



**Using Smart  
Investment to create  
Global Companies**

*ESA LIFT Conference  
05 February 2015*



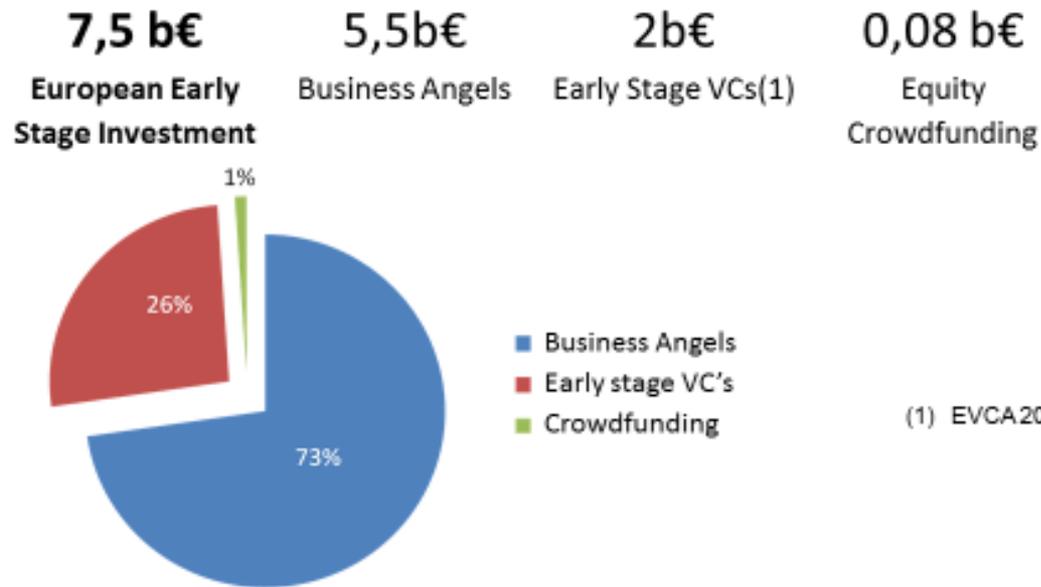
## Overview of European Angel Market

- The European angel investment market increased 8,7% in 2013, reporting a new record of 5.543 billion Euros of investment. The market has been growing in all of the monitored items: investment amount, number of investments and number of business angels. The impact in the economy through jobs created is also increasing as a consequence of the increased amounts in play.
- Crowd Funding will be about 1 billion Euros in 2015.



# Early Stage Investment in 2013

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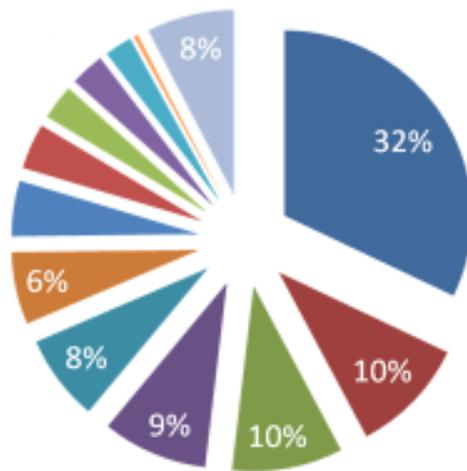


(1) EVCA2014

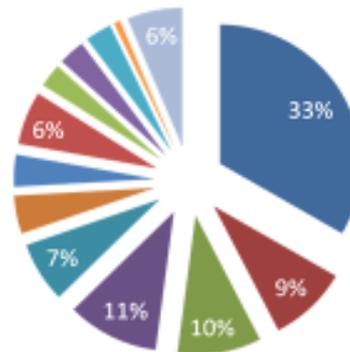


# Investment by Sector

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investment amount

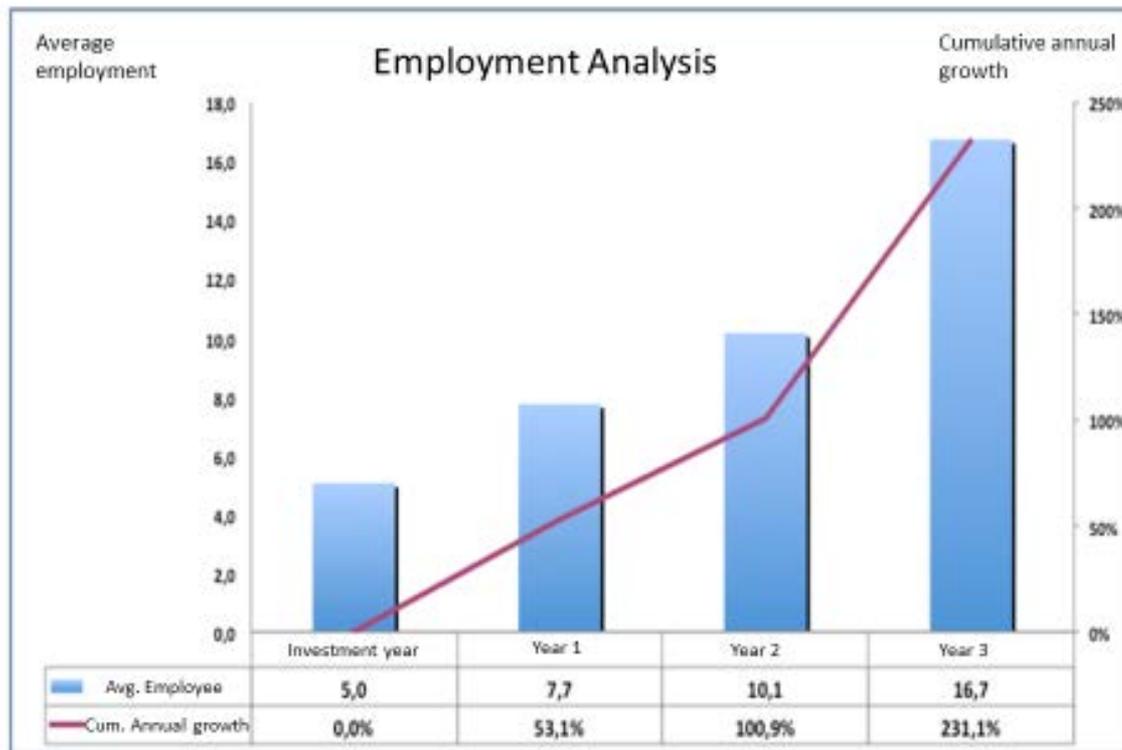


Deals amount

- ICT
- Biotech and Life sciences
- Mobile
- Manufacturing
- Health Care/MedTech
- Energy
- Environment and Cleantech
- Retail and distribution
- Logistics and transport
- Creative Industries
- Finance and Business Services
- Impact Investing
- Other



# Employment Analysis – Triples after Angel Investment





# What Policy Makers can do

Bringing more Investors	Quality deal flow	Impact and Sustainability
Fiscal Incentives	Investment readiness (incl. sector Specific)	Support sustainable and Professional BANS
Co-Investment Funds	Teach Entrepreneurship and access to finance very early in schools	Data collection
Investor readiness Training sessions	Have incubators and other facilitators to educate and prepare entrepreneurs	Local BA/VC forums
Media Campaigns		Light regulation for early stage investment market



## Creation of an E-Zone for Europe's Innovators, Entrepreneurs, and Investors

- Create and implement a pan-European capital market in the EU, to enable Europe to build new world class businesses,
- Create a connected value chain for all players in the European finance ecosystem to support innovators from start-up through scale-up to high growth,
- Define the basis of a European strategy for Crowd-Funding allowing for co-investment schemes and extension of tax incentives schemes



## E-Zone (cont)

- Encourage Programs of Fiscal incentives, including at cross border level, in order to move more private investment to startup and early stage companies by sharing risk with the public sector and inspire professional approaches to the “nation-building” exercise of Europe’s citizens in investing in growth and the next generation,
- Turn Europe into the easiest place to start and successfully grow a company,



## Breaking Boundaries – Turning Tables and Defying the Status Quo

- Breaking Boundaries implies there are Boundaries
- Creating the 21<sup>st</sup> Century Company
- Starting from a Clean Slate
- The Digital Economy is a global one – A touch of a Mouse Click, a Tweet, a Photo on Instagram – can transport you almost as if you were there and soon, scientists will be able to do even that !







One venture can make a difference

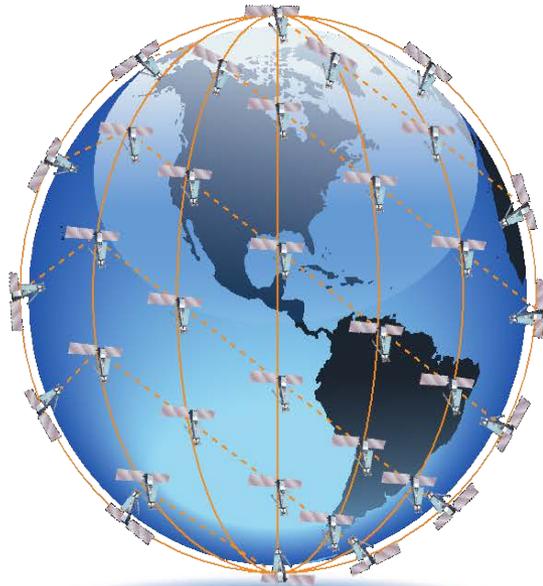


Contract signed for Astra 1A  
24 September 1985

L-R  
Roland de Kergorlay,  
Vice-Chairman SES  
Corneille Brück,  
Chairman SES  
Charles A. Schmidt  
VP/General Mgr,  
RCA Astro



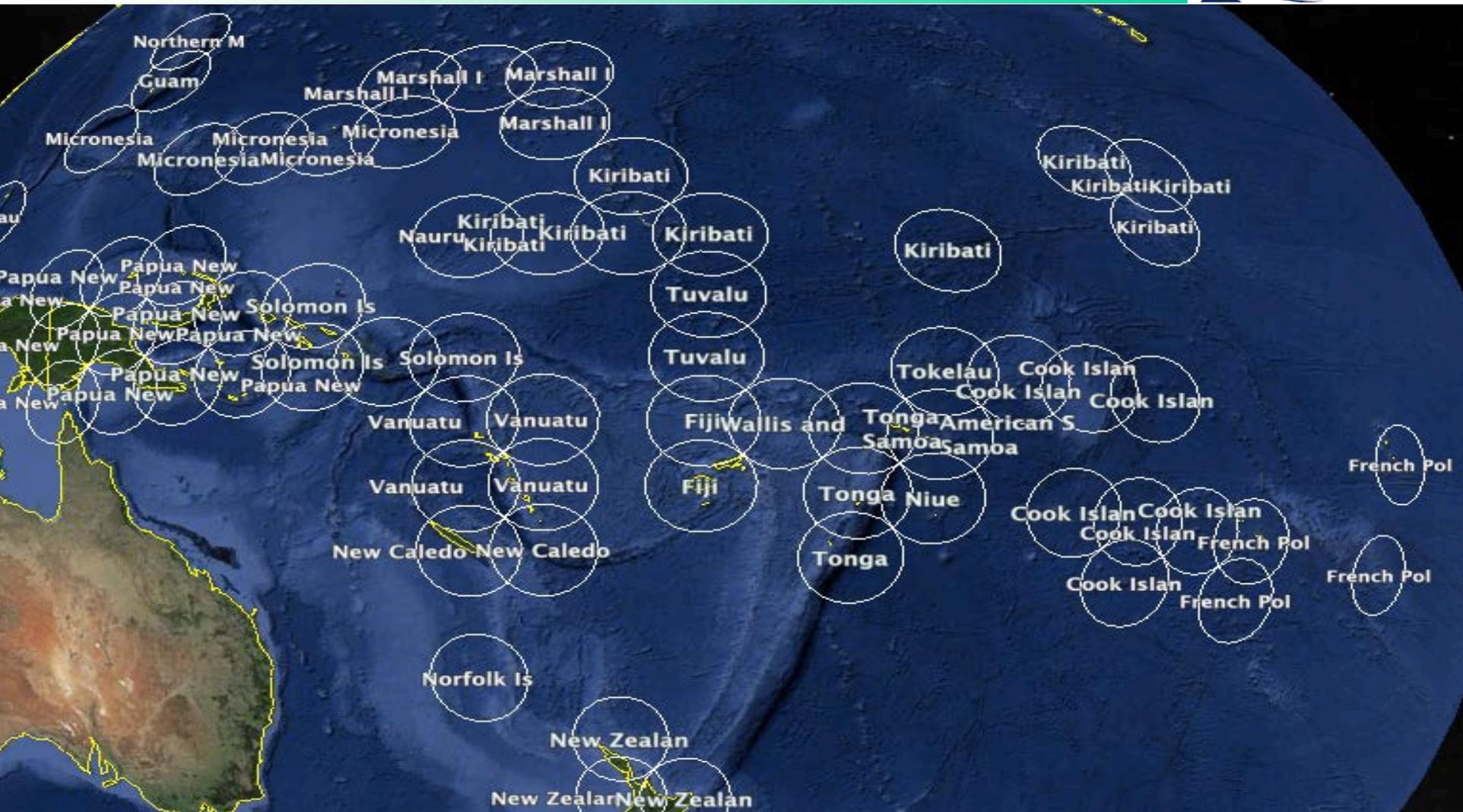
# Iridium







# The HTS concept applied to the Pacific market



# Result: affordable connectivity in abundance everywhere



Kacific will bring an abundance of affordable connectivity to Pacific SIDS

- Access will be rolled out extremely rapidly post-launch (2016)
- Small, affordable, easy to install terminals
- Same quality of service in cities and most remote isolated locations



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CLIMATE CHANGE

# Laser Light - the World's 1<sup>st</sup> Global Hybrid Satellite-Terrestrial All Optical Network System

## RECENT DEVELOPMENTS:

### •NASA (MIT) Lunar Laser Communications Project – October, 2013

- Key Operating Metrics:
  - **250,000KM from Earth**
  - Demonstrated 660Mbps Service Link
  - **Three (3) Global Ground Stations – Arizona, New Mexico, Tenerife**
  - Steerable Beam To Facilitate Weather Avoidance

### •European Space Agency – ALPHASAT (TeSAT)

- AlphaSat's Laser Communications terminal (TPD1) correctly identified its target at ESA's ground station on the island of Tenerife in the Canary Islands for the first time on 4 November, proving that it can be pointed precisely enough to hit a point more than 36,000 km away.
- It will demonstrate the use of laser technology for collecting information from the congested low orbits and then transmitting it to ground stations from its position high above in geostationary orbit.
- TDP1 is a precursor to EDRS, the European Data Relay System that will perform data-relay services in particular for the four Sentinel Earth observation spacecraft.

### •*LASER LIGHT CHALLENGE: SCALING & COMMERCIALIZATION THE TECHNOLOGY*

This presentation is prepared for informational purposes, and is based on preliminary assessment of provided data.  
This presentation does not represent an offer to buy or sell securities.



PATENT PENDING

# Fully Integrated Global IP Backbone Network

## Satellite to Ground to Satellite

Connection Type Key  
FSO Crosslinks  
.....  
FSO Uplink/Downlink  
——  
Fiber Connections  
- - - -

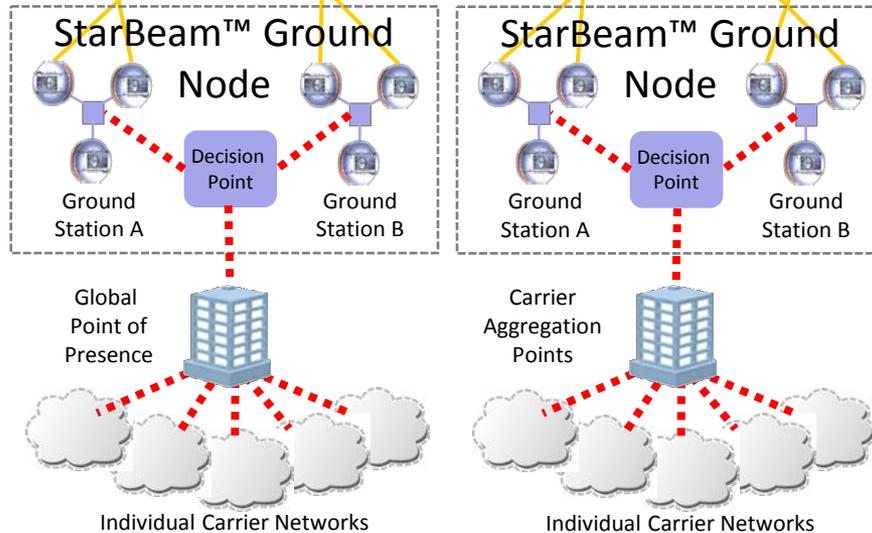
Space  
↑  
↓  
Ground

To Other Ground Nodes

To Other Ground Nodes

### BUSINESS MODEL BENEFITS

- Dynamic handoff direct from satellite optical to ground nodes
- Same technology “interface”, fully compatible with existing model switch gear
- “All IP to The Cloud” Layer II network
- Lower OPEX thru medium of space transport
- Flexible delivery options

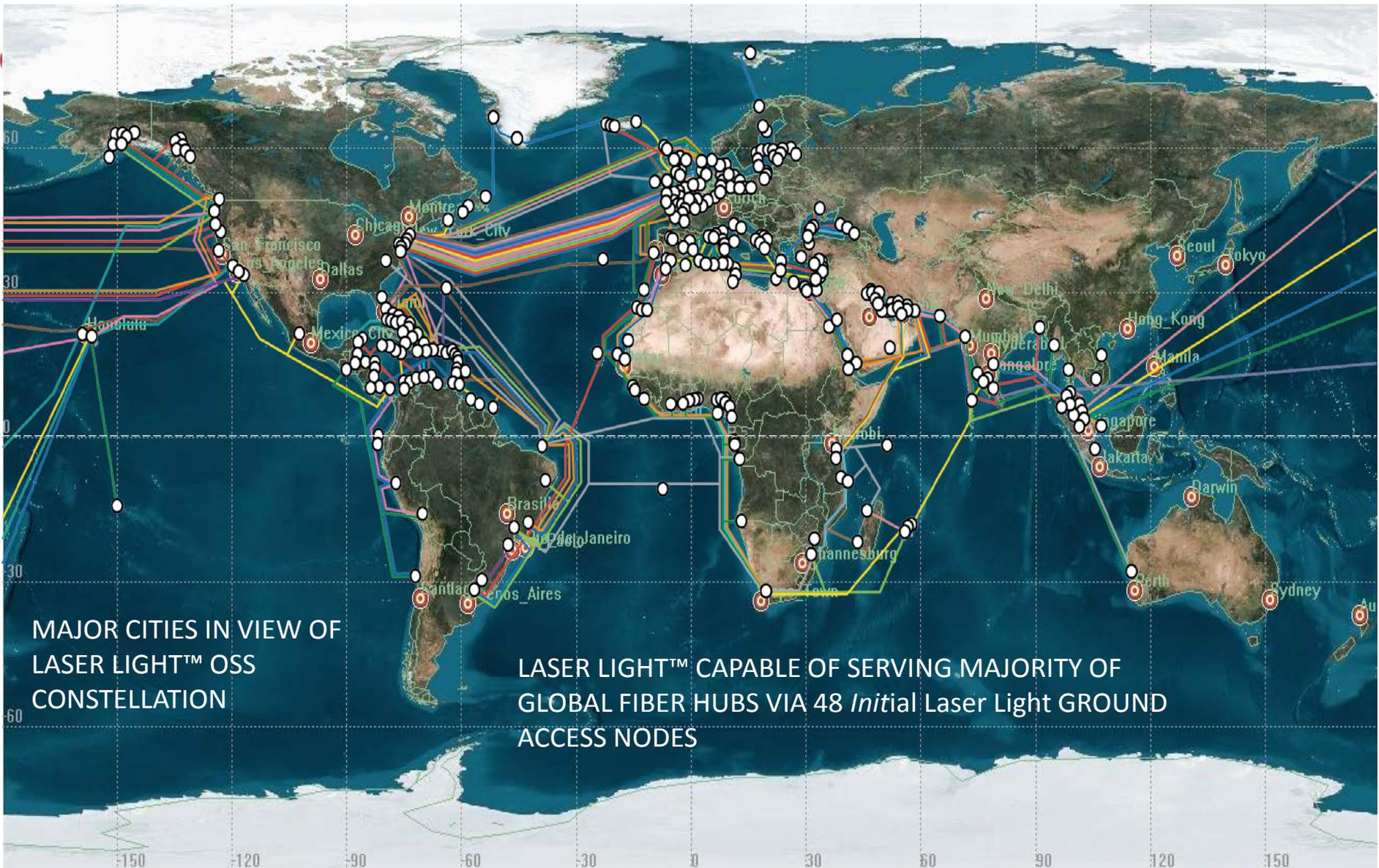


### CARRIER/PARTNER BENEFITS

- Reciprocal IRU's
- “On Net”-“Off Net” Synergies
- Fully compatible with existing optical switch gear
- No spectrum cost
- No regeneration stations
- Global reach bi-passing congested or unsecure routes
- Highly secure – Node-to-Node
- Network Extension Service

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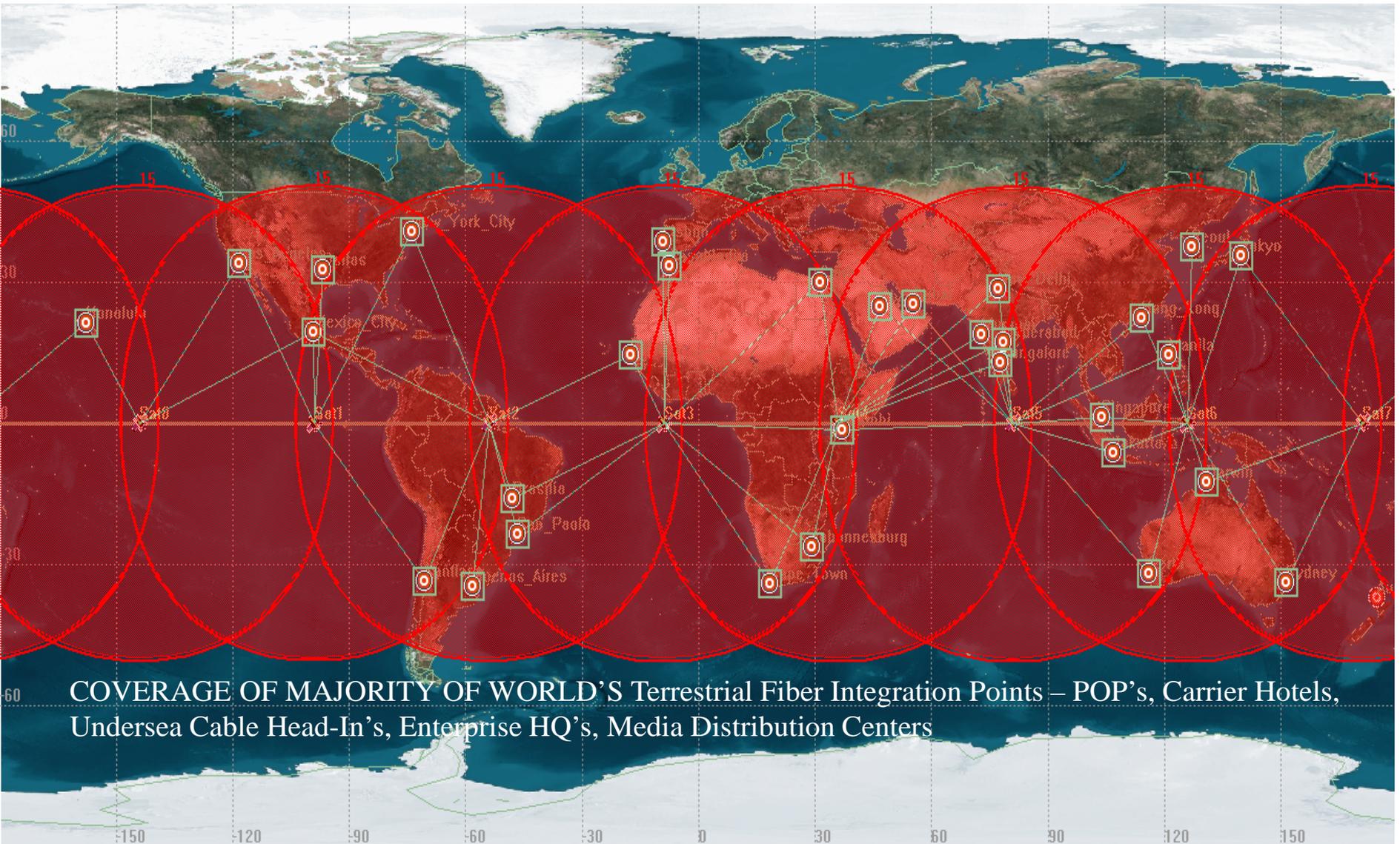
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MAJOR CITIES IN VIEW OF  
LASER LIGHT™ OSS  
CONSTELLATION

LASER LIGHT™ CAPABLE OF SERVING MAJORITY OF  
GLOBAL FIBER HUBS VIA 48 *Initial* Laser Light GROUND  
ACCESS NODES

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# Pursued By Facebook

Posted Apr 14, 2014 by [Darrell Etherington \(@drizzled\)](#)

25 Like 3.8k Tweet 873 Share 615

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Google has acquired Titan Aerospace, the drone startup that makes high-flying robots which was previously scoped by Facebook as a potential acquisition target (as first reported by [TechCrunch](#)), the [WSJ reports](#). The details of the purchase weren't disclosed, but the deal

## ADVERTISEMENT



## CrunchBase

### Titan Aerospace

FOUNDED N/A	TOTAL FUNDING Not available
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OVERVIEW  
Titan Aerospace ("Titan") provides persistent solar





# The ABC's of Realizing your Dreams

- **A** -void negative sources, people, things and habits. **B** -elieve in yourself.
- **C** -onsider things from every angle.
- **D** -on't give up and don't give in.
- **E** -njoy life today: yesterday is gone and tomorrow may never come.
- **G** -ive more than you planned to give.
- **H** -ang on to your dreams.
- **I** -gnore those who try to discourage you.
- **J** -ust do it!
- **K** -eep on trying, no matter how hard it seems. It will get better.
- **L** -ove yourself first and foremost.
- **M** -ake it happen.
- **N** -ever lie, cheat, or steal. Always strike a fair deal.
- **O** -pen your eyes and see things as they really are.
- **P** -ractice makes perfect.
- **Q** -uitters never win and winners never quit.
- **R** -ead, study and learn about everything important in your life.
- **S** -top procrastinating.
- **T** -ake control of your own destiny.
- **U** -nderstand yourself in order to better understand others.
- **V** -isualize it.
- **W** -ant it more than anything.
- **X** -ccelerate your efforts.
- **Y** -ou are unique of all of Nature's creations. Nothing can replace you.
- **Z** -ero in on your target, and go for it!!