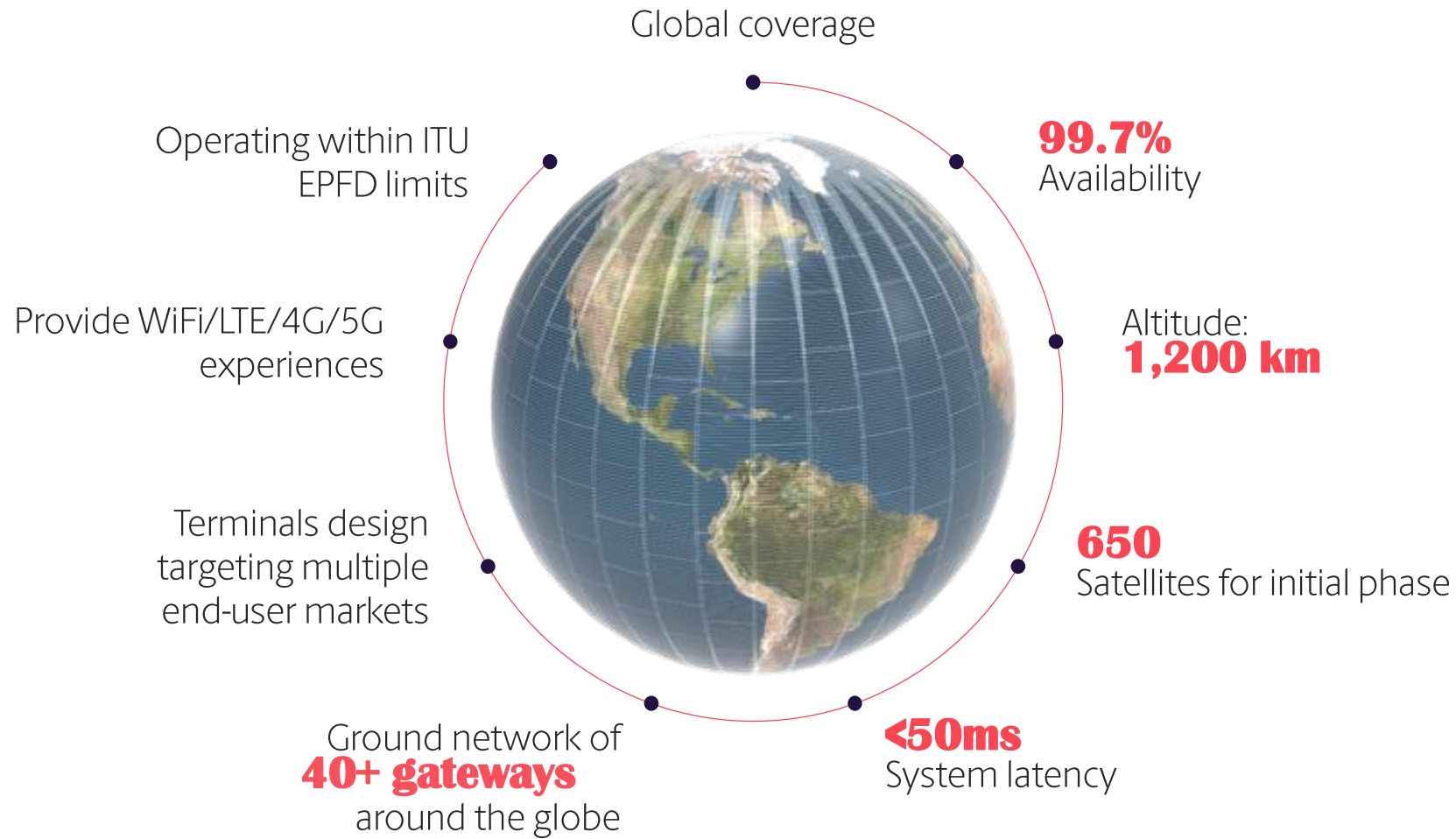
advanced sensor capabilities

lower latencies

better data rates

security and resilience
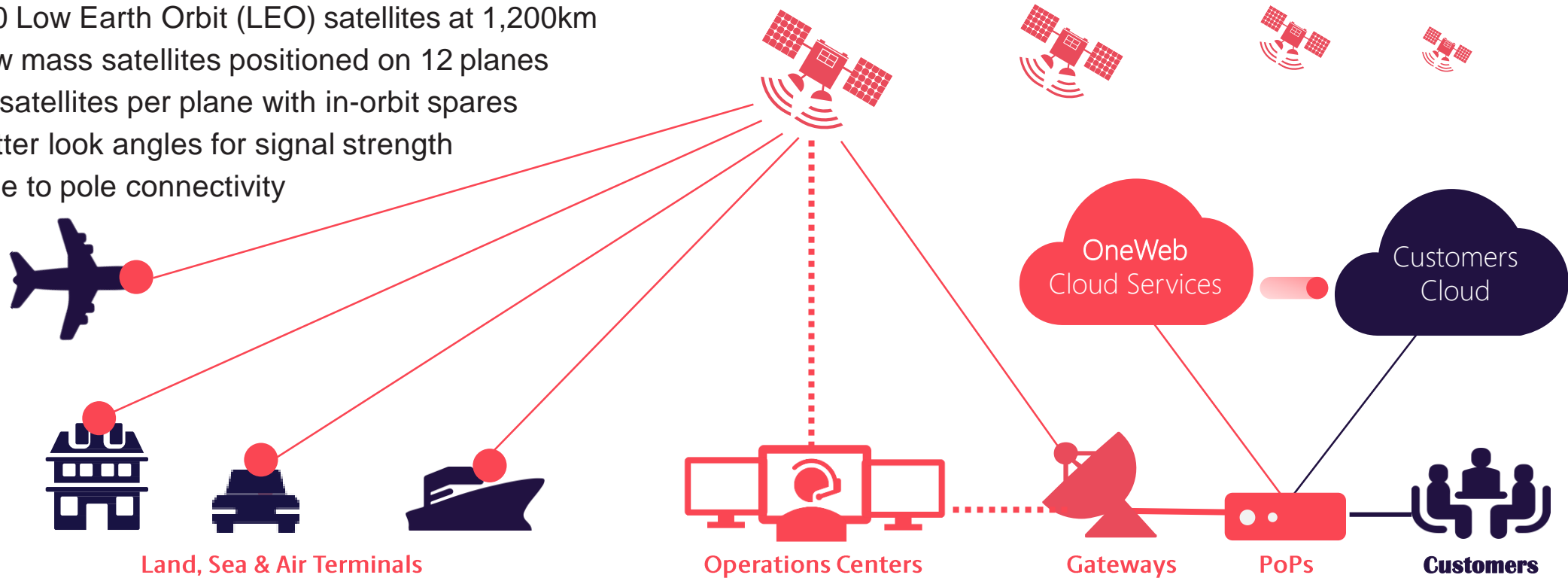
Ready for service in 2021

Global coverage

Operating within ITU
EPFD limits

Provide WiFi/LTE/4G/5G
experiences

Terminals design
targeting multiple
end-user markets

Ground network of
40+ gateways
around the globe

<50ms
System latency

650
Satellites for initial phase

Altitude:
1,200 km

99.7%
Availability

OneWeb System Overview

Constellation

- 650 Low Earth Orbit (LEO) satellites at 1,200km
- Low mass satellites positioned on 12 planes
- 49 satellites per plane with in-orbit spares
- Better look angles for signal strength
- Pole to pole connectivity

OneWeb Cloud Services

Customers Cloud

Land, Sea & Air Terminals

Operations Centers

Gateways

PoPs

Customers

Ground

- User terminals designed for target markets
- Gateway earth stations around the world
- Operations Centers in London and Virginia

Connectivity

- **Premium Spectrum** Ku- and Ka-band Rights, >3.5Ghz of globally harmonized spectrum
- **Innovative satellite design** with revolutionary beam technology

Approach

- **System capacity** >1Tbps
- **Low latency** <50ms
- **Terminal download speeds** up to 195Mbps

Connect with OneWeb

Transforming mission command

Connectivity at the tactical edge

Communications on the move

Enhanced situational awareness

OneWeb

A Range of Defence Applications

OneWeb

The global communications network for
everywhere for everyone

#OneWebOneWorld