



SERAPHIM
CAPITAL

Funding & Impact of Space UK

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Seraphim Space Fund Overview



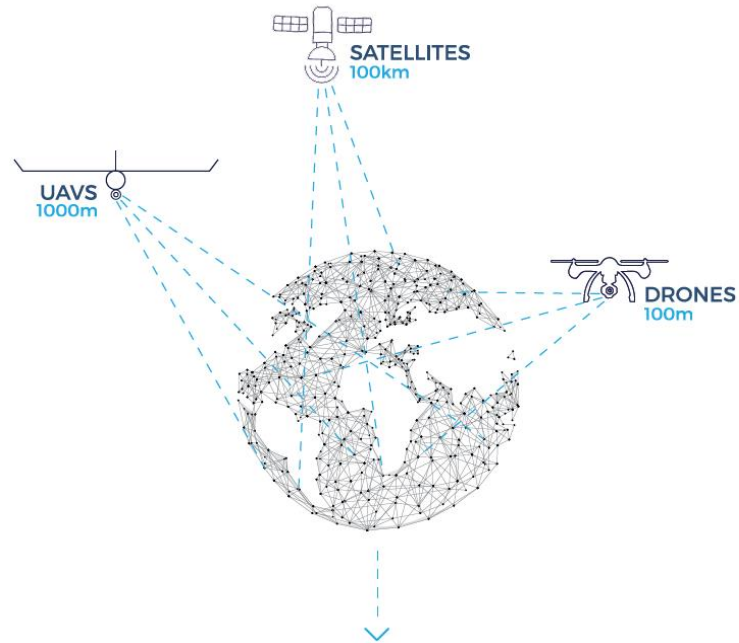
- Space-tech focused VC fund
- \$90 million / £70 million
- Backed by leading space & data analytics companies
- Team includes EO visionaries who have scaled to billions users / \$billions exits
- Investing globally, bias to European based companies. UK presence required
- Focus on Series A, but remit Seed to Series B+
- £1-3m initial investments, max c.£10m total / company



Our Investment Focus



Backing businesses that observe, connect and guide the earth from above



...and the broader technologies that support the full SpaceTech ecosystem



Enabling applications tailored to specific verticals...



Seraphim: 30 Space Tech Companies in 2 Years



Space Tech Angels



Seraphim Value Add



- Access to leading space corporates
 - Business development and exit opportunities
- Access to Seraphim Partners with experience of scaling space enabled businesses to hundreds of millions in revenue and users
- Sector specialist VC that can lead due diligence as part of syndicate
- Pan-optic view of the NewSpace ecosystem
 - Portfolio company synergies
- UK space ecosystem connections (upstream and downstream)
 - Non-UK HQ portfolio companies actively seeking to build out UK presence

Space Camp: 1st Year Headline Numbers



INVESTMENT

£14.9 MILLION

cumulative raised & indicated investment offers.

67%

go on to successfully raise within the first 6 months

EMPLOYMENT

49

job opportunities created

83%

Expand their team within the first 6 months

CORPORATE ENGAGEMENT

17

partners and delivery partners

500+

contact hours and support from our corporate partners

COMPANY

1500+

reviewed companies

16

companies selected

FOUNDERS

44%

have a PhD

64%

have a masters

38%

of start-ups have females as executive members of the team

PROGRAMME STATS

5100+ hours of Support

41 Workshops

Keynotes

450+ hours with the Seraphim Capital team

100 hours of pitch training

4 Pitching Days

Site visits to Airbus, ESA and SA Catapult

65 International Mentors & Advisors



INTERNATIONAL REACH



The SpaceTech Ecosystem is Flourishing



SERAPHIM SPACETECH MAP 2019

www.seraphimcapital.com

UPSTREAM

SPACE HARDWARE GOMSPACE, YORK, PHASEFOUR, ASCION, DESILUM, exotrail, ASTRANS, NSLComm, Open Cosmos, ThrustMe, aborSat	MATERIALS & ENERGY VORAGO TECHNOLOGIES, GCL, CARBICE, carbon3D, MTI, Oxford nanoSystems
ELECTRONICS & ROBOTICS eVince technology, Arralis, LEASH SYSTEMS, ECHODYNE, Aerotenna, neteera, ALTIUS	SOFTWARE & ENGINEERING ultra-900, KUBOS, bright ascension, Valispace, CloudNC, 3DPacPro, MTECH



LAUNCHERS SPACE X, ORBIT, BLUE ORIGIN, VECTOR, ROCKET LAB, Relativity, PDSpace, OIIOO, Generation Jet, REACTION ENGINES, FIREFLY, LANDSPACE, SKYRORA, SPINLAUNCH	
LAUNCH SERVICES NANORACKS, SPACEFLIGHT, ECOM	FLIGHT & DELIVERY JOBY Aviation, AEROMOBIL, LILium, zipline, SkyPath, NATILUS, MATERNET, WHALES



EARTH OBSERVATION HawkEye, spire, ICEYE, planet, PLANETIQ, EARTH NOW, GHGSAT, ESTAR SPATIAL, Capella Space, AXELSPACE, KLEOS, SATTELQ GIC	TELECOMS SAS, OneWeb, LEOWAT, AST, KLEOS, ArQit	IOT NETWORKS SAT4M2M, KEPLER, ASTROCAST, hiber, FLEET, HeliosWire, SWARM, Locifi	DRONES & UAV AIRBOTICS SenSat, CYBERHAWK, NIGHTINGALE SECURITY, kespry, WORLD VIEW, OPEN Stratosphere, GREENSIGHT, SKYX, SKY-FUTURES, SCEYE
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DOWNSTREAM

RELAY SYSTEMS analytical space, AUDAJY, enesis	COMMUNICATIONS BRIDGESAT, PRC, LEAFSPACE, mymar, ATLAS, INSPUR, ASTRAPI, QuacSAT	DATA STORAGE & PROCESSING SPACEBELT, CONNECTX, GRAPHCORE, KALEAO
GROUND TERMINALS PHASOR, KYMETA, alcan, isotropic, sofant, swift, GREENERWAYE	SECURITY KETS, Crypta Labs, InfiniQuant	



SATELLITES Orbital Insight, Descartes Labs, SPACEKNOW, EARTH CUBE, ENVIEW, birdi, SKYWATCH, CLOUDEO, GSI, CrowdAI, Rezacot, Terrobotics, Ursa, CAPE, TempoQuest	DRONES & UAV Terrovision, Agribotix, HEMAV, Poladron, PRECISION, HANGAR, Betterview, IntelinAir, GAMAYA
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INSIGHT & MONITORING ceres Imaging, SATAVIA, FarmLogs, indigo, ARIA, Ozilius	LOCATION & TRACKING Citymapper, Streetbees, alteryx, SECURAXIS, TERALYTICS, GeoSpock, entopy, unacast, geotifex
MAPPING FATMAP, hivemapper, mapbox, EGYPT, SCAPE, EAGLEVIEW, spotscale, SLAMCARE, Mapillary	DATA PLATFORMS ALTITUDE, DroneDeploy, FORTEM, AIRMAP, UNIFLY, FLOCK, DASHBOARD, DRONE BASE, vHive, LEO LABS, WINDWARD



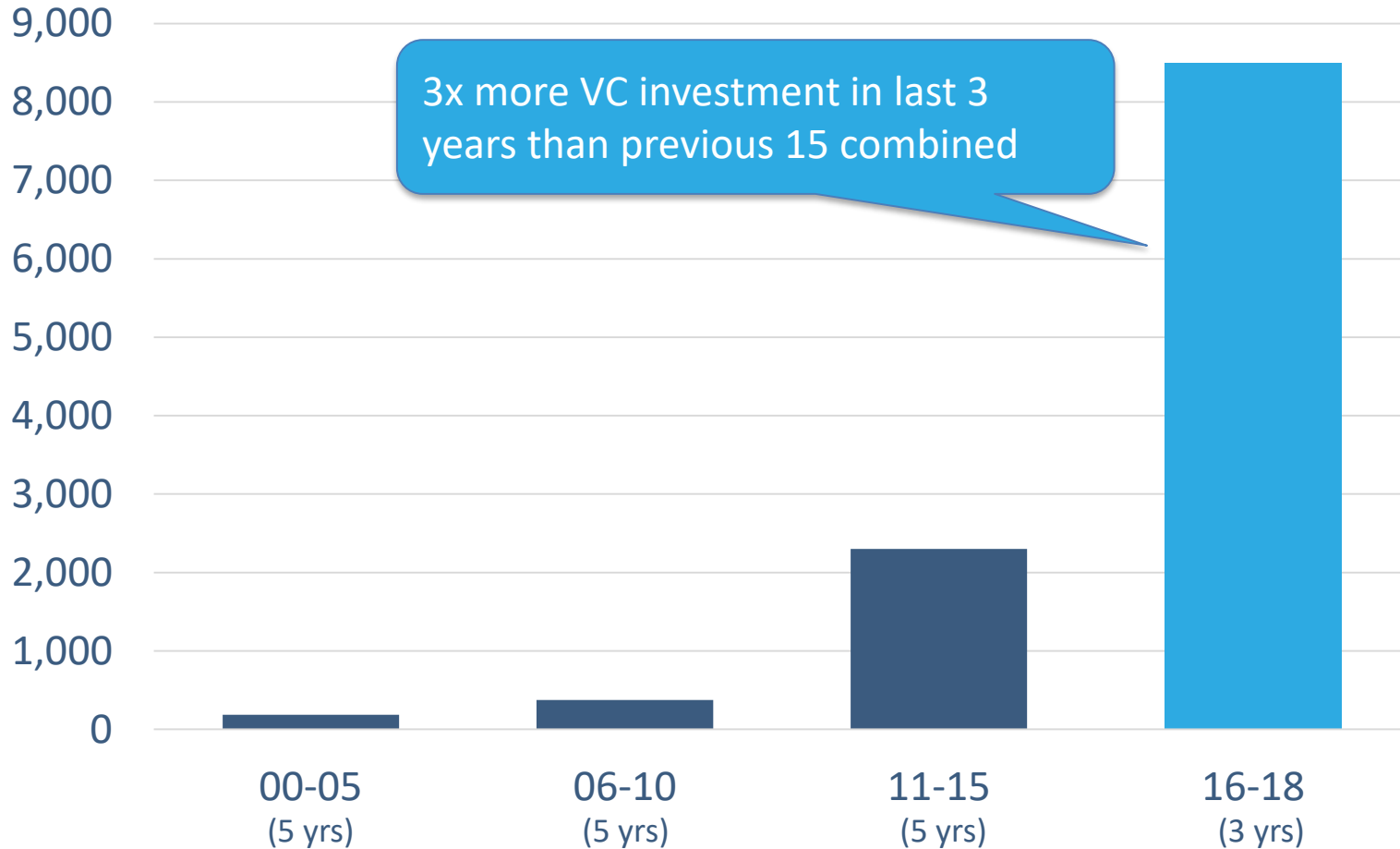
BEYOND EARTH

SPACE EXPLORATION & RESOURCES TEAM INDUS, SPACEVR, MADE INSPACE, MAANA ELECTRIC, AXIOM, ispace, MOON EXPRESS, SCIENTISTS	SPACE INFRASTRUCTURE TETHERS UNLIMITED, ORBITFAB, ASTROSCALE, ATOMOS, Effective Space SOLUTIONS, INFINITE ORBITS, MOMENTUS	SPACE RESEARCH SPACE TANGO, SPACEPHARMA, SERAPHIM CAPITAL
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VC Investment in SpaceTech is Rocketing

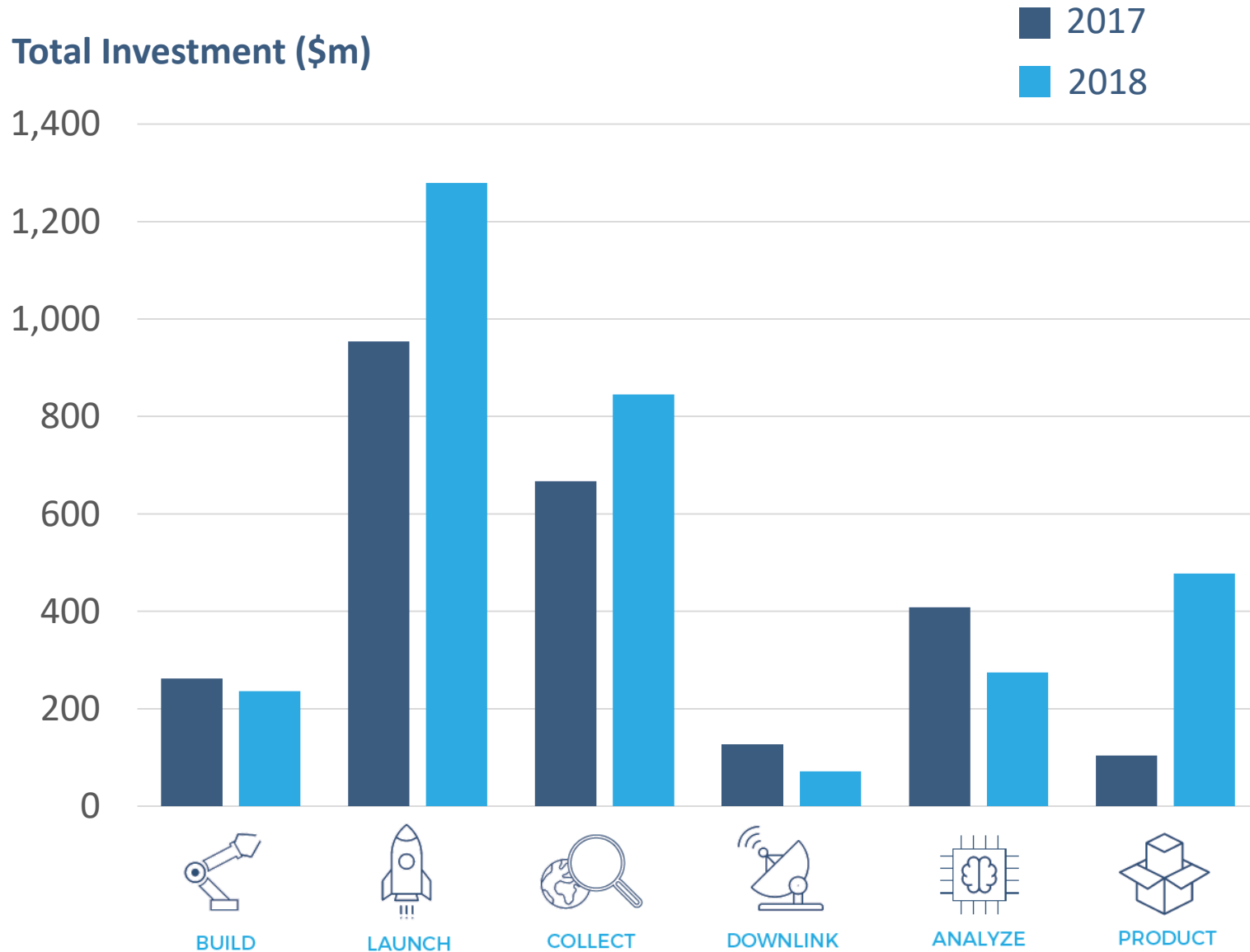


\$ Millions





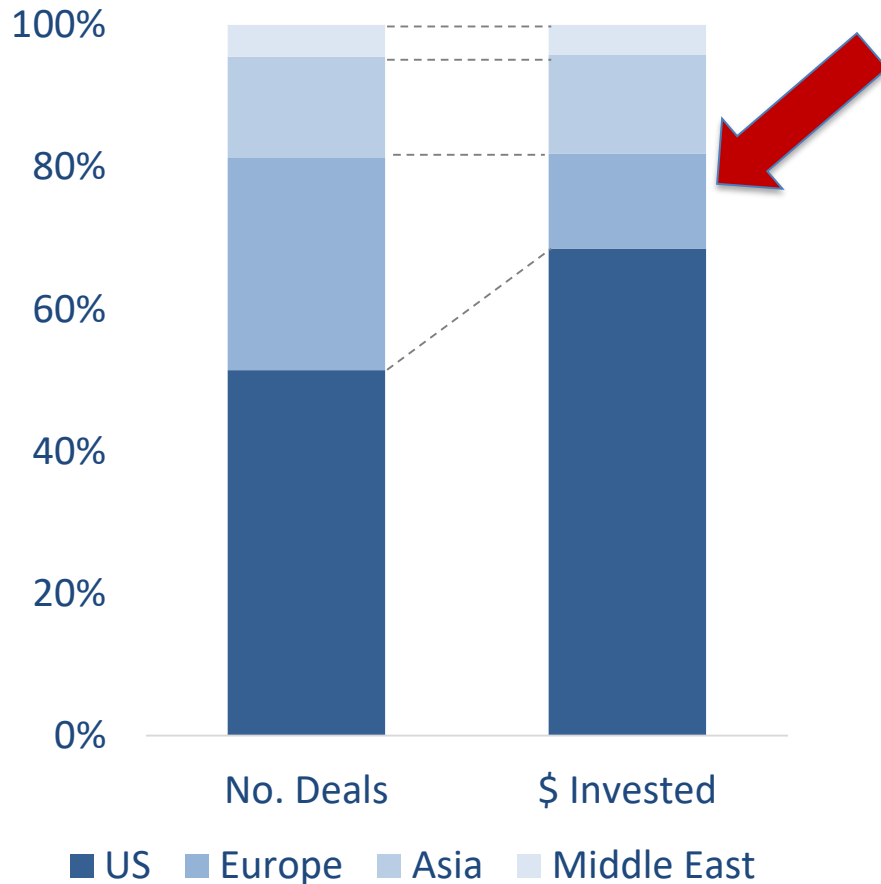
Breakdown of Investment by Category



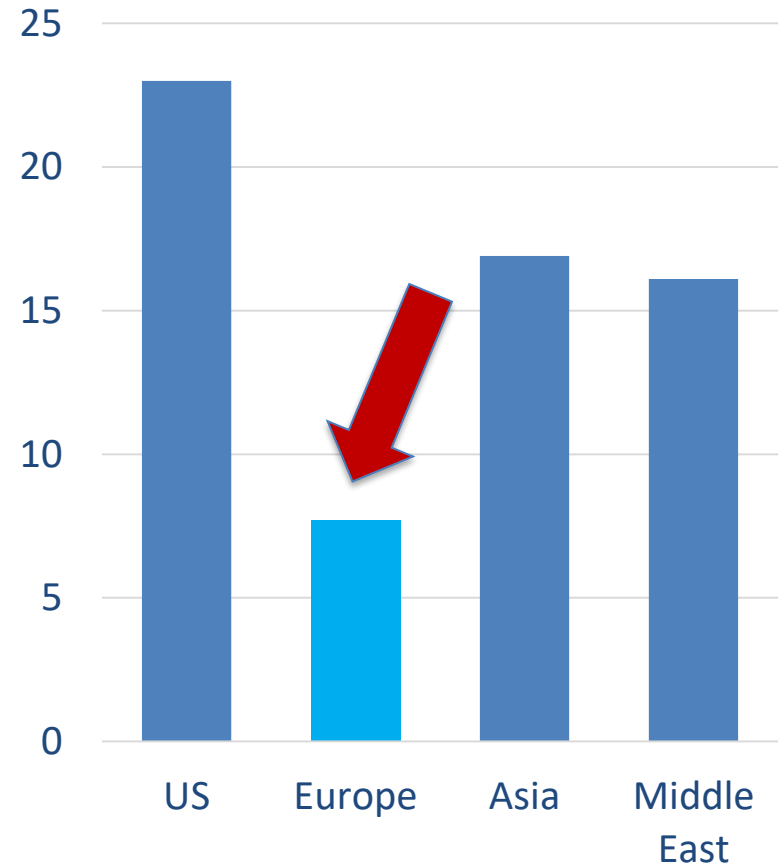
Europe's Share of SpaceTech VC Investment



Space Tech VC Investment 2018



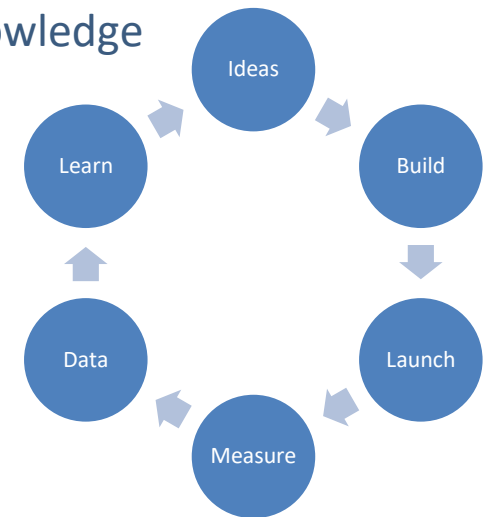
Average Deal Size (\$m) 2018



Strategic Outlook - Commercial Impact



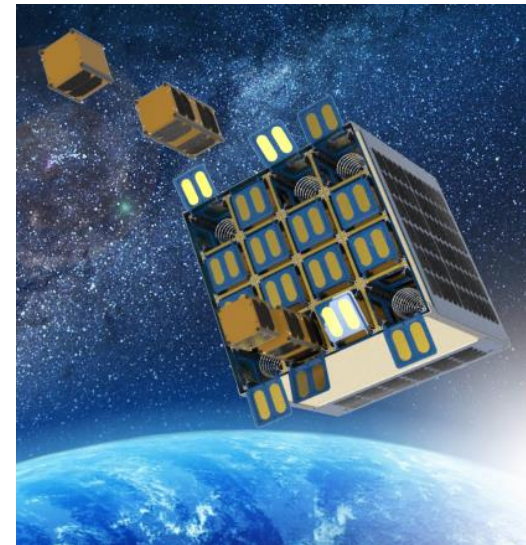
- Next generation of space infrastructure being built now – likely last 15 yrs, UK in danger of missing out – country too small to ever gain a dominant position again
- Space will permeate every part of society – stop thinking of yourselves as space people – partner with someone who has problem/market knowledge
- Accelerate feedback loop to be competitive:
 - All parts of the space ecosystem need to be present
 - Shared industry and govt responsibility
 - Seraphim investments: D-orbit, Iceye, Spire, LeoLabs
 - UK Industry aligned to “Old Space”, need to become the Mittelsand of space, existing ecosystem evolves (insurance, licensing, test facilities, regulation)
- Declining government budgets – smaller science payloads, commercialisation of government services (weather, science, R&D, environment protection)



Mission Enablement - Disruption



- Smaller, more distributed payloads forming flexible networks, software defined. Sensors on everything (upper stages, other commercial missions)
- Factors promoting cubesat missions: Brexit, NASA Marcom, most popular bus size.
- Use generic technology to lower costs: Kaleao, UltraSoc
- Hosted payloads, focus on data delivered, let others worry about support systems: Spire, D-Orbit
- Innovative ways around data download issue: more computation in orbit, use of mega constellations as backhaul
- Commercial picture of end-to-end supply chains, e.g. oil, food
- Constellation fatigue amongst investors
- Space situational awareness/ national competition in space
- Looking outwards – commercial landers on the moon, etc.



The Ask.....



More great UK space businesses that are high-growth profile and have differentiated technology.

How do we work more closely with the UK space ecosystem to ensure we can reach these exciting businesses?



Thank You

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www.seraphimcapital.com