



# WORLD REACH LIMITED

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Strategy Documents

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# Strategy Document

- Purpose of Document: to define current markets of World Reach Limited, our current positioning and our growth plans
- Goal of WRL: To grow to AUD 60 million by 2020.

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# Introduction: Satellite Network Orbits

There are three main types of satellites operating around earth;

- Low Earth Orbit (LEO)
- Medium Earth Orbit (MEO)
- Geostationary Orbit (GEO)

- **LEO** a satellite system used in telecommunications. LEO satellites orbit the earth between 400 and 1,000 miles above the earth's surface. LEOs are mostly used for voice data communication such as emailing, paging, internet at low speed. Because LEO's are not fixed in space in relation to the rotation of the earth, they move at very high speeds and need to always be in contact with another satellite or a ground earth station to maintain connectivity at all times. Due to the low orbit the transmitting signals do not have to be as strong. Some LEO services such as Iridium have the major benefit of providing pole to pole coverage.
- **MEO** Short for *medium*, or *middle*, *earth orbit*, a satellite system used in telecommunications. MEO satellites orbit the earth between 1,000 and 22,300 miles above the earth's surface. MEOs are mainly used in geographical positioning systems and are not stationary in relation to the rotation of the earth.
- **GEO** short for *geosynchronous*, or *geostationary*, *earth orbit*, a satellite system used in telecommunications. GEOs orbit the earth at 22,300 miles above the earth's surface. They are tied to the earth's rotation and are therefore in a fixed position in space in relation to the earth's surface. The satellite goes around once in its orbit for every rotation of the earth. The advantage of a GEO system is that the transmission station on earth needs to point to only one place in space in order to transmit the signal to the GEO satellite. GEO systems are used for transmissions of high-speed data, television signals and other wideband applications.

# Satellite Market Segments

There are two main market segments of satellite services offered and they are categorized as follows;

## - Mobile Satellite Services (MSS)

- **Mobile satellite services (MSS)** provide two-way voice and data communications to global users who are on the go or in remote locations cars, trucks, ships planes or standalone personal users; terminals range in size from handheld to laptop-size units. Terminals can also be mounted in a vehicle, with communications maintained while the vehicle is moving.
- MSS operates at L-band—low enough in the frequency spectrum to avoid the rain fade and generally has a higher level of mobility in its applications.

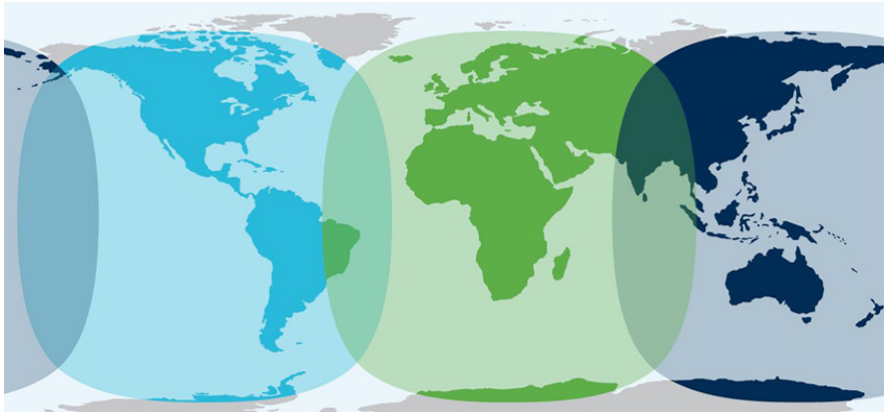
Inmarsat, Iridium , Thuraya and Globalstar are the 4 main operators in the MSS market today.

Beam Communications only manufactures equipment for MSS applications.

## - Fixed Satellite Services (FSS)

- **Fixed Service Satellite (FSS)** is the official classification (used chiefly in North America) for Geostationary communications satellites that provide broadcast feeds to television stations, radio stations, and general broadcast and broadband networks.

# Satellite “MSS” GEO Operators

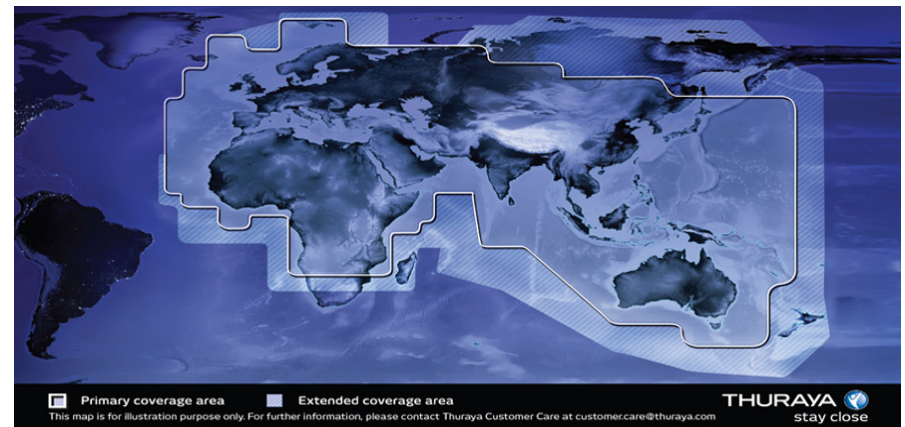


## Inmarsat

- Listed on LSE : ISAT
- GEO Stationery Satellites
- Largest MSS Operator
- 10 Satellites approximately 4 different systems
- Certified Marine Safety
- 90% Coverage
- Voice, Messaging, M2M,
- Data up to 512kbps,

## Thuraya

- Private Middle Eastern Company
- Geostationary
- 4th Largest MSS Operator
- 2 Satellites
- 60% Coverage
- Voice, Messaging, M2M,
- Handheld Data up to 56kbps
- Data up to 412KB,



# Satellite “MSS” LEO Operators

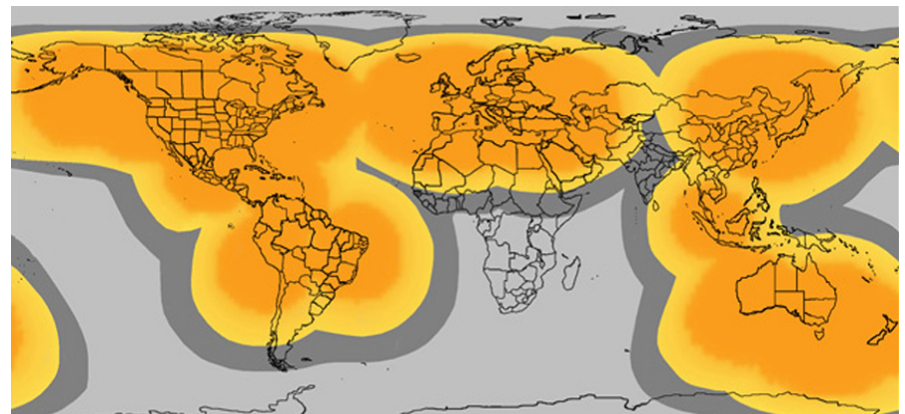


## Iridium Satellite

- Listed on NASDAQ :IRDM
- Low Earth Orbiting
- 2<sup>nd</sup> Largest MSS Operator
- 66 Satellites
- Interlinked satellites
- 100% Global Coverage
- Voice, Messaging, M2M, Paging
- Data up to 128KB
- Next Generation Network – 2016/7

## Globalstar

- Listed on NASDAQ :GSAT
- Low Earth Orbiting
- 3<sup>rd</sup> Largest MSS Operator
- 48 Satellites
- Require Numerous Ground Earth Station
- 75% Coverage
- Voice, Messaging, M2M,
- Data up to 56KB,
- HSD requires ground station upgrades
- Next Generation Network Complete– 2013/4



## MSS Services by network operator

Fiber	Cable	Copper Pair	Cellular	FSS	MSS	VHF/UHF
MSS						
Product Data	SMS	Voice	CSD	IP Data	HDS (12 – 512)	Paging
Iridium	Yes	Yes	Yes	Yes		Yes
Inmarsat	Yes	Yes	Yes		Yes	
Orbcom						
Globalstar	Yes		Yes	Future		
Thuraya			Yes	Yes	Yes	



# MSS Services

## Product Data

Tracking  
Messaging  
Emergency Alert  
SCADA / Telemetry

## SMS

Messaging  
Tracking  
Emergency

## VOICE

Standard  
Crew Calling

## CSD

SCADA/  
Telemetry  
Internet  
(slow)

## IP Data

Internet  
Telemetry/  
SCADA

## HSD

Internet  
Streaming  
Video

## Paging

In building  
messaging

VERTICAL  
MARKETS

Oil & Gas

Mining

Maritime

Transport

Defense

Utilities

Global Traveler

Researcher


# Satellite Market Positioning

- Currently, Beam is selling products for the MSS LEO and GEO market, predominantly for Inmarsat and Iridium based technology.
- Beam will commence a new OEM project for Thuraya, the first development for Beam on the Thuraya system.
- Opportunities exist for Beam expand its product range within current network capabilities of Inmarsat and Iridium
- Opportunities may exist for Beam to develop new products for Inmarsat's Bgan networks using its newly designed core module
- Beam is well positioned to take on new projects for Iridium's next generation of satellites commencing 2017

# Porter 5 Forces of WRL

## Supplier Power

- Limited supplier for 3<sup>rd</sup> parts and contract manufacturing
- Concentrated due to low volumes
- High cost of migration
- Disruption to migrate
  - Loss of expertise and know how
- Quality risk in changing supplier
- Lack of differentiation in suppliers
- Risk of suppliers increasing prices
- Risk of suppliers looking to go direct to clients
- Small fish/big pond
- Can have too much control of the business

## Threat of new entry

- Threat of large cellular player diversifying
- New satellite operator carrier

## Barriers to entry

- Economies of scale
- Product knowledge
- Network endorsement
- Capital requirement
- Risk averse buyers
- Certifications & approvals
- Low volume compared to cellular
- Beam Comm's market share
- Distribution channel access
- Product differentiation

Competitor  
Rivalry

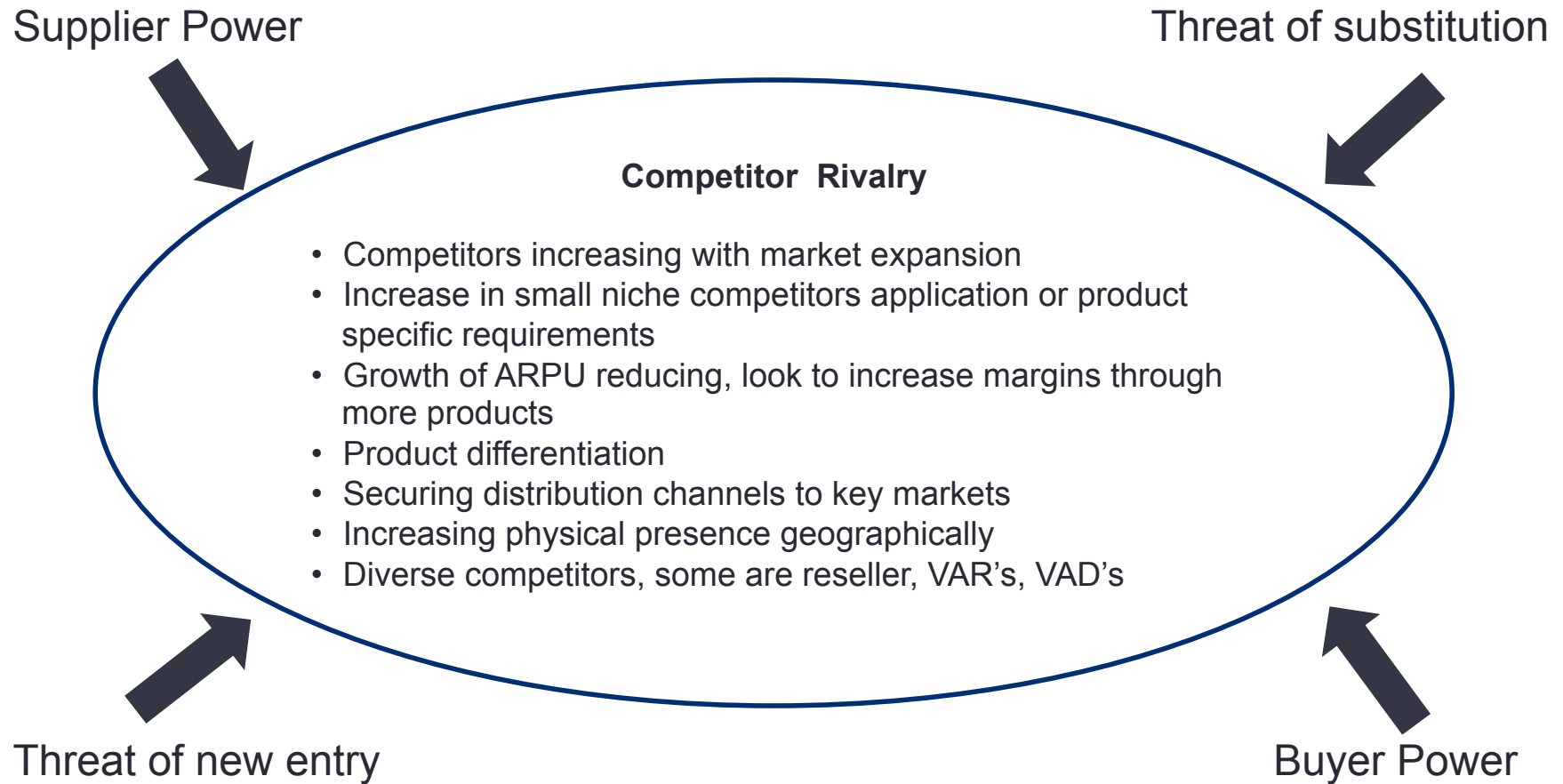
## Threat of substitution

- Risk of more copy docks from china
- Limited risk for transceiver boxed products due to supply control
- Increased cellular coverage
- New satellite technologies
- New satellite products (sat sleeves, access points..etc)
- Higher speed data service, voip integration
- Major breakthrough in RF antenna designs/ cost
- Quality & price major barrier for substitution

## Buyer Power

- Control and user decision
- Can be influenced by network operators incentives
- Influenced by other suppliers
- Driven by product managers always wanting better products
- Expect to get immediate delivery without forecasts
- Hungry suppliers
- Large qty of small sellers desperate for business
- Look for lowest operation cost for user
- Some buyer volume and then known dependency
- Use multiple sources
- Always chases best deal
- No costs to switch to competitor
- Threat to make their own
- Threat to never buy again

## Porter 5 Forces – Competitor Rivalry



# S.W.O.T OF WRR

## Strengths



- Strong Balance sheet
- Strong cash position
- Proven ability as a key OEM
- Professional team/strong management
- Satellite network technical expertise
- 13+ year reputation
- Partner with three largest MSS operators
- Recognition as a key player in segment (MSS)
- Asian presence & Business in China
- Outsourced manufacturing
- Diversified and high quality, good value products
- Exceptional channel reputation
- Iridium engagement
- New Inmarsat personnel , ex Iridium
- Ability to service multi million dollar contracts
- Brand name clients
- Economies of scale with Telstra/Inmarsat deals
- Increasing recurring airtime revenues
- Extended relationships with key resellers and sale specialist Telco's
- Ability to be proactive, reactive and adapt to market trends
- Product innovation
- World class tech and sales support
- Best in segment website and channel support
- Strong International presence

## Weaknesses



- ASX overhead for limited value
- Limited high speed data products
- Inability to service niche product applications outside of Australia
- High labor costs in Australia
- Extremely reliant on network operator strategies
  - Difficult to drive the market
- Insufficient localized representation /support outside Australia
- Regionalized stock not available
- Limited dedicated M2M products/Applications
- Lack of resources to support growth opportunities
- Lots of legacy products still requiring support

# S.W.O.T

## Opportunities

- Further engagement with Iridium on Maxwell Enhancements & others
- New markets - Russia, China , Iridium
  - New Operator - Thuraya
- New Products
  - Maxwell
  - BGAN Inmarsat
  - Highway Emergency Phone
  - Pagers
  - Push to talk (PTT)
  - Black Box GO!
  - NEXT Generation GO!
- New Business
- Satphone Shop /Rentals
- SBD Online launch
- Strengthen Japan
  - Inmarsat Products
  - Extend upon existing channels
- App Development
  - KDDI /Telstra
  - Specialized What's App /Vibe
  - Forms / XXXXX / etc
- China new distribution / partners
- Rationalize manufacturing processes and cost reduction engineering

## Threats

- Increased competition from China VAM's
- Lower cost med-high speed data units with low airtime charges
- New entrants to market, Google, Apple, Virgin
- Iridium network not upgraded until 2018
- Increased copy docksand other products from China for Iridium and Inmarsat
- Product failure / Recall on Maxwell
- Increased usage pricing by Inmarsat, Iridiumm that reduces higher volume sales opportunities
- Production issues and the inability to support demand.
- Increased shift toward hub like products that reduces need for docking solutions
- Loss of key personnel

# PEST ANALYSIS

## Political

- Licensing regulations
  - India
  - China
- Import duties against Chinese manufactured goods
- Government require USA made
- Wars and unrest drive satellite demand
- Introductions of regulations, transport, mining, defense force
- Labor rates in China

## Social

- Social reliance on continual communication due to mobiles and social media (low and high speed data).
  - Driving communication demand when mobile reception is unavailable.

## Environmental

- Natural disasters drive satellite demand
- Impacts to satellites from space debris

## Technology

- Obsolescence
- New satellite constellations
- Current provides no longer front runners
- Significant shift in new generation technology
- Reliability of current satellites
- High cost to develop new equipment

# THE 4 P'S

## Products

- Iridium
  - Voice, data, tracking terminals
  - Modems, Accessories, Docks
- Inmarsat
  - Docking solution
  - Marine terminals
  - Land terminals
- Accessories
  - Cables, Antennas ,Bags
- Airtime - SBD
- OEM - Maxwell

## Place/Distribution

- Global distribution inline with Iridium's regulatory approved countries of operation
- Key markets Australia, Europe, UK , Asia, Japan and USA
- Resellers/Service providers have direct relationships with Iridium.
- Inmarsat tier 1 resellers. Very few sell direct, majority have a global distribution network of VSP or dealers
- Iridium direct as the OEM for Iridium Maxwell will be distributed as a direct Iridium product

## Price

- Tiered reseller model providing discounts from 15-34% off MSRP
- Pricing tiers based on resellers past 12 month performance at committed volumes
- Average 37-40% margin based on USD – AUD 1.0 exchange rate
- Periodic promotional offers to stimulate sales however pull lower margin sale
- Limited offer pricing stimulate demanded for new products

## Promotion

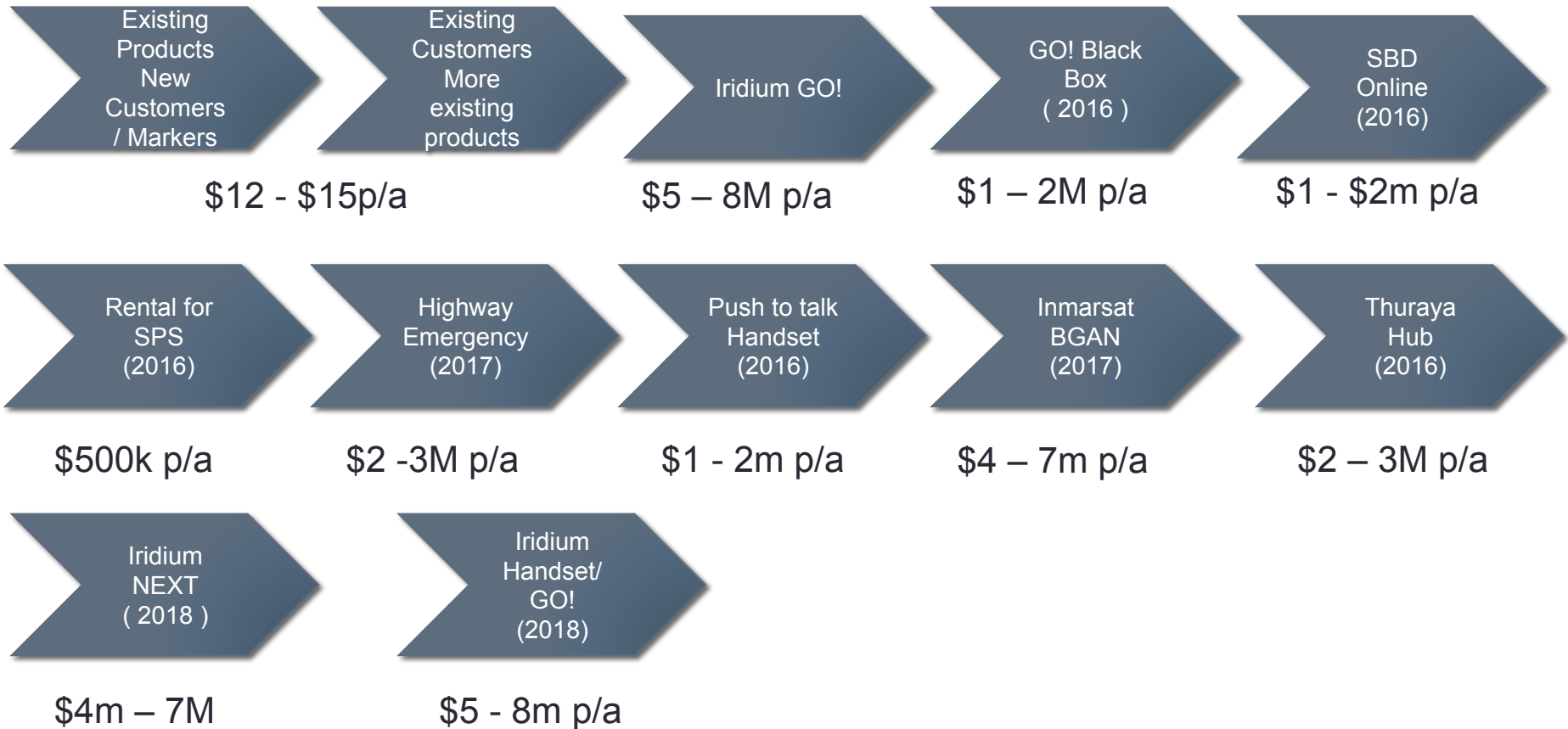
- Advanced and content rich website
- Social media, testimonials, press releases and ASX releases.
- Iridium newsletters
- Encouraging/Contracting resellers to promote products on reseller websites
- Trade show attendance
- Iridium and Inmarsat global conference attendance



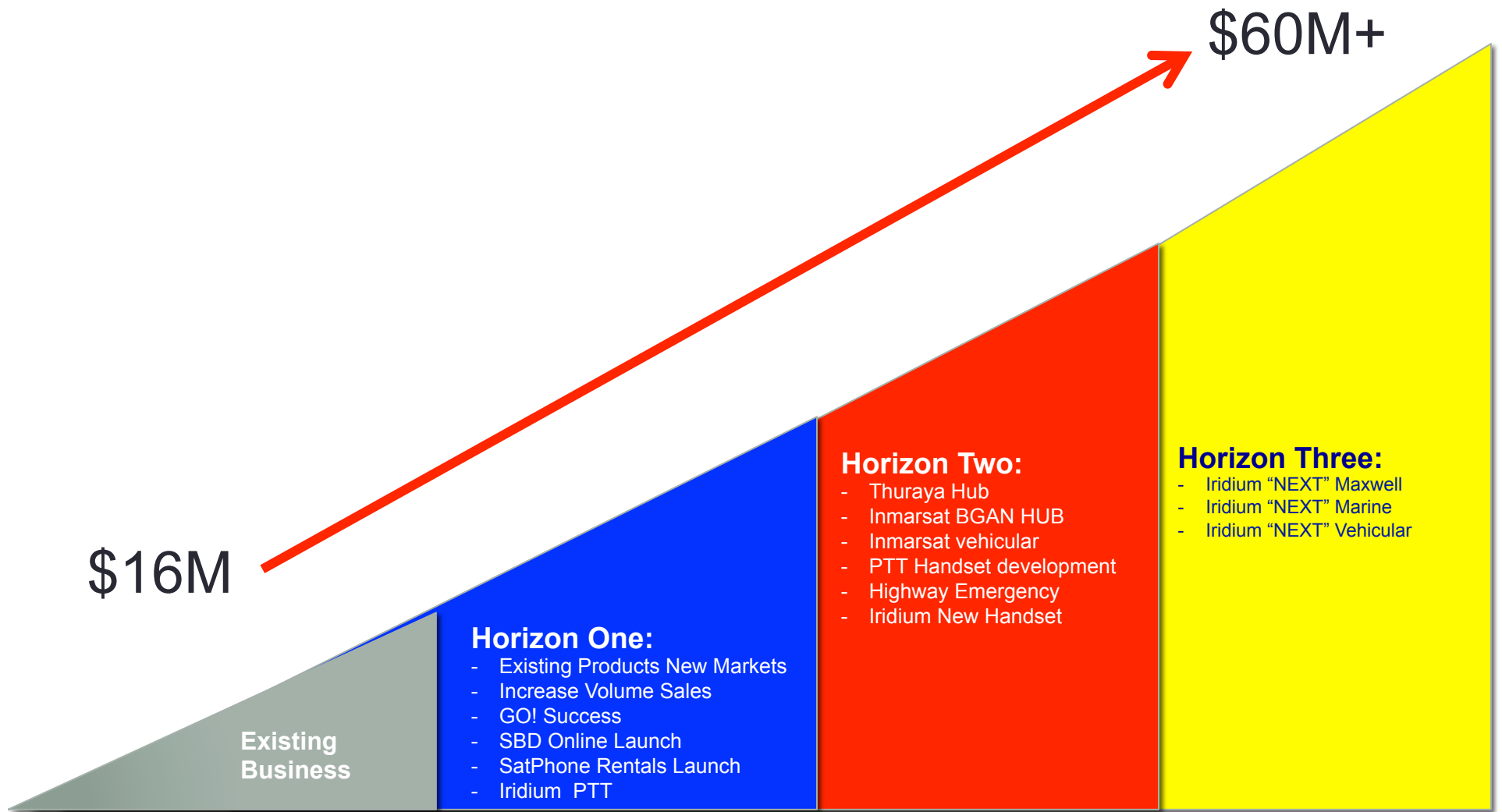
# WRL Product & Market Approaches



# Technology & Service Roadmap



# Horizons For Growth - 2020



# Conclusion

- WRL has the strategic plan in place and technology roadmap to grow into a AUD 60+ million revenue company.
- The company's putting in place the foundation in resources to enable the company to grow and develop, with the main investment being in headcount
- Prioritization of these opportunities and development of business cases for each one is required
- The opportunity for further incremental growth for Acquisition or to speed up the growth should be considered over the investment in organic growth