

# SUBMARINE CABLE **ALMANAC**

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# SUBMARINE CABLE ALMANAC

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## FOREWORD

Welcome to the thirty-first edition of the Submarine Cable Almanac.

Firstly, I'd like to thank Ocean Networks for their Exclusive Sponsorship of this invaluable reference document. Please take a moment to visit their website - <https://oceannetworks.com> - and check out what they've been working on.

Since the last issue, we have added eight new systems and updated an additional ninety-five. You may also notice more of our continuous updates to this publication. Our analysts' and database engineers' R&D efforts are ongoing and aim to provide new tools and approaches for each SubTel publication. With each issue we plan to bring new data and techniques to you, our loyal readers.

The data provided in this document is, as it ever has been, from the public domain and/or directly supplied by owners and suppliers. If you see a system that needs updating or know of an upcoming system that needs to be represented, please feel free to contact us directly at [kclark@subtelforum.com](mailto:kclark@subtelforum.com).

I would like to thank our sponsors and supporters, without you this document and the others like it would not be possible!

Good reading,

Kristian Nielsen  
Vice President



# METHODOLOGY

SubTel Forum's Submarine Cable Almanac was produced by the analysts at STF Analytics, which is a Division of Submarine Telecoms Forum, Inc., and provides submarine cable system analysis for SubTel Forum's Submarine Cable Almanac, Cable Map, Industry Report and Industry Newsfeed. STF Analytics utilizes its proprietary *Submarine Cable Database*, which was initially developed in 2013 and modified with real-time data thereafter, and tracks some 400+ current and planned domestic and international cable systems, including project information suitable for querying by client, year, project, region, system length, capacity, landing points, owners, installers, etc.

The *Submarine Cable Database* is purpose-built by STF Analytics' database administration team, which is powered by SQL and retained on a Microsoft Azure platform. Maps are produced with ArcGIS Pro, in the same format and visual style as SubTel Forum's *Submarine Cables of the World* print map. Data is collected from the public domain, and is the most accurate, comprehensive, and centralized source of information in the industry. At present, STF Analytics' *Submarine Cable Database* is chronicling the work of some 18 financiers, 477 cable owners, 22 system suppliers, 12 upgraders, 15 system surveyors and 25 system installers. In addition, it manages data for some 360+ projects, across 7 regions and 840+ landing points.

To accomplish the quarterly Submarine Cable Almanac in line with SubTel Forum requirements, STF Analytics conducted continuous data gathering throughout the year. Data assimilation and consolidation in its *Submarine Cable Database* was accomplished in parallel with data gathering efforts.

STF Analytics assumes no responsibility or liability for any errors or omissions in the content of this report. The information contained in this report is provided on an "as is" basis with no guarantees of completeness, accuracy, usefulness or timeliness.

Below is a list of defined acronyms and terminology used in this document:

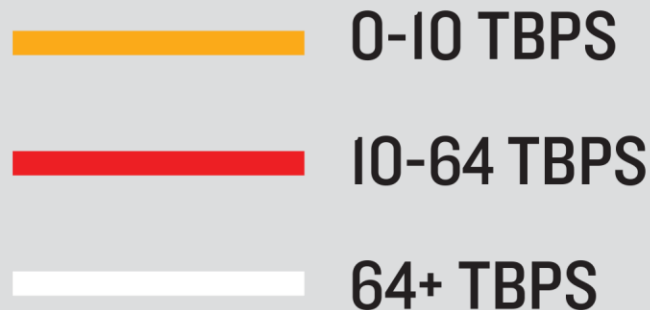
- Capacity per Wavelength (Gbps)** – The capacity of individual wavelengths, express in gigabits per second
- Design Capacity (Tbps)** – The maximum capacity available on a cable system, expressed in terabits per second
- EOS** – End of Service, the year a cable system is expected to reach end of life
- Fiber Pairs** – The number of fiber pairs in the cable system
- Initial Capacity (Tbps)** – The capacity a cable system launched with, expressed in terabits per second
- Landing Points** – The cities where a cable system comes ashore
- Length (km)** – The total length of the cable system, in kilometers
- Owners** – The names of all reported companies reported as owning a stake in the cable system
- Region** – Which of the six regions (Americas, AustralAsia, EMEA, Indian Ocean Pan-East Asian, Transatlantic, Transpacific) the cable system is in
- RFS** – Ready for Service, the year a cable system entered service
- System Cost (USD)** – The cost for the cable system project in US dollars
- System Installer** – The names of all reported companies that installed the cable system
- System Supplier** – The names of all reported companies that supplied the cable system
- Upgrader** – The names of all reported companies that have performed a cable system upgrade
- Upgrade Capacity (Gbps)** – The wavelength capacity a system was upgraded to
- Upgrade Year** – The years a cable system received an upgrade
- Wavelengths per Fiber Pairs** – The number of wavelengths/channels on a single fiber pair

# MAP LEGEND

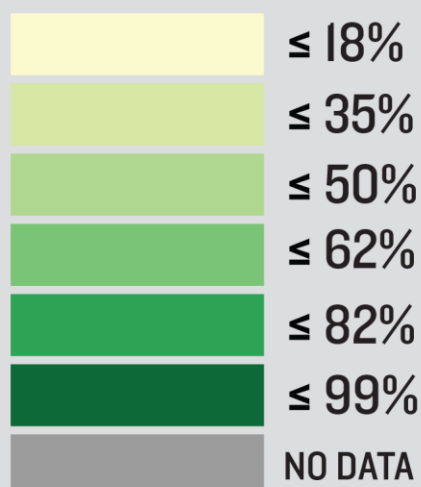
## Cable System Status



## Cable System Capacity



## Internet Users as a Percentage of Country Population



SOURCE: 2018 SOCIAL PROGRESS INDEX



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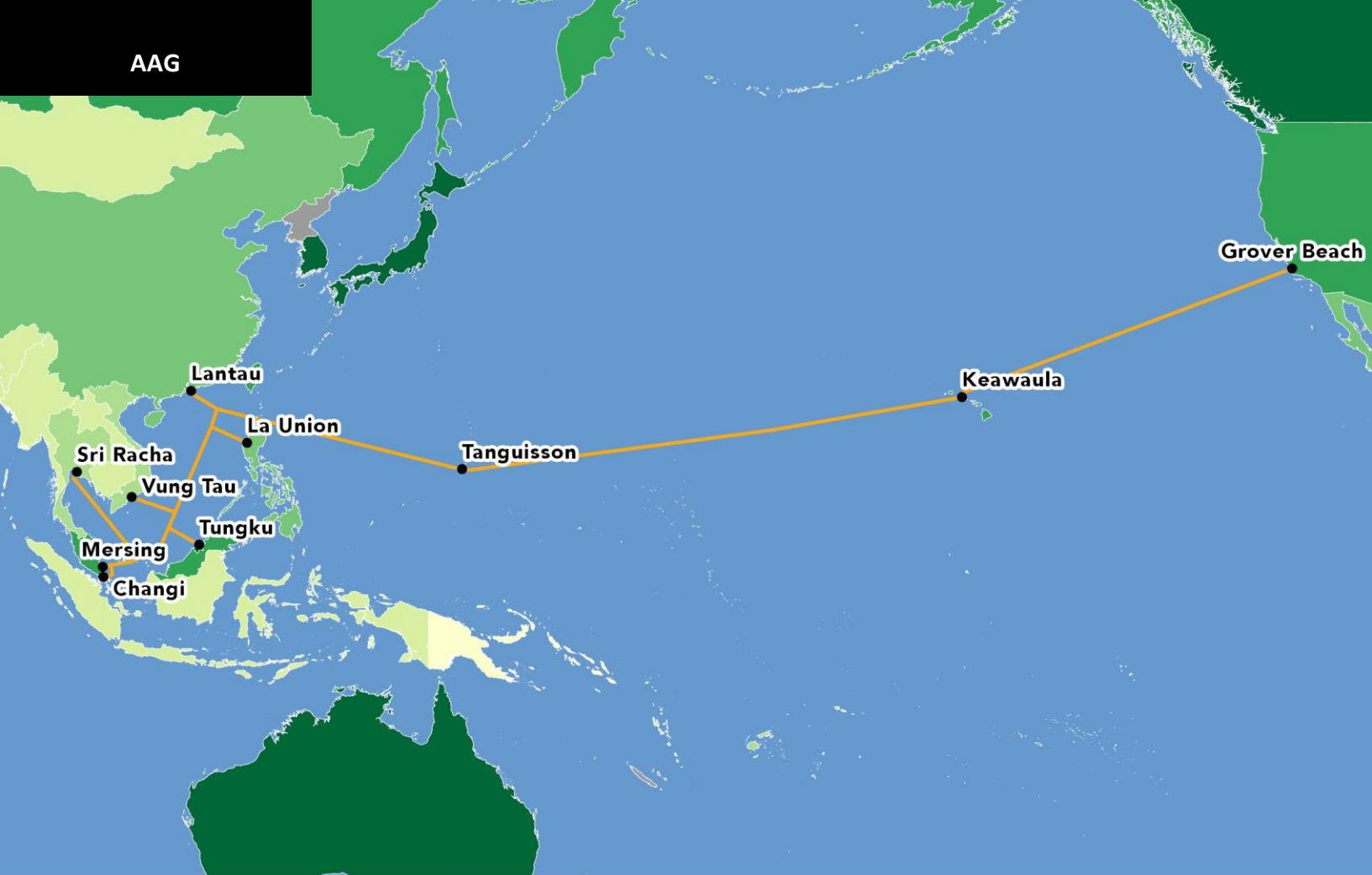
## ASIA AFRICA EUROPE

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$800,000,000
<b>Length (km)</b>	25,000
<b>Design Capacity (Tbps)</b>	80
<b>Fiber Pairs</b>	5
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	200
<b>Owners</b>	China Unicom, CIL, Djibouti Telecom, Etisalat, GT5L, HKT (PCCW Global), Mobily, Omantel, Ooredoo, OTE, PTCL, Reliance Jio, Retelit, Telecom Yemen, TOT Public Co Ltd., Viettel
<b>System Supplier</b>	NEC, TE SubCom
<b>System Installer</b>	TE SubCom
<b>Upgrade Year</b>	2018
<b>Upgrade Capacity (Gbps)</b>	200

### Landing Points

- Karachi (Pakistan)
- Al Bustan (Oman)
- Hong Kong (Hong Kong)
- Djibouti City (Djibouti)
- Abu Talat (Egypt)
- Zafarana (Egypt)
- Marseille (France)
- Ngwe Saung (Myanmar)
- Sihanoukville (Cambodia)
- Vung Tau (Vietnam)
- Aden (Yemen)
- Bari (Italy)
- Chania (Greece)
- Doha (Qatar)
- Jeddah (Saudi Arabia)
- Kuala Kurau (Malaysia)
- Mumbai (India)
- Satun (Thailand)
- Songkhla (Thailand)
- Fujairah (United Arab Emirates)



## ASIA-AMERICA GATEWAY

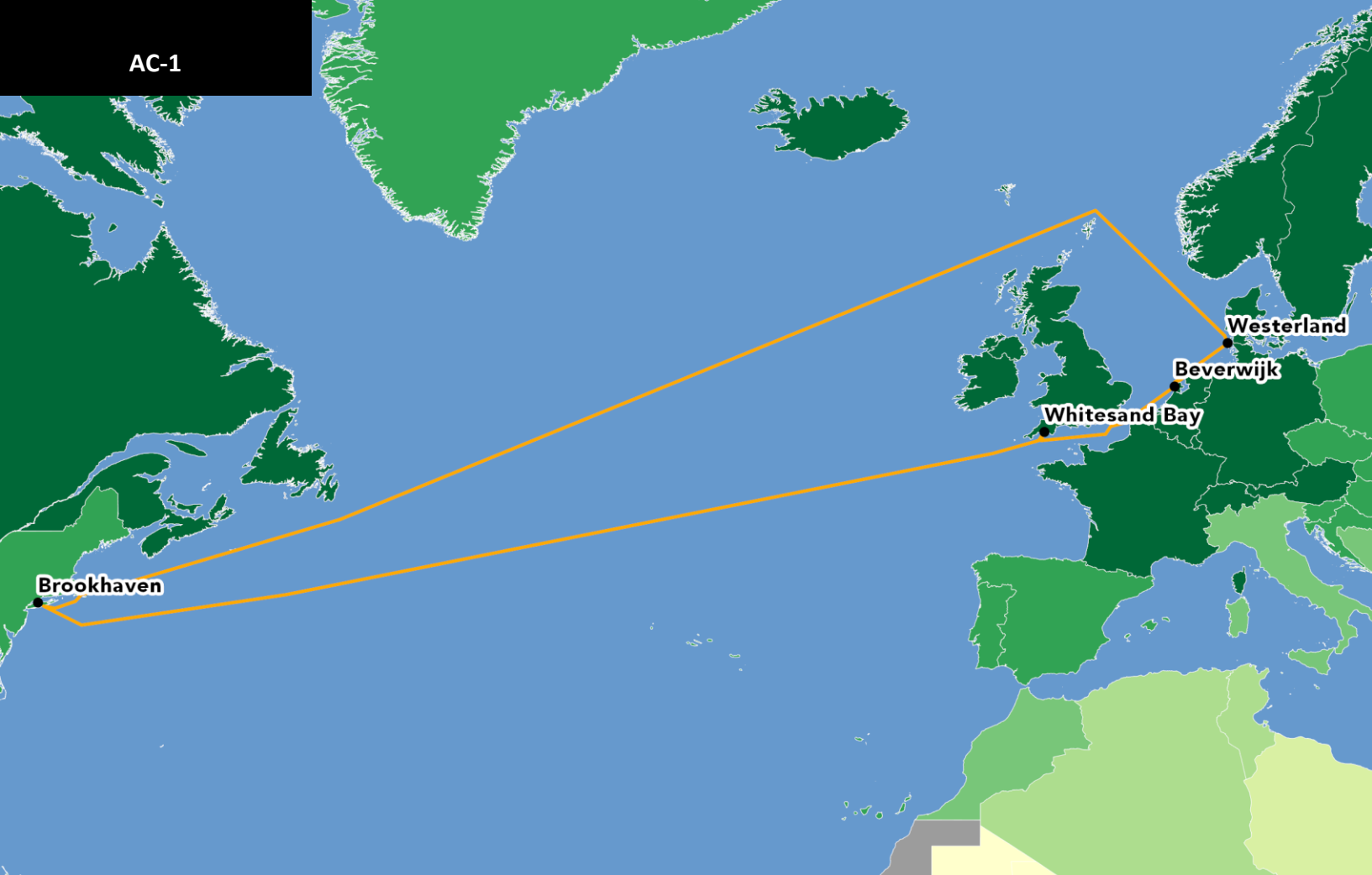
### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$500,000,000
<b>Length (km)</b>	20,547
<b>Initial Capacity (Tbps)</b>	2.88
<b>Design Capacity (Tbps)</b>	28.8
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	96
<b>Capacity per Wavelength (Gbps)</b>	100

### Landing Points

- Mersing (Malaysia)
- Changi (Singapore)
- La Union (Philippines)
- Tanguisson (Guam)
- Grover Beach (United States)
- Keawaula (United States)
- Lantau (Hong Kong)
- Sri Racha (Thailand)
- Vung Tau (Vietnam)
- Tungku (Brunei)





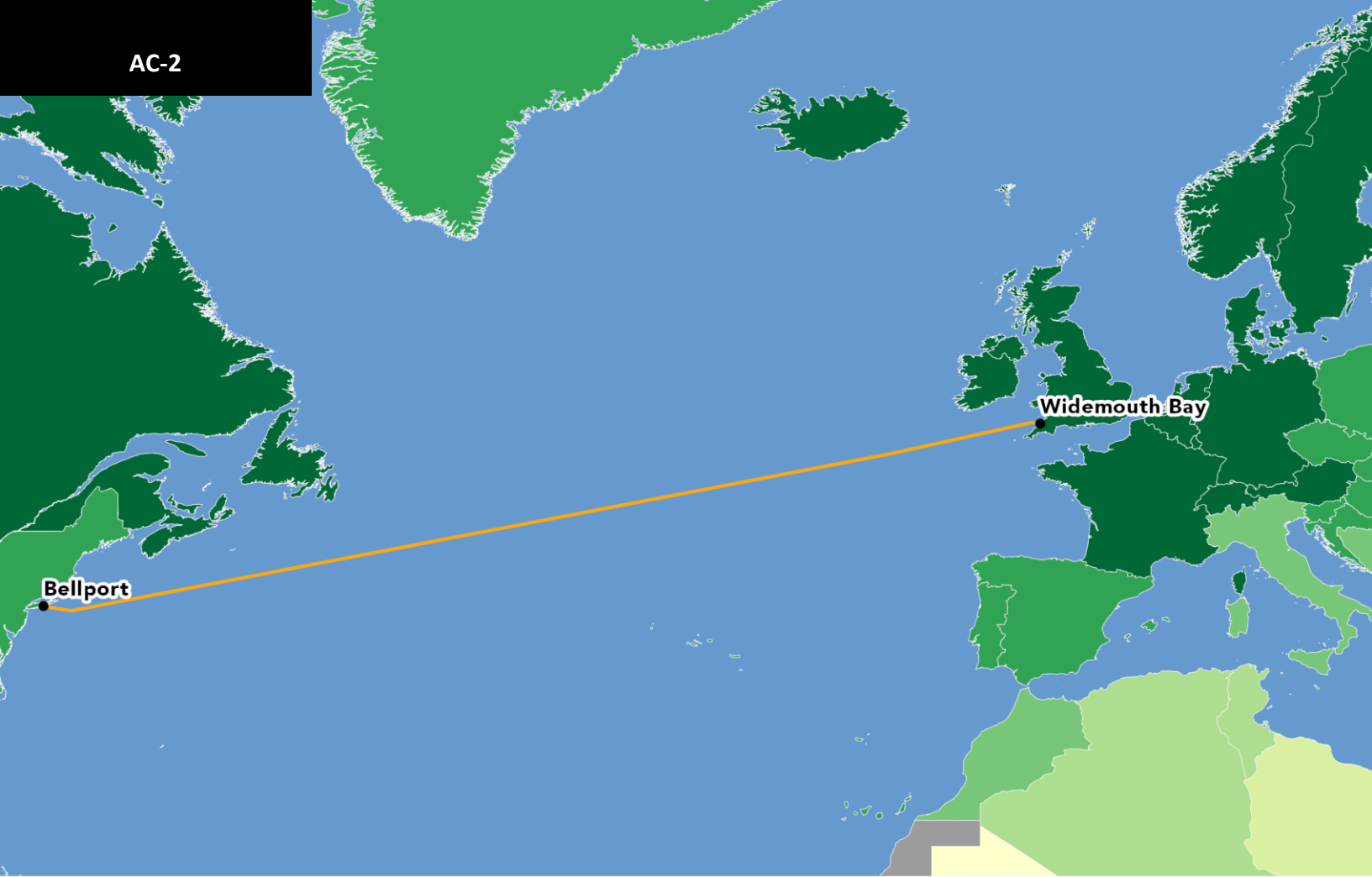
## ATLANTIC CROSSING 1

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$875,000,000
<b>Length (km)</b>	13,377
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	5.2
<b>Fiber Pairs</b>	4
<b>Owners</b>	CenturyLink
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2010
<b>Upgrade Capacity (Gbps)</b>	20
<b>Region</b>	Transatlantic

### Landing Points

- Westerland (Germany)
- Whitesands Bay (United Kingdom)
- Brookhaven (United States)
- Beverwijk (Netherlands)



## ATLANTIC CROSSING 2

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$700,000,000
<b>Length (km)</b>	6,185
<b>Initial Capacity (Tbps)</b>	0.32
<b>Design Capacity (Tbps)</b>	5.2
<b>Owners</b>	CenturyLink
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2010
<b>Upgrade Capacity (Gbps)</b>	10
<b>Region</b>	Transatlantic

### Landing Points

- Widemouth Bay (United Kingdom)
- Bellport (United States)



## AFRICA COAST TO EUROPE

### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$700,000,000
<b>Length (km)</b>	17,000
<b>Design Capacity (Tbps)</b>	12.8
<b>Capacity per Wavelength (Gbps)</b>	100

### Landing Points

- Libreville (Gabon)
- Banjul (Gambia)
- Carcavelos (Portugal)
- Cotonou (Benin)
- Duynefontein (South Africa)
- Lagos (Nigeria)
- Luanda (Angola)
- Muanda (Democratic Republic of Congo)
- Penmarch (France)
- Suro (Guinea-Bissau)
- Tenerife (Spain)
- Abidjan (Ivory Coast)
- Bata (Equatorial Guinea)
- Conakry (Guinea)
- Dakar (Senegal)
- Accra (Ghana)
- Freetown (Sierra Leone)
- Monrovia (Liberia)
- Nouakchott (Mauritania)
- Santana (São Tomé and Príncipe)
- Swakopmund (Namibia)
- Kribi (Cameroon)



## ANGOLA DOMESTIC NETWORK SYSTEM

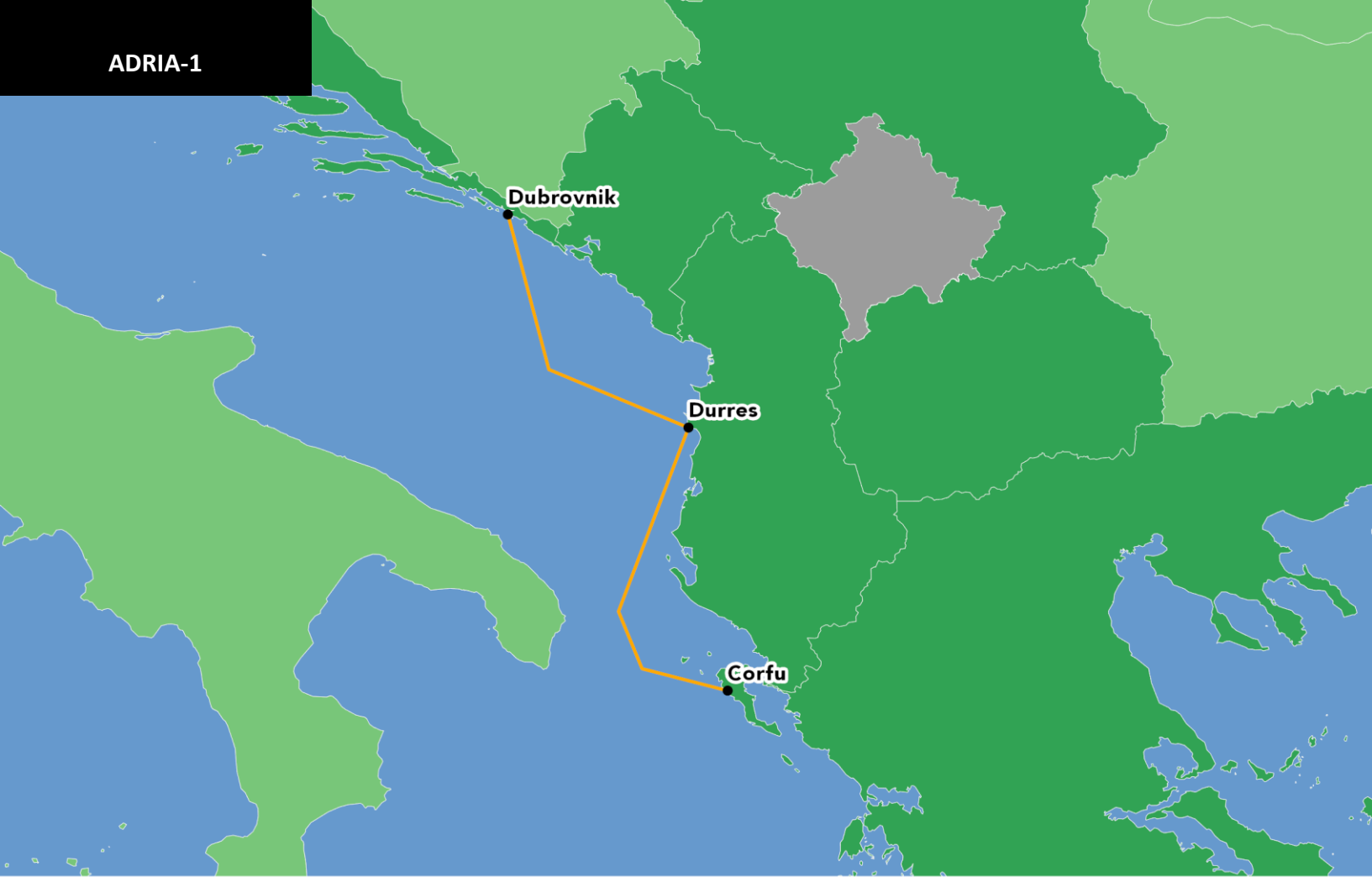
### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$35,000,000
<b>Length (km)</b>	1,800
<b>Initial Capacity (Tbps)</b>	0.03
<b>Design Capacity (Tbps)</b>	0.08
<b>Owners</b>	Angola Telecom
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Elettra
<b>Region</b>	EMEA

### Landing Points

- Soyo (Angola)
- Luanda (Angola)
- Namibe (Angola)
- Benguela (Angola)
- Cabinda (Angola)
- Lucira (Angola)
- Porto Amboim (Angola)
- N'zeto (Angola)





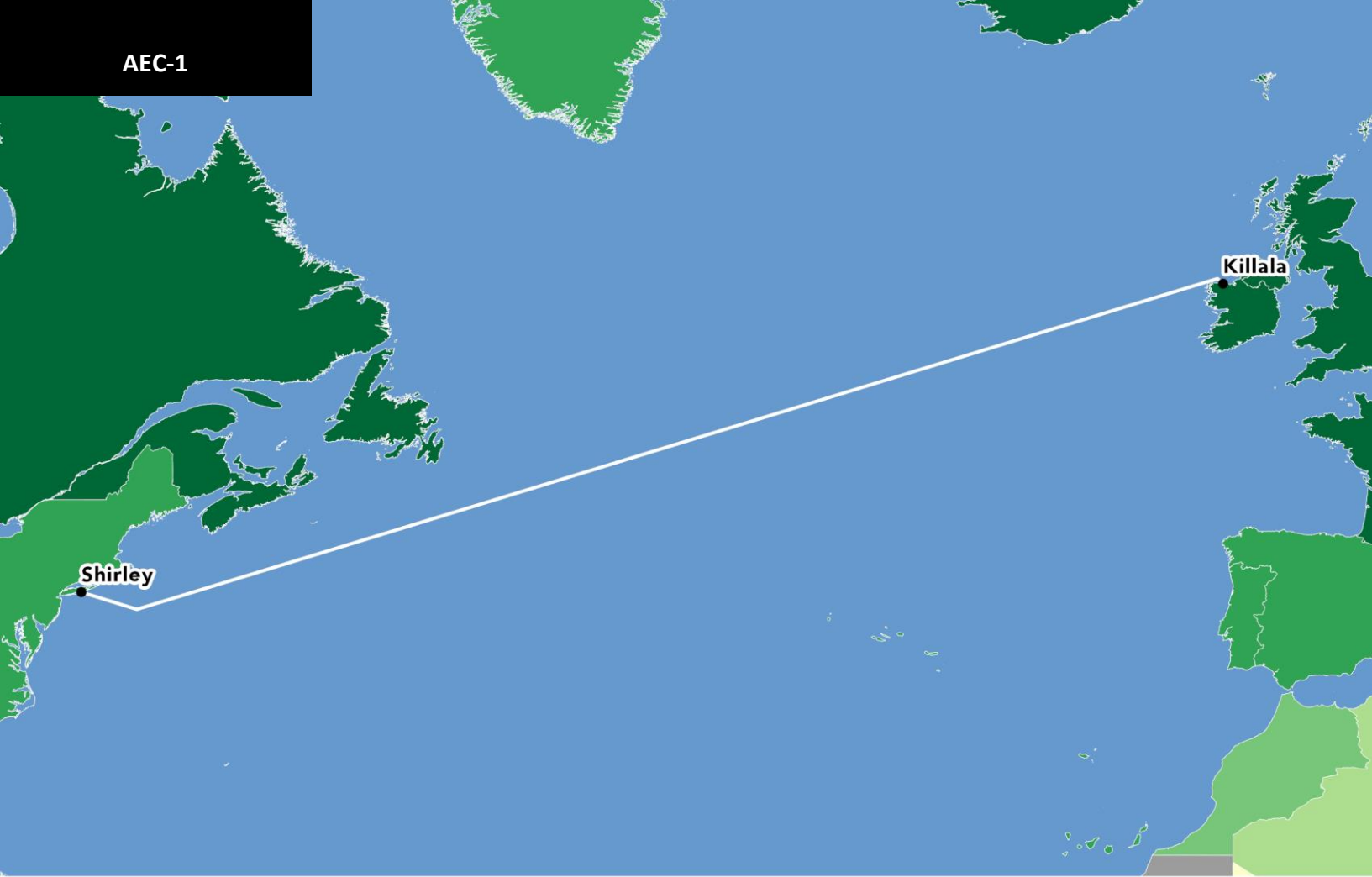
## ADRIA-1

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$13,400,000
<b>Length (km)</b>	430
<b>Initial Capacity (Tbps)</b>	0.000622
<b>Design Capacity (Tbps)</b>	0.000622
<b>Owners</b>	OTE
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Durrës (Albania)
- Corfu (Greece)
- Dubrovnik (Croatia)



## AMERICA EUROPE CONNECT 1

### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$300,000,000
<b>Length (km)</b>	5,536
<b>Design Capacity (Tbps)</b>	78
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	130
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	AquaComms
<b>System Supplier</b>	TE SubCom
<b>Region</b>	Transatlantic

### Landing Points

- Killala (Ireland)
- Shirley (United States)



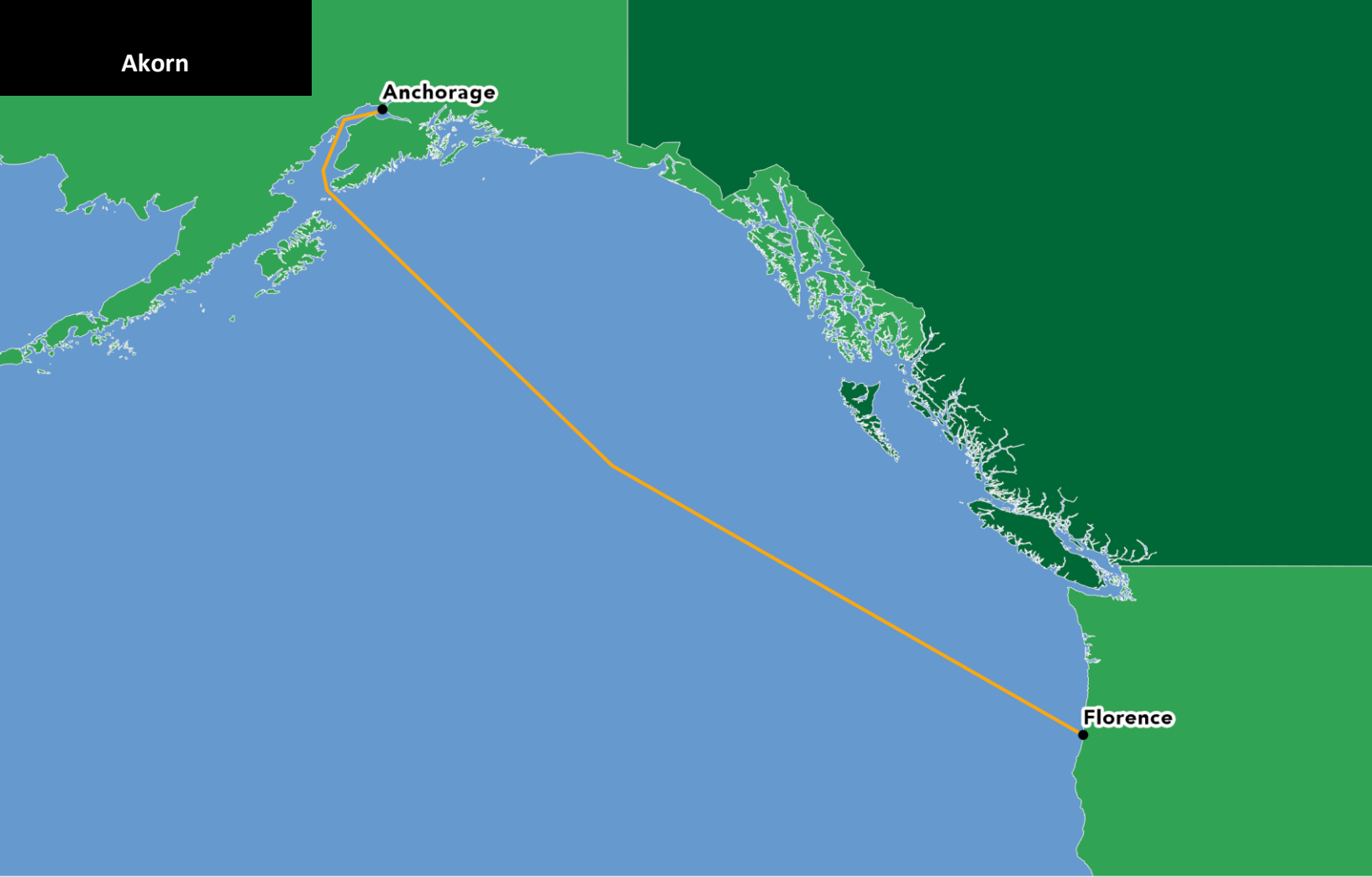
## AUSTRALIA-JAPAN CABLE

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$520,000,000
<b>Length (km)</b>	12,224
<b>Initial Capacity (Tbps)</b>	0.32
<b>Design Capacity (Tbps)</b>	25.6
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Australia Japan Cable Limited, Communications Global Network Services Limited, KDD, SoftBank Telecom Corporation, Telstra Holdings No. 1 Limited, Worldcom Global Networks Limited
<b>System Supplier</b>	Ocean Cable Company, Tyco Telecommunications

### Landing Points

- Tanguisson (Guam)
- Maruyama (Japan)
- Shima (Japan)
- Oxford Falls (Australia)
- Tumon (Guam)
- Sydney (Australia)



# AKORN

## System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	2,968
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Fiber Pairs</b>	4
<b>Owners</b>	Alaska Communications Systems
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Region</b>	Americas

## Landing Points

- Florence (United States)
- Anchorage (United States)





## ALASIA

### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	350
<b>Design Capacity (Tbps)</b>	25.6
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	40
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	Cyprus Telecommunications Authority, Syrian Telecommunications Authority
<b>Region</b>	EMEA

### Landing Points

- Tartus (Syria)
- Pentaskhinos (Cyprus)



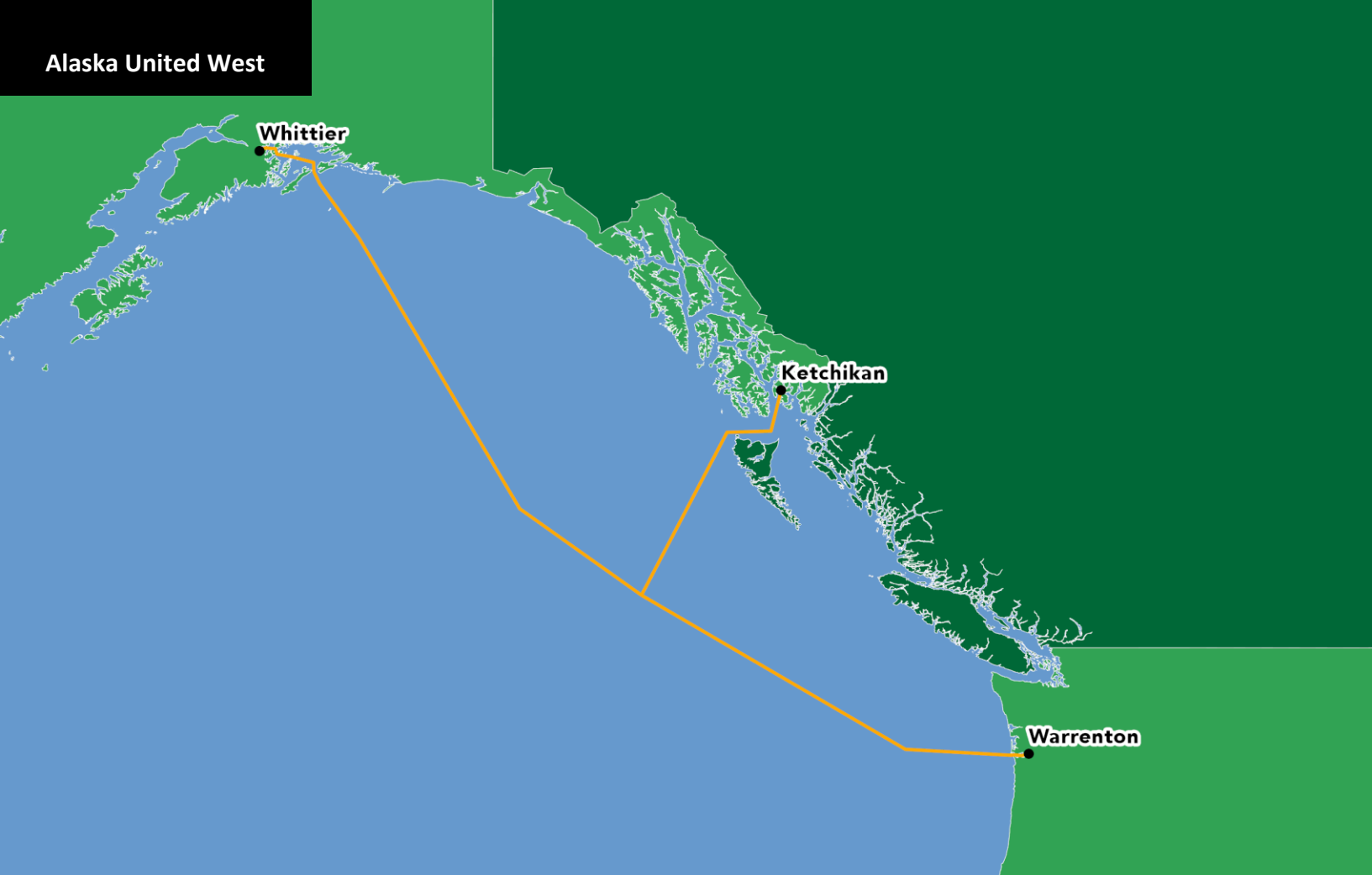
## ALASKA UNITED EAST

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	3,751
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.01
<b>Fiber Pairs</b>	2
<b>Owners</b>	GCI
<b>Region</b>	Americas

### Landing Points

- Valdez (United States)
- Harbor Pointe (United States)
- Juneau (United States)
- Whittier (United States)



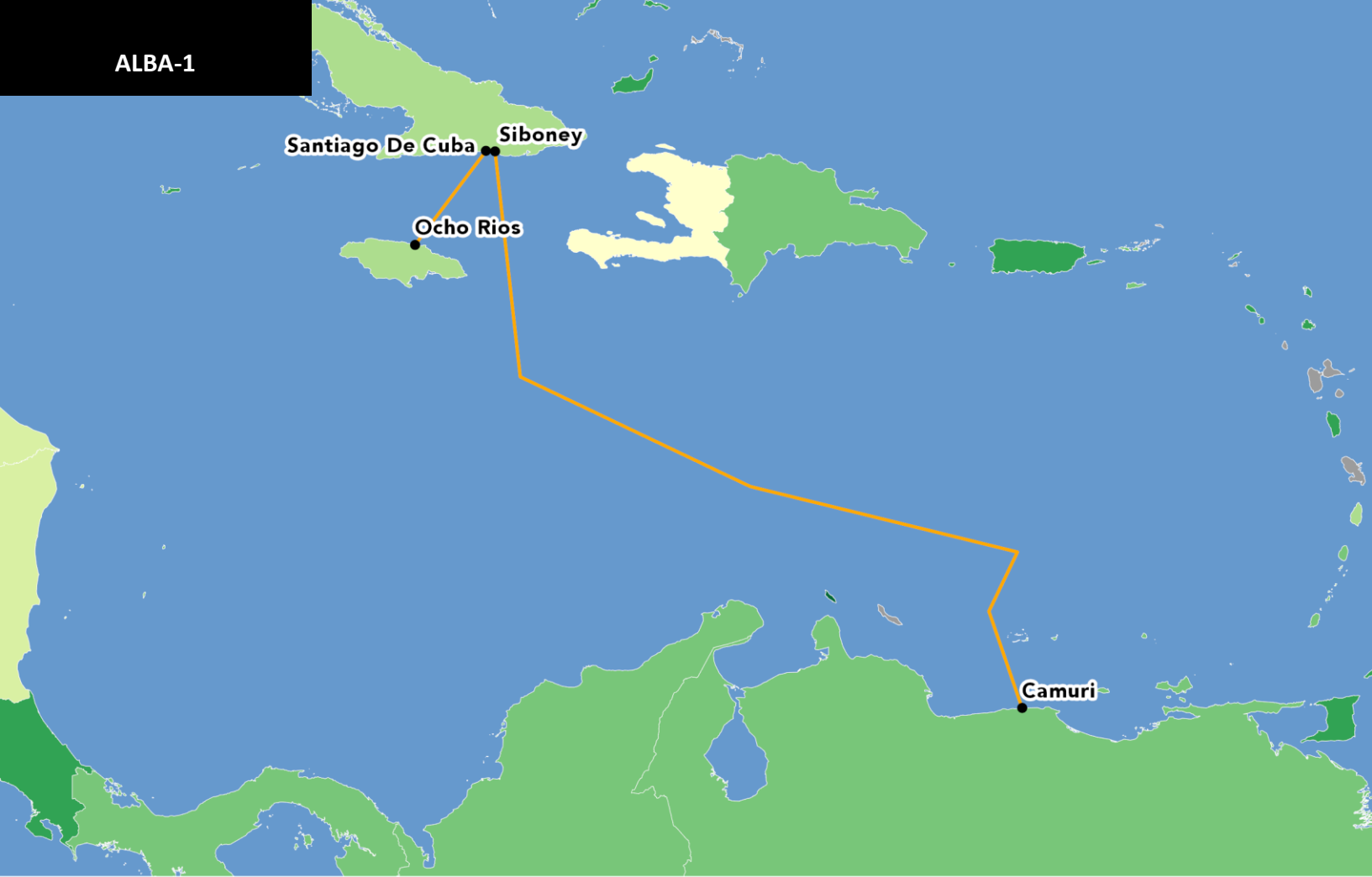
## ALASKA UNITED WEST

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	2,483
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.64
<b>Fiber Pairs</b>	4
<b>Owners</b>	GCI
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Region</b>	Americas

### Landing Points

- Warrenton (United States)
- Ketchikan (United States)
- Whittier (United States)



**ALBA-1**

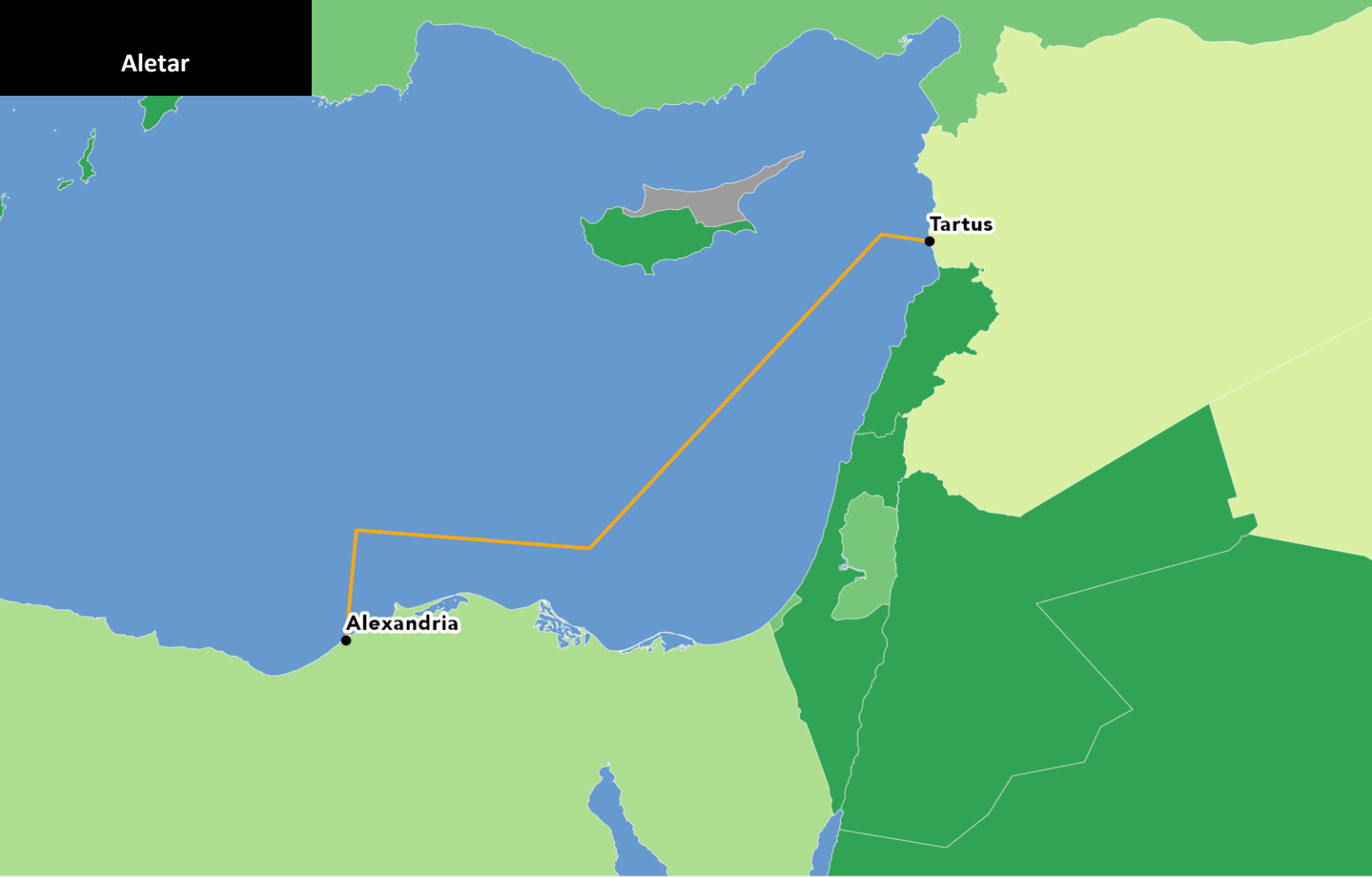
**System Details**

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$72,000,000
<b>Length (km)</b>	1,600
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	5.12
<b>Owners</b>	Telecom Venezeula, Transbit SA
<b>System Installer</b>	Alcatel-Lucent Shanghai Bell, Telecomunicaciones Gran Caribe
<b>Region</b>	Americas

**Landing Points**

- Siboney (Cuba)
- Ocho Rios (Jamaica)
- Santiago De Cuba (Cuba)
- Camuri (Venezuela)





## ALETAR

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$23,000,000
<b>Length (km)</b>	733
<b>Initial Capacity (Tbps)</b>	0.005
<b>Design Capacity (Tbps)</b>	0.005
<b>Fiber Pairs</b>	1
<b>Owners</b>	Lebanese Ministry of Telecommunications, Syrian Telecom
<b>System Installer</b>	Alcatel Submarine Networks, FCR
<b>Region</b>	EMEA

### Landing Points

- Tartus (Syria)
- Alexandria (Egypt)



## ALEXANDROS

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Length (km)</b>	3,500
<b>Design Capacity (Tbps)</b>	10
<b>Owners</b>	Cyprus Telecommunications Authority
<b>Region</b>	EMEA

### Landing Points

- Alexandria (Egypt)
- Pentaskhinos (Cyprus)
- Marseille (France)



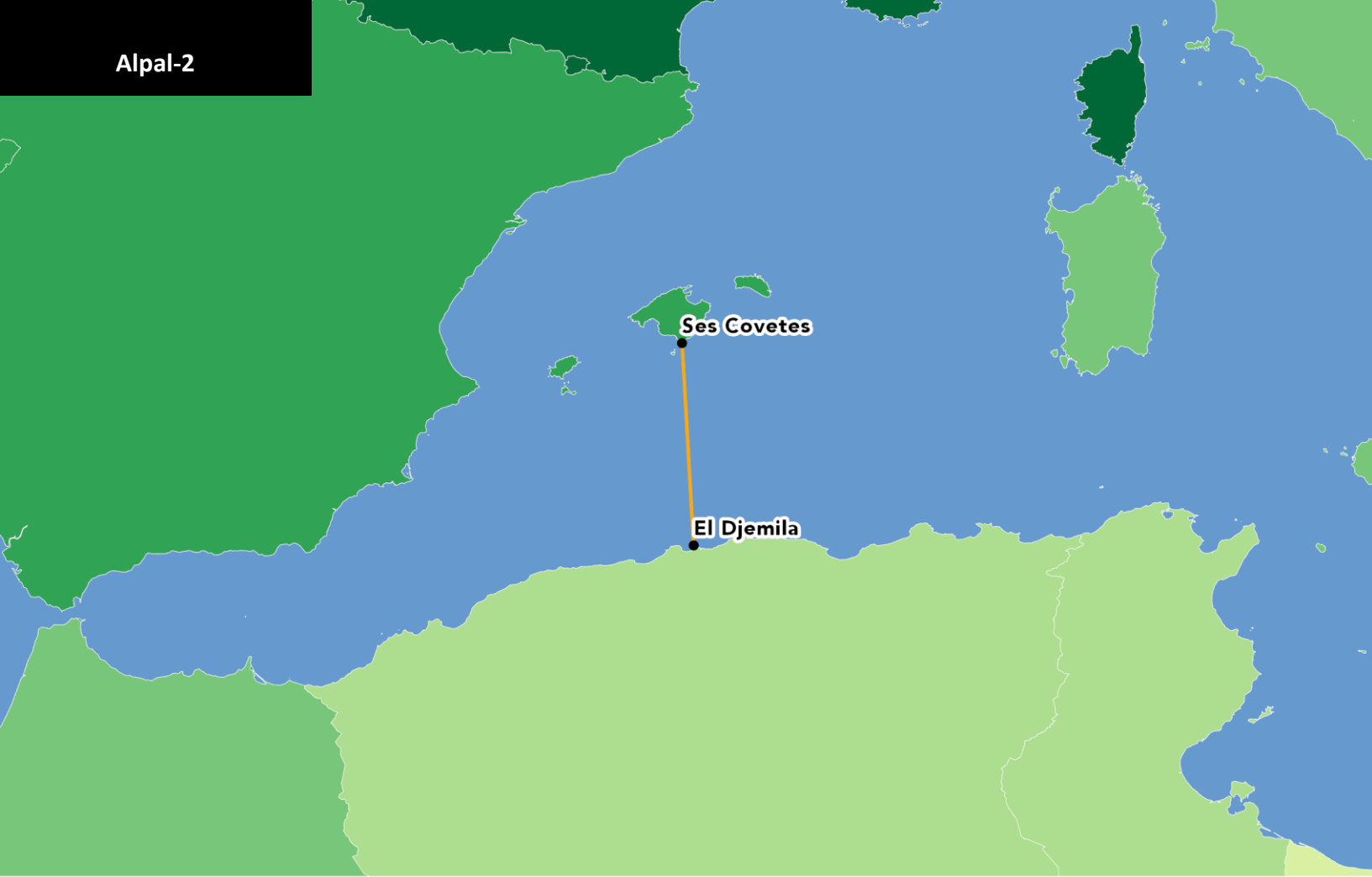
## ALONSO DE OJEDA

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$8,700,000
<b>Length (km)</b>	128
<b>Initial Capacity (Tbps)</b>	0.015
<b>Design Capacity (Tbps)</b>	0.1
<b>Owners</b>	Antelecom NV, Setar
<b>System Supplier</b>	IT International Telecom
<b>System Installer</b>	Alcatel Submarine Networks, IT International Telecom
<b>Region</b>	Americas

### Landing Points

- Oranjestad (Aruba)
- Willemstad (Netherlands Antilles)



## ALPAL-2

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$17,600,000
<b>Length (km)</b>	312
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.16
<b>Fiber Pairs</b>	4
<b>Owners</b>	APT, France Telecom, Telxius
<b>System Supplier</b>	Pirelli
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	EMEA

### Landing Points

- Ses Covetes (Majorca)
- El Djemila (Algeria)





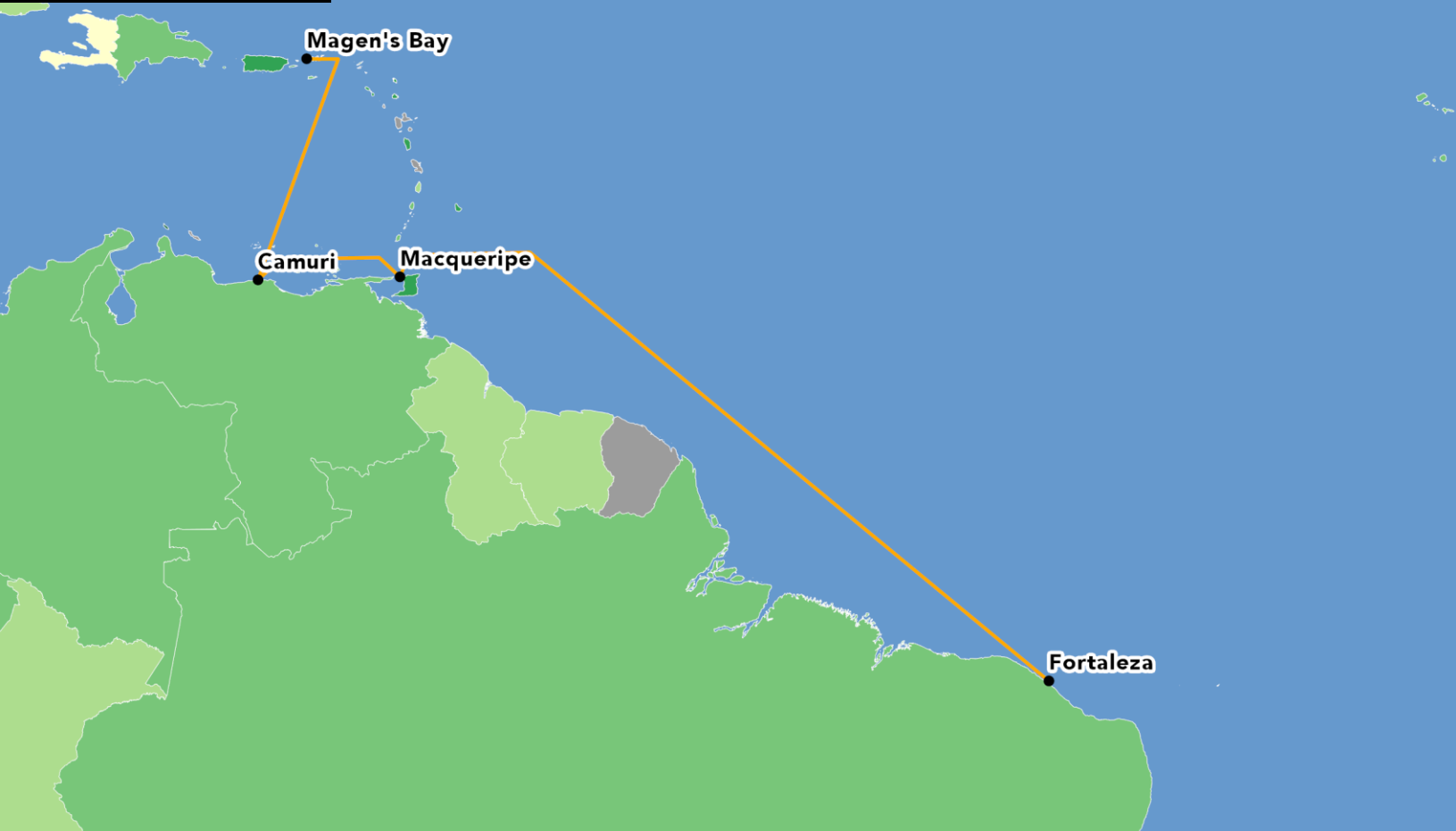
## AMERICAS I NORTH

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$220,000,000
<b>Length (km)</b>	2,013
<b>Initial Capacity (Tbps)</b>	0.12
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	AT&T Inc., CANTV, Embratel, TSTT
<b>System Supplier</b>	AT&T Submarine System, Inc.
<b>System Installer</b>	AT&T Submarine System, Inc.
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2010
<b>Upgrade Capacity (Gbps)</b>	20
<b>Region</b>	Americas

### Landing Points

- Magen's Bay (Virgin Islands)
- Vero Beach (United States)



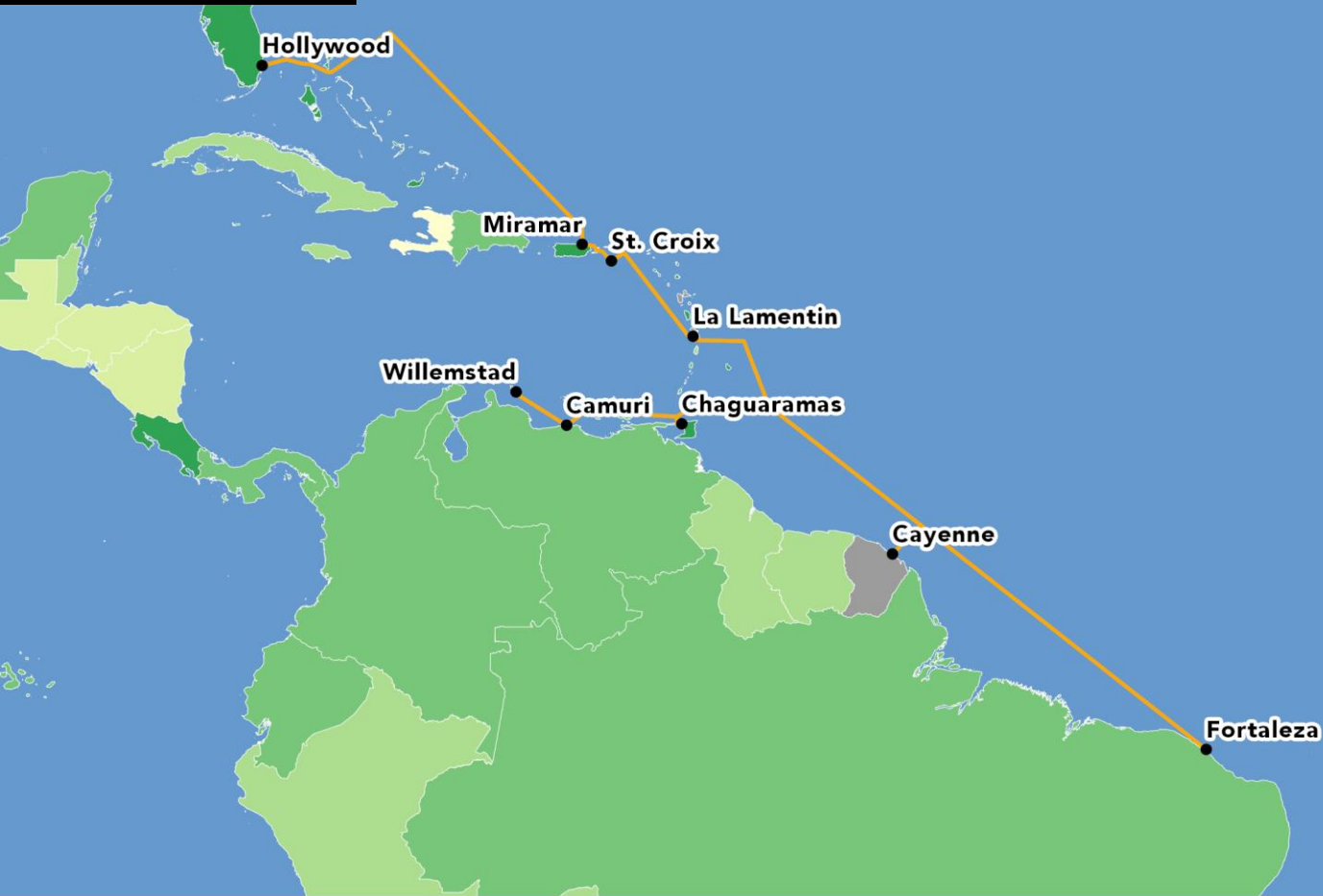
## AMERICAS I SOUTH

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Length (km)</b>	6,014
<b>Initial Capacity (Tbps)</b>	0.00056
<b>Design Capacity (Tbps)</b>	0.00056
<b>Owners</b>	AARNet, AT&T Inc., Cable & Wireless, CANTV, Embratel, TSTT
<b>System Supplier</b>	AT&T Submarine System, Inc.
<b>System Installer</b>	Alcatel Submarine Networks, AT&T Submarine System, Inc., Cable & Wireless
<b>Region</b>	Americas

### Landing Points

- Magen's Bay (Virgin Islands)
- Camuri (Venezuela)
- Macqueripe (Trinidad)
- Fortaleza (Brazil)



## AMERICAS II

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	8,373
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	1.48
<b>Fiber Pairs</b>	12
<b>Capacity per Wavelength (Gbps)</b>	40

**Owners** Antelecom NV, AT&T Inc., Brazil Telecom, CANTV, Embratel, France Telecom, GT&T, Sprint, Telecom Italia, Telefonica, Telesur, Telintar, Trescom Int., TSTT, Verizon

**System Supplier** ASN Australia, Tyco Telecommunications, Tyco Telecommunications SSI

**System Installer** Tyco Telecommunications, Tyco Telecommunications SSI

### Landing Points

- Willemstad (Netherlands Antilles)
- Miramar (Puerto Rico)
- Hollywood (United States)
- Chaguaramas (Trinidad)
- Camuri (Venezuela)
- St Croix (United States)
- La Lamentin (France)
- Fortaleza (Brazil)
- Cayenne (French Guiana)



### AMERIGO VESPUCCI

#### System Details

RFS Year	1999
EOS Year	2024
Est. System Cost (USD)	\$15,000,000
Length (km)	84
Region	Americas

#### Landing Points

- Curaçao (Curaçao)
- Bonaire (Netherlands)



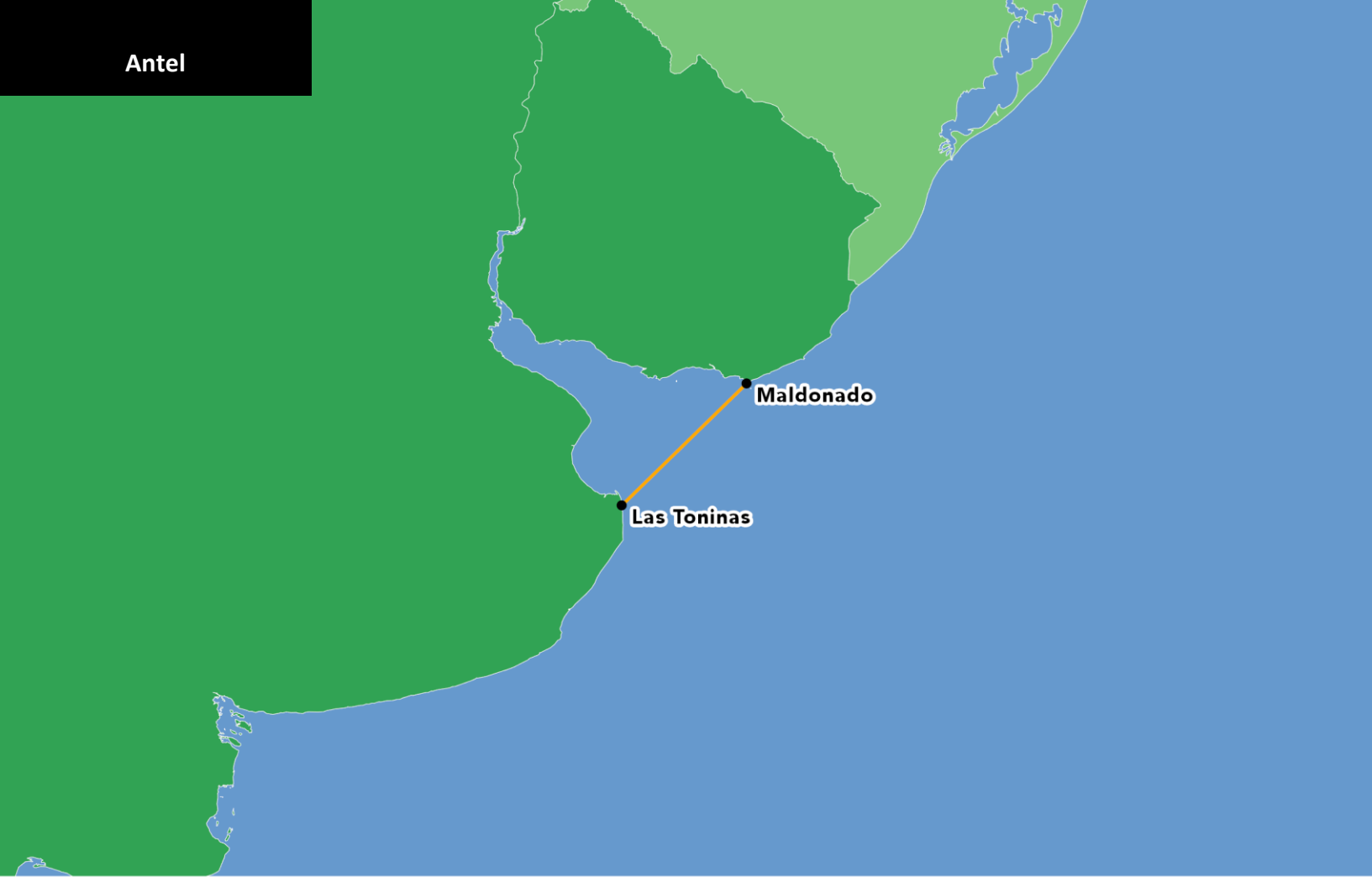
## AMERICA MOVIL SUBMARINE CABLE SYSTEM-1

### System Details

<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$700,000,000
<b>Length (km)</b>	17,800
<b>Initial Capacity (Tbps)</b>	0.1
<b>Design Capacity (Tbps)</b>	50
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	America Movil
<b>Region</b>	Americas

### Landing Points

- Hollywood (United States)
- Puerto Plata (Dominican Republic)
- Salvador (Brazil)
- Cartagena (Colombia)
- Puerto Barrios (Guatemala)
- Jacksonville (United States)
- Cancun (Mexico)
- Rio de Janeiro (Brazil)
- Fortaleza (Brazil)
- Barranquilla (Colombia)
- San Juan (Puerto Rico)



## ANTEL

### System Details

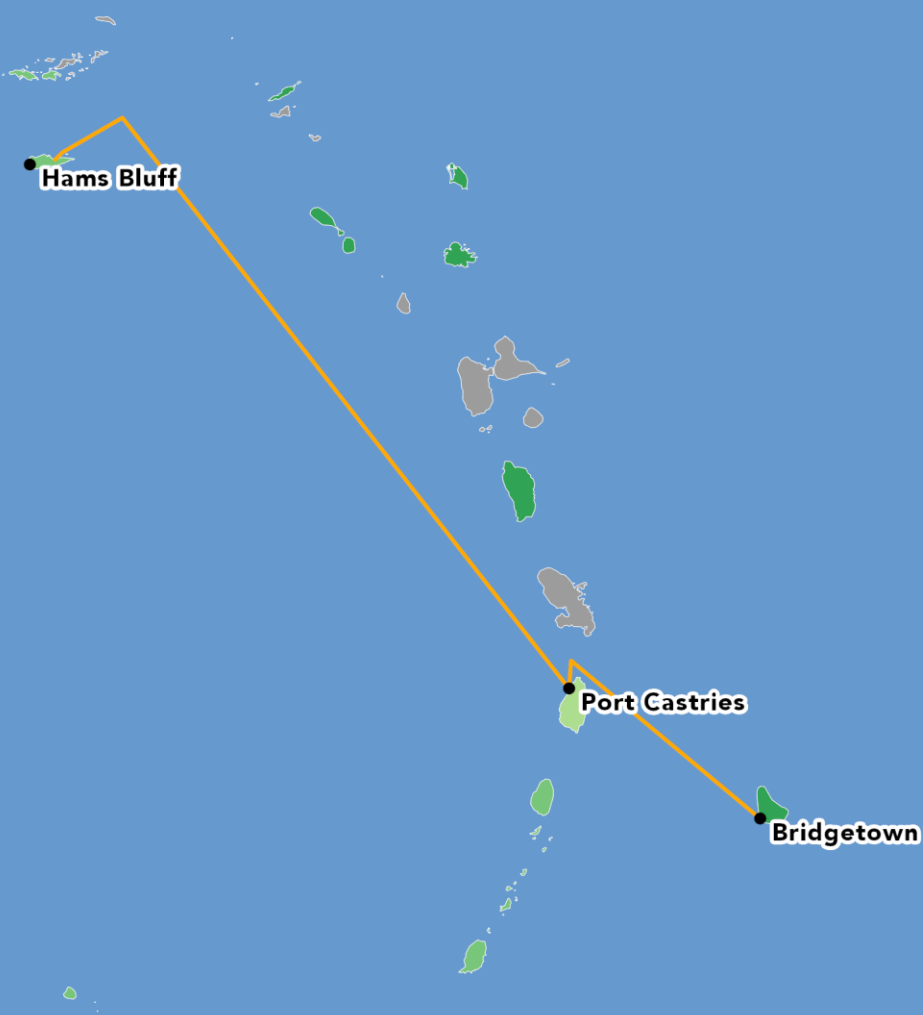
<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	250
<b>Initial Capacity (Tbps)</b>	0.05
<b>Design Capacity (Tbps)</b>	3.84
<b>Owners</b>	Antel, Telecom Argentina
<b>System Supplier</b>	IT International Telecom
<b>System Installer</b>	IT International Telecom
<b>Region</b>	Americas

### Landing Points

- Maldonado (Uruguay)
- Las Toninas (Argentina)



# Antilles Crossing



## ANTILLES CROSSING

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Length (km)</b>	952
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	0.16
<b>Owners</b>	Antilles Crossing, Barbados Light & Power, Leucadia, Telebarbados
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Americas

### Landing Points

- Bridgetown (Barbados)
- Port Castries (St Lucia)
- Hams Bluff (Virgin Islands)



## ASIA-PACIFIC CABLE NETWORK 2

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$1,100,000,000
<b>Length (km)</b>	19,000
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	25.6
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	China Telecom Corporation, Chunghwa Telecom International, CTM, France Telecom, PLDT, Reach NHK, Telekom Malaysia Berhad
<b>System Supplier</b>	Ocean Cable Company
<b>System Installer</b>	Global Marine Systems Limited, Telekom Malaysia Berhad

### Landing Points

- Lantau (Hong Kong)
- Chikura (Japan)
- Katong (Singapore)
- Busan (South Korea)
- Tanshui (Taiwan)
- Batangas (Philippines)
- Chongming (China)
- Kuantan (Malaysia)
- Shantou (China)
- Kitaibaraki (Japan)



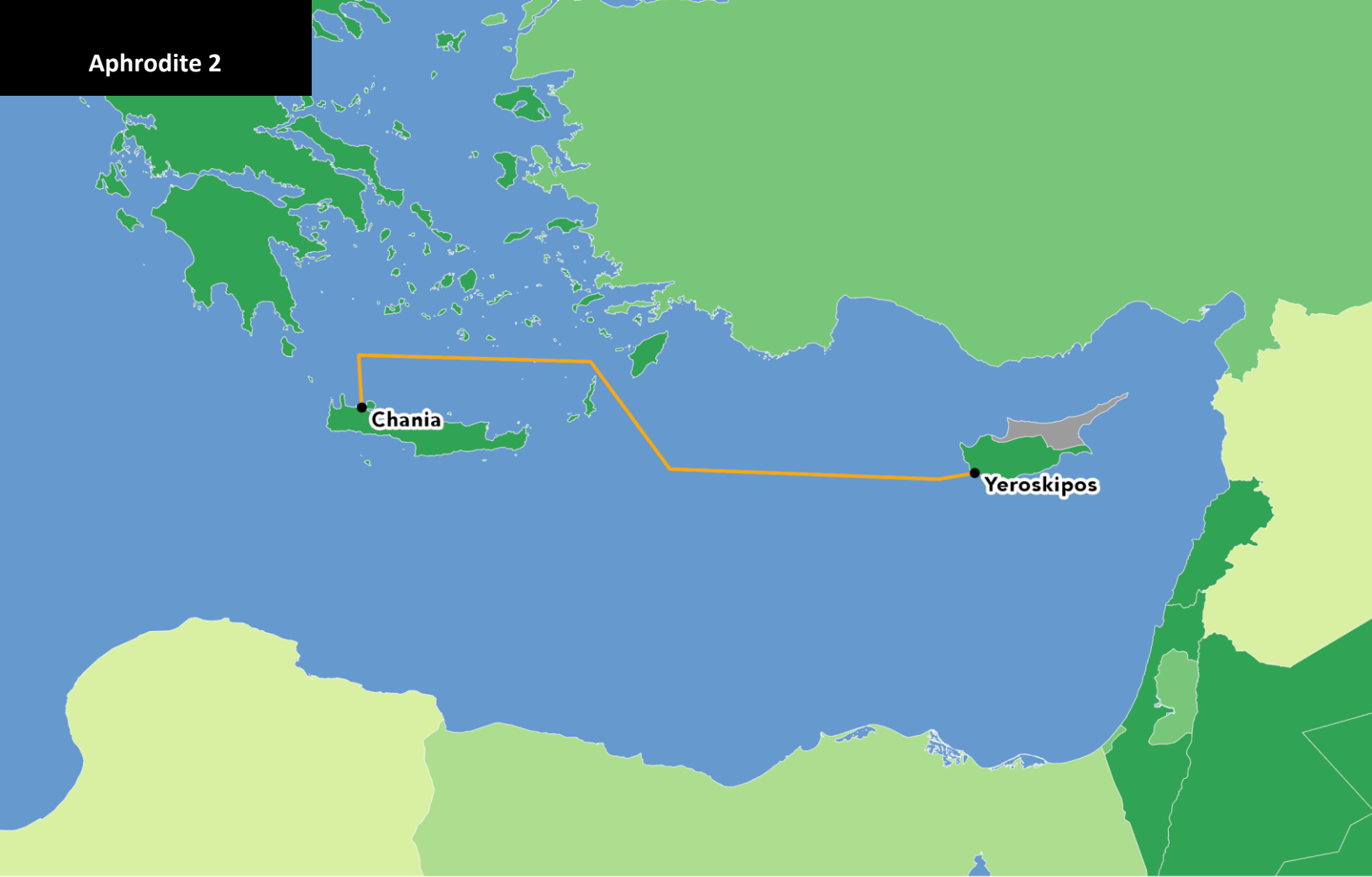
## ASIA PACIFIC GATEWAY

### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$313,000,000
<b>Length (km)</b>	10,400
<b>Design Capacity (Tbps)</b>	54
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	China Telecom Corporation, China Unicom, Chunghwa Telecom International, Facebook, FPT Corp., PLDT, StarHub, Telekom Malaysia Berhad, TIME dotCom Berhad, VNPT
<b>System Installer</b>	S.B. Submarine Systems, Telekom Malaysia Berhad
<b>Region</b>	AustralAsia

### Landing Points

- Maruyama (Japan)
- Da Nang (Vietnam)
- Tseung Kwan O (Hong Kong)
- Shima (Japan)
- Toucheng (Taiwan)
- Busan (South Korea)
- Chongming (China)
- Kuantan (Malaysia)
- Songkhla (Thailand)
- Nanhui District (China)
- Tanah Merah (Singapore)



## APHRODITE 2

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	868
<b>Initial Capacity (Tbps)</b>	0.00112
<b>Design Capacity (Tbps)</b>	0.00112
<b>Owners</b>	Belgacom, British Telecommunications PLC, Cyprus Telecommunications Authority, France Telecom, OTE, Sprint, Verizon
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Yeroskipos (Cyprus)
- Chania (Greece)



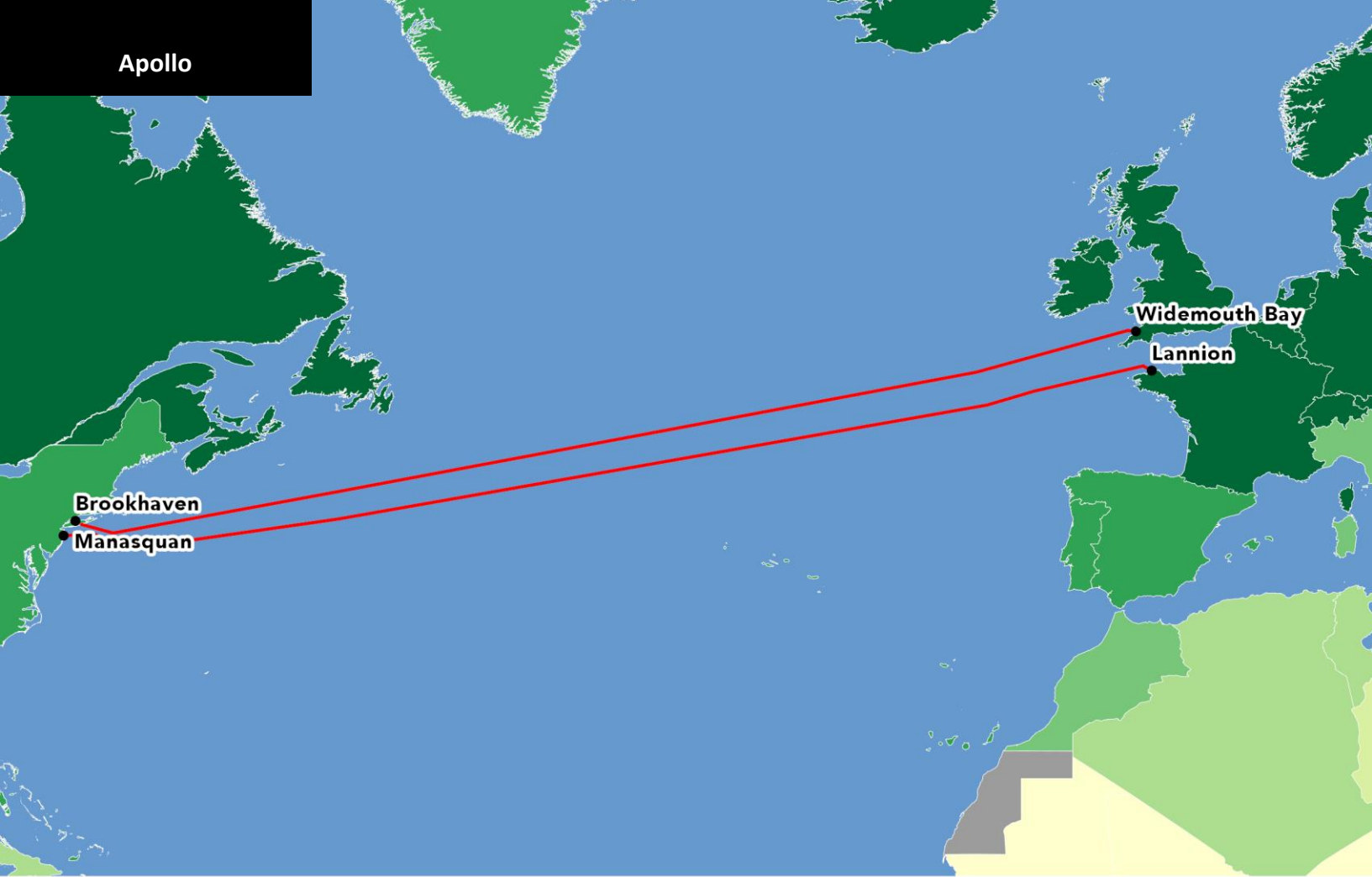
## AUSTRALIA PAPUA NEW GUINEA 2

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$11,000,000
<b>Length (km)</b>	3,400
<b>Initial Capacity (Tbps)</b>	0.00112
<b>Design Capacity (Tbps)</b>	0.00112
<b>Fiber Pairs</b>	2
<b>Owners</b>	Telikom PNG, Telstra
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Port Moresby (Papua New Guinea)
- Sydney (Australia)



**APOLLO**

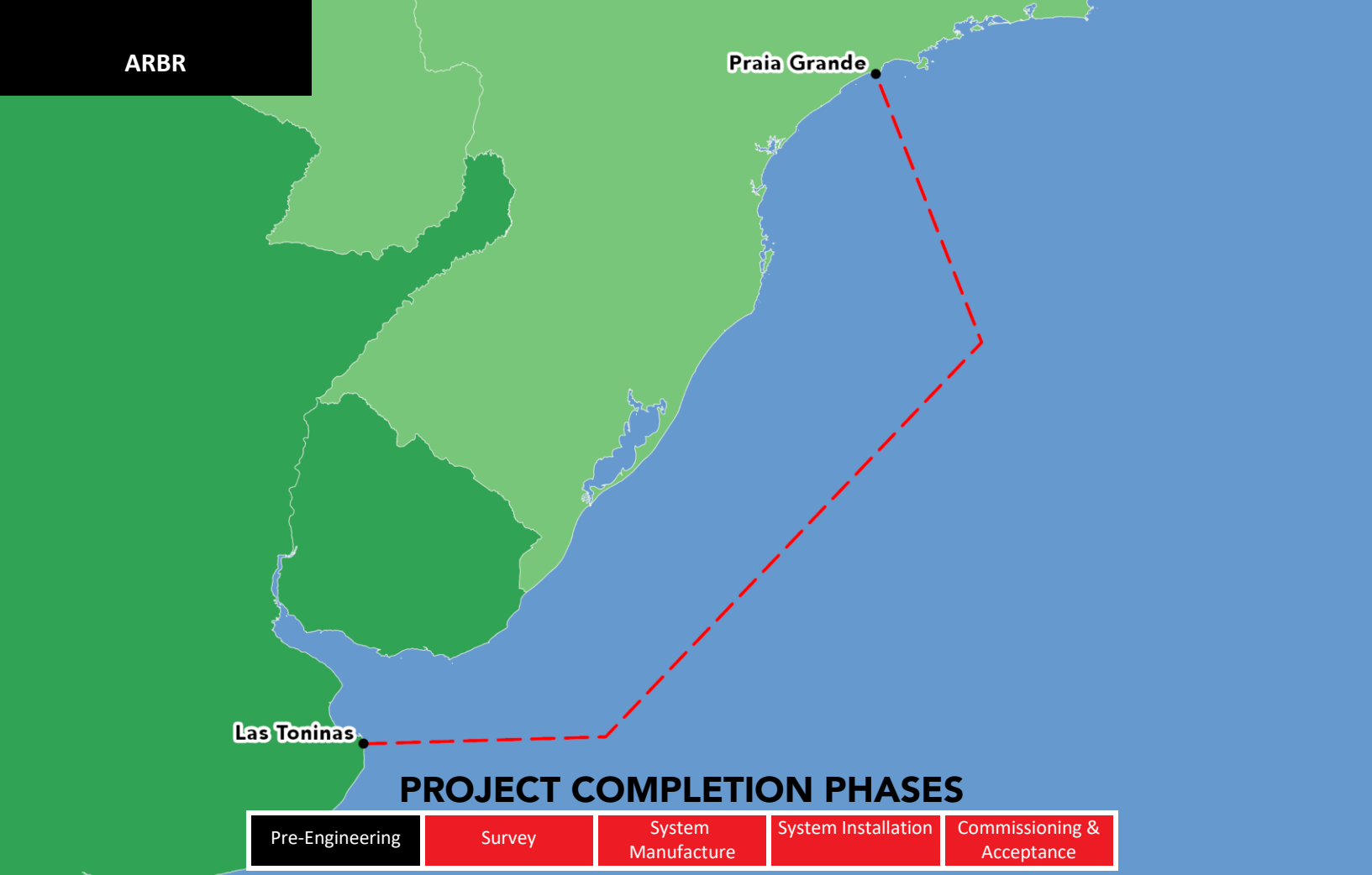
**System Details**

<b>RFS Year</b>	2003
<b>EOS Year</b>	2028
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	12,700
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	64
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Alcatel, Apollo SCS Limited, C&W
<b>System Supplier</b>	Alcatel
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Alcatel-Lucent Submarine Networks, Alcatel-Lucent Submarine Networks
<b>Upgrade Year</b>	2012, 2014
<b>Upgrade Capacity (Gbps)</b>	40, 40
<b>Region</b>	Transatlantic

**Landing Points**

- Lannion (France)
- Manasquan (United States)
- Brookhaven (United States)
- Widemouth Bay (United Kingdom)





**ARBR**

**System Details**

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	2,700
<b>Initial Capacity (Tbps)</b>	48
<b>Design Capacity (Tbps)</b>	48
<b>Fiber Pairs</b>	4
<b>Owners</b>	Seabras Group, Werthein Grupo
<b>System Supplier</b>	Xtera
<b>Region</b>	Americas

**Landing Points**

- Las Toninas (Argentina)
- Praia Grande (Brazil)



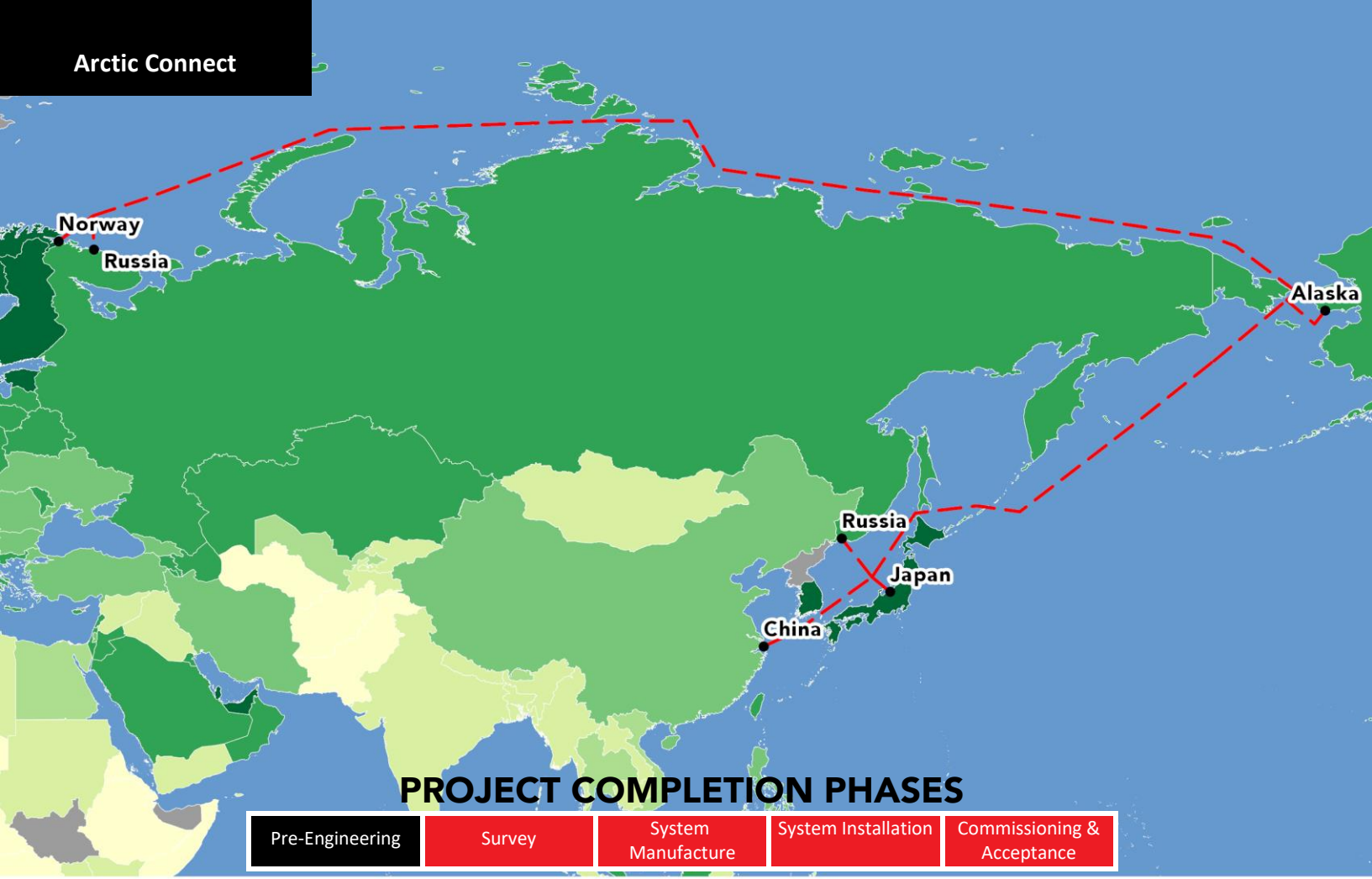
## ARCOS-1

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	8,700
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	8.4
<b>Fiber Pairs</b>	12
<b>Owners</b>	Alestra, Axtel, BTC, BTL, C&W Networks, CANTV, Codetel, Enitel, Hondutel, ICE, Impsat, Internexa, Orbinet SA, Racsa, Telecarrier, Tricom, Ultracom, UTS, Verizon
<b>System Supplier</b>	NSW, Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Xtera, Xtera
<b>Upgrade Year</b>	2008, 2016
<b>Upgrade Capacity (Gbps)</b>	40, 40
<b>Region</b>	Americas

### Landing Points

- San Juan (Puerto Rico)
- Puerto Limon (Costa Rica)
- Punta Cana (Dominican Republic)
- Punto Fijo (Venezuela)
- Ustupo (Panama)
- Willemstad (Netherlands Antilles)
- Cancun (Mexico)
- Cartagena (Colombia)
- Hollywood (United States)
- Ladyville (Belize)
- Nassau (The Bahamas)
- Puerto Barrios (Guatemala)
- Puerto Lempira (Honduras)
- Puerto Plata (Dominican Republic)
- Riohacha (Colombia)
- Trojillo (Honduras)
- Puerto Cortes (Honduras)
- Cat Island (Bahamas)
- Bluefields (Nicaragua)
- Crooked Island (Bahamas)
- Puerto Cabezas (Nicaragua)
- Maria Chiquita (Panama)
- Providenciales (Turks and Caicos Islands)
- Tulum (Mexico)



## ARCTIC CONNECT NORTHEAST PASSAGE

### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$500,000,000
<b>Length (km)</b>	10,500
<b>Design Capacity (Tbps)</b>	30
<b>Fiber Pairs</b>	6
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Cinia Group
<b>Region</b>	Arctic

### Landing Points

- (China)
- (Japan)
- (Russia)
- (Norway)



## AUSTRALIA-SINGAPORE CABLE

### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$170,000,000
<b>Length (km)</b>	4,600
<b>Design Capacity (Tbps)</b>	60
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	150
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Australia-Singapore Cable International Limited, Vocus Communications
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Anyer (Indonesia)
- Perth (Australia)
- Tanah Merah (Singapore)



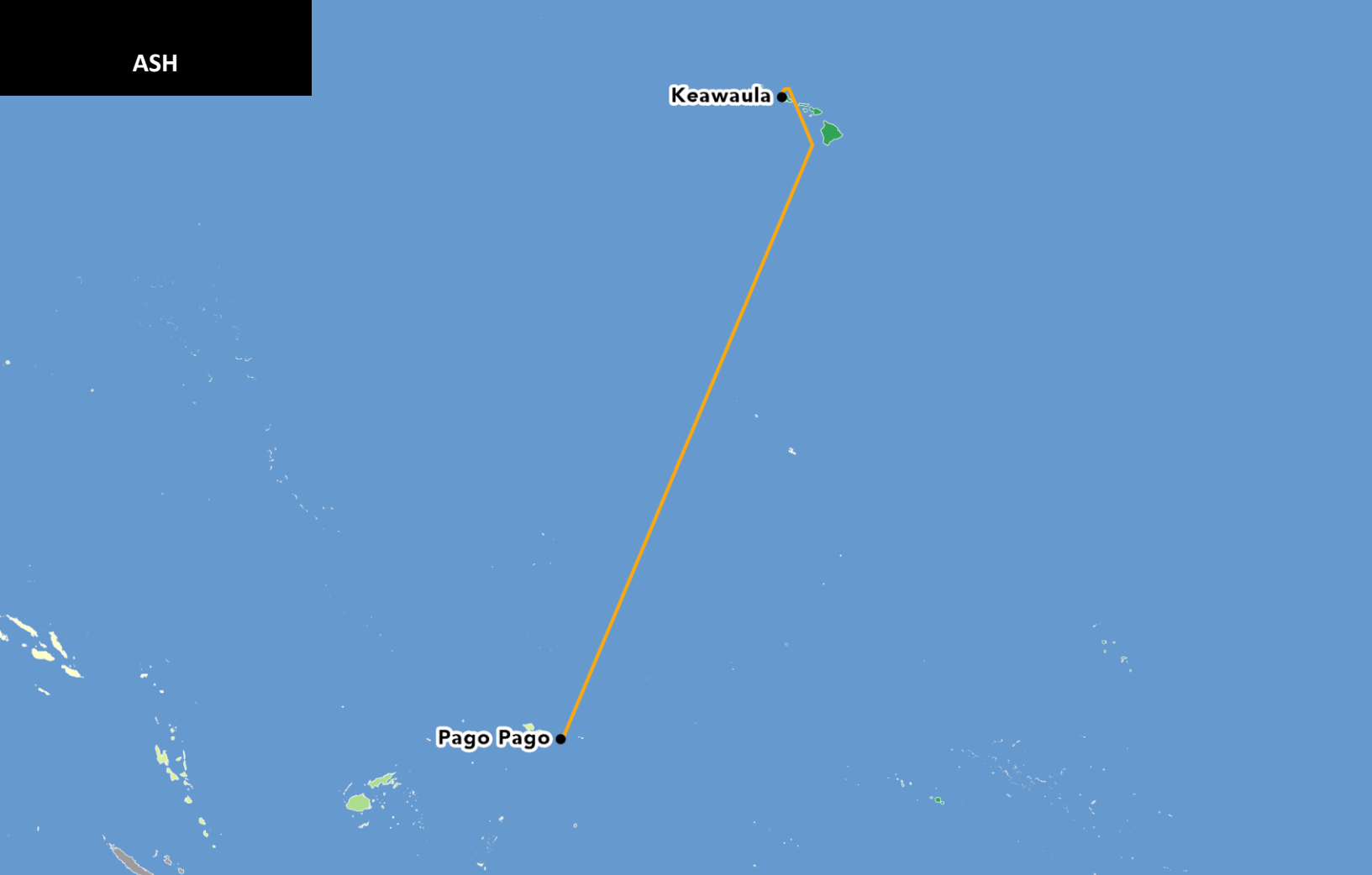
## ASIA SUBMARINE-CABLE EXPRESS

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$412,000,000
<b>Length (km)</b>	7,200
<b>Design Capacity (Tbps)</b>	15.36
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	128
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	PLDT, StarHub, Telekom Malaysia Berhad
<b>System Supplier</b>	Fujitsu
<b>System Installer</b>	S.B. Submarine Systems, Telekom Malaysia Berhad
<b>Region</b>	AustralAsia

### Landing Points

- Maruyama (Japan)
- Tseung Kwan O (Hong Kong)
- Changi (Singapore)
- Daet (Philippines)
- Mersing (Malaysia)



## AMERICA SAMOA HAWAII

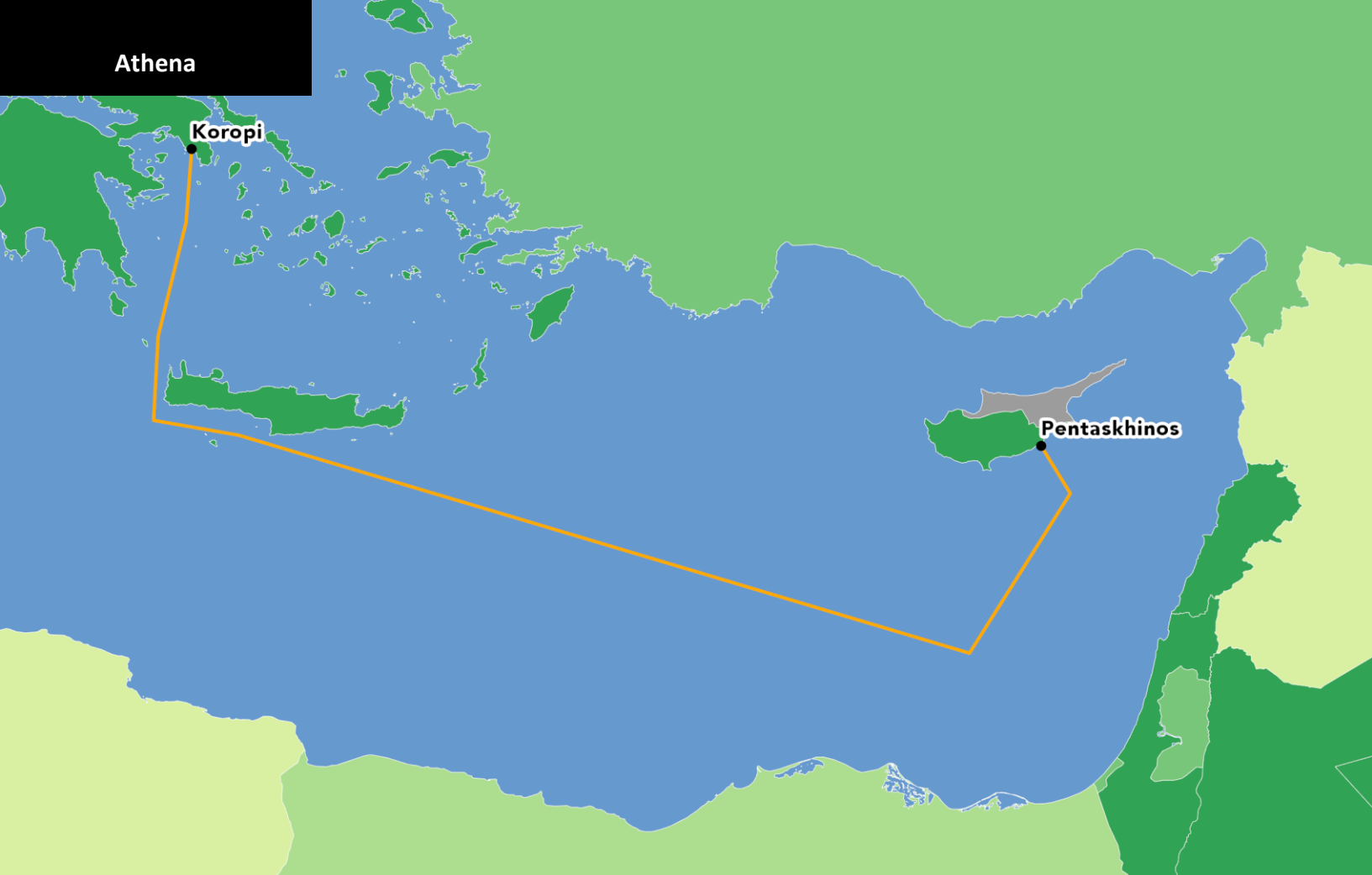
### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	4,680
<b>Initial Capacity (Tbps)</b>	0.0012
<b>Design Capacity (Tbps)</b>	0.0012
<b>Fiber Pairs</b>	2
<b>Owners</b>	American Samoa Government, eLandia International
<b>Region</b>	AustralAsia

### Landing Points

- Keawaula (United States)
- Pago Pago (American Samoa)





## ATHENA

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Length (km)</b>	600
<b>Owners</b>	Cyprus Telecommunications Authority
<b>Region</b>	EMEA

### Landing Points

- Pentaskhinos (Cyprus)
- Koropi (Greece)



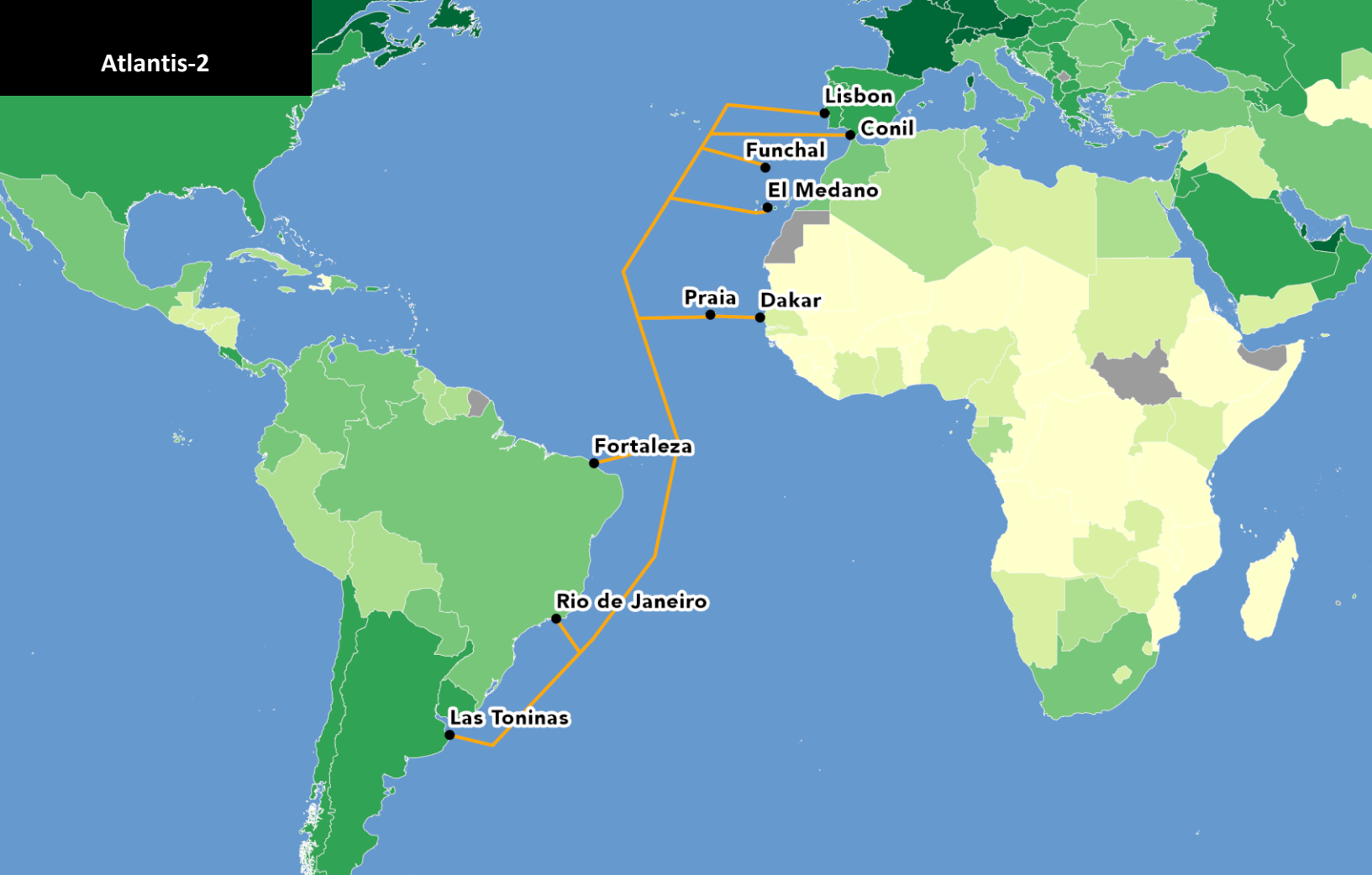
## ATISA

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$7,000,000
<b>Length (km)</b>	280
<b>Design Capacity (Tbps)</b>	7.2
<b>Fiber Pairs</b>	6
<b>Owners</b>	DOCOMO Pacific
<b>System Supplier</b>	NEC
<b>System Installer</b>	TE SubCom
<b>Region</b>	AustralAsia

### Landing Points

- Tachognya Beach (Northern Mariana Islands)
- Sasanlagu (Northern Mariana Islands)
- Sugar Dock (Saipan)
- Piti (Guam)



## ATLANTIS-2

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$370,000,000
<b>Length (km)</b>	13,100
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	0.16
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	8
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	Cabo Verde Telecom, Embratel, France Telecom, Marconi, Telecom Argentina, Telecom Italia, Telefonica de Argentina, Telintar, Telxius, Verizon
<b>System Supplier</b>	Fujitsu, Pirelli
<b>System Installer</b>	Alcatel Submarine Networks, FCR
<b>Region</b>	Transatlantic

### Landing Points

- Funchal (Portugal)
- Conil (Spain)
- El Medano (Spain)
- Lisbon (Portugal)
- Fortaleza (Brazil)
- Las Toninas (Argentina)
- Dakar (Senegal)
- Rio de Janeiro (Brazil)
- Praia (Cape Verde)



## ATLAS OFFSHORE

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$31,000,000
<b>Length (km)</b>	1,634
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	Maroc Telecom of Morocco
<b>Region</b>	EMEA

### Landing Points

- Marseille (France)
- Asilah (Morocco)



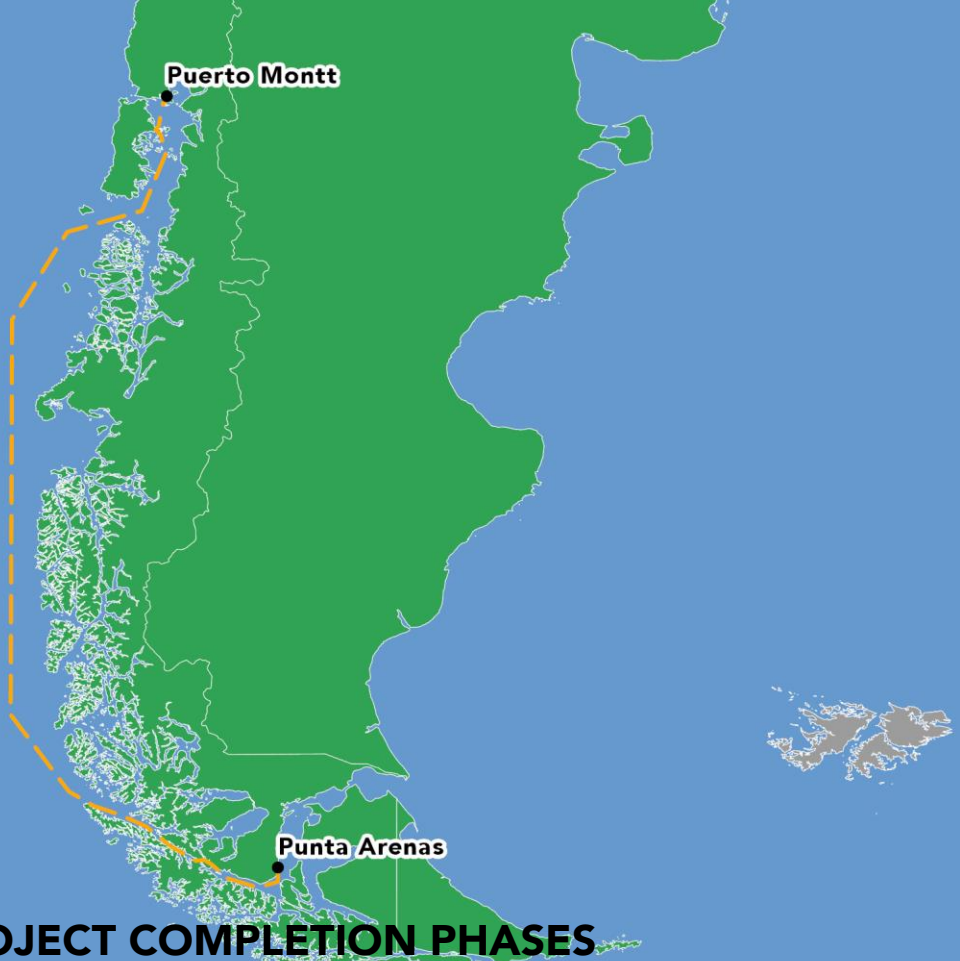
## AU-ALEUTIAN CABLE SYSTEM

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Length (km)</b>	1,456
<b>Fiber Pairs</b>	6
<b>Capacity per Wavelength (Gbps)</b>	800
<b>Owners</b>	GCI
<b>Region</b>	Americas

### Landing Points

- Kodiak (United States)
- Chignik Lake (United States)
- Chignik Bay (United States)
- Sand Point (United States)
- King Cove (United States)
- Dutch Harbor (United States)
- Larsen Bay (United States)
- Chignik Lagoon (United States)
- Perryville (United States)
- Cold Bay (United States)
- False Pass (United States)
- Akutan (United States)



**PROJECT COMPLETION PHASES**

Pre-Engineering	Survey	System Manufacture	System Installation	Commissioning & Acceptance
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**FIBERA OPTICA AUSTRAL**

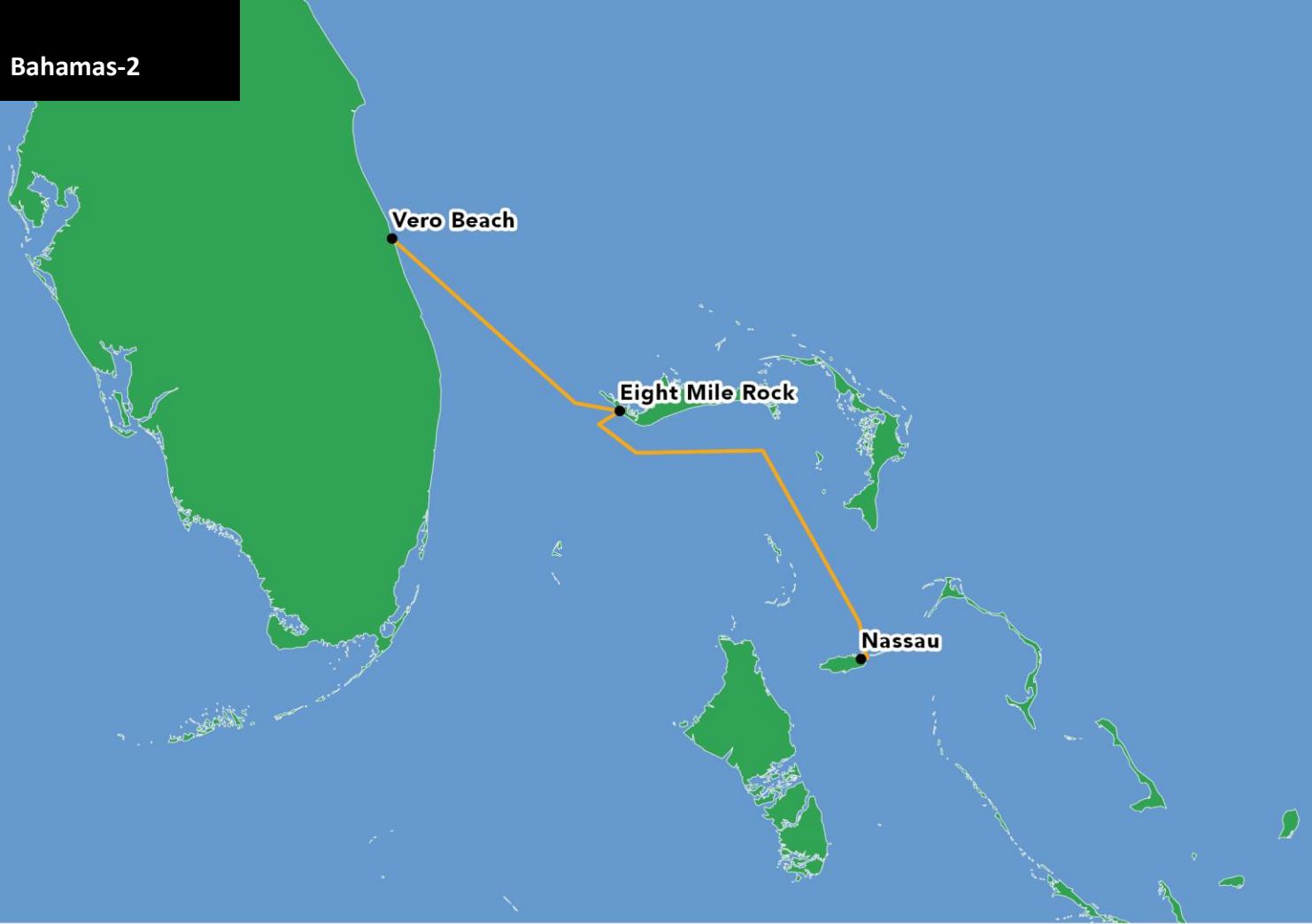
**System Details**

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	2,900
<b>Design Capacity (Tbps)</b>	16
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	AUSTRAL University of Magellan, Magellan CPC
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Orange Marine
<b>Region</b>	Americas

**Landing Points**

- Punta Arenas (Chile)
- Puerto Montt (Chile)





## BAHAMAS-2

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$25,000,000
<b>Length (km)</b>	478
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	2.4
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	Balteco, Verizon
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Region</b>	Americas

### Landing Points

- Nassau (The Bahamas)
- Eight Mile Rock (Bahamas)
- Vero Beach (United States)

# Baltica



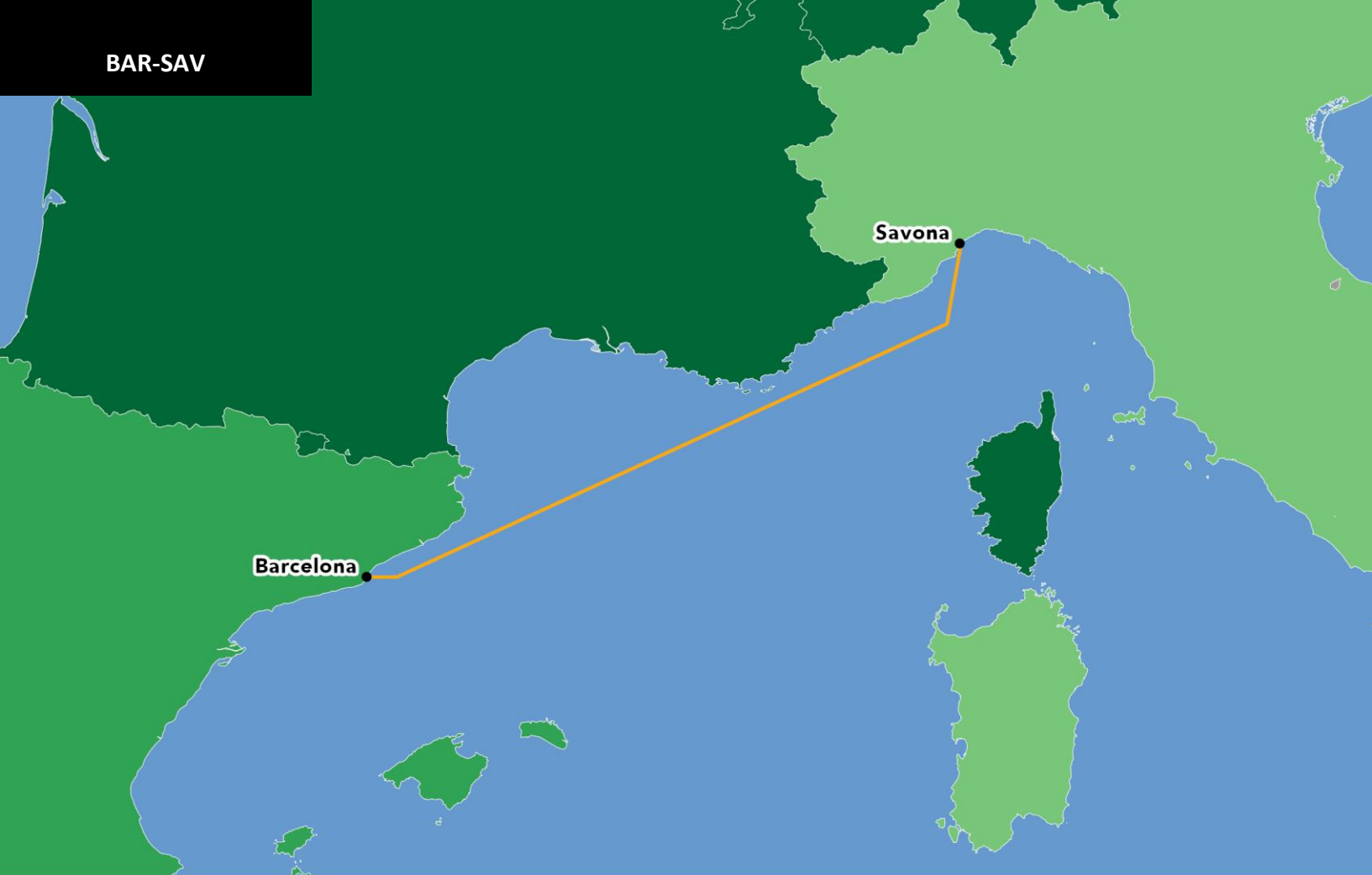
## BALTICA

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$16,000,000
<b>Length (km)</b>	437
<b>Initial Capacity (Tbps)</b>	0.005
<b>Design Capacity (Tbps)</b>	0.005
<b>Fiber Pairs</b>	6
<b>Owners</b>	Polish Telecom, TDC, Telecom Finland, Telenor, Teliasonera
<b>Region</b>	EMEA

### Landing Points

- Ystad (Sweden)
- Gedser (Denmark)
- Kolobrzeg (Poland)
- Dueodde (Bornholm)



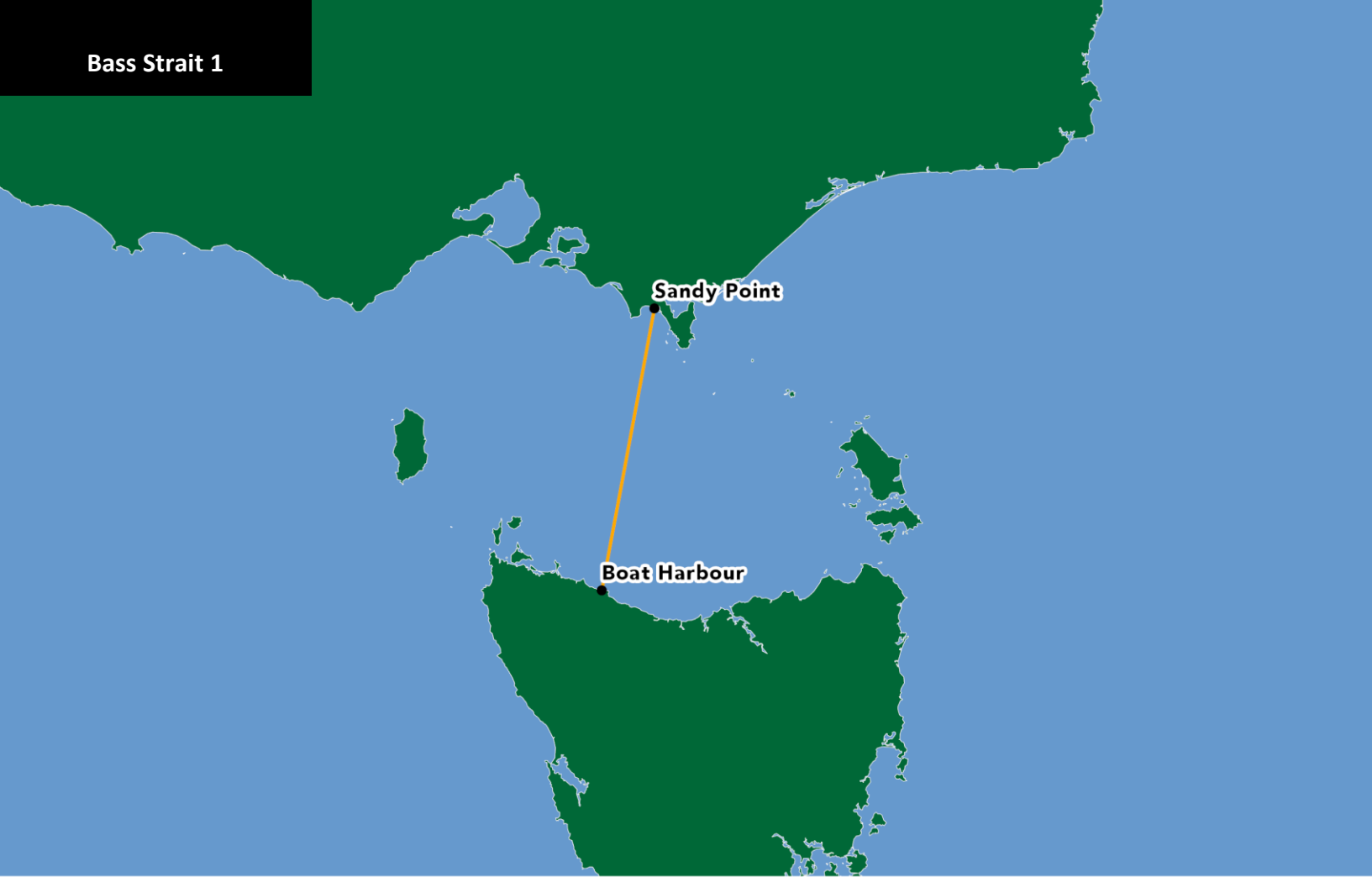
## BAR-SAV

### System Details

<b>RFS Year</b>	1996
<b>EOS Year</b>	2021
<b>Est. System Cost (USD)</b>	\$39,000,000
<b>Length (km)</b>	760
<b>Initial Capacity (Tbps)</b>	0.005
<b>Design Capacity (Tbps)</b>	0.005
<b>Owners</b>	Telecom Italia, Telefonica
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Savona (Italy)
- Barcelona (Spain)



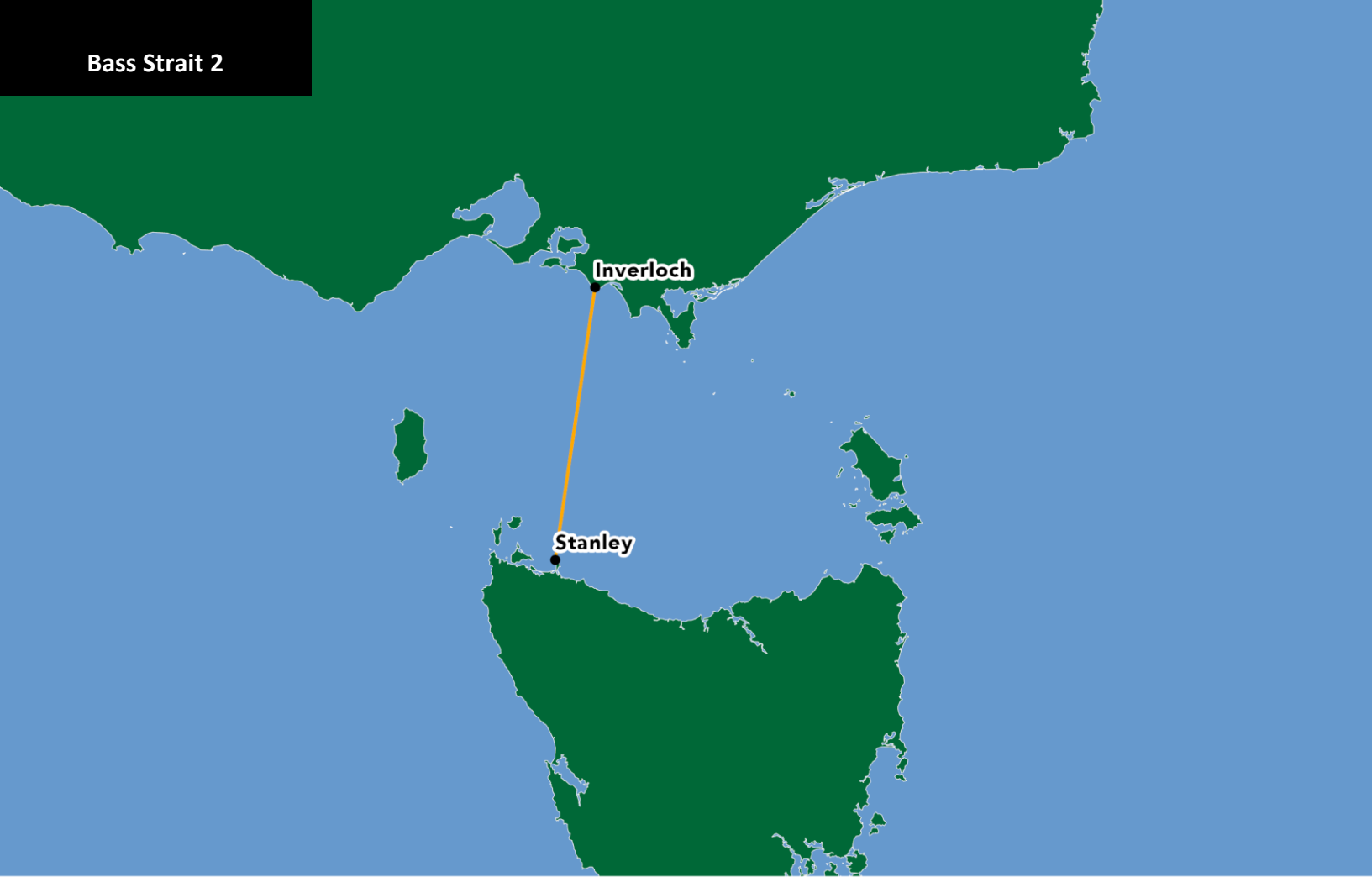
## BASS STRAIT 1

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$22,500,000
<b>Length (km)</b>	241
<b>Initial Capacity (Tbps)</b>	0.025
<b>Design Capacity (Tbps)</b>	1
<b>Owners</b>	Telstra
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Boat Harbour (Australia)
- Sandy Point (Australia)



## BASS STRAIT 2

### System Details

<b>RFS Year</b>	2003
<b>EOS Year</b>	2028
<b>Est. System Cost (USD)</b>	\$17,000,000
<b>Length (km)</b>	240
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	1
<b>Owners</b>	Telstra
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Stanley (Australia)
- Inverloch (Australia)



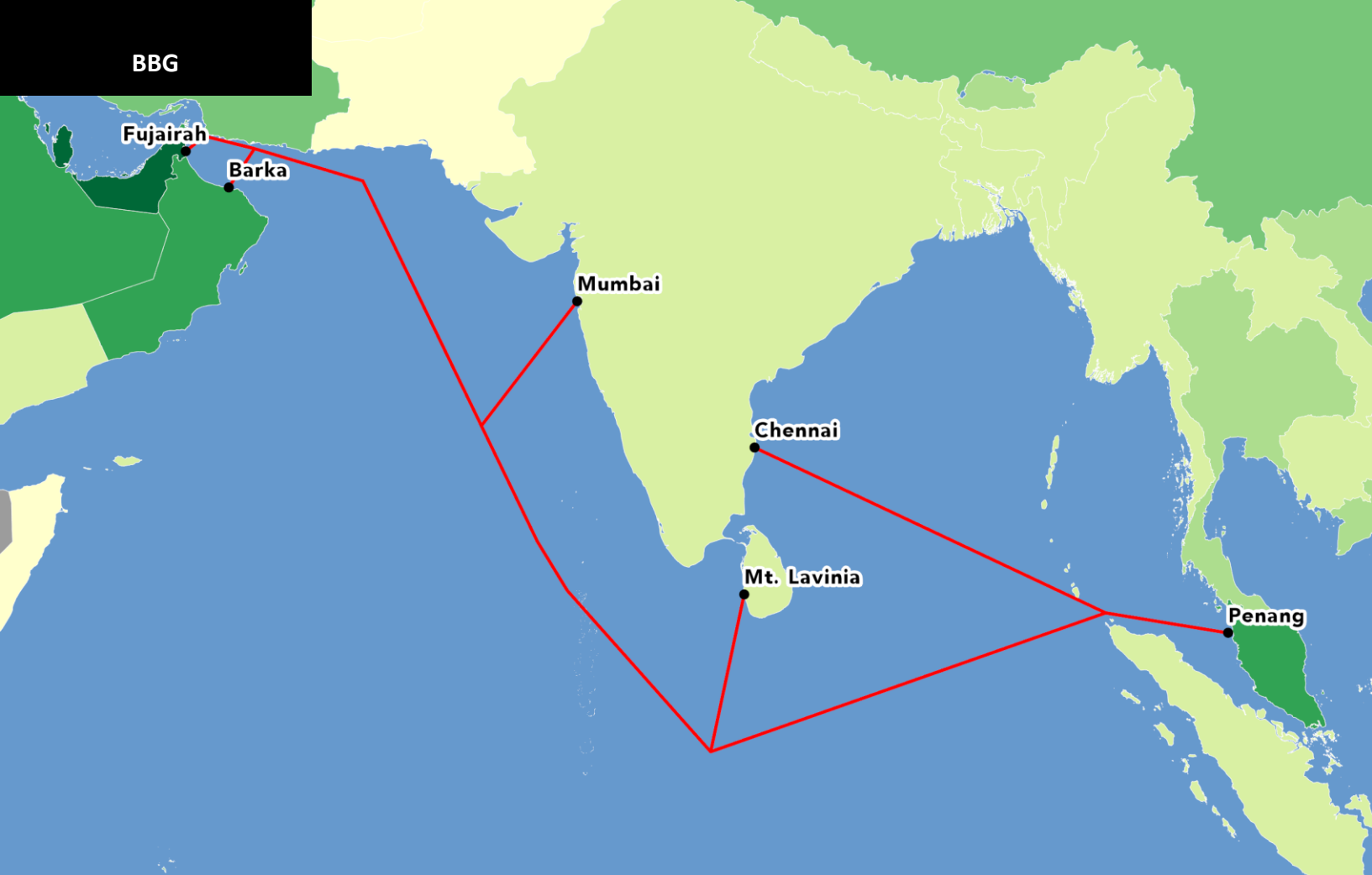
## BASSLINK

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$600,000,000
<b>Length (km)</b>	290
<b>Design Capacity (Tbps)</b>	0.64
<b>Fiber Pairs</b>	6
<b>Owners</b>	Basslink Telecoms

### Landing Points

- McGaurans Beach (Australia)
- Four Mile Bluff (Australia)



## BAY OF BENGAL GATEWAY

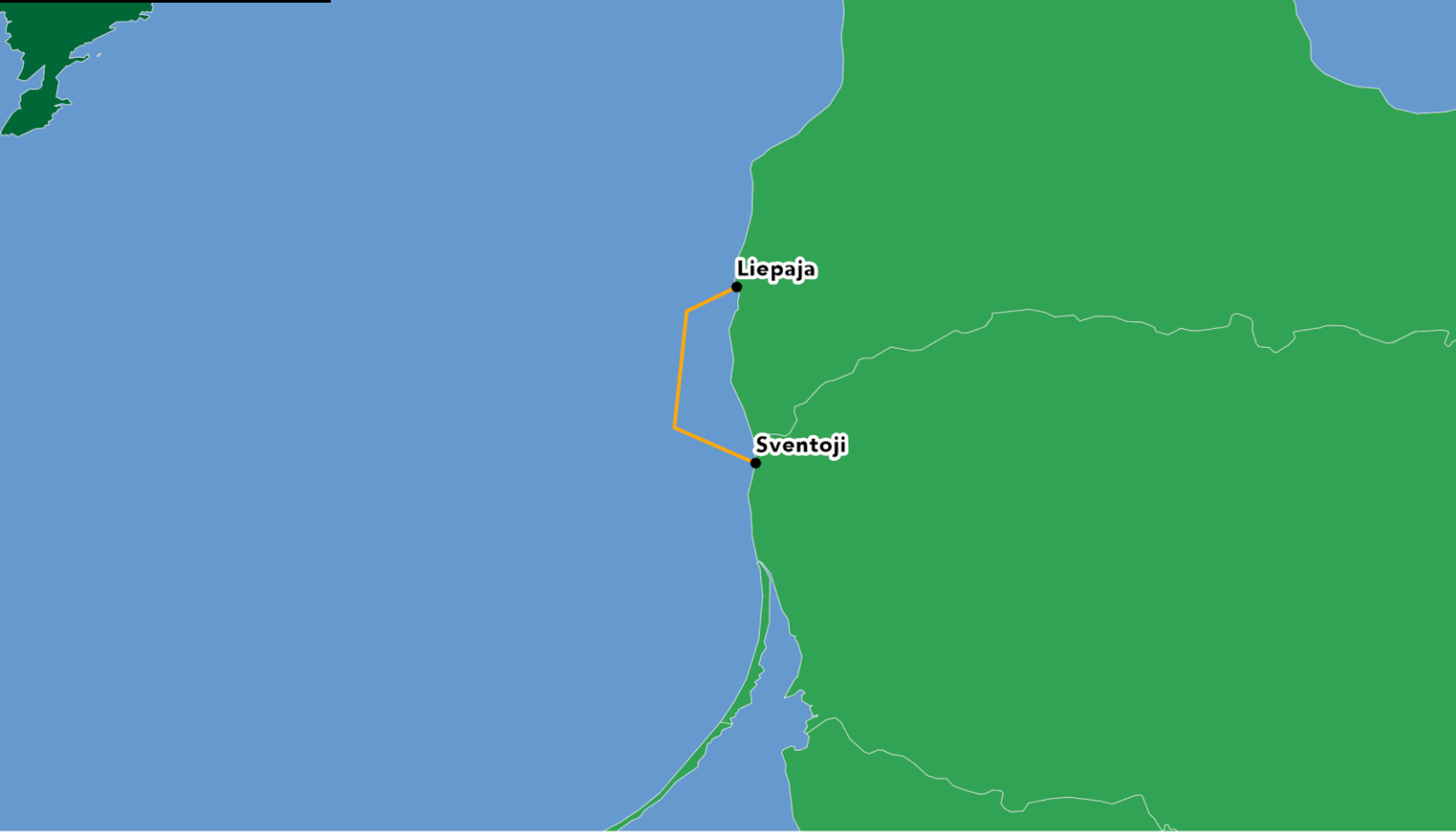
### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	8,040
<b>Initial Capacity (Tbps)</b>	6.4
<b>Design Capacity (Tbps)</b>	55
<b>Fiber Pairs</b>	3
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Bay of Bengal Consortium
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Penang (Malaysia)
- Mumbai (India)
- Chennai (India)
- Barka (Oman)
- Fujairah (United Arab Emirates)
- Mt. Lavinia (Sri Lanka)





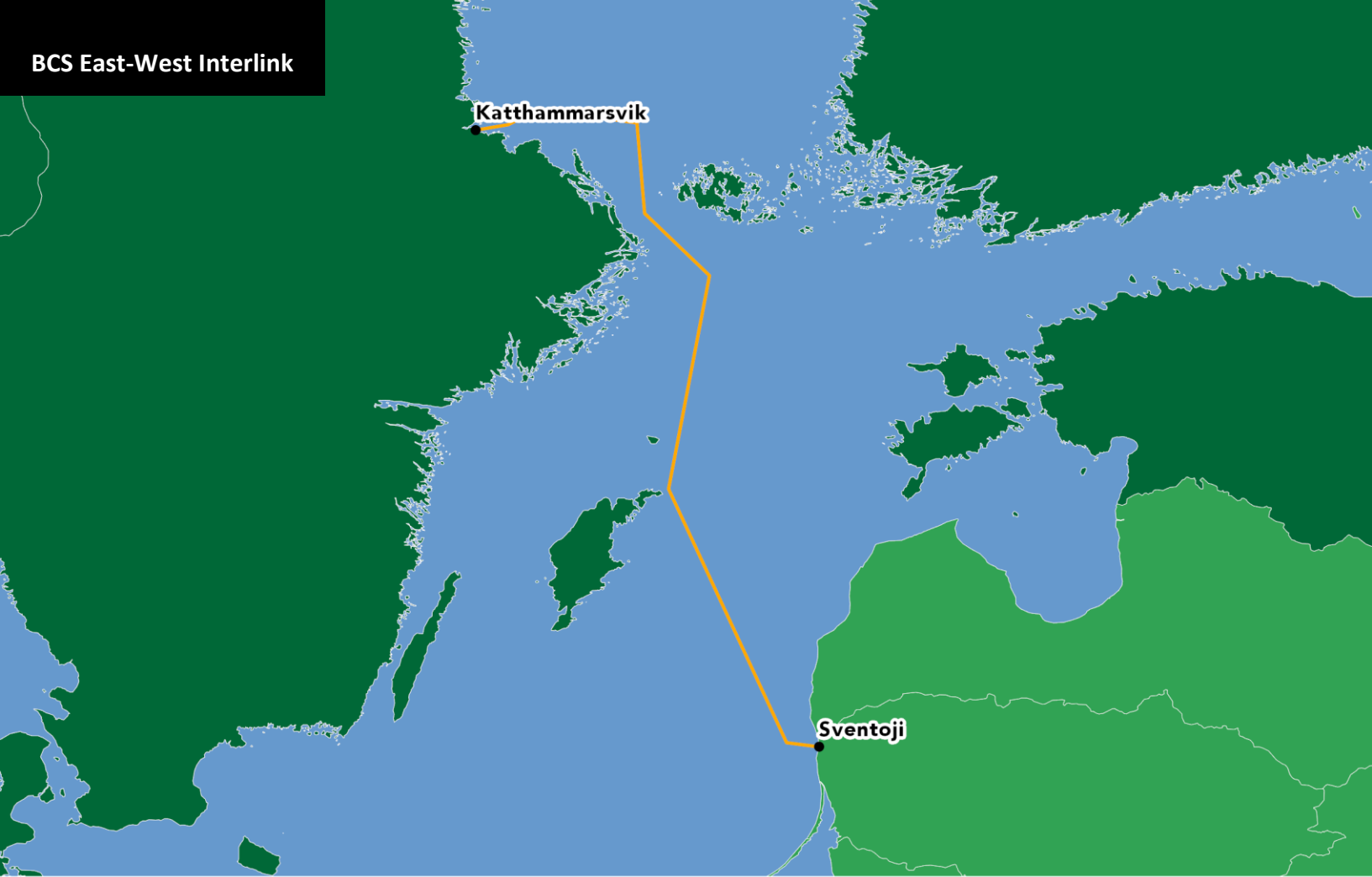
**BCS EAST**

**System Details**

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	98
<b>Fiber Pairs</b>	96
<b>Owners</b>	Telia Carrier AB
<b>System Installer</b>	Swedia Networks
<b>Region</b>	EMEA

**Landing Points**

- Sventoji (Lithuania)
- Liepaja (Latvia)



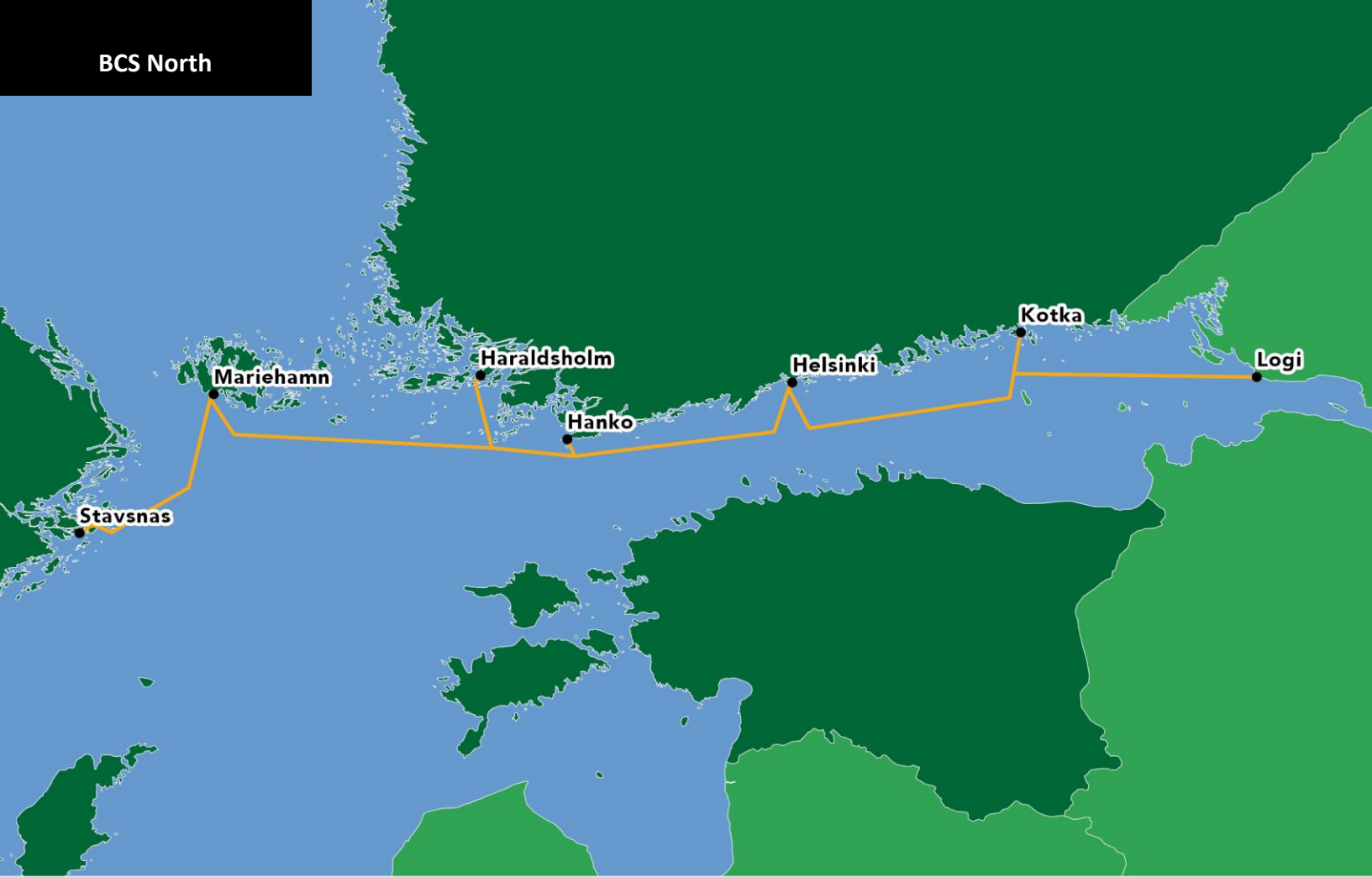
## BCS EAST-WEST INTERLINK

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	218
<b>Fiber Pairs</b>	8
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Swedia Networks
<b>Region</b>	EMEA

### Landing Points

- Katthammarsvik (Sweden)
- Sventoji (Lithuania)



### BCS NORTH

#### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2028
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	793
<b>Fiber Pairs</b>	66
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Swedia Networks
<b>Region</b>	EMEA

#### Landing Points

- Logi (Russia)
- Helsinki (Finland)
- Kotka (Finland)
- Stavsnas (Sweden)
- Haraldsholm (Finland)
- Mariehamn (Finland)
- Hanko (Finland)



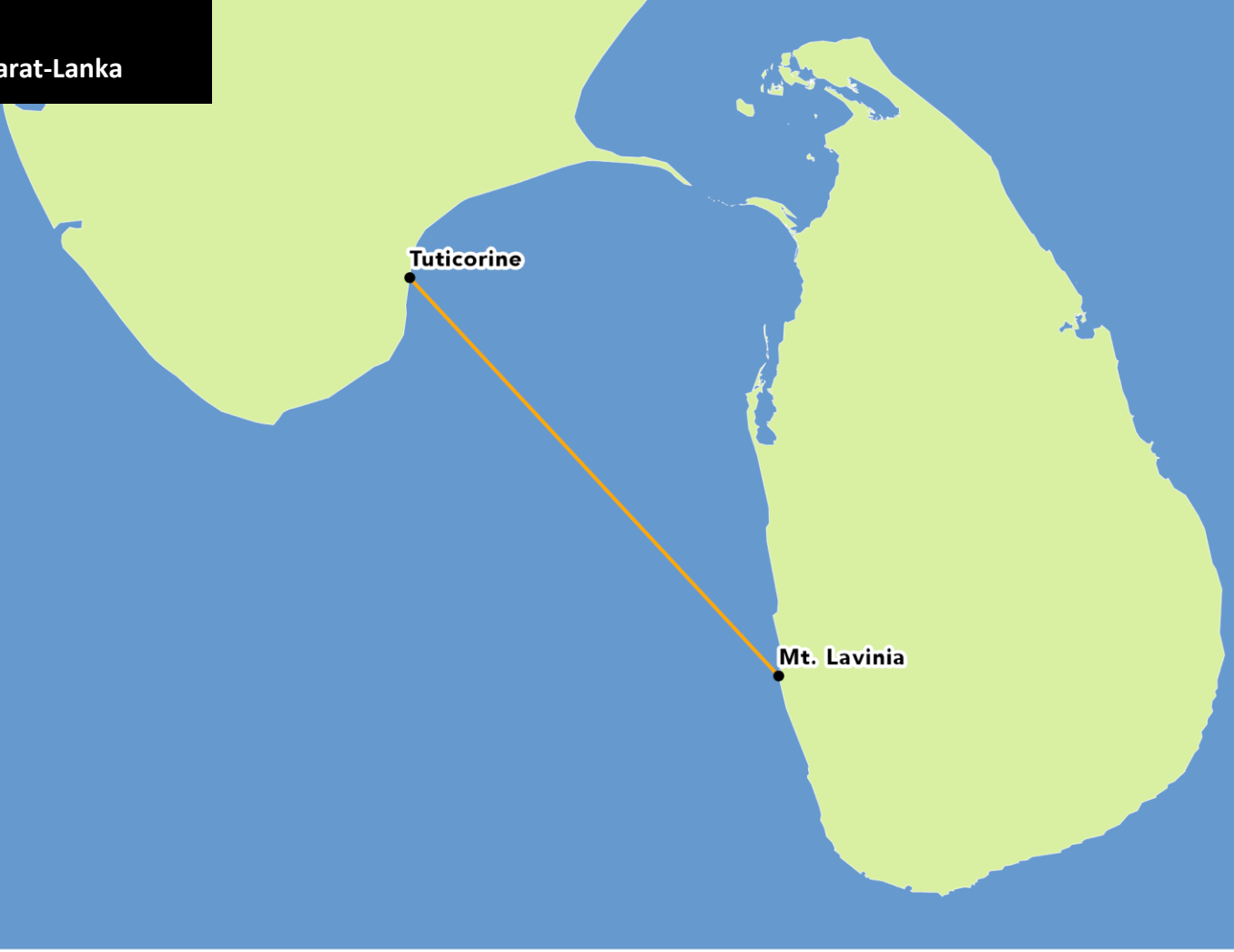
## BATAM-DUMAI-MELAKA

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$76,000,000
<b>Length (km)</b>	400
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	2.56
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	PT Mora Telematika, PT XL Axiata, Telekom Malaysia Berhad
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Telekom Malaysia Berhad
<b>Region</b>	AustralAsia

### Landing Points

- Melaka (Malaysia)
- Dumai (Indonesia)
- Batam (Indonesia)



## BHARAT-LANKA

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	338
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	0.96
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	BSNL, Sri Lanka Telecom Limited
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Tuticorine (India)
- Mt. Lavinia (Sri Lanka)



## BAHAMAS INTERNET CABLE SYSTEM

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$31,000,000
<b>Length (km)</b>	1,000
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	12
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Caribbean Crossing
<b>Region</b>	Americas

### Landing Points

- Upper Bogue (Bahamas)
- Crown Haven (Bahamas)
- Marsh Harbour (Bahamas)
- Riding Point (Bahamas)
- Rock Sound (Bahamas)
- Boca Raton (United States)
- Freeport (Bahamas)
- Nassau (The Bahamas)
- Sandy Point (Bahamas)



## BIOS/JONAH

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	2,300
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	2
<b>Owners</b>	Bezeq International
<b>System Installer</b>	Elettra
<b>Region</b>	EMEA

### Landing Points

- Bari (Italy)
- Tel Aviv (Israel)





## BROADBAND LINKING THE AMERICAN SAMOA TERRITORY

### System Details

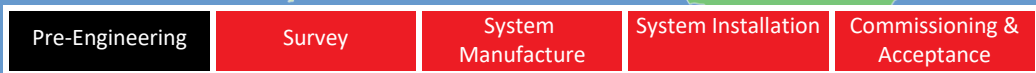
<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$11,000,000
<b>Length (km)</b>	250
<b>Owners</b>	ASTCA
<b>System Supplier</b>	IT International Telecom
<b>System Installer</b>	IT International Telecom
<b>Region</b>	AustralAsia

### Landing Points

- Aunu'u Wharf (American Samoa)
- Ofu Harbor (American Samoa)
- Luma (American Samoa)
- Pago Pago (American Samoa)



### PROJECT COMPLETION PHASES



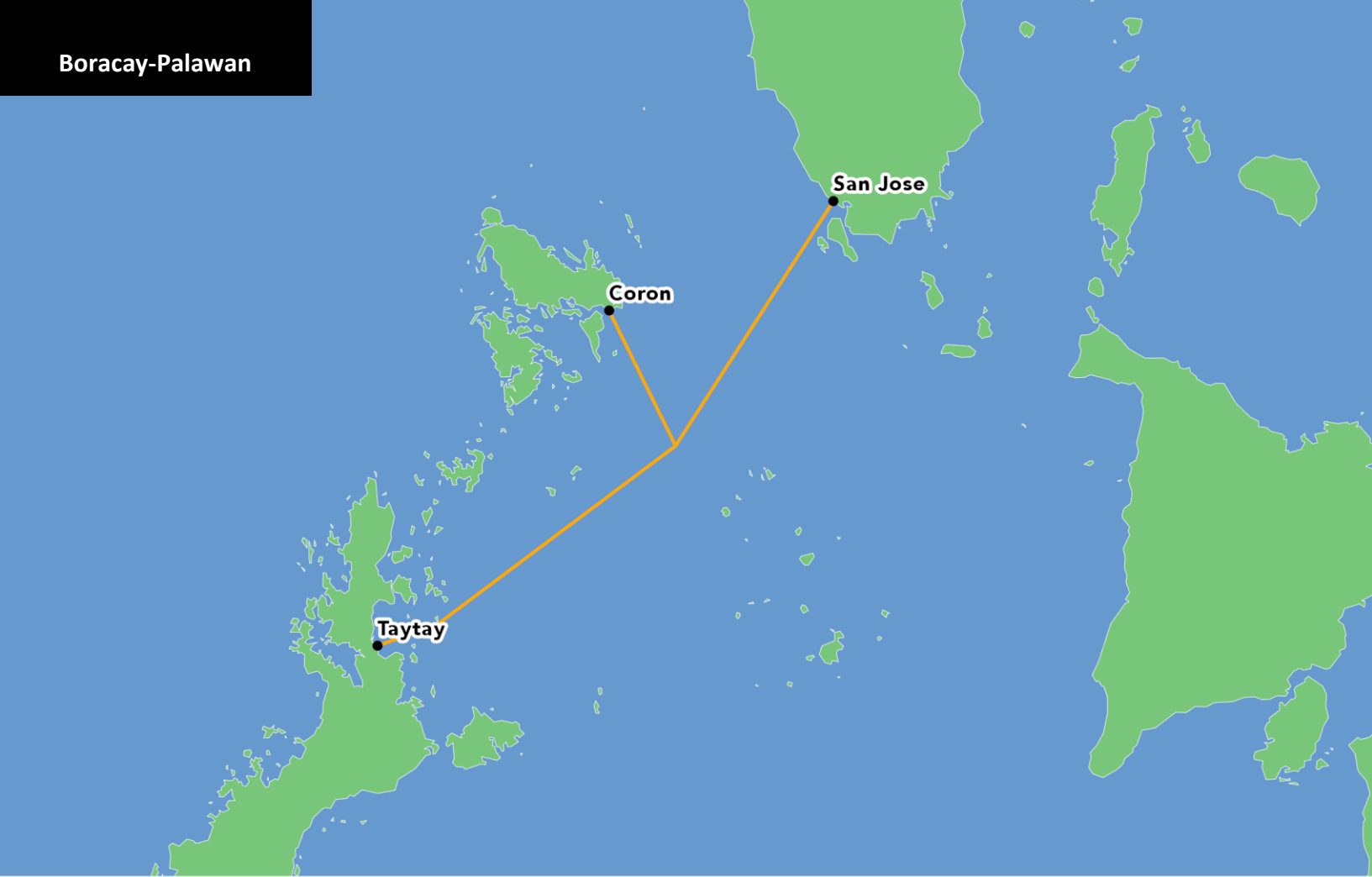
## BLUEMED

### System Details

RFS Year	2020
EOS Year	2045
Length (km)	1,000
Design Capacity (Tbps)	240
Owners	Sparkle
Region	EMEA

### Landing Points

- Genoa (Italy)
- Palermo (Italy)



## BORACAY-PALAWAN

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	332
<b>Design Capacity (Tbps)</b>	4.8
<b>Fiber Pairs</b>	12
<b>Wavelengths per Fiber Pair</b>	40
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Globe Telecom
<b>System Supplier</b>	Huawei Marine
<b>Region</b>	AustralAsia

### Landing Points

- Taytay (Philippines)
- Coron (Philippines)
- San Jose (Philippines)



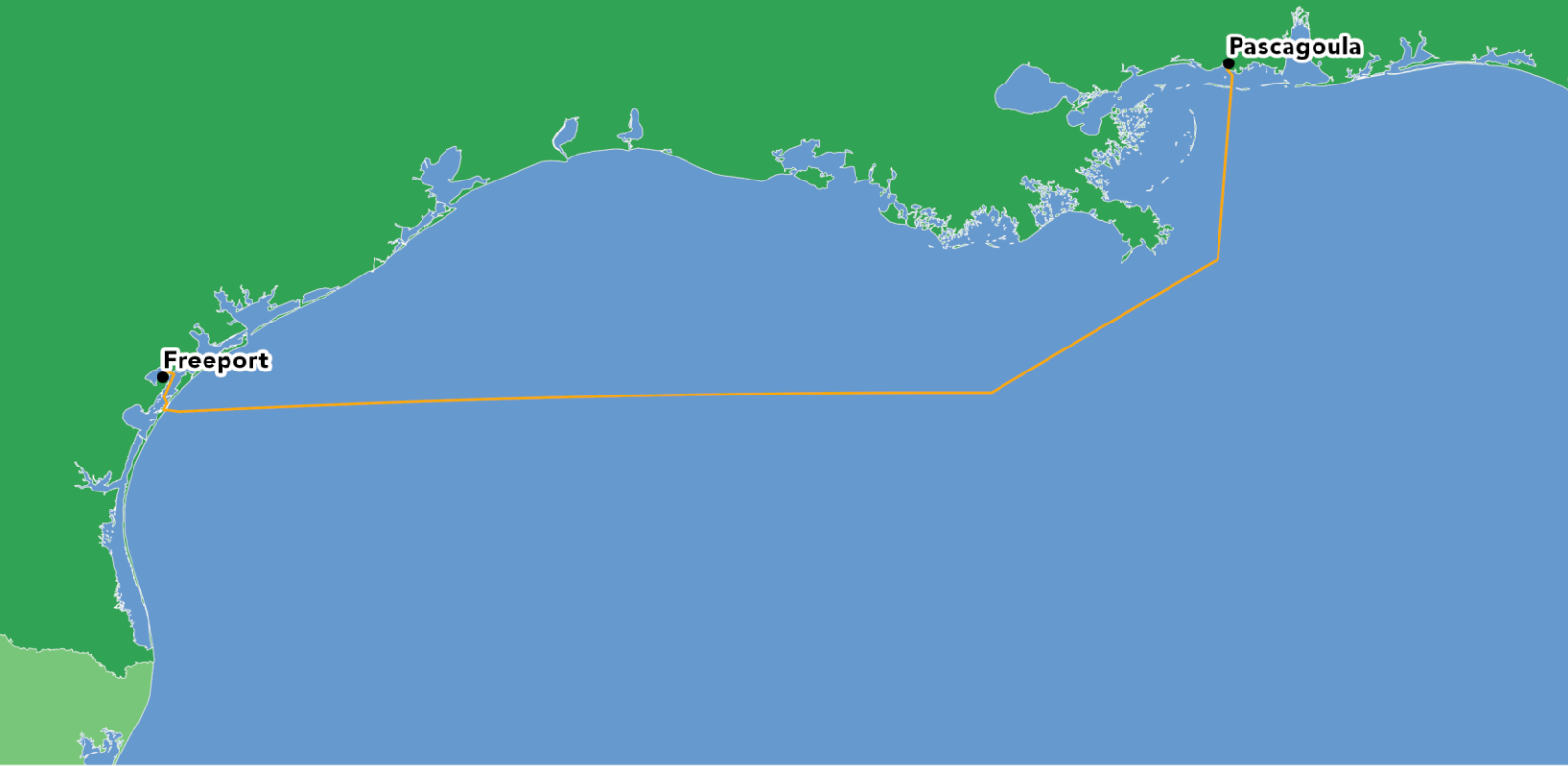
## BOTNIA

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$8,500,000
<b>Length (km)</b>	77
<b>Initial Capacity (Tbps)</b>	0.0012
<b>Design Capacity (Tbps)</b>	0.0012
<b>Fiber Pairs</b>	6
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	NKT
<b>System Installer</b>	Alcatel Kable Norge
<b>Region</b>	EMEA

### Landing Points

- Umea (Sweden)
- Vaasa (Finland)



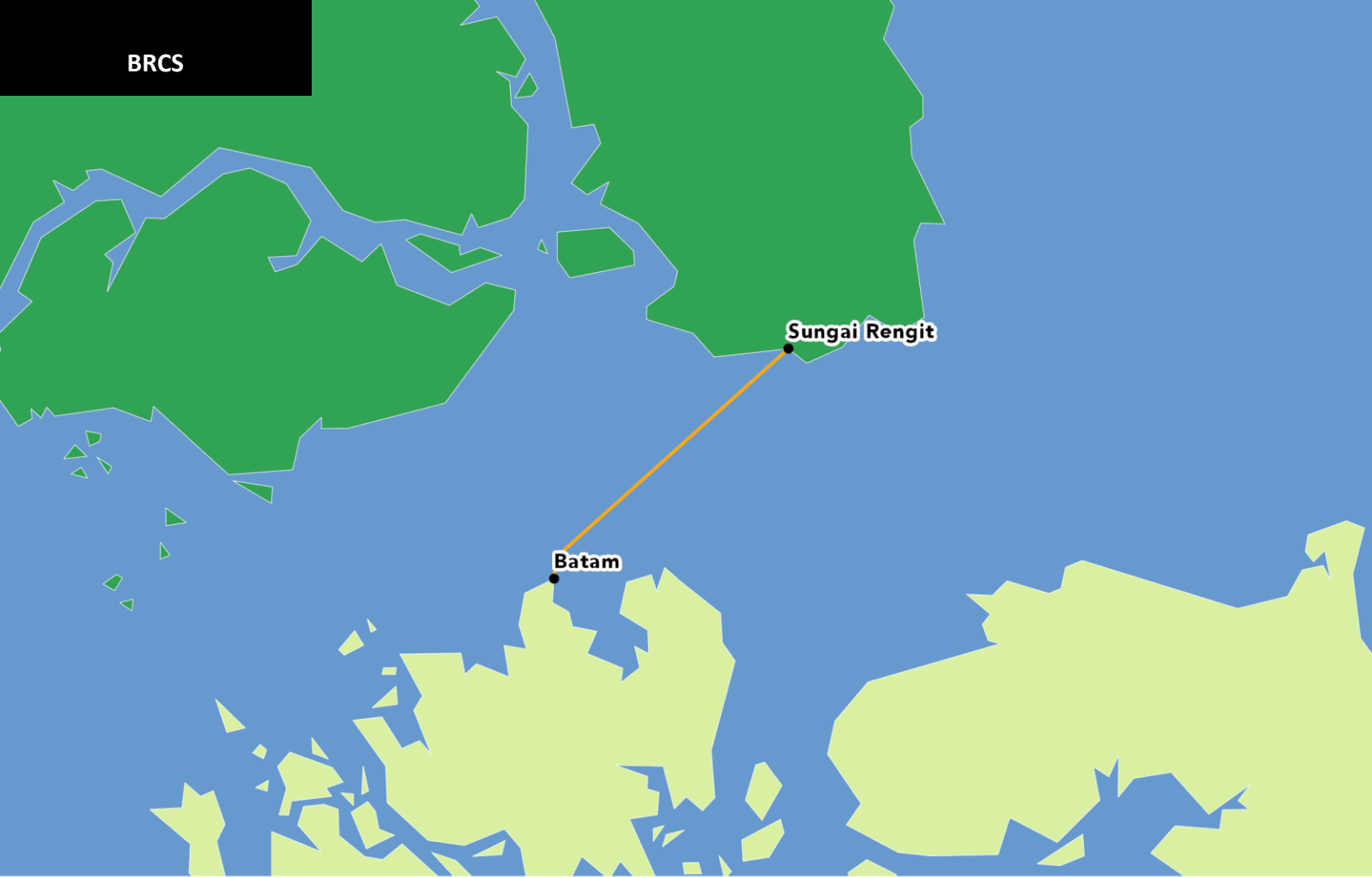
## BP GULF OF MEXICO

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	1,200
<b>Fiber Pairs</b>	6
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	BP
<b>System Supplier</b>	TE SubCom
<b>Region</b>	Americas

### Landing Points

- Pascagoula (United States)
- Freeport (United States)



### BATAM-RENGIT CABLE SYSTEM

#### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	63
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	Excelcom
<b>Region</b>	AustralAsia

#### Landing Points

- Sungai Rengit (Malaysia)
- Batam (Indonesia)



## BRAZIL-USA

### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$500,000,000
<b>Length (km)</b>	11,000
<b>Design Capacity (Tbps)</b>	138
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	135
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Telxius
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks Americas

### Landing Points

- Virginia Beach (United States)
- San Juan (Puerto Rico)
- Fortaleza (Brazil)
- Rio de Janeiro (Brazil)





## BATAM SINGAPORE CABLE SYSTEM

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$13,100,000
<b>Length (km)</b>	73
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	0.08
<b>Fiber Pairs</b>	3
<b>Owners</b>	Telkom Indonesia
<b>System Supplier</b>	Ocean Cable Company
<b>System Installer</b>	ASEAN Cablesip, Stena Offshore
<b>Region</b>	AustralAsia

### Landing Points

- Changi (Singapore)
- Batam (Indonesia)



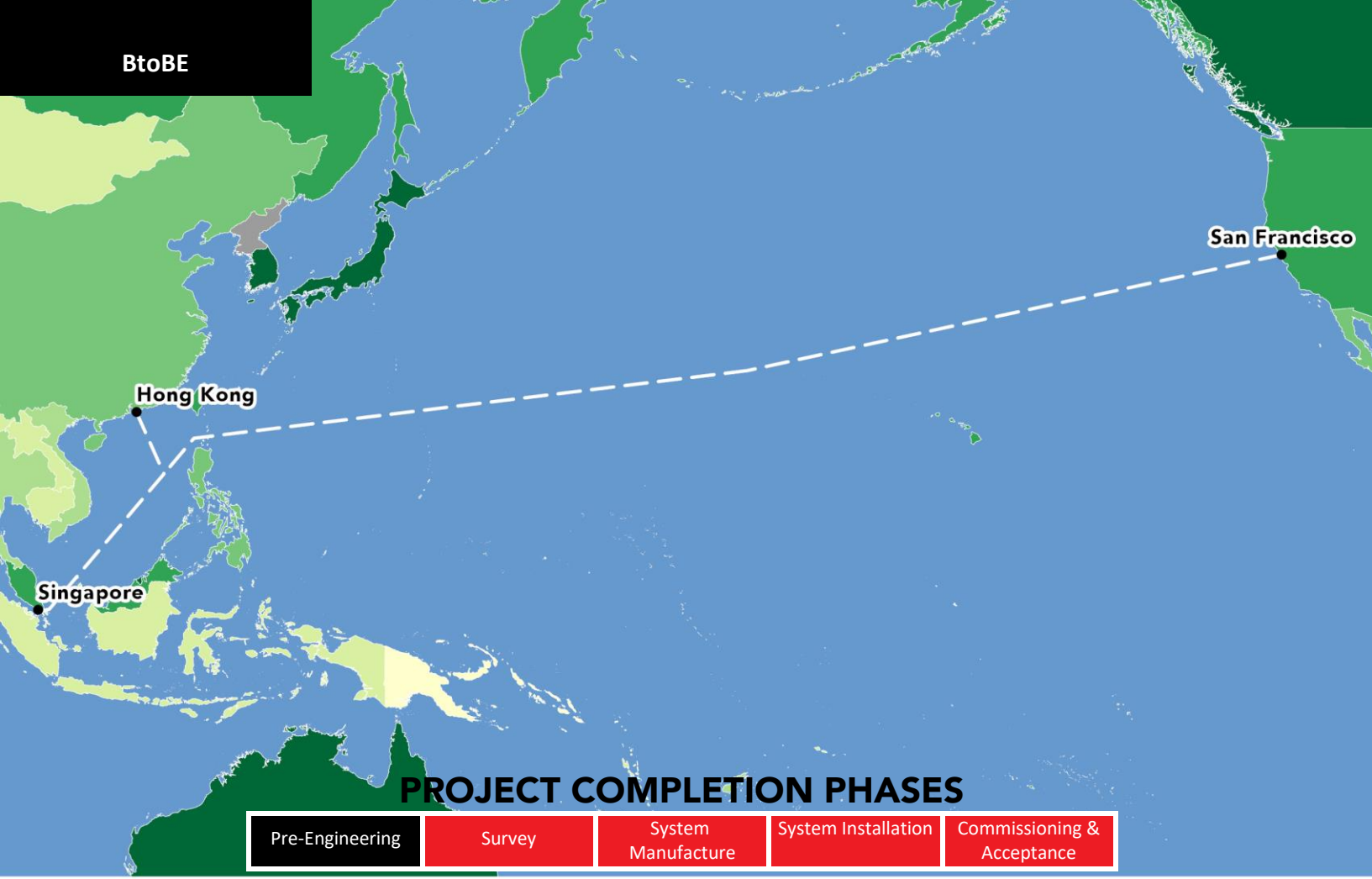
## BLACK SEA FIBRE OPTIC CABLE SYSTEM

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$51,000,000
<b>Length (km)</b>	933
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	2
<b>Owners</b>	Armentel, BTC, Cyprus Telecommunications Authority, DTAG, HT, OTE, Rostelecom, Telecom Slovenia, Ukrtelecom
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Alcatel Submarine Networks, Global Marine Systems Limited, Tyco Telecommunications SSI
<b>Region</b>	EMEA

### Landing Points

- Odessa (Ukraine)
- Varna (Bulgaria)
- Novorossiysk (Russia)



## PROJECT COMPLETION PHASES

Pre-Engineering

Survey

System  
Manufacture

System Installation

Commissioning &  
Acceptance

## BAY TO BAY EXPRESS CABLE SYSTEM

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$400,000,000
<b>Length (km)</b>	16,000
<b>Design Capacity (Tbps)</b>	108
<b>Fiber Pairs</b>	6
<b>Owners</b>	Amazon, China Mobile, Facebook
<b>System Supplier</b>	NEC
<b>Region</b>	Transpacific

### Landing Points

- San Francisco (United States)
- (Hong Kong)
- (Singapore)



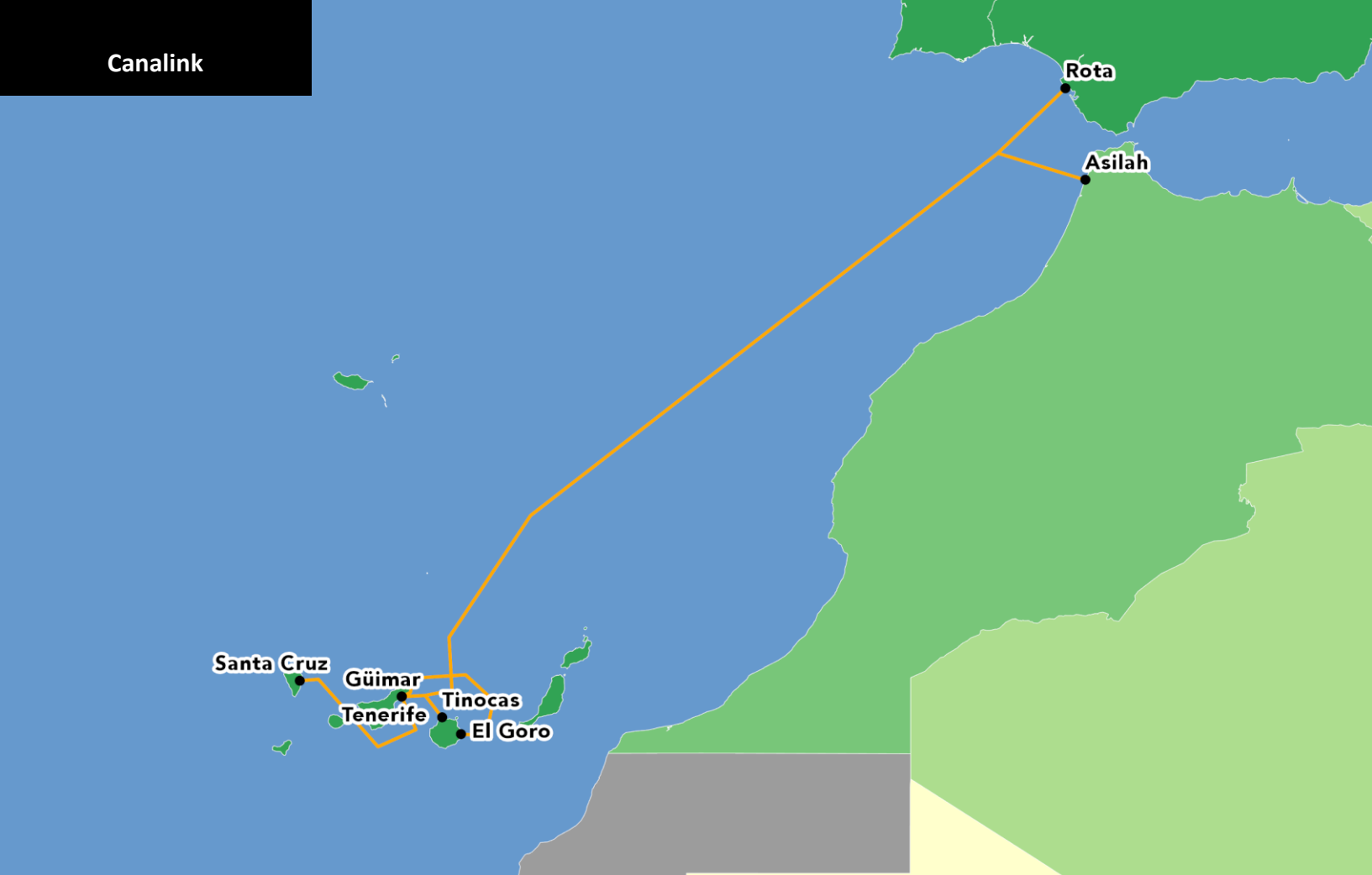
## CADMOS

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$8,000,000
<b>Length (km)</b>	262
<b>Design Capacity (Tbps)</b>	0.000622
<b>Fiber Pairs</b>	2
<b>Owners</b>	Cyprus Telecommunications Authority, Lebanese Ministry of Telecommunications
<b>System Supplier</b>	AT&T Submarine System, Inc.
<b>System Installer</b>	AT&T Submarine System, Inc.
<b>Region</b>	EMEA

### Landing Points

- Pentaskhinos (Cyprus)
- Beirut (Lebanon)



## CANALINK

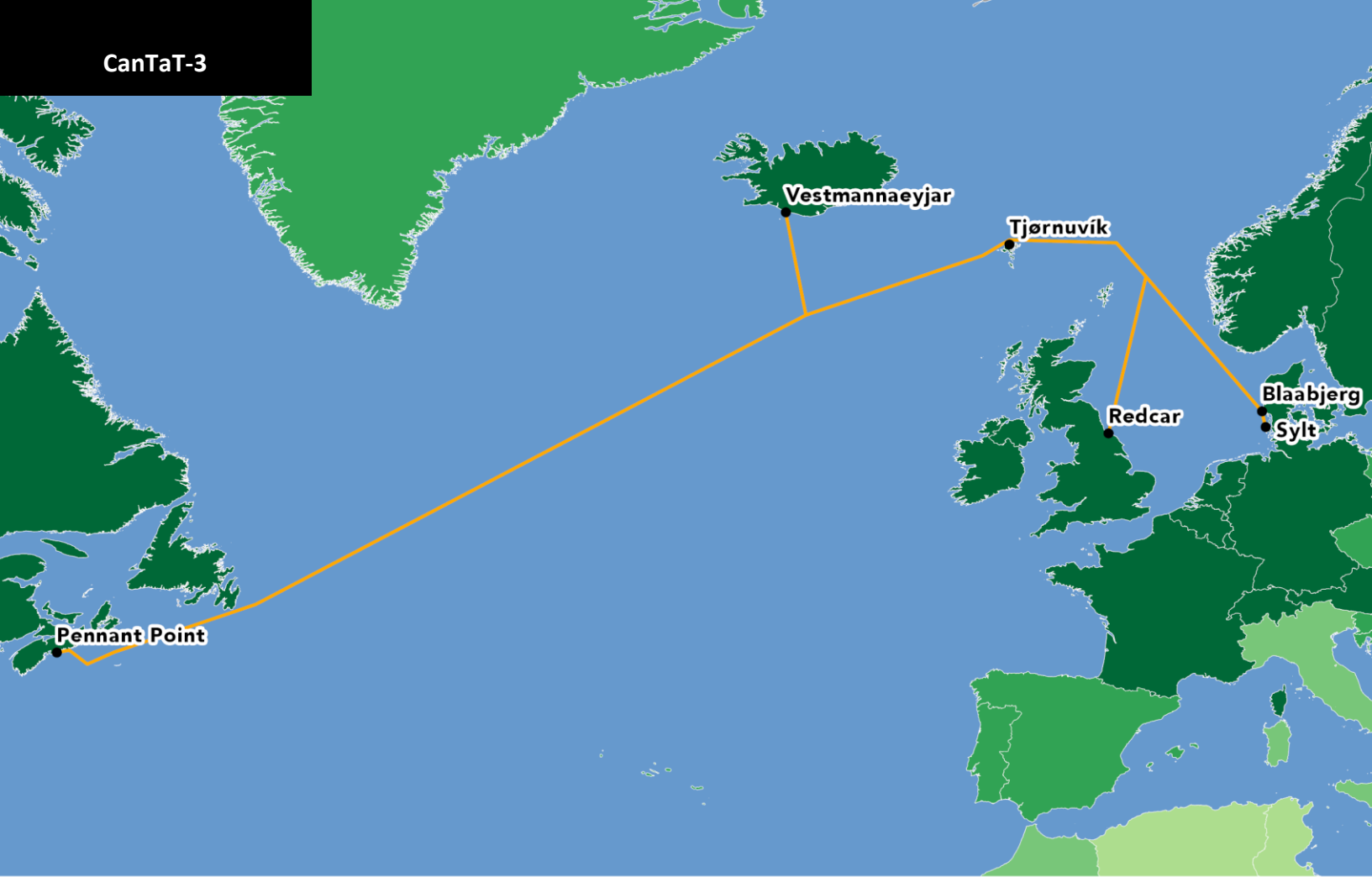
### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$157,000,000
<b>Length (km)</b>	2,000
<b>Design Capacity (Tbps)</b>	5.12
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	128
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	IT3
<b>System Installer</b>	Elettra
<b>Region</b>	EMEA

- Tinocas (Spain)
- Rota (Spain)
- Güimar (Spain)
- Asilah (Morocco)

### Landing Points

- Tenerife (Spain)
- Santa Cruz de La Palma (Spain)
- El Goro (Spain)



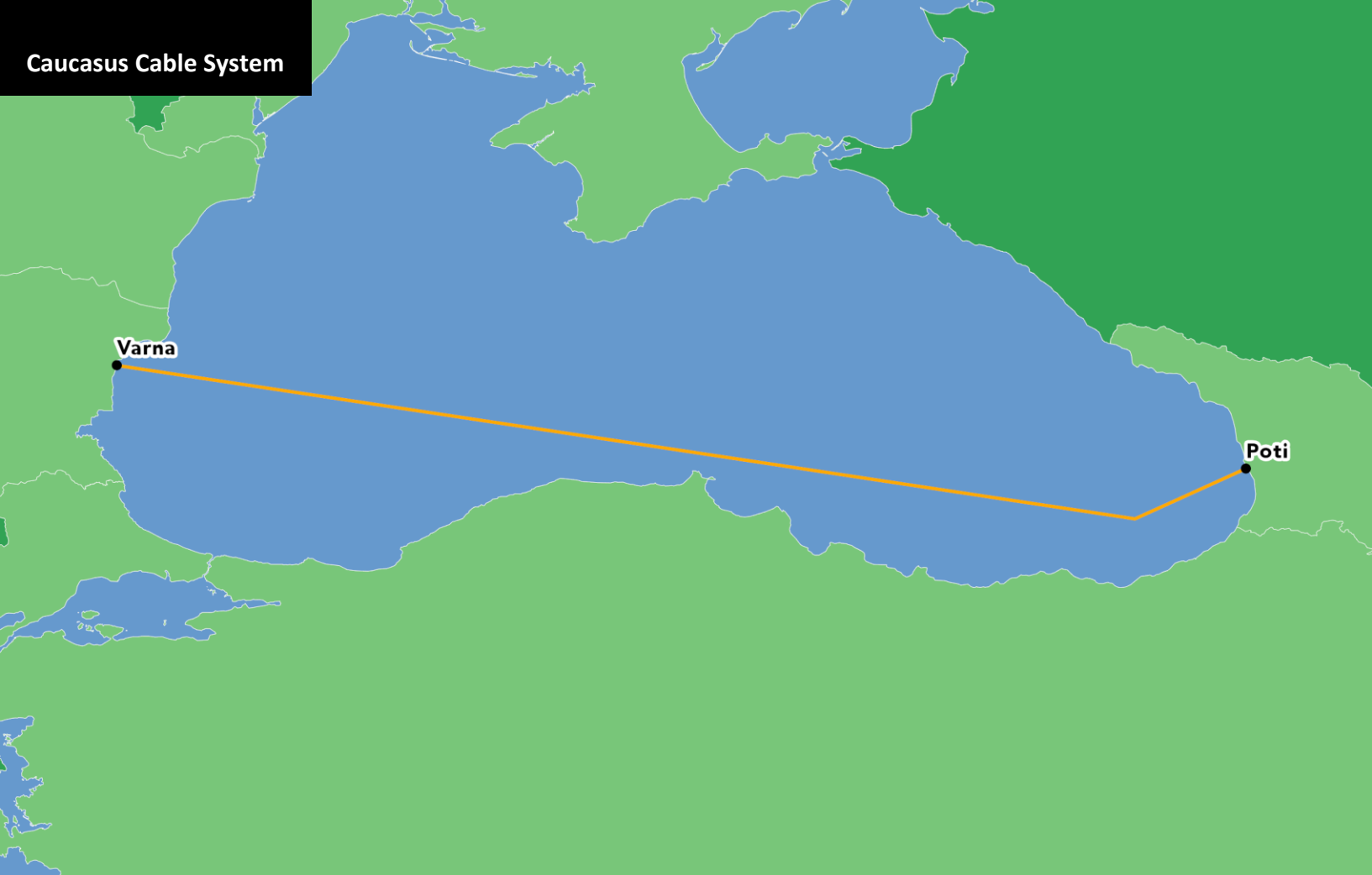
## CANTAT-3

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$385,000,000
<b>Length (km)</b>	6,450
<b>Initial Capacity (Tbps)</b>	0.0075
<b>Design Capacity (Tbps)</b>	0.0075
<b>Owners</b>	TATA Communications
<b>System Installer</b>	Alcatel Submarine Networks, BT Marine, Orange Marine, Telecom Denmark
<b>Region</b>	Transatlantic

### Landing Points

- Sylt (Germany)
- Redcar (United Kingdom)
- Vestmannaeyjar (Iceland)
- Blaabjerg (Denmark)
- Tjørnuvík (Faroe Islands)
- Pennant Point (Canada)



## CAUCASUS CABLE SYSTEM

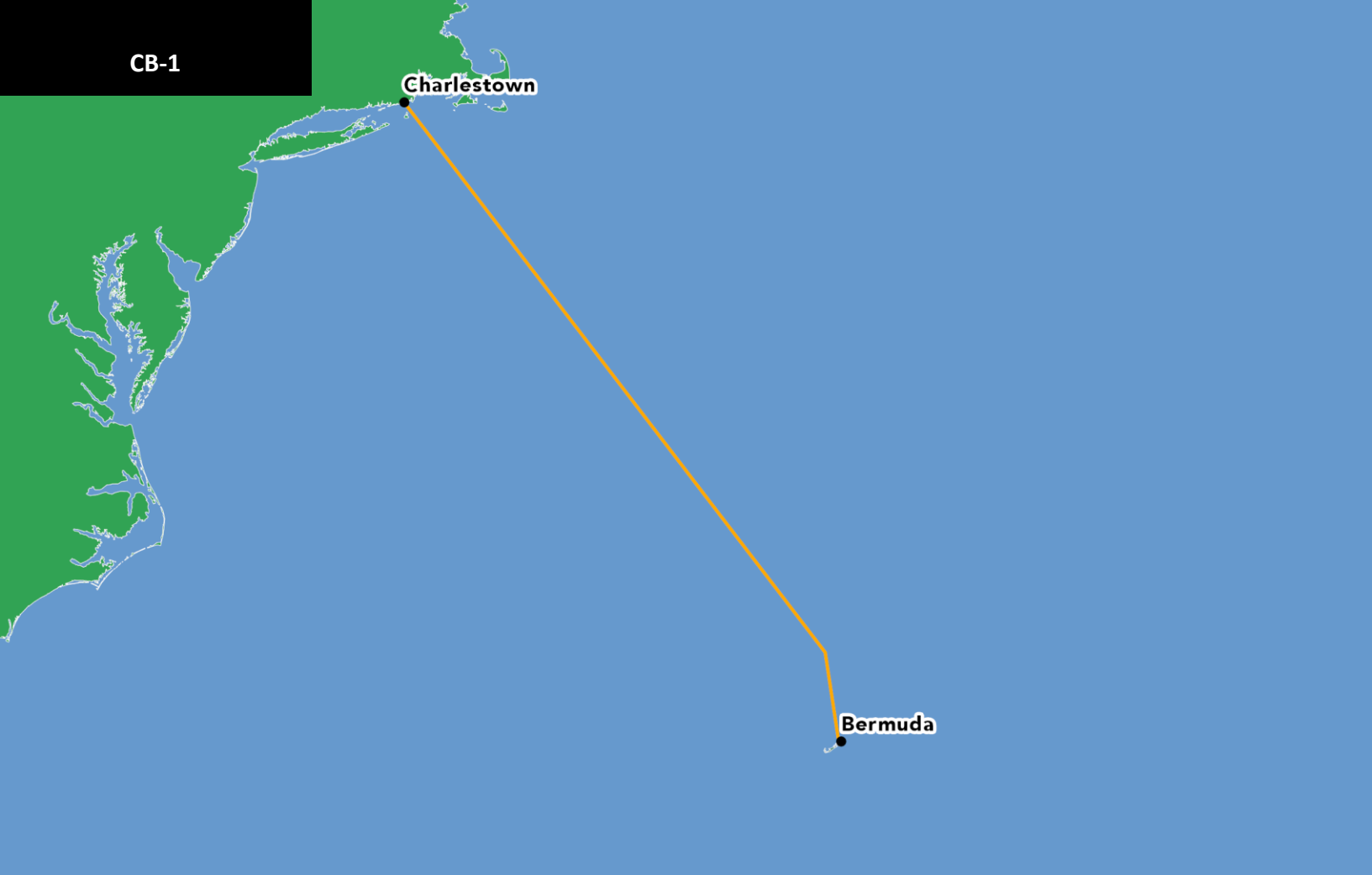
### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$76,000,000
<b>Length (km)</b>	1,187
<b>Design Capacity (Tbps)</b>	9
<b>Fiber Pairs</b>	2
<b>Owners</b>	Caucasus Online
<b>System Supplier</b>	TE SubCom, Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	TE SubCom
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Varna (Bulgaria)
- Poti (Georgia)





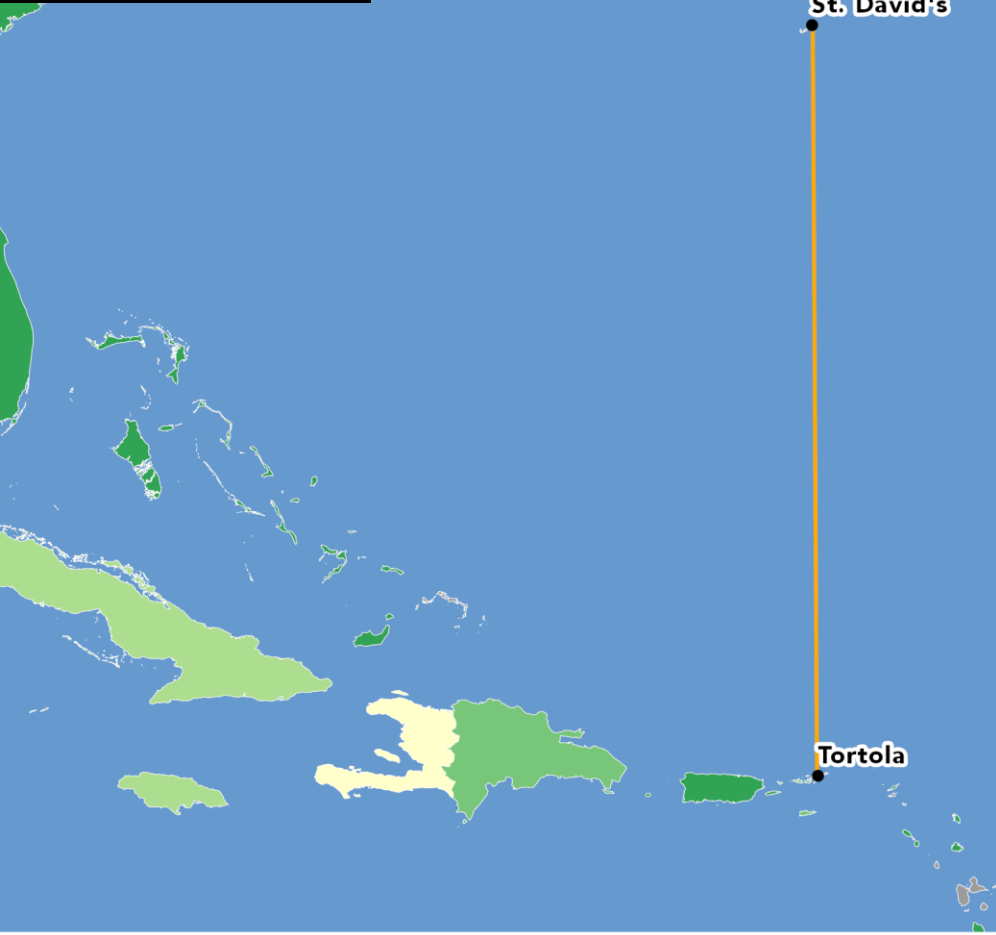
## CHALLENGER BERMUDA-1

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$50,000,000
<b>Length (km)</b>	1,448
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	Cable Company Ltd, Verizon
<b>Region</b>	Americas

### Landing Points

- Charlestown (United States)
- Bermuda (Bermuda)



## CARIBBEAN-BERMUDA US

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	1,609
<b>Design Capacity (Tbps)</b>	2.5
<b>Fiber Pairs</b>	2
<b>Owners</b>	LIME
<b>System Supplier</b>	IT International Telecom, Tyco Telecommunications SSI
<b>System Installer</b>	IT International Telecom, Tyco Telecommunications SSI
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Americas

### Landing Points

- Tortola (British Virgin Islands)
- St. David's (Bermuda)



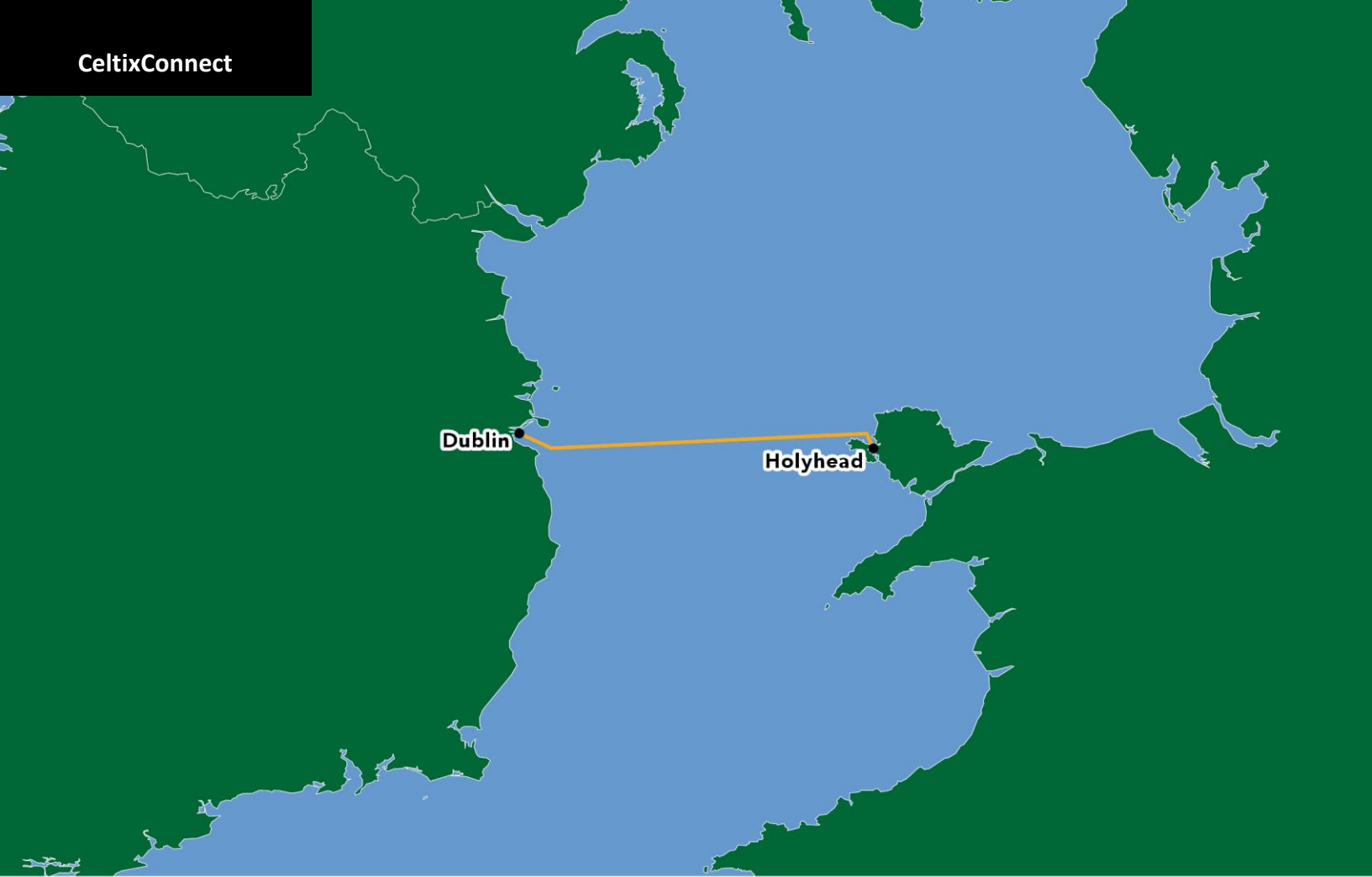
## CEIBA-2

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	290
<b>Design Capacity (Tbps)</b>	24
<b>Fiber Pairs</b>	3
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Republic of Equatorial Guinea
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	EMEA

### Landing Points

- Kribi (Cameroon)
- Malabo (Equatorial Guinea)
- Bata (Equatorial Guinea)



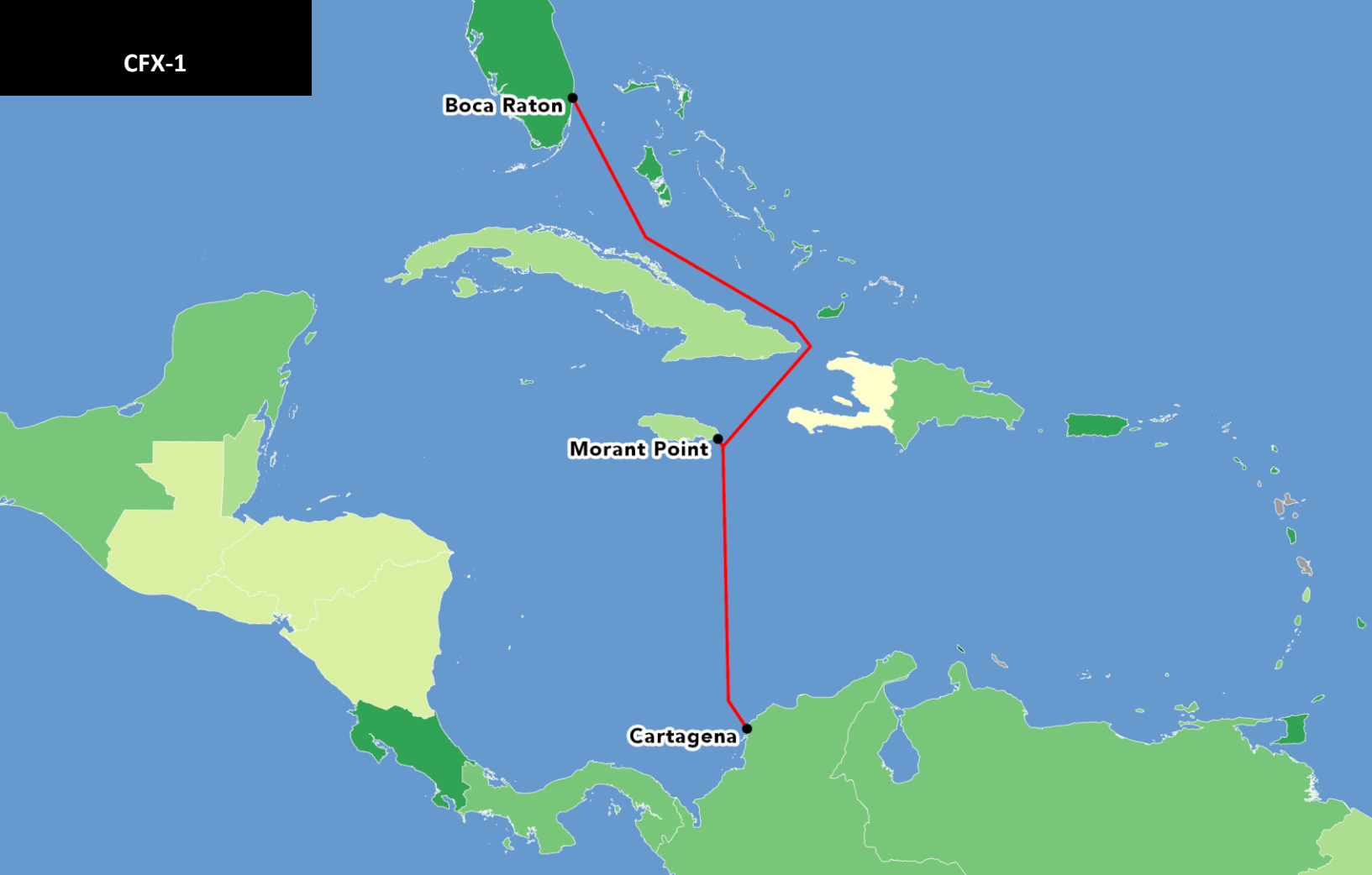
## CELTIXCONNECT

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$22,000,000
<b>Length (km)</b>	131
<b>Initial Capacity (Tbps)</b>	0.96
<b>Design Capacity (Tbps)</b>	0.96
<b>Fiber Pairs</b>	72
<b>Owners</b>	AquaComms
<b>System Installer</b>	Alcatel Submarine Networks, Global Marine Systems Limited
<b>Region</b>	EMEA

### Landing Points

- Holyhead (United Kingdom)
- Dublin (Ireland)



## COLOMBIA-FLORIDA SUBSEA FIBER

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2023
<b>Length (km)</b>	2,439
<b>Initial Capacity (Tbps)</b>	0.11
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	12
<b>Owners</b>	C&W Networks
<b>System Supplier</b>	TE SubCom, Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	TE SubCom
<b>Upgrade Year</b>	2011
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Americas

### Landing Points

- Cartagena (Colombia)
- Boca Raton (United States)
- Morant Point (Jamaica)



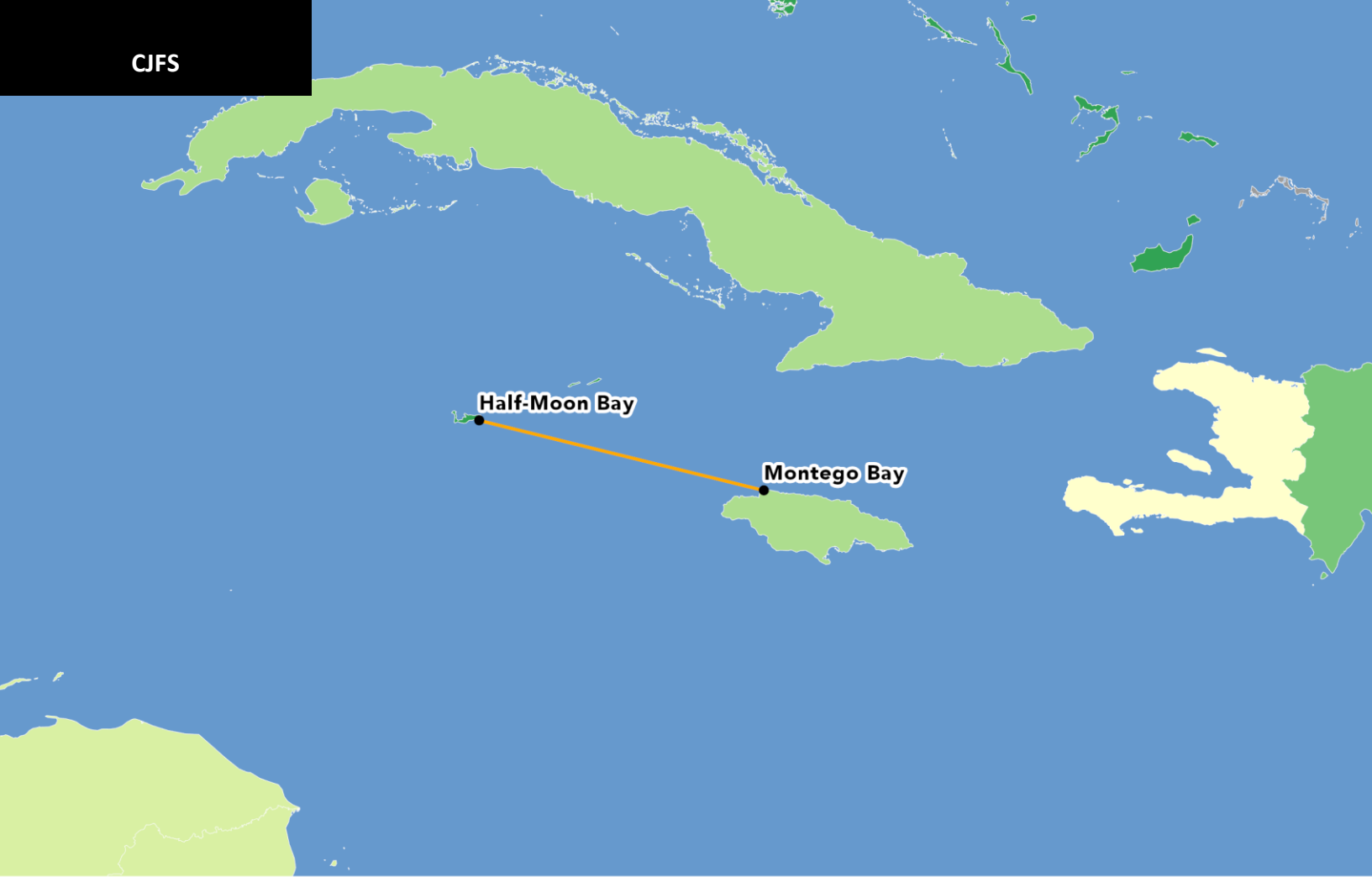
### CYPRUS-ISRAEL OPTICAL SYSTEM

#### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2018
<b>Est. System Cost (USD)</b>	\$16,000,000
<b>Length (km)</b>	262
<b>Design Capacity (Tbps)</b>	0.000622
<b>Fiber Pairs</b>	1
<b>Owners</b>	Bezeq International, Cyprus Telecommunications Authority
<b>Region</b>	EMEA

#### Landing Points

- Ayia Napa (Cyprus)
- Nahariya (Israel)



## CAYMAN JAMAICA FIBRE SYSTEM

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$6,500,000
<b>Length (km)</b>	870
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	8.4
<b>Owners</b>	LIME
<b>Region</b>	Americas

### Landing Points

- Montego Bay (Jamaica)
- Half-Moon Bay (Cayman Islands)



## C-LION 1

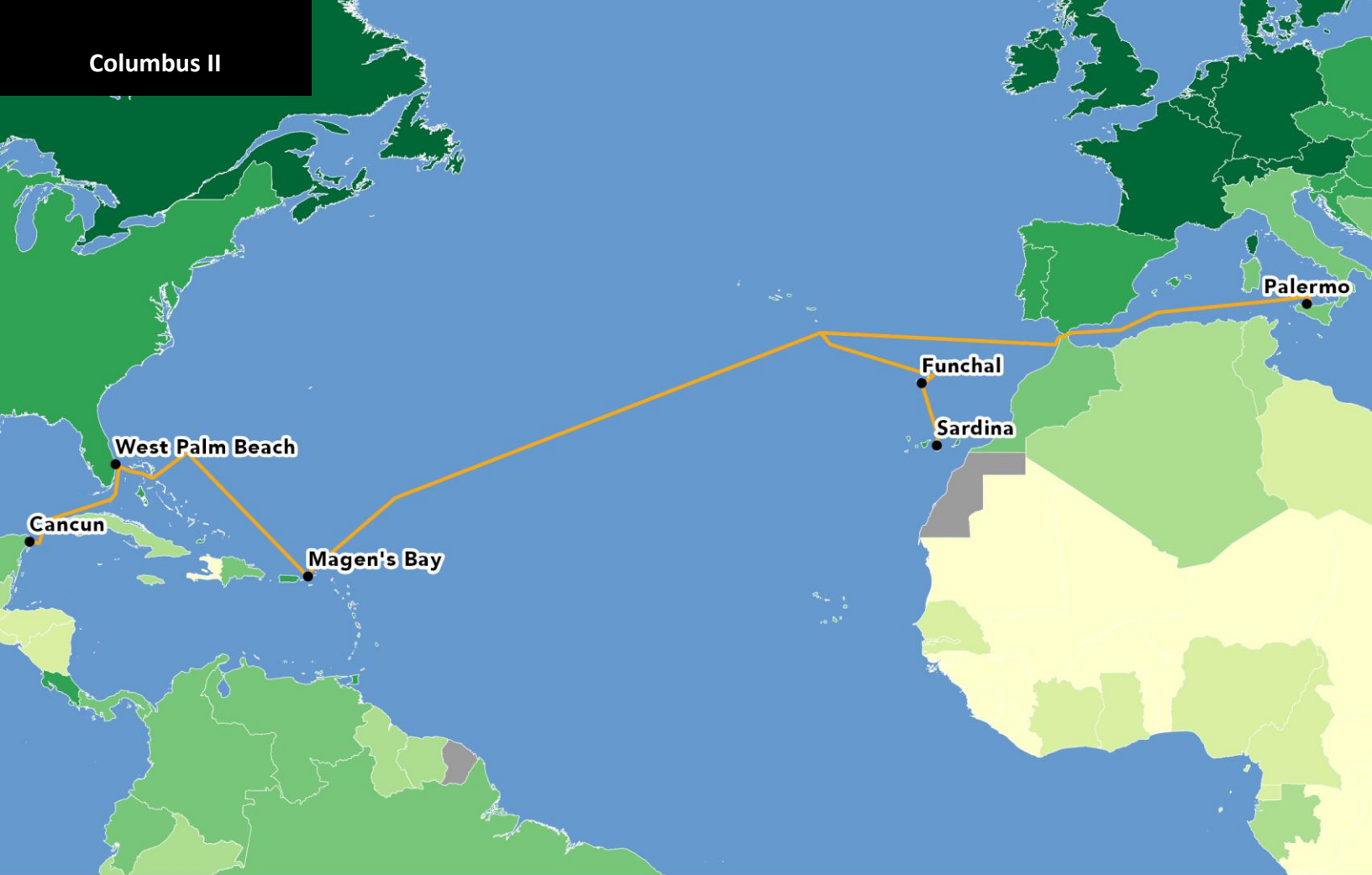
### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$74,000,000
<b>Length (km)</b>	1,172
<b>Design Capacity (Tbps)</b>	144
<b>Fiber Pairs</b>	8
<b>Capacity per Wavelength (Gbps)</b>	300
<b>Owners</b>	Cinia Group
<b>Region</b>	EMEA

### Landing Points

- Hanko (Finland)
- Helsinki (Finland)
- Rostock-Ribnitz (Germany)





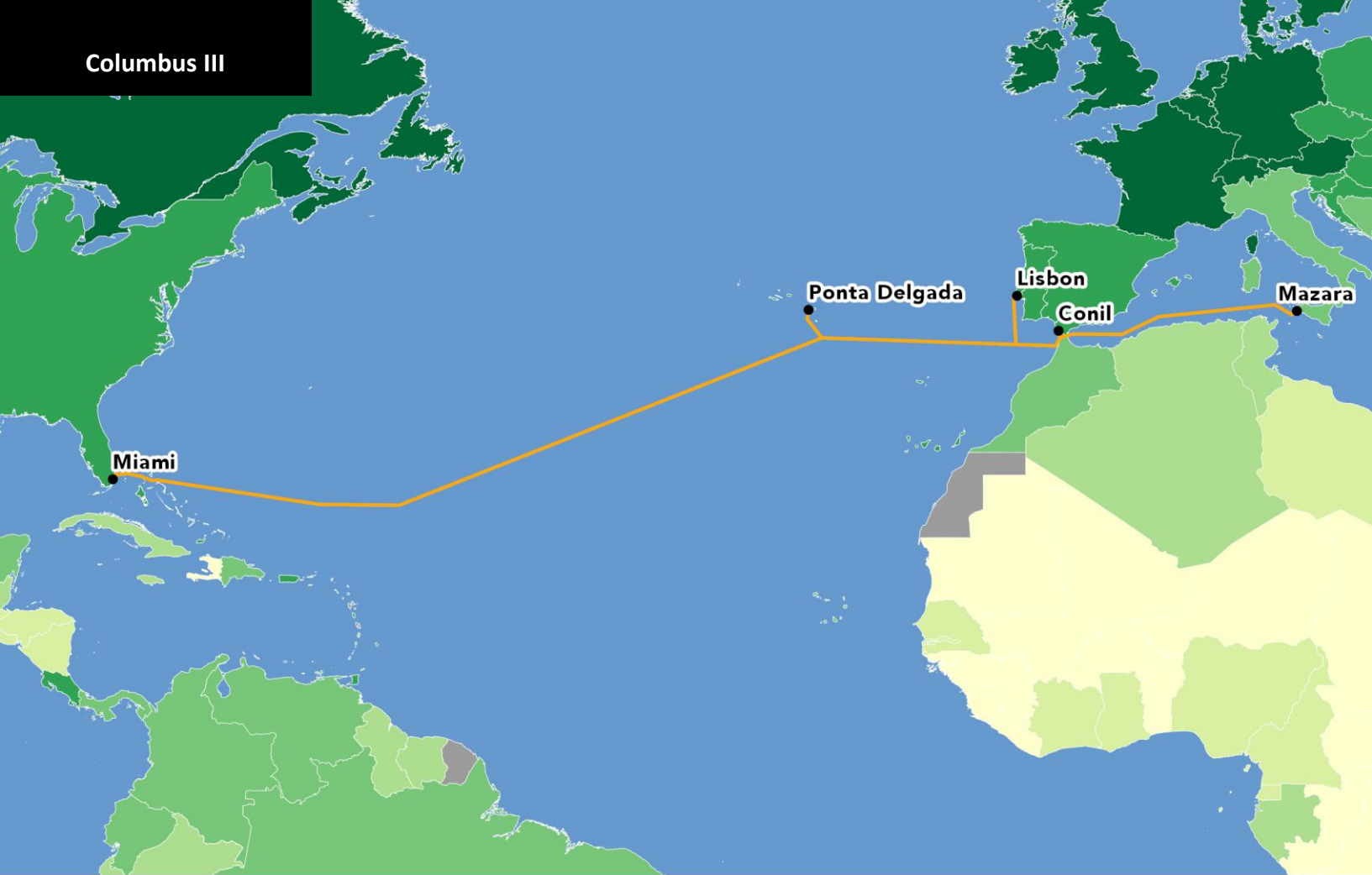
## COLUMBUS II

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$600,000,000
<b>Length (km)</b>	12,165
<b>Initial Capacity (Tbps)</b>	0.00056
<b>Design Capacity (Tbps)</b>	0.0025
<b>Owners</b>	Columbus II Consortium
<b>System Supplier</b>	AT&T Submarine System, Inc., Pirelli
<b>System Installer</b>	Alcatel Submarine Networks, AT&T Submarine System, Inc.
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transatlantic

### Landing Points

- Magen's Bay (Virgin Islands)
- Cancun (Mexico)
- Sardina (Gran Canaria)
- Funchal (Portugal)
- West Palm Beach (United States)
- Palermo (Italy)



## COLUMBUS III

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$236,000,000
<b>Length (km)</b>	9,833
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	0.32
<b>Fiber Pairs</b>	2
<b>Owners</b>	Columbus III Consortium, Telxius
<b>System Supplier</b>	Pirelli, Tyco Telecommunications
<b>System Installer</b>	Alcatel Submarine Networks, Tyco Telecommunications
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transatlantic

### Landing Points

- Mazara (Italy)
- Lisbon (Portugal)
- Miami (United States)
- Conil (Spain)
- Ponta Delgada (Azores Islands Portugal)



## CONCERTO-1

### System Details

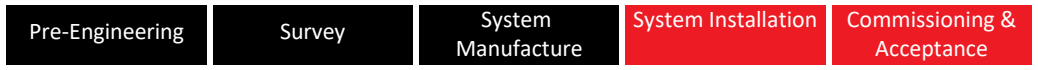
<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$25,000,000
<b>Length (km)</b>	574
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	96
<b>Owners</b>	Flute
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Bruges (Belgium)
- Thorpeness (United Kingdom)
- Zandvoort (Netherlands)



**PROJECT COMPLETION PHASES**



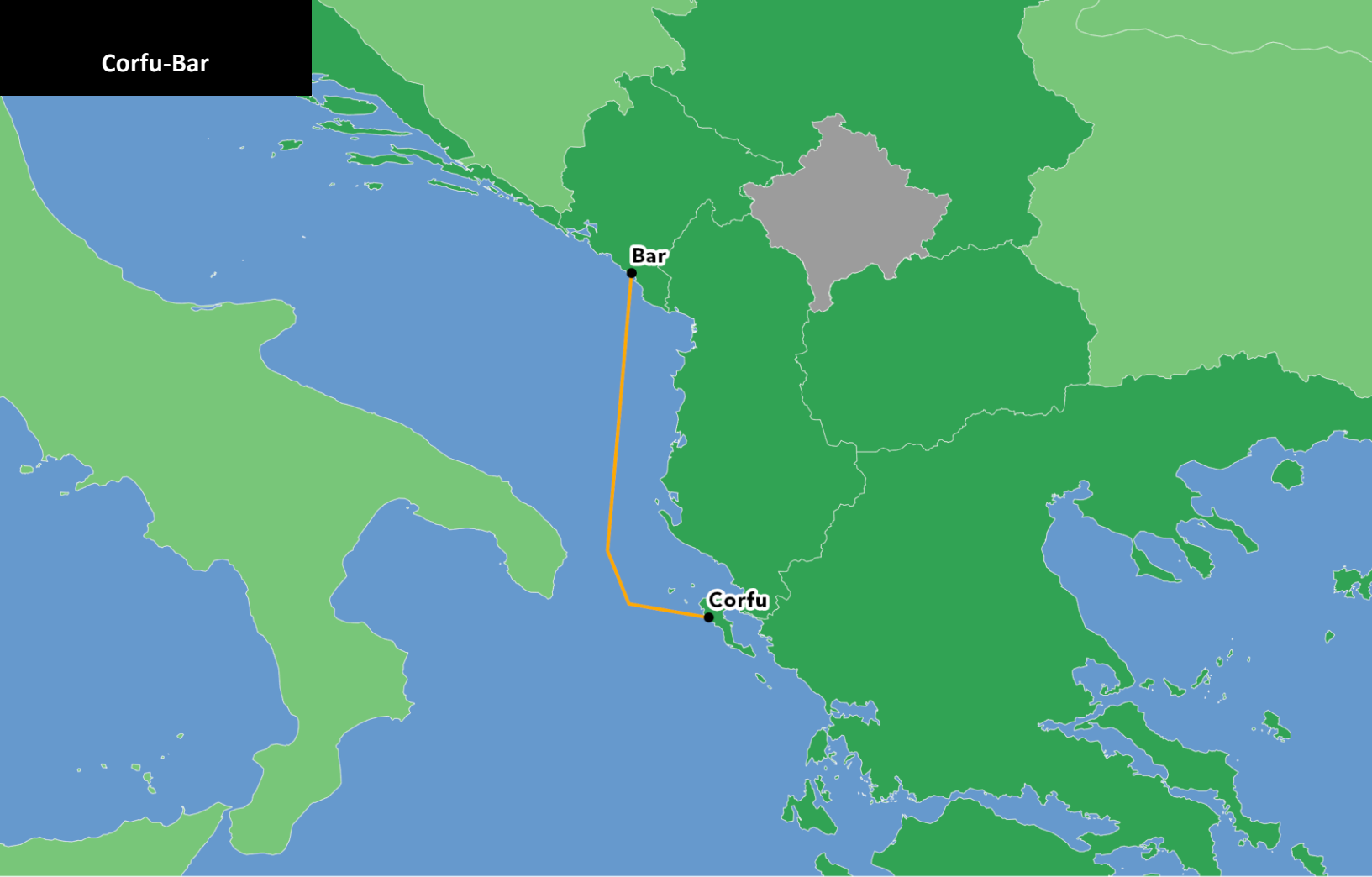
**CORAL SEA CABLE SYSTEM**

**System Details**

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$150,000,000
<b>Length (km)</b>	4,700
<b>Design Capacity (Tbps)</b>	40
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Papua New Guinea Data, Solomon Submarine Cable Ltd.
<b>System Supplier</b>	Alcatel Submarine Networks, Vocus Communications
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

**Landing Points**

- Sydney (Australia)
- Port Moresby (Papua New Guinea)
- Honiara (Solomon Islands)



## CORFU-BAR

### System Details

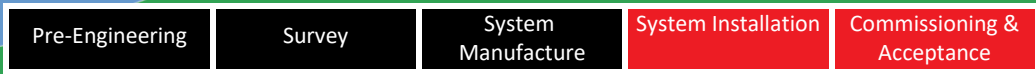
<b>RFS Year</b>	1998
<b>EOS Year</b>	2023
<b>Est. System Cost (USD)</b>	\$19,000,000
<b>Length (km)</b>	320
<b>Initial Capacity (Tbps)</b>	0.000622
<b>Design Capacity (Tbps)</b>	0.000622
<b>Fiber Pairs</b>	3
<b>Owners</b>	Crngorski Telecom, OTE
<b>Region</b>	EMEA

### Landing Points

- Bar (Montenegro)
- Corfu (Greece)



### PROJECT COMPLETION PHASES



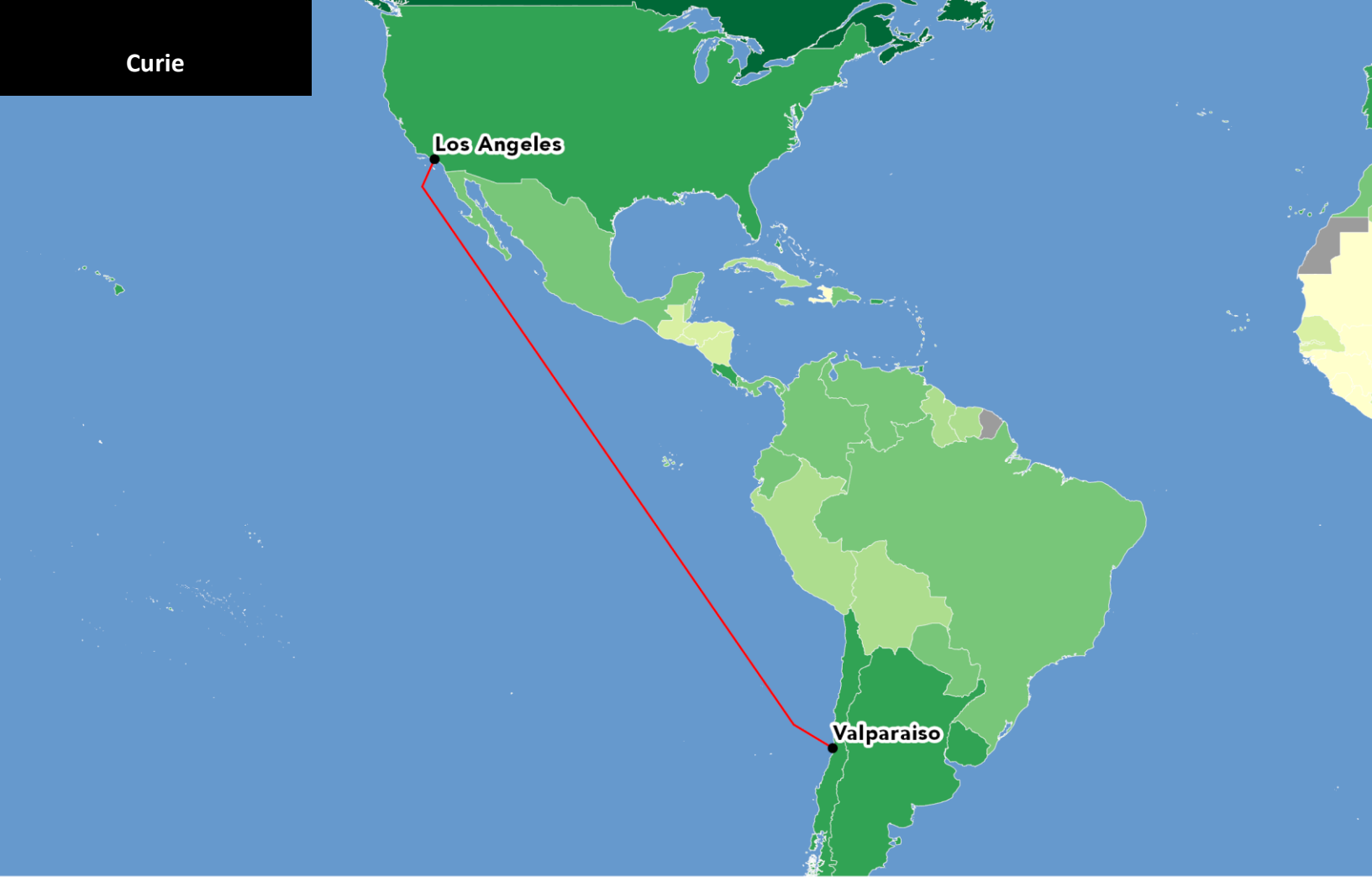
## CROSSLAKE FIBRE-LAKE ONTARIO

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Length (km)</b>	58
<b>Fiber Pairs</b>	96
<b>Owners</b>	Crosslake Fibre, Inc.
<b>System Supplier</b>	Hexatronic Cables & Interconnect Systems AB
<b>System Installer</b>	IT International Telecom
<b>Region</b>	Americas

### Landing Points

- Buffalo (United States)
- Toronto (Canada)



## CURIE

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2045
<b>Length (km)</b>	10,000
<b>Fiber Pairs</b>	4
<b>Owners</b>	Google
<b>System Supplier</b>	SubCom
<b>System Installer</b>	SubCom
<b>Region</b>	Americas

### Landing Points

- Los Angeles (United States)
- Valparaiso (Chile)



## DANICA NORTH

### System Details

<b>RFS Year</b>	1998
<b>EOS Year</b>	2023
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	25
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Fiber Pairs</b>	48
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Alcatel Kable Norge
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	EMEA

### Landing Points

- Tuborg (Denmark)
- Barseback (Sweden)





## DANICA SOUTH

### System Details

<b>RFS Year</b>	1998
<b>EOS Year</b>	2023
<b>Length (km)</b>	20
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Fiber Pairs</b>	12
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Alcatel Kable Norge
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	EMEA

### Landing Points

- Copenhagen (Denmark)
- Bjarred (Sweden)



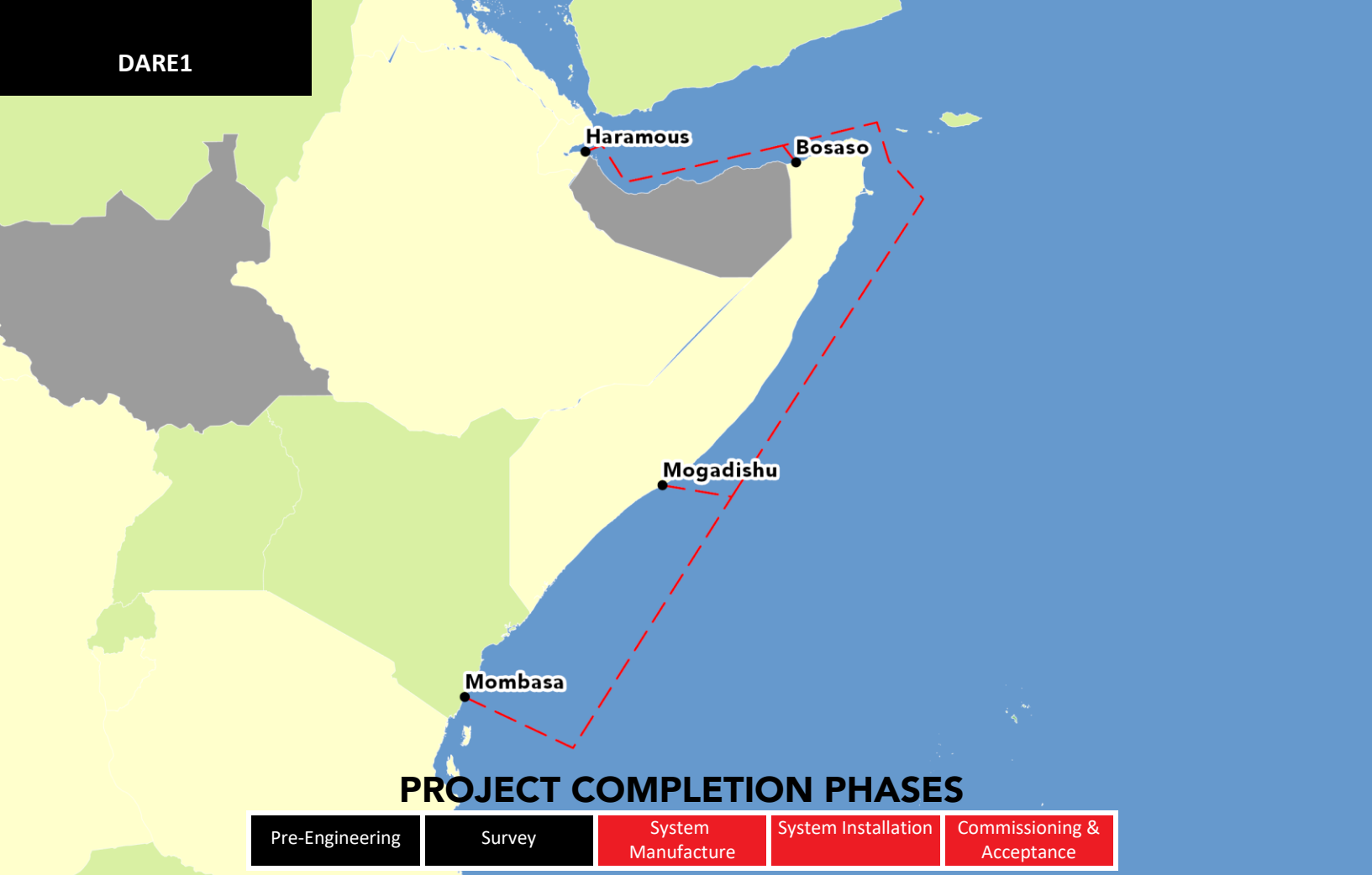
## DANICE

### System Details

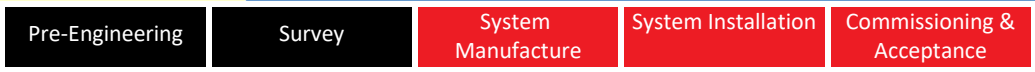
<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$76,000,000
<b>Length (km)</b>	2,291
<b>Initial Capacity (Tbps)</b>	0.1
<b>Design Capacity (Tbps)</b>	5.1
<b>Fiber Pairs</b>	4
<b>Owners</b>	Farice Ltd.
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Landeyjarsandur (Iceland)
- Blaabjerg (Denmark)



## PROJECT COMPLETION PHASES



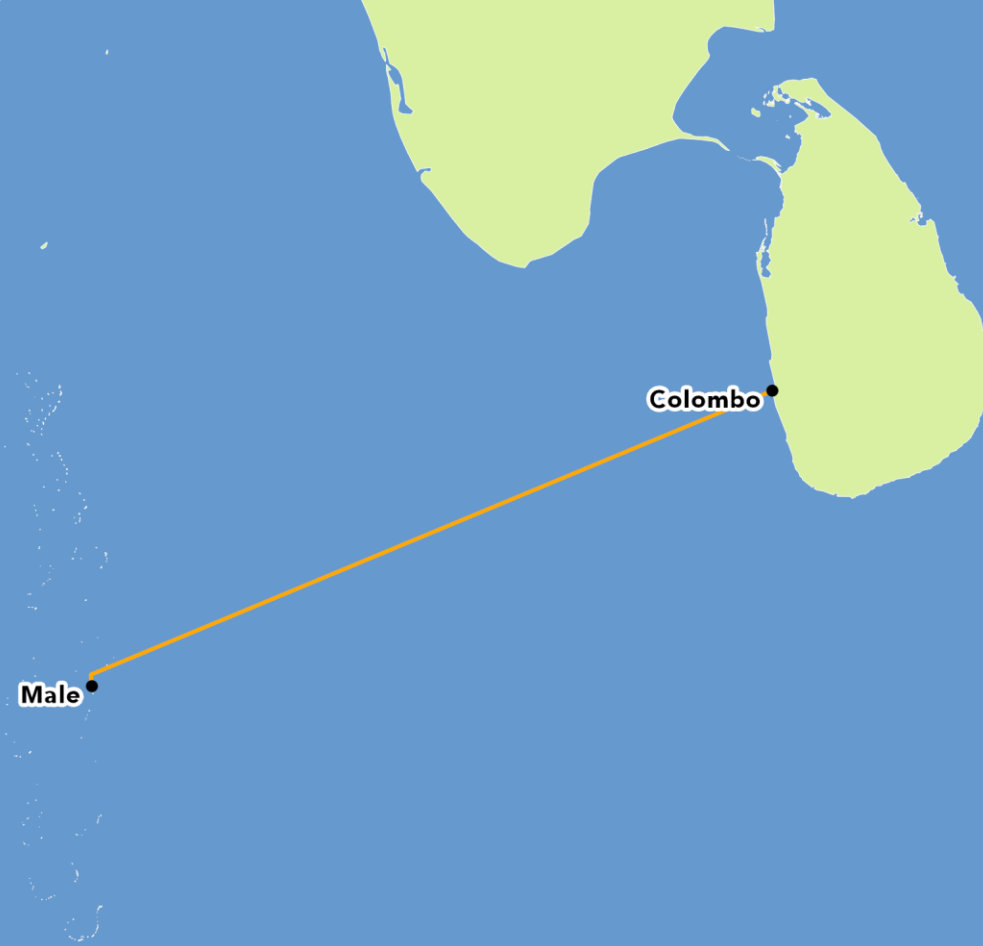
## DJIBOUTI-AFRICA REGIONAL EXPRESS 1

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$137,500,000
<b>Length (km)</b>	4,747
<b>Design Capacity (Tbps)</b>	36
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	150
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Africa Marine Express, Djibouti Telecom, Golis Telecom, Hormuud Telecom Somalia Inc., Somtel Group, Telesom Company, TeleYemen
<b>System Supplier</b>	SubCom
<b>Region</b>	EMEA

### Landing Points

- Mombasa (Kenya)
- Mogadishu (Somalia)
- Bosaso (Somalia)
- Haramous (Djibouti)



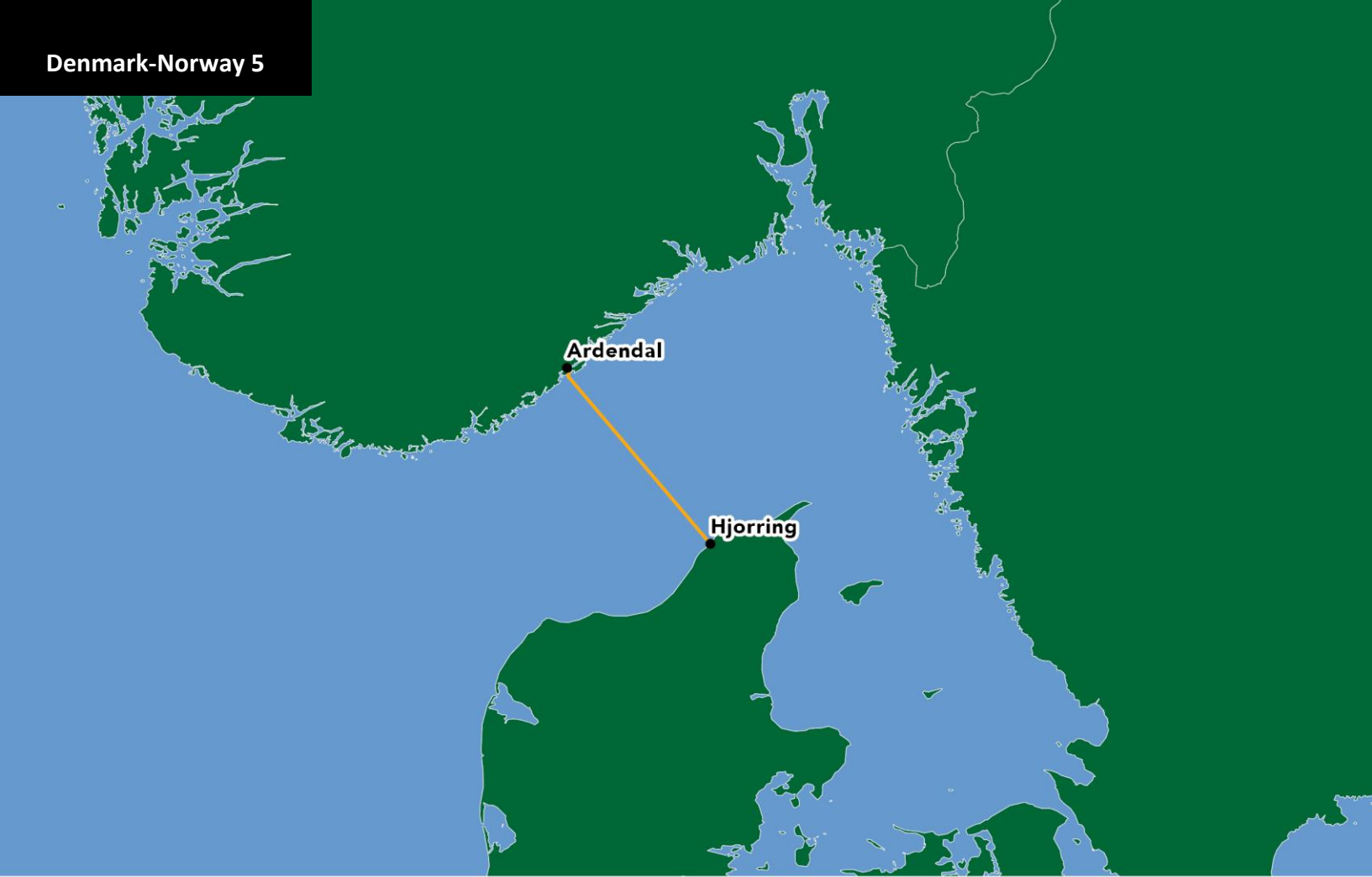
## DHIRAAGU-SLT SUBMARINE CABLE NETWORK

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$27,000,000
<b>Length (km)</b>	850
<b>Owners</b>	Dhiraagu
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Male (Maldives)
- Colombo (Sri Lanka)



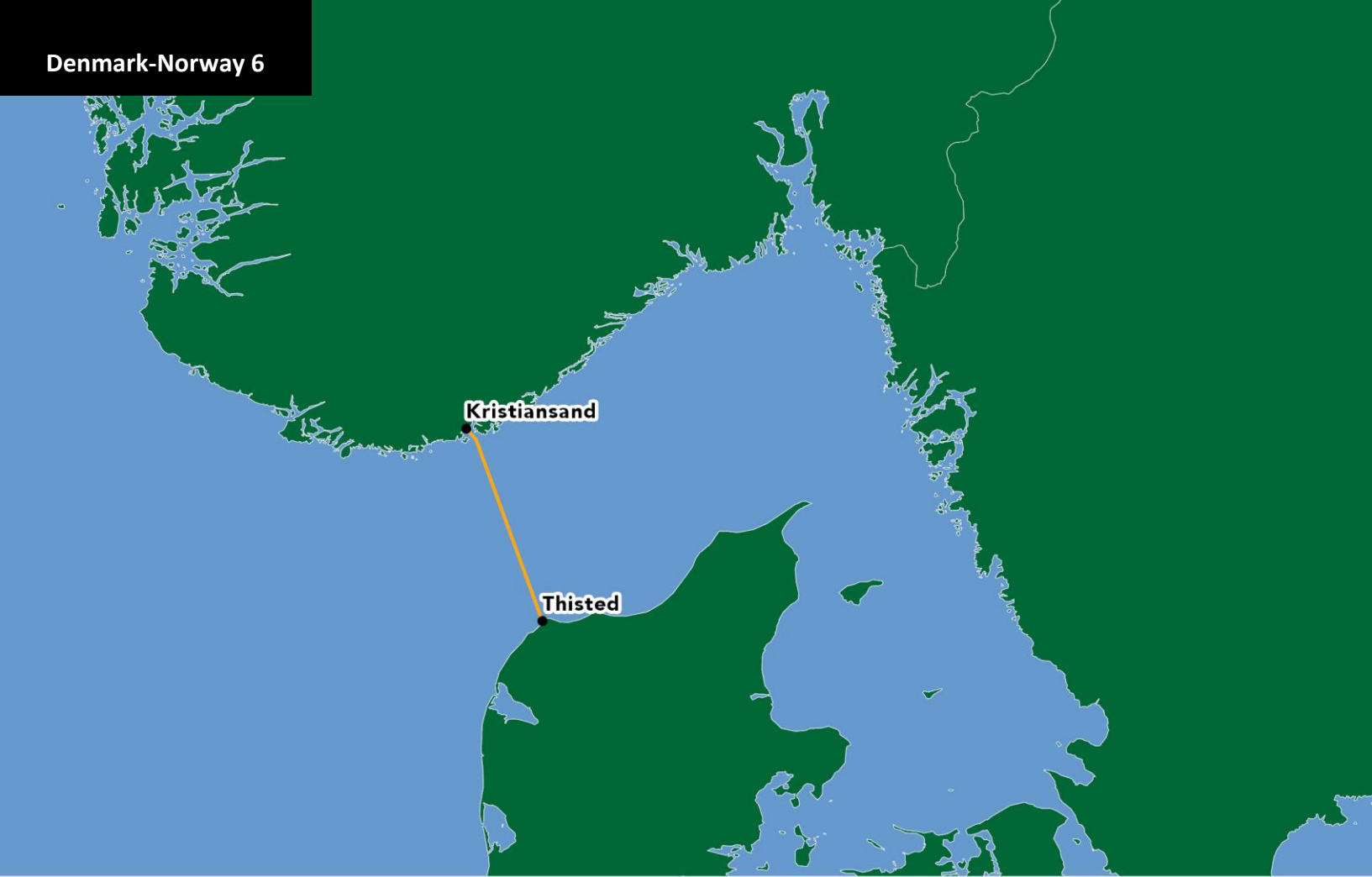
## DENMARK-NORWAY 5

### System Details

<b>RFS Year</b>	1992
<b>EOS Year</b>	2017
<b>Est. System Cost (USD)</b>	\$9,560,000
<b>Length (km)</b>	123
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.002
<b>Owners</b>	Norway PTT, TDC
<b>Region</b>	EMEA

### Landing Points

- Hjørring (Denmark)
- Ardendal (Norway)



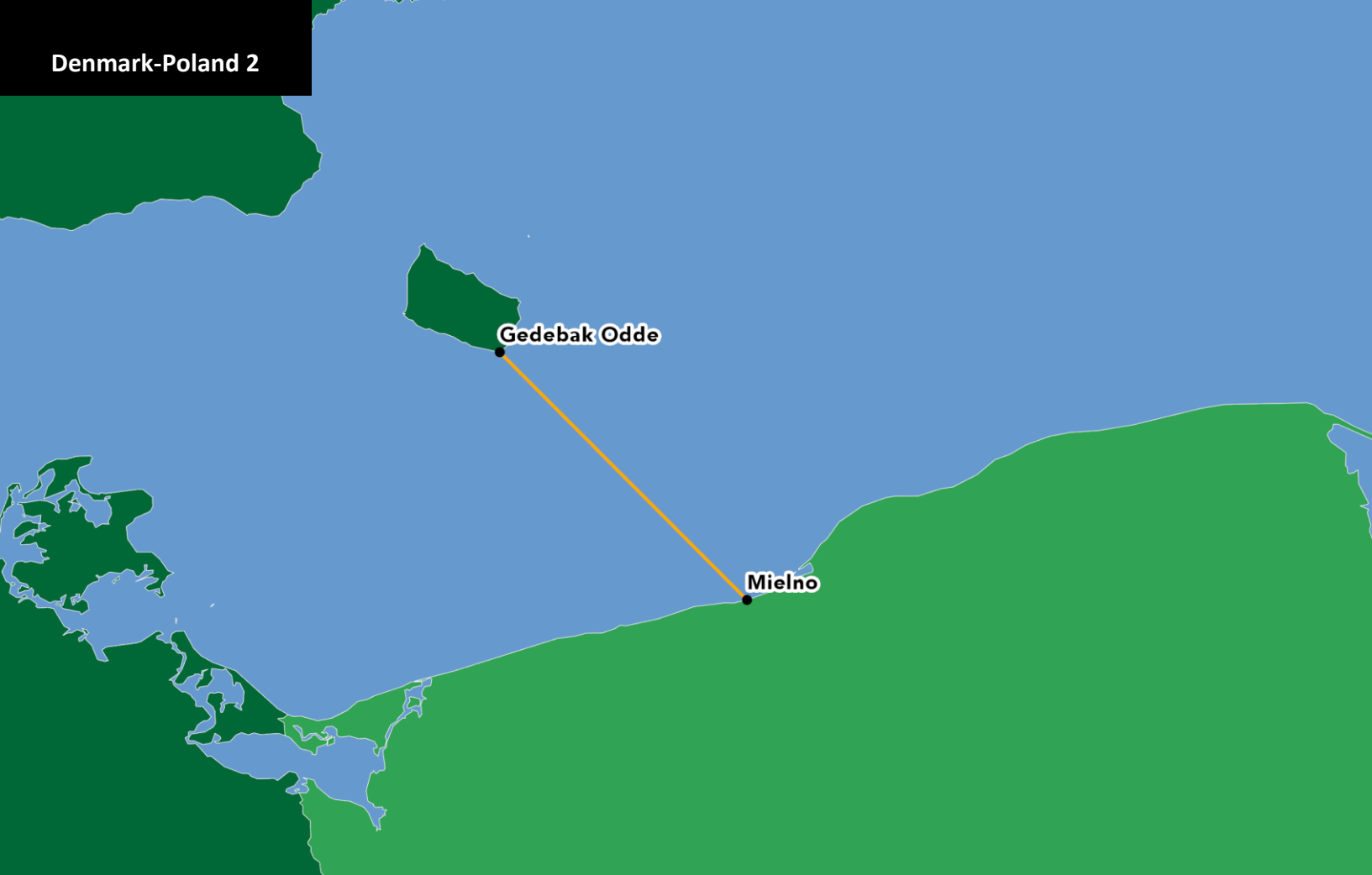
## DENMARK-NORWAY 6

### System Details

<b>RFS Year</b>	1992
<b>EOS Year</b>	2017
<b>Est. System Cost (USD)</b>	\$8,950,000
<b>Length (km)</b>	124
<b>Initial Capacity (Tbps)</b>	0.002
<b>Design Capacity (Tbps)</b>	0.0015
<b>Owners</b>	Norway PTT, TDC
<b>Region</b>	EMEA

### Landing Points

- Thisted (Denmark)
- Kristiansand (Norway)



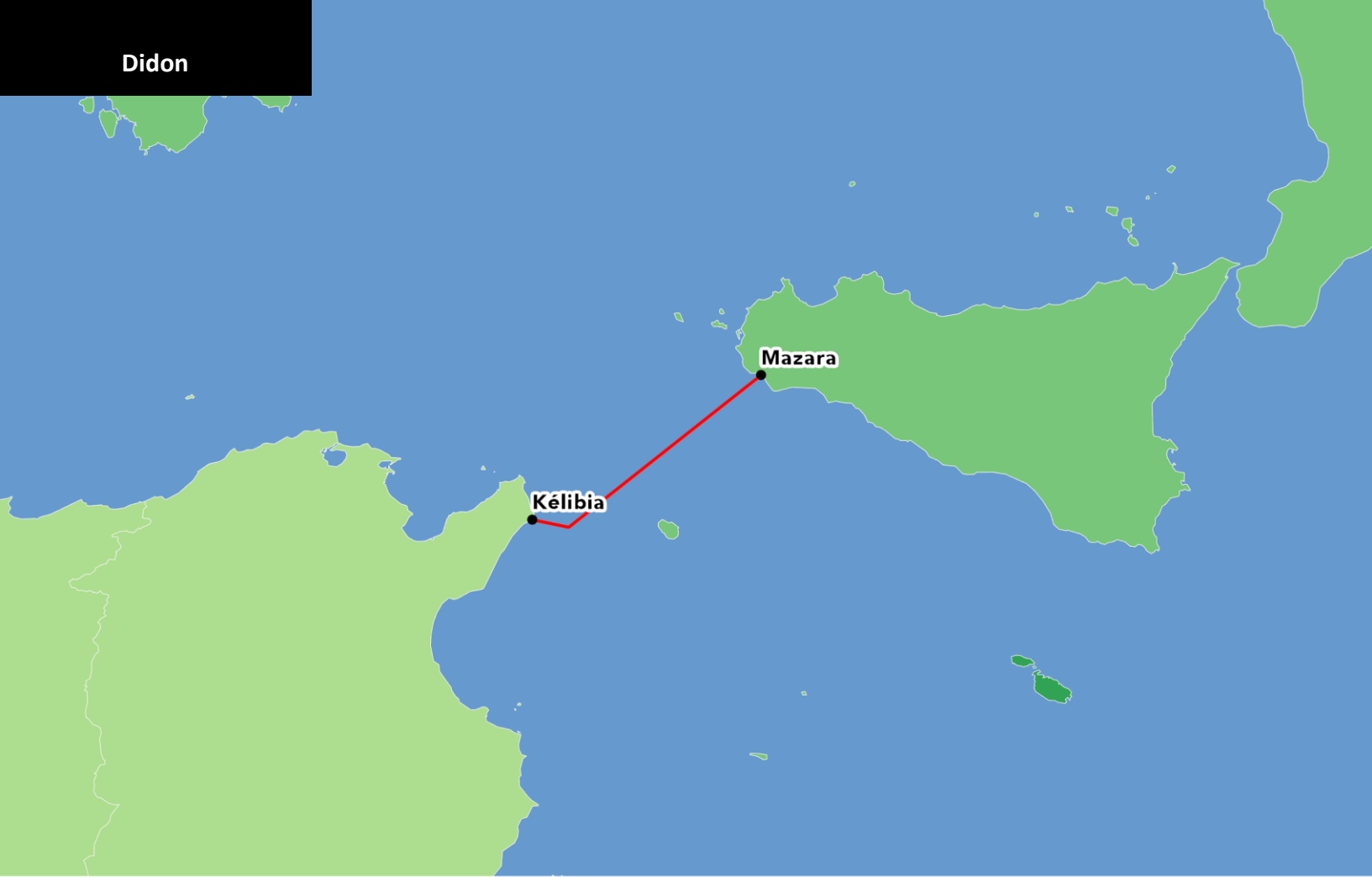
## DENMARK-POLAND 2

### System Details

<b>RFS Year</b>	1991
<b>EOS Year</b>	2016
<b>Est. System Cost (USD)</b>	\$4,500,000
<b>Length (km)</b>	110
<b>Initial Capacity (Tbps)</b>	0.0015
<b>Design Capacity (Tbps)</b>	0.0025
<b>Owners</b>	Polish Telecom, TDC
<b>Region</b>	EMEA

### Landing Points

- Mielno (Poland)
- Gedebak Odde (Denmark)



## DIDON

### System Details

<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	173
<b>Design Capacity (Tbps)</b>	18
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	France Telecom
<b>Region</b>	EMEA

### Landing Points

- Kélibia (Tunisia)
- Mazara (Italy)





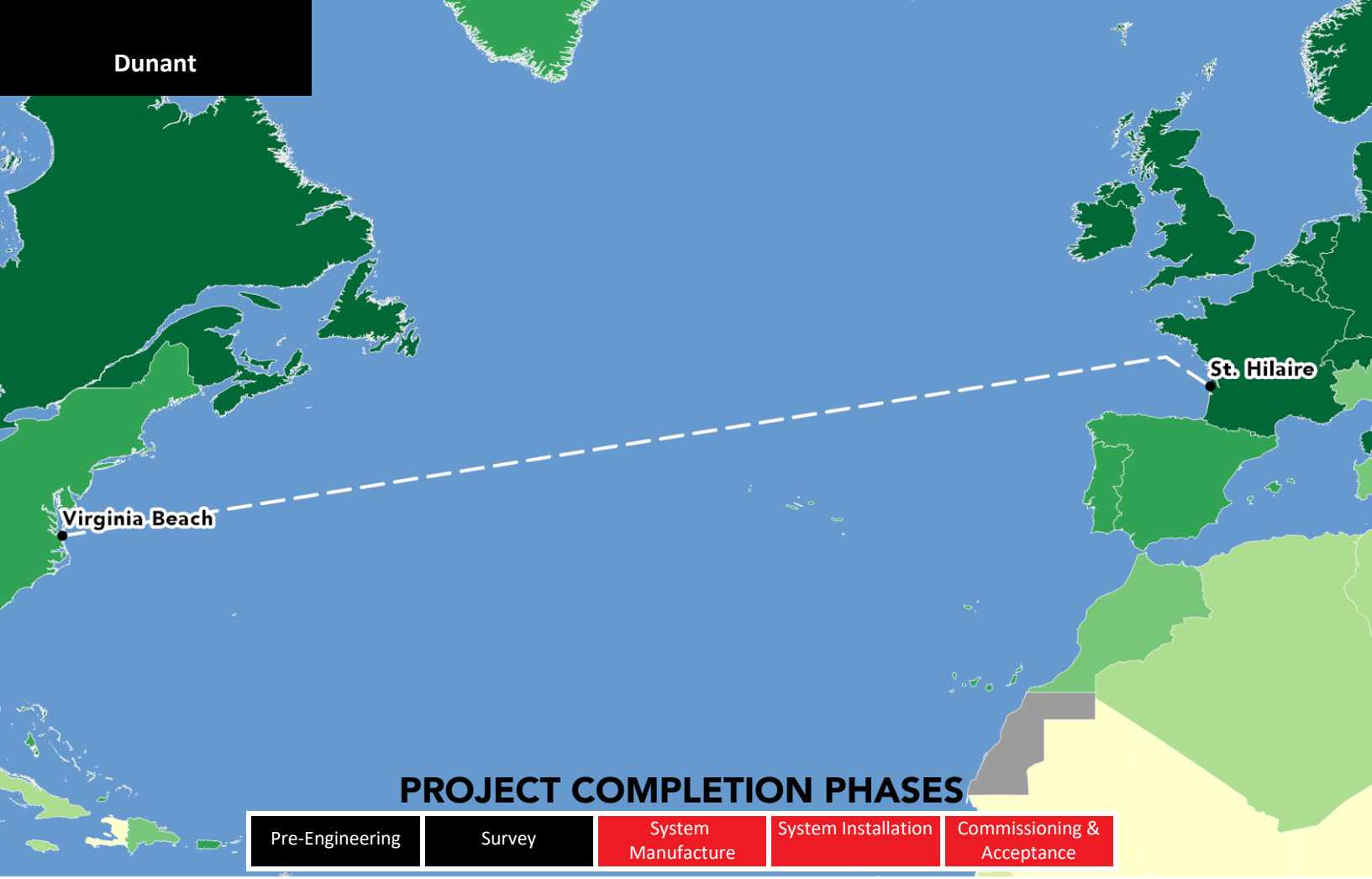
## DUMAI-MELAKA CABLE SYSTEM

### System Details

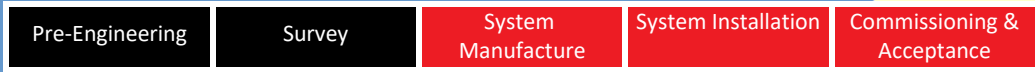
<b>RFS Year</b>	2005
<b>EOS Year</b>	2030
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	150
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	PT Telekom, Telekom Malaysia Berhad
<b>System Installer</b>	ASEAN Cablesip, Telekom Malaysia Berhad
<b>Region</b>	AustralAsia

### Landing Points

- Melaka (Malaysia)
- Dumai (Indonesia)



### PROJECT COMPLETION PHASES



## DUNANT

### System Details

RFS Year	2020
EOS Year	2045
Length (km)	6,600
Design Capacity (Tbps)	250
Fiber Pairs	12
Owners	Google
System Supplier	SubCom
Region	Transatlantic

### Landing Points

- St. Hilaire (France)
- Virginia Beach (United States)



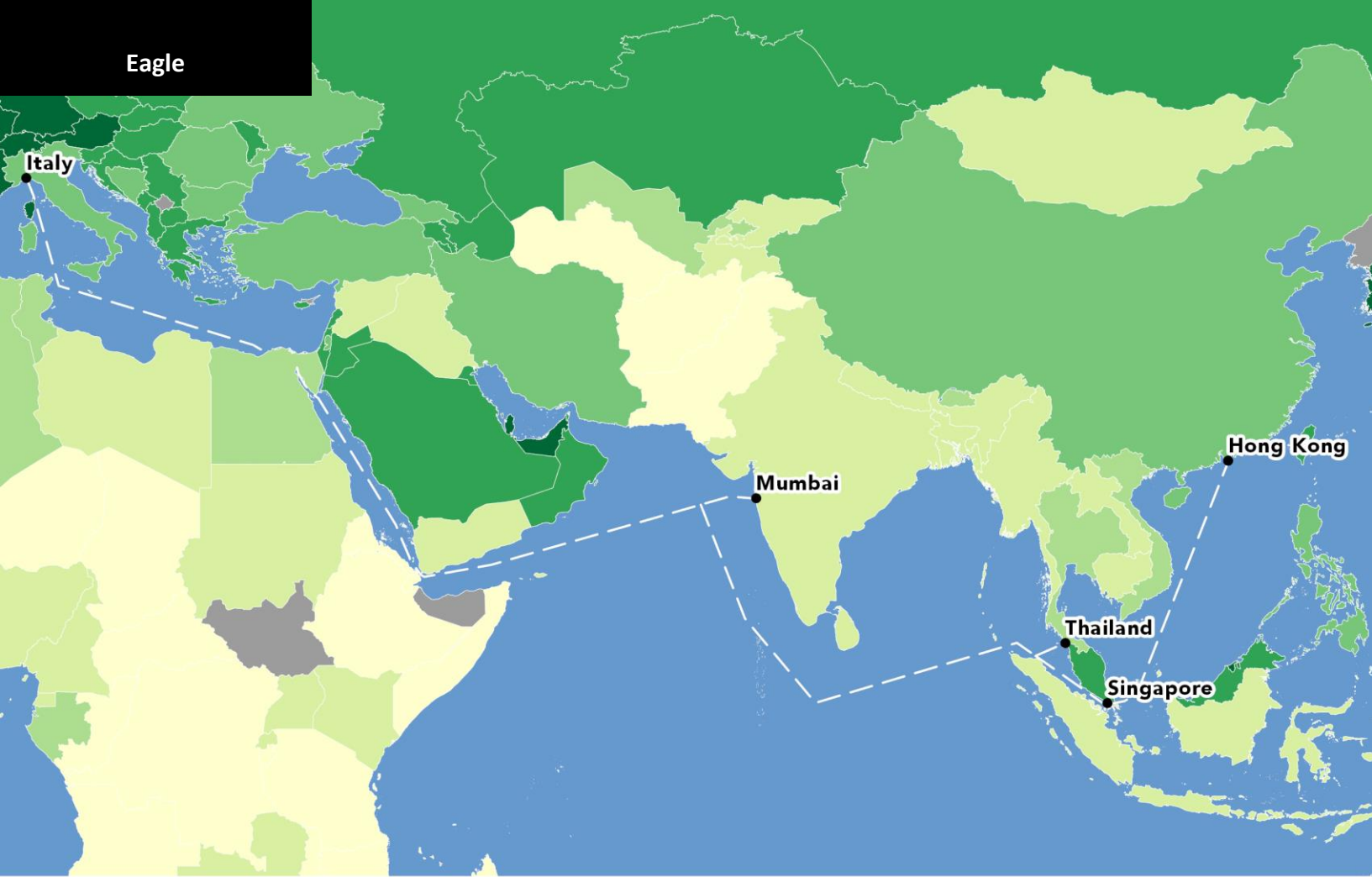
**EAC-C2C**

**System Details**

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$850,000,000
<b>Length (km)</b>	35,429
<b>Design Capacity (Tbps)</b>	30
<b>Owners</b>	Telstra
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

**Landing Points**

- Nanhui District (China)
- Tseung Kwan O (Hong Kong)
- Tae-an (South Korea)
- Pali (Taiwan)
- Aji-gaura (Japan)
- Chung Hom Kok (Hong Kong)
- Changi (Singapore)
- Shima (Japan)
- Vung Tau (Vietnam)
- Tanshui (Taiwan)
- Singapore (Singapore)
- Batangas (Philippines)
- Fangshan (Taiwan)
- Chikura (Japan)
- Cavite (Philippines)
- Busan (South Korea)



## EAGLE

### System Details

<b>RFS Year</b>	2022
<b>EOS Year</b>	2047
<b>Length (km)</b>	16,650
<b>Initial Capacity (Tbps)</b>	20
<b>Design Capacity (Tbps)</b>	120
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Global Cloud Xchange
<b>Region</b>	EMEA; Indian Ocean Pan-East Asian

### Landing Points

- (Thailand)
- (Hong Kong)
- Singapore (Singapore)
- Mumbai (India)
- (Italy)



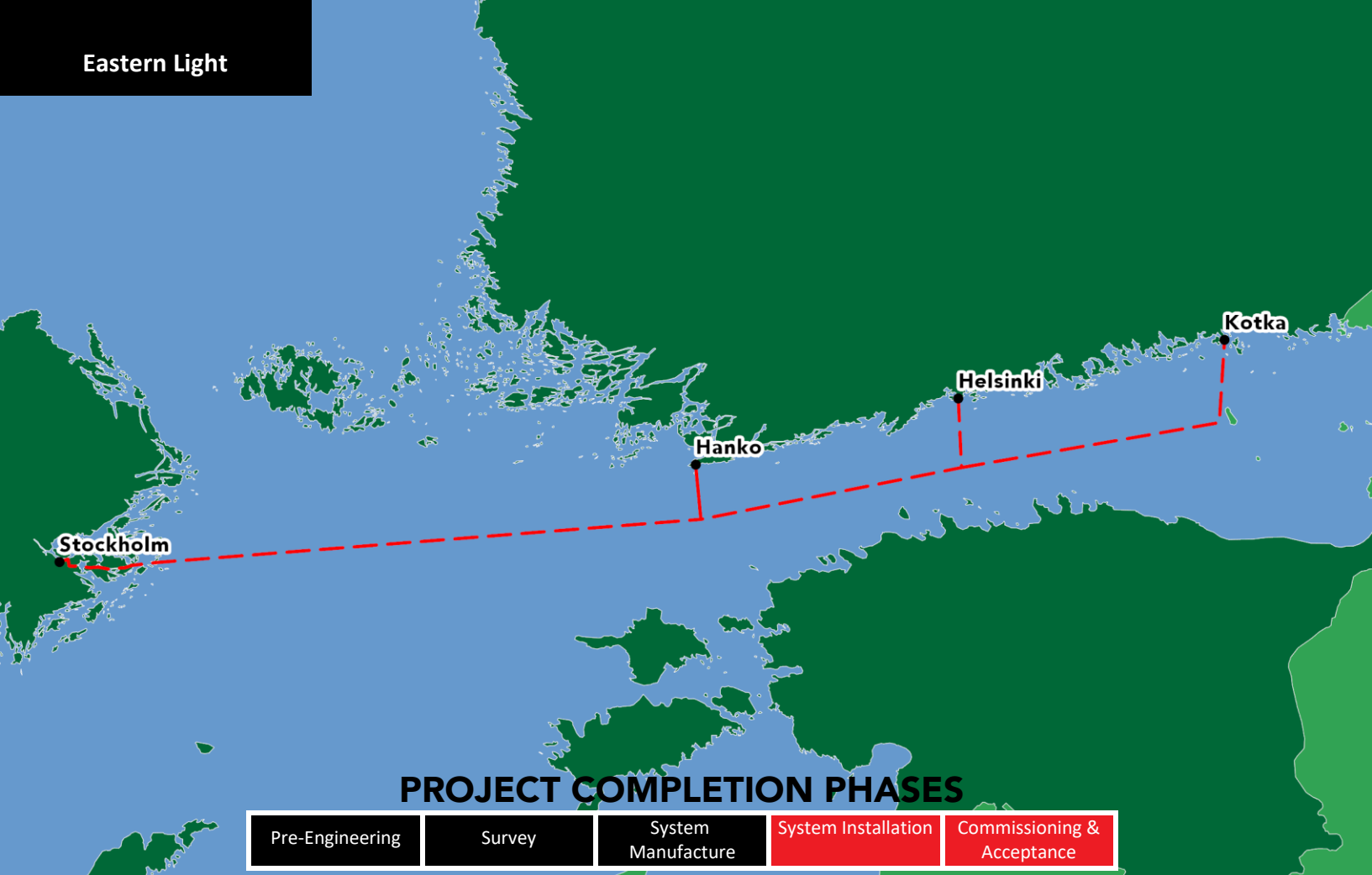
## EASTERN AFRICA SUBMARINE CABLE SYSTEM

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$247,000,000
<b>Length (km)</b>	9,900
<b>Initial Capacity (Tbps)</b>	0.03
<b>Design Capacity (Tbps)</b>	11.8
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	59
<b>Capacity per Wavelength (Gbps)</b>	100

### Landing Points

- Mogadishu (Somalia)
- Dar es Salaam (Tanzania)
- Moroni (Comoros)
- Mtunzini (South Africa)
- Maputo (Mozambique)
- Mombasa (Kenya)
- (Djibouti)
- Toliara (Madagascar)
- Port Sudan (Sudan)



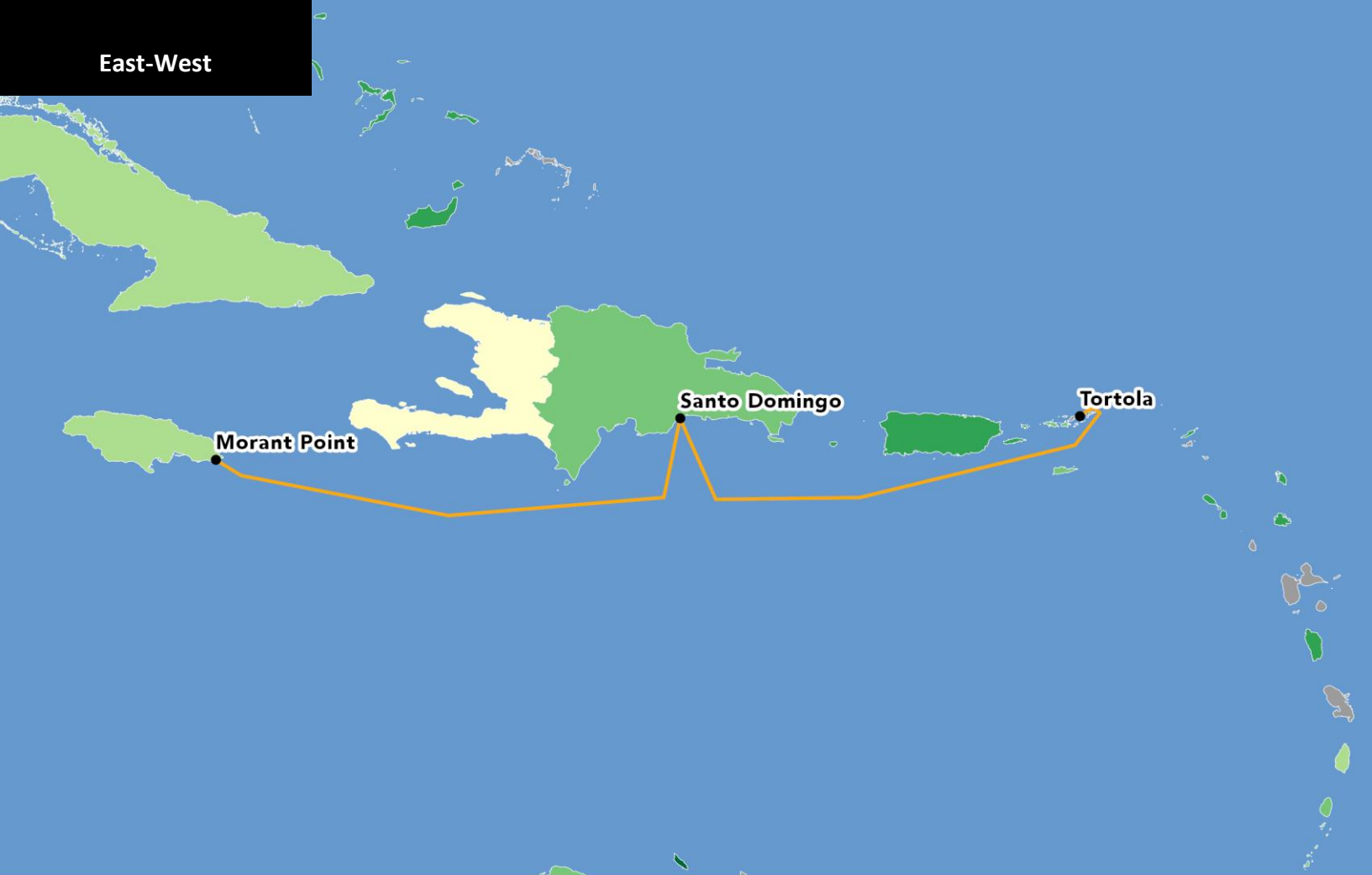
## EASTERN LIGHT

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Owners</b>	Eastern Light
<b>System Supplier</b>	NSW
<b>System Installer</b>	Baltic Offshore
<b>Region</b>	EMEA

### Landing Points

- Kotka (Finland)
- Helsinki (Finland)
- Hanko (Finland)
- Stockholm (Sweden)



## EAST-WEST

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$35,000,000
<b>Length (km)</b>	1,700
<b>Design Capacity (Tbps)</b>	2.5
<b>Owners</b>	C&W Networks
<b>System Installer</b>	Orange Marine
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Americas

### Landing Points

- Tortola (British Virgin Islands)
- Santo Domingo (Dominican Republic)
- Morant Point (Jamaica)





## EASTERN ARCTIC UNDERSEA FIBER OPTIC NETWORK

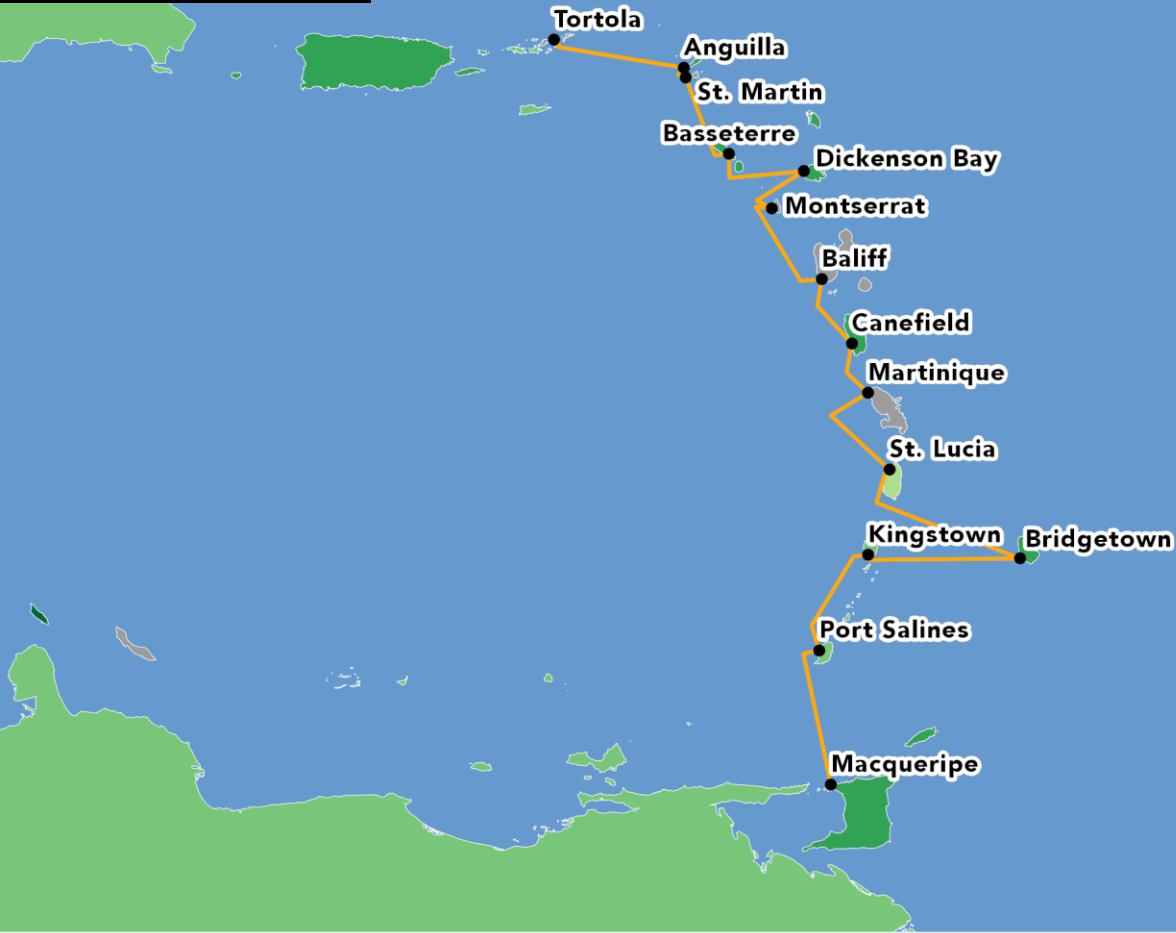
### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	1,800
<b>Design Capacity (Tbps)</b>	30
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Kativik Regional Government
<b>Region</b>	Arctic

### Landing Points

- Chisasibi (Canada)
- Umiujaq (Canada)
- Puvirnituk (Canada)
- Ivujivik (Canada)
- Kuujjuaraapik (Canada)
- Inukjuak (Canada)
- Akulivik (Canada)
- Salluit (Canada)





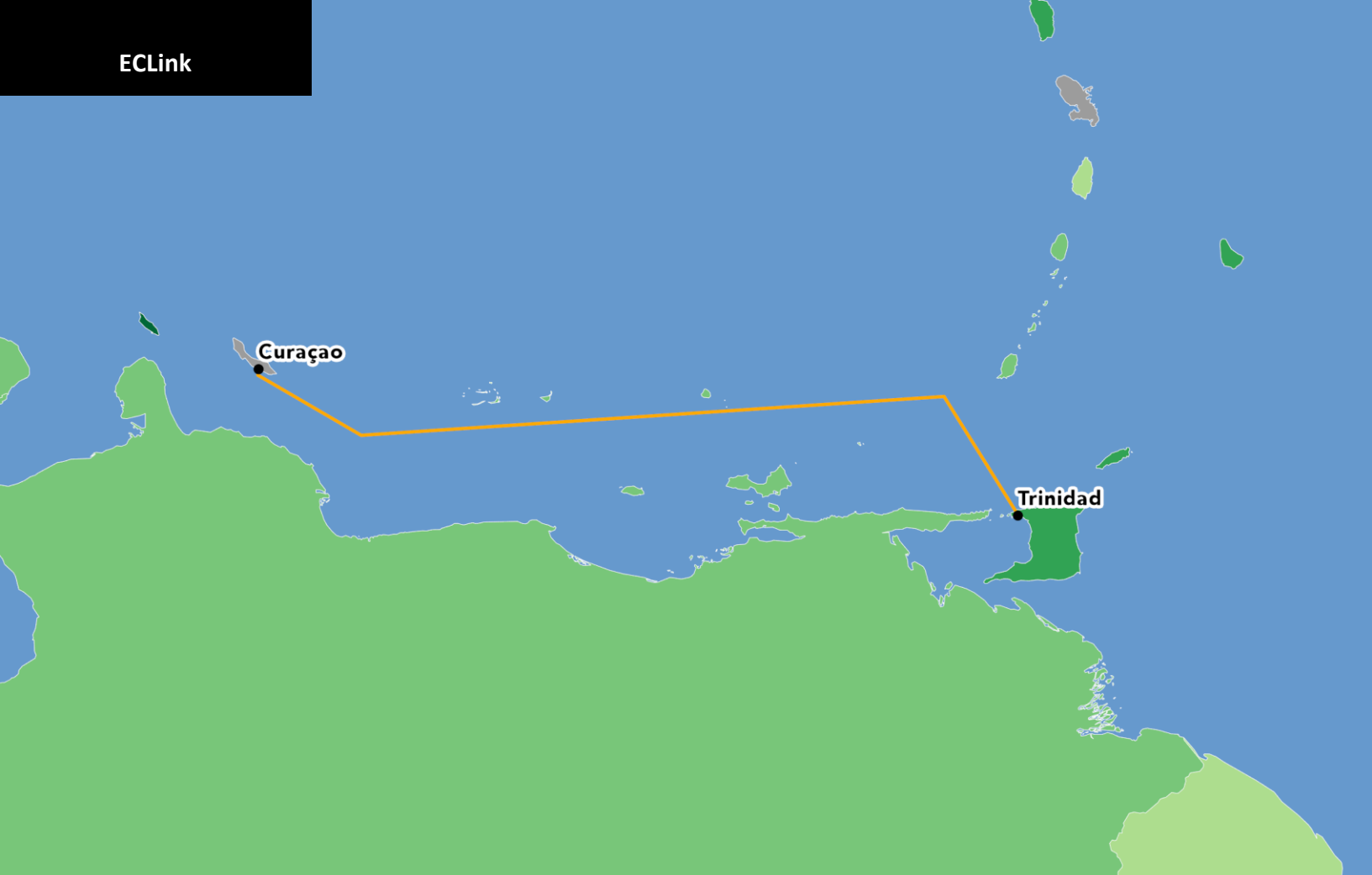
## EAST CARIBBEAN FIBER SYSTEM

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$56,000,000
<b>Length (km)</b>	1,875
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	1.1
<b>Fiber Pairs</b>	6
<b>Owners</b>	BET, C&W, C&W Networks, Cable & Wireless, France Telecom, TSTT
<b>System Installer</b>	Alcatel Submarine Networks, Cable & Wireless
<b>Upgrader</b>	Xtera, Xtera, Xtera
<b>Upgrade Year</b>	2009, 2013, 2016
<b>Upgrade Capacity (Gbps)</b>	10, 10, 10
<b>Region</b>	Americas

### Landing Points

- Dickenson Bay (Antigua)
- Baliff (Guadeloupe)
- Canefield (Dominica)
- Martinique (Martinique)
- Port Salines (Grenada)
- St Martin (Netherlands Antilles)
- Macqueripe (Trinidad)
- Anguilla (Anguilla)
- Basseterre (St. Kitts & Nevis)
- Kingstown (St. Vincent)
- Montserrat (Montserrat)
- St. Lucia (St. Lucia)
- Tortola (British Virgin Islands)
- Bridgetown (Barbados)



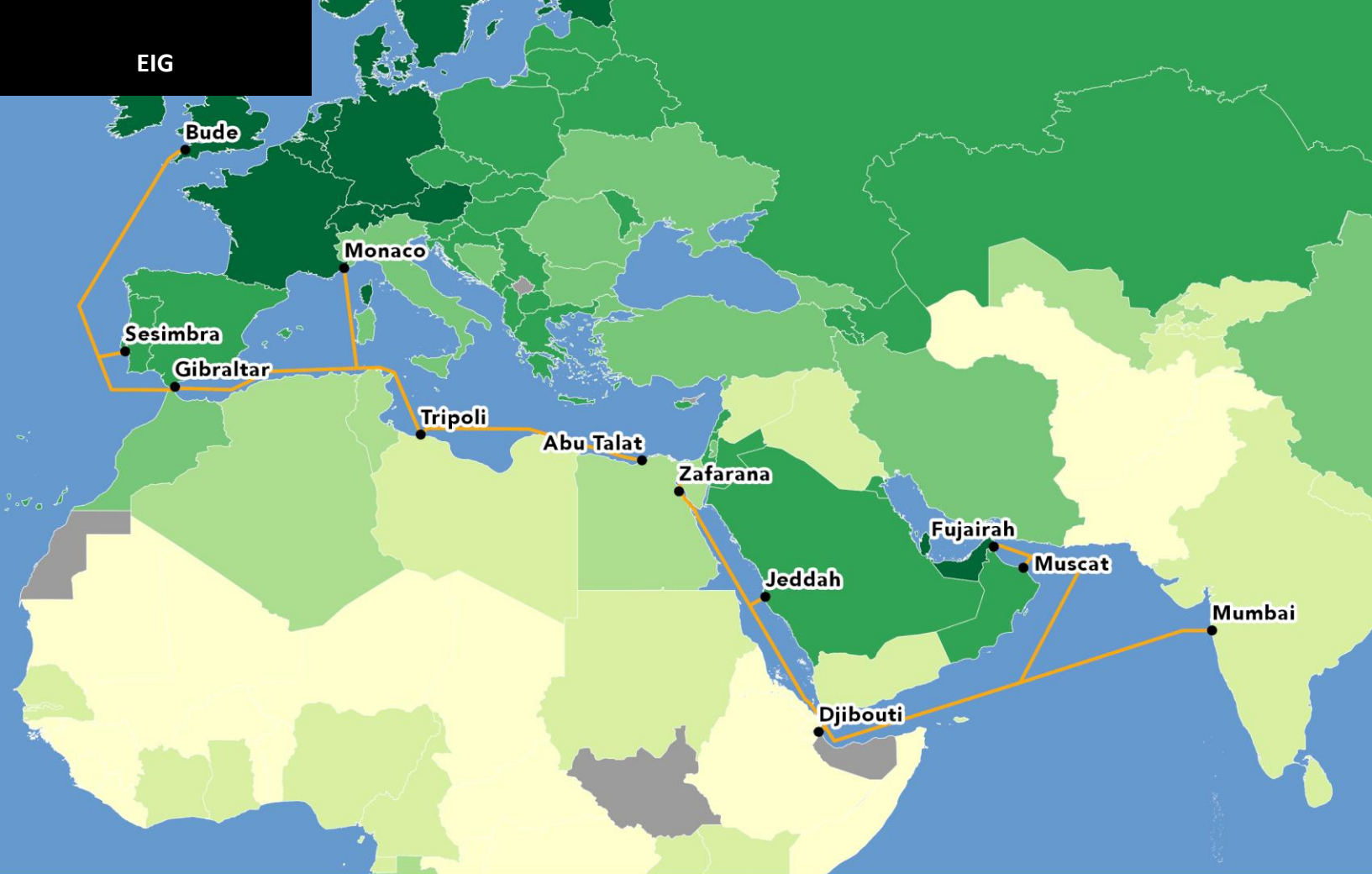
## ECLINK

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Length (km)</b>	1,240
<b>Initial Capacity (Tbps)</b>	1.875
<b>Design Capacity (Tbps)</b>	7.2
<b>Fiber Pairs</b>	12
<b>Wavelengths per Fiber Pair</b>	60
<b>Owners</b>	Alcatel, C&W Networks, Columbus Networks, New World Network
<b>System Supplier</b>	Alcatel, TE SubCom, Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Upgrader</b>	TE SubCom
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Americas

### Landing Points

- Trinidad (Trinidad)
- Curaçao (Curaçao)



## EUROPE INDIA GATEWAY

### System Details

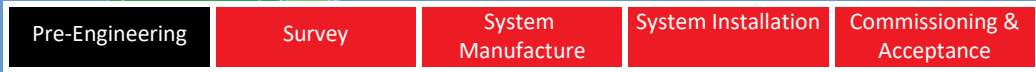
<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$700,000,000
<b>Length (km)</b>	15,000
<b>Initial Capacity (Tbps)</b>	3.84
<b>Design Capacity (Tbps)</b>	3.84
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Bharti Airtel, British Telecommunications PLC, BSNL, C&W, Djibouti Telecom, Du, Gibtelecom, Libyan Post, Telecom and Information Technology Company, MTN Group, Omantel, Saudi Telecom Company, Telekom SA, Verizon
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2014

### Landing Points

- Gibraltar (Gibraltar)
- Bude (United Kingdom)
- Jeddah (Saudi Arabia)
- Mumbai (India)
- Zafarana (Egypt)
- Tripoli (Libya)
- Abu Talat (Egypt)
- Fujairah (United Arab Emirates)
- Monaco (Monaco)
- Muscat (Oman)
- Sesimbra (Portugal)
- (Djibouti)



**PROJECT COMPLETION PHASES**



**ELLALINK**

**System Details**

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$200,000,000
<b>Length (km)</b>	9,300
<b>Initial Capacity (Tbps)</b>	50
<b>Design Capacity (Tbps)</b>	72
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	120
<b>Capacity per Wavelength (Gbps)</b>	150
<b>Owners</b>	EllaLink
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Transatlantic

**Landing Points**

- (Mauritania)
- Funchal (Portugal)
- Fortaleza (Brazil)
- Lisbon (Portugal)
- Praia (Cape Verde)
- Sao Paulo (Brazil)
- (French Guyana)



## ENDEAVOUR

### System Details

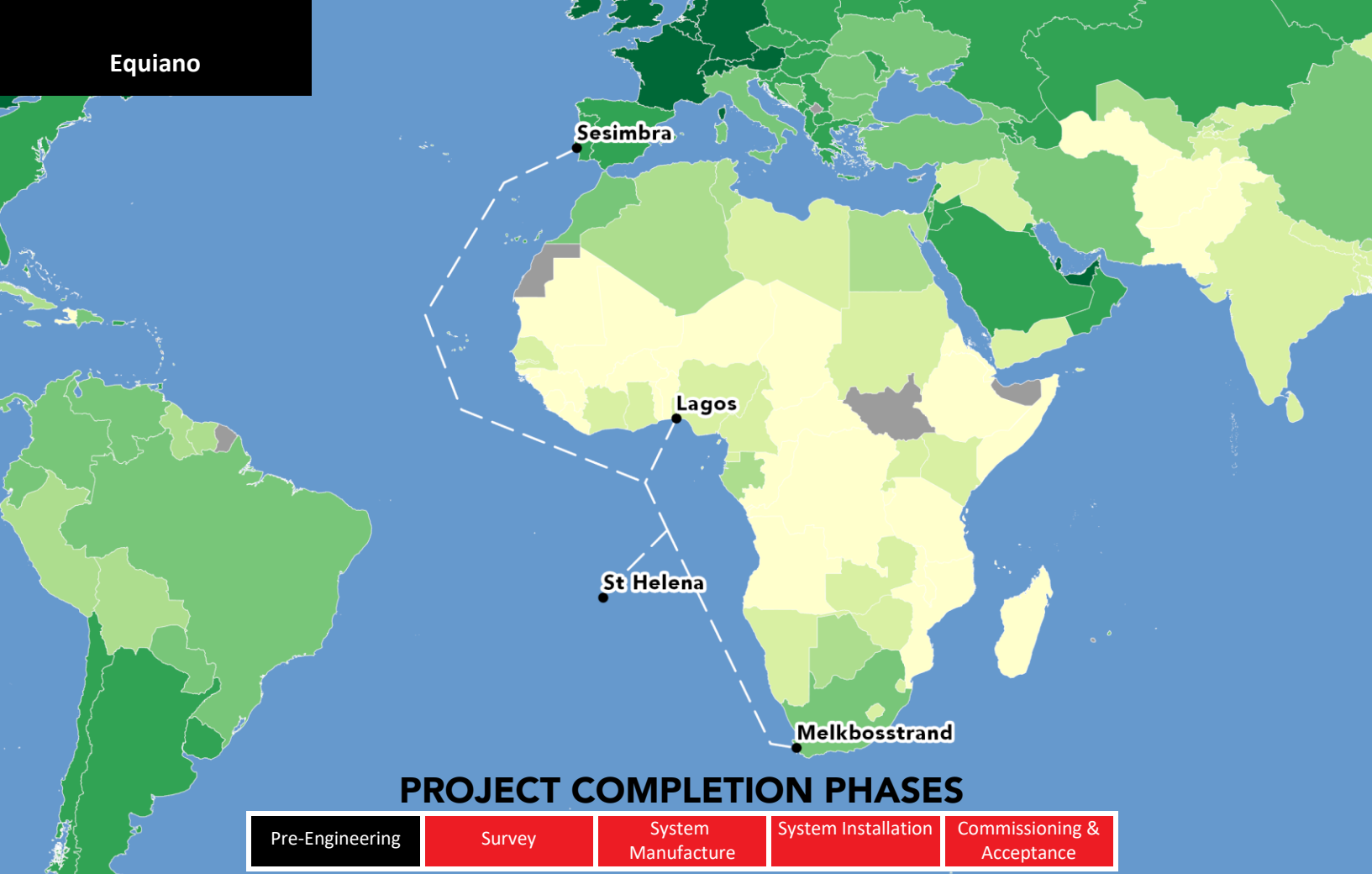
<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Length (km)</b>	9,125
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	2
<b>Owners</b>	Telstra
<b>System Supplier</b>	Alcatel-Lucent Submarine Networks
<b>System Installer</b>	Alcatel-Lucent Submarine Networks
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2014
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

- Sydney (Australia)

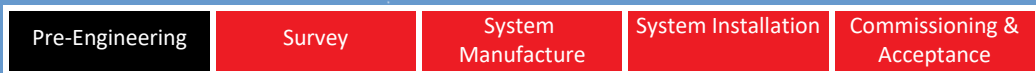
### Landing Points

- Keawaula (United States)

# Equiano



## PROJECT COMPLETION PHASES



## EQUIANO

### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Design Capacity (Tbps)</b>	120
<b>Fiber Pairs</b>	12
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Google
<b>System Supplier</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- (St Helena)
- Sesimbra (Portugal)
- Melkbosstrand (South Africa)
- Lagos (Nigeria)



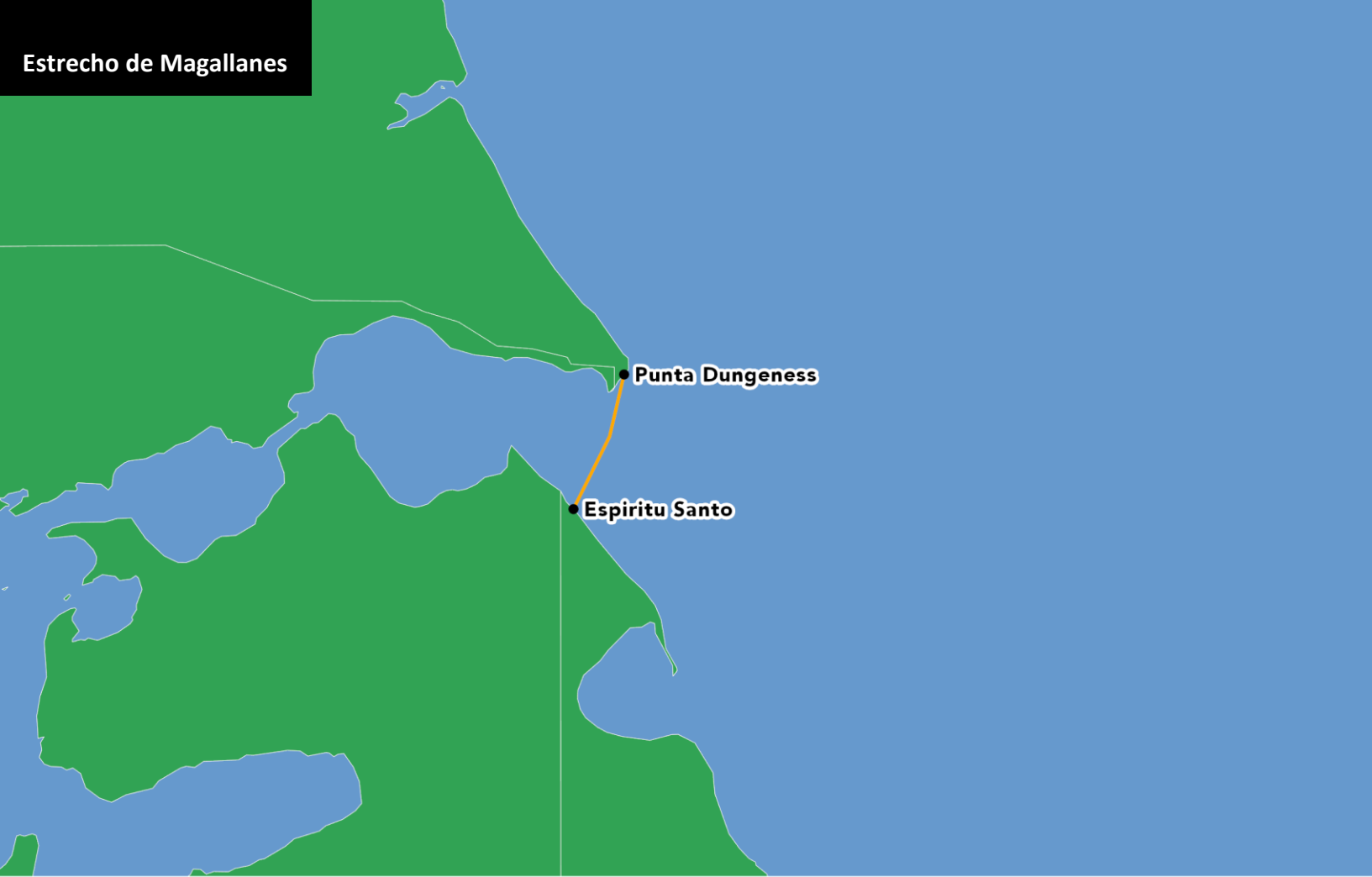
## ESTEPONA-TETOUAN

### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	113
<b>Initial Capacity (Tbps)</b>	0.0037
<b>Design Capacity (Tbps)</b>	0.0037
<b>Owners</b>	Telxius
<b>System Supplier</b>	STF Submarine Systems
<b>System Installer</b>	FCR
<b>Region</b>	EMEA

### Landing Points

- Tetouan (Morocco)
- Estepona (Spain)



## ESTRECHO DE MAGALLANES

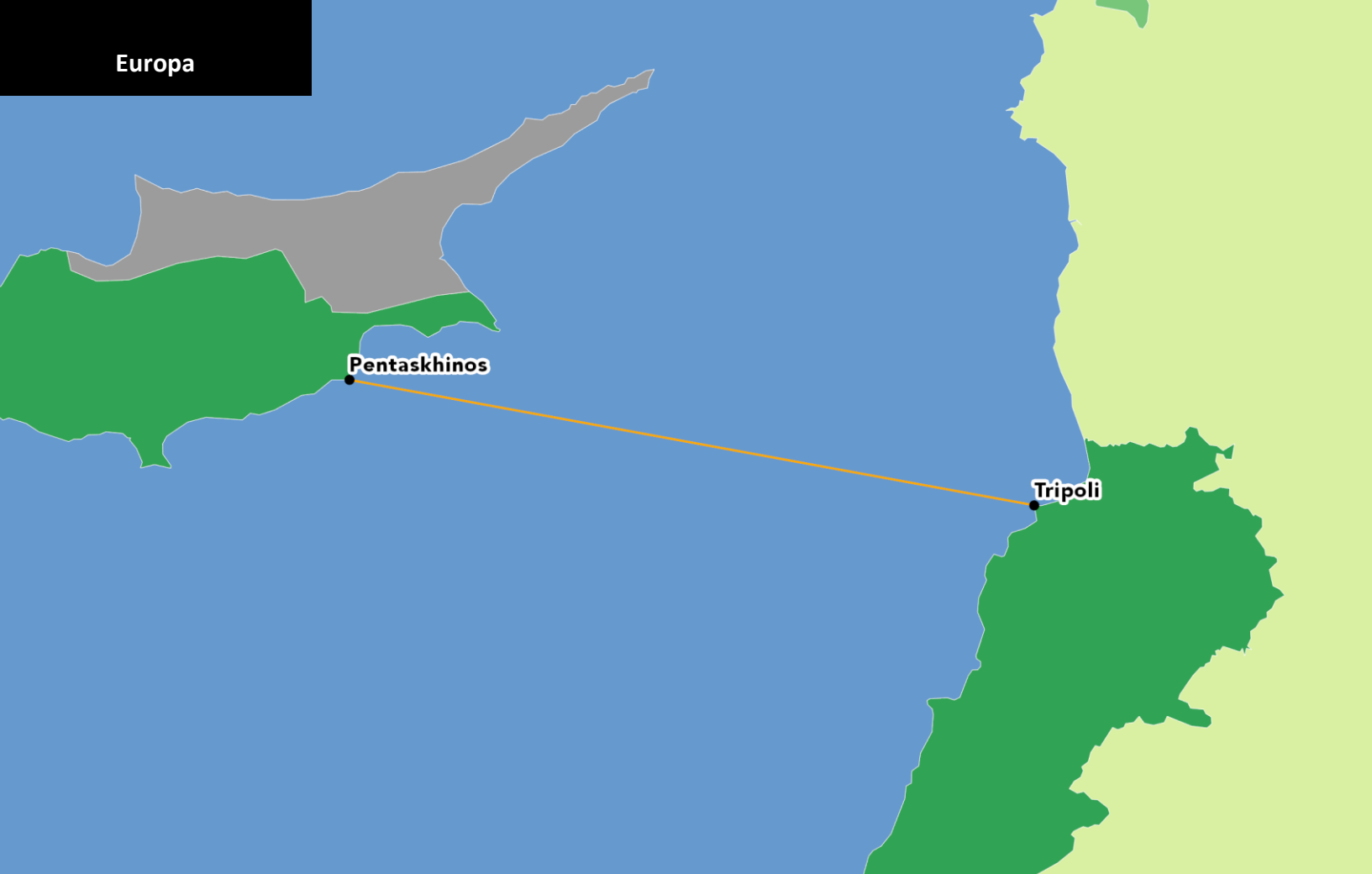
### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$5,000,000
<b>Length (km)</b>	37
<b>Design Capacity (Tbps)</b>	1.8
<b>Fiber Pairs</b>	18
<b>Wavelengths per Fiber Pair</b>	1
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	AR-SAT
<b>System Supplier</b>	Boskalis
<b>Region</b>	Americas

### Landing Points

- Espiritu Santo (Argentina)
- Punta Dungeness (Argentina)





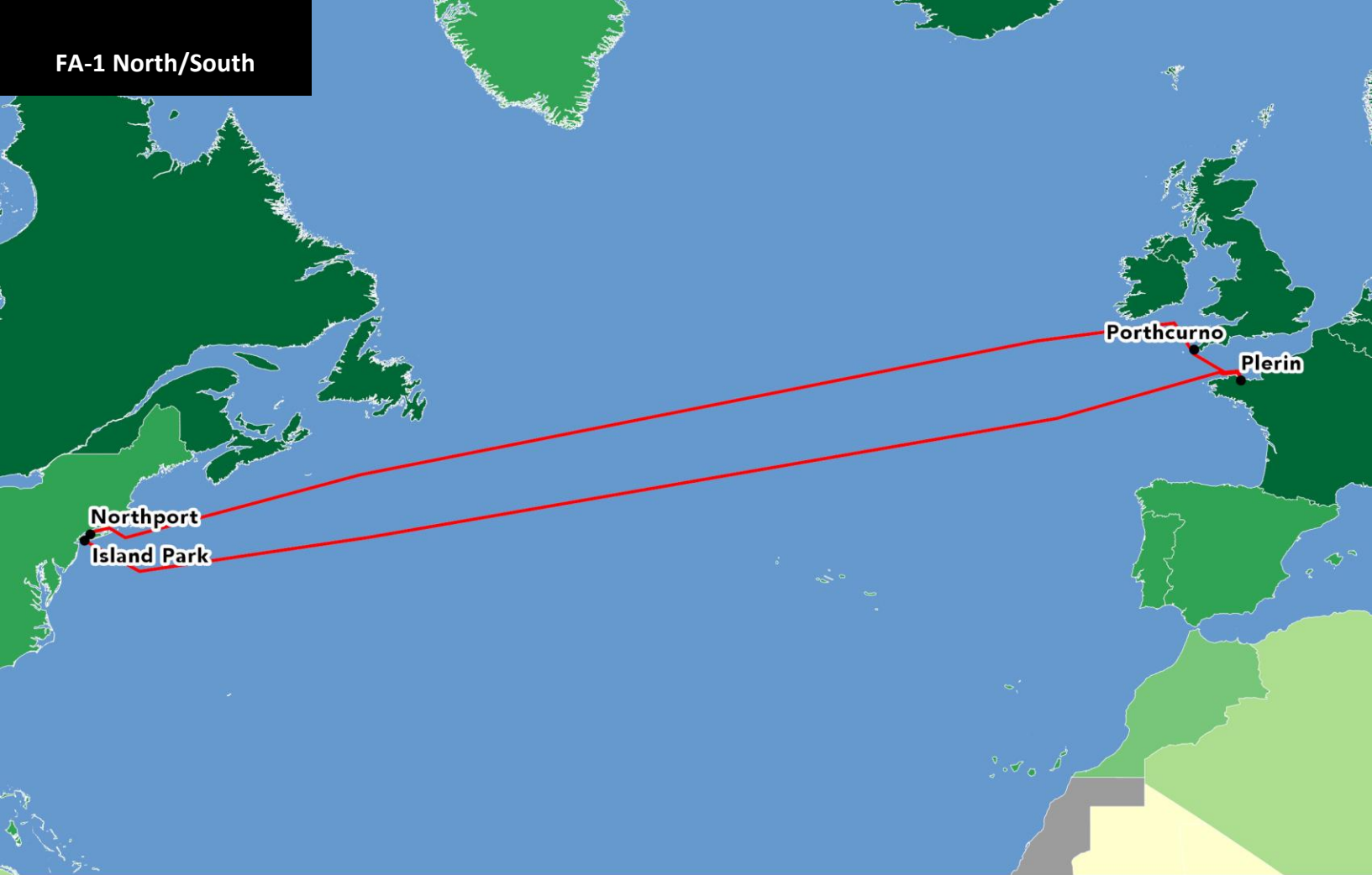
## EUROPA

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Fiber Pairs</b>	8
<b>Owners</b>	Cyprus Telecommunications Authority, Lebanese Ministry of Telecommunications
<b>Region</b>	EMEA

### Landing Points

- Tripoli (Lebanon)
- Pentaskhinos (Cyprus)



## FLAG ATLANTIC 1 NORTH/SOUTH

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$900,000,000
<b>Length (km)</b>	12,820
<b>Initial Capacity (Tbps)</b>	4.68
<b>Design Capacity (Tbps)</b>	24
<b>Fiber Pairs</b>	6
<b>Owners</b>	Global Cloud Xchange
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Infinera, Infinera, Infinera
<b>Upgrade Year</b>	2010, 2011, 2013
<b>Upgrade Capacity (Gbps)</b>	10, 100, 40
<b>Region</b>	Transatlantic

### Landing Points

- Porthcurno (United Kingdom)
- Northport (United States)
- Island Park (United States)
- Plerin (France)

# Falcon



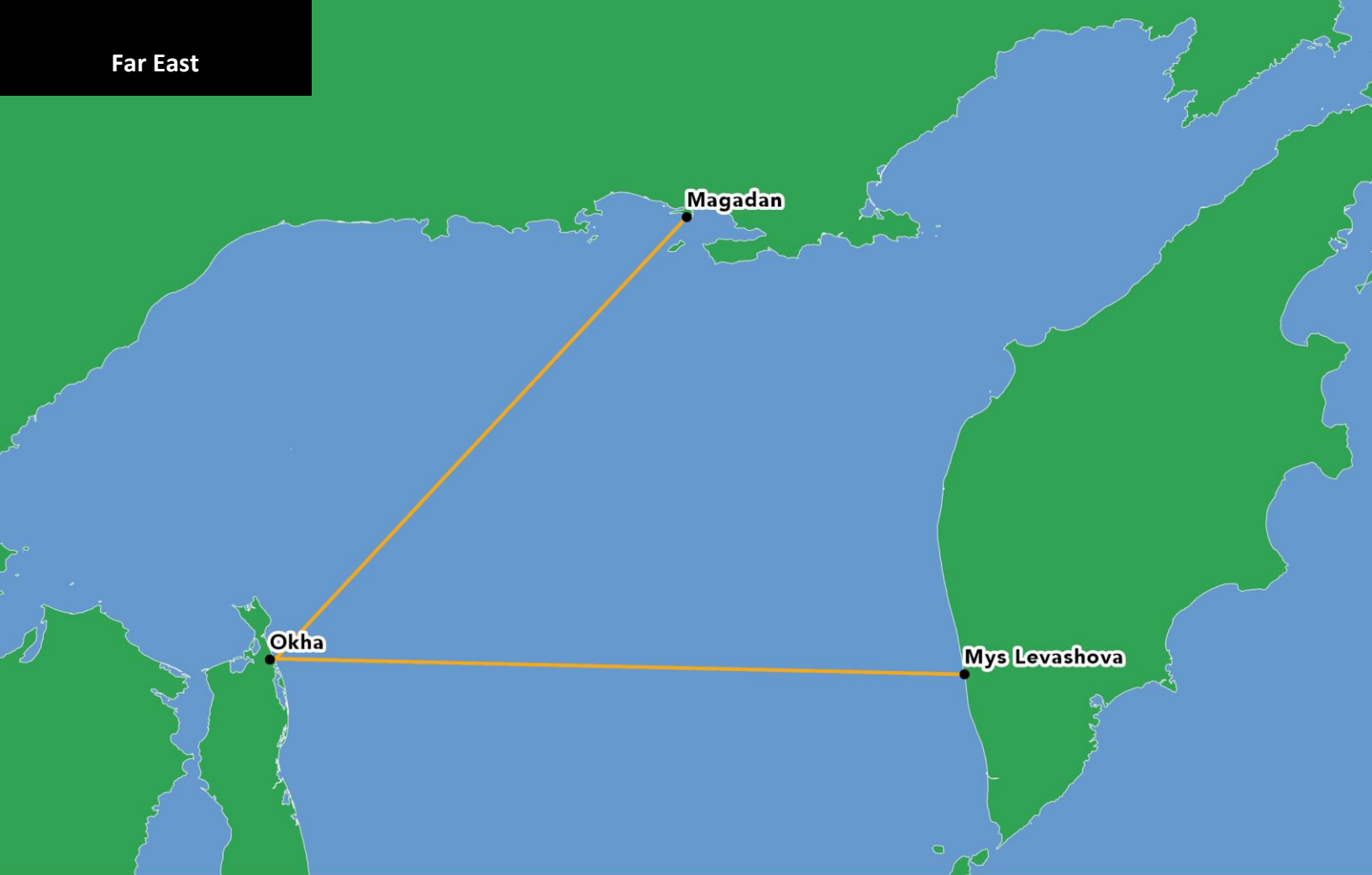
## FALCON

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$900,000,000
<b>Length (km)</b>	12,181
<b>Initial Capacity (Tbps)</b>	0.09
<b>Design Capacity (Tbps)</b>	2.56
<b>Fiber Pairs</b>	8
<b>Owners</b>	Global Cloud Xchange
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Infinera
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Doha (Qatar)
- Al Khobar (Saudi Arabia)
- Al Seeb (Oman)
- Al Ghaydah (Yemen)
- Suez (Egypt)
- Jeddah (Saudi Arabia)
- Manama (Bahrain)
- Port Sudan (Sudan)
- Al Hudaydah (Yemen)
- Al Safat (Kuwait)
- Al-Faw (Iraq)
- Chabahar (Iran)
- Dubai (United Arab Emirates)
- Khasab (Oman)
- Mumbai (India)
- Bandar Abbas (Iran)



## FAR EAST

### System Details

<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$50,000,000
<b>Length (km)</b>	1,844
<b>Design Capacity (Tbps)</b>	1.6
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	8
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Rostelecom
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	AustralAsia

### Landing Points

- Okha (Russia)
- Magadan (Russia)
- Mys Levashova (Russia)



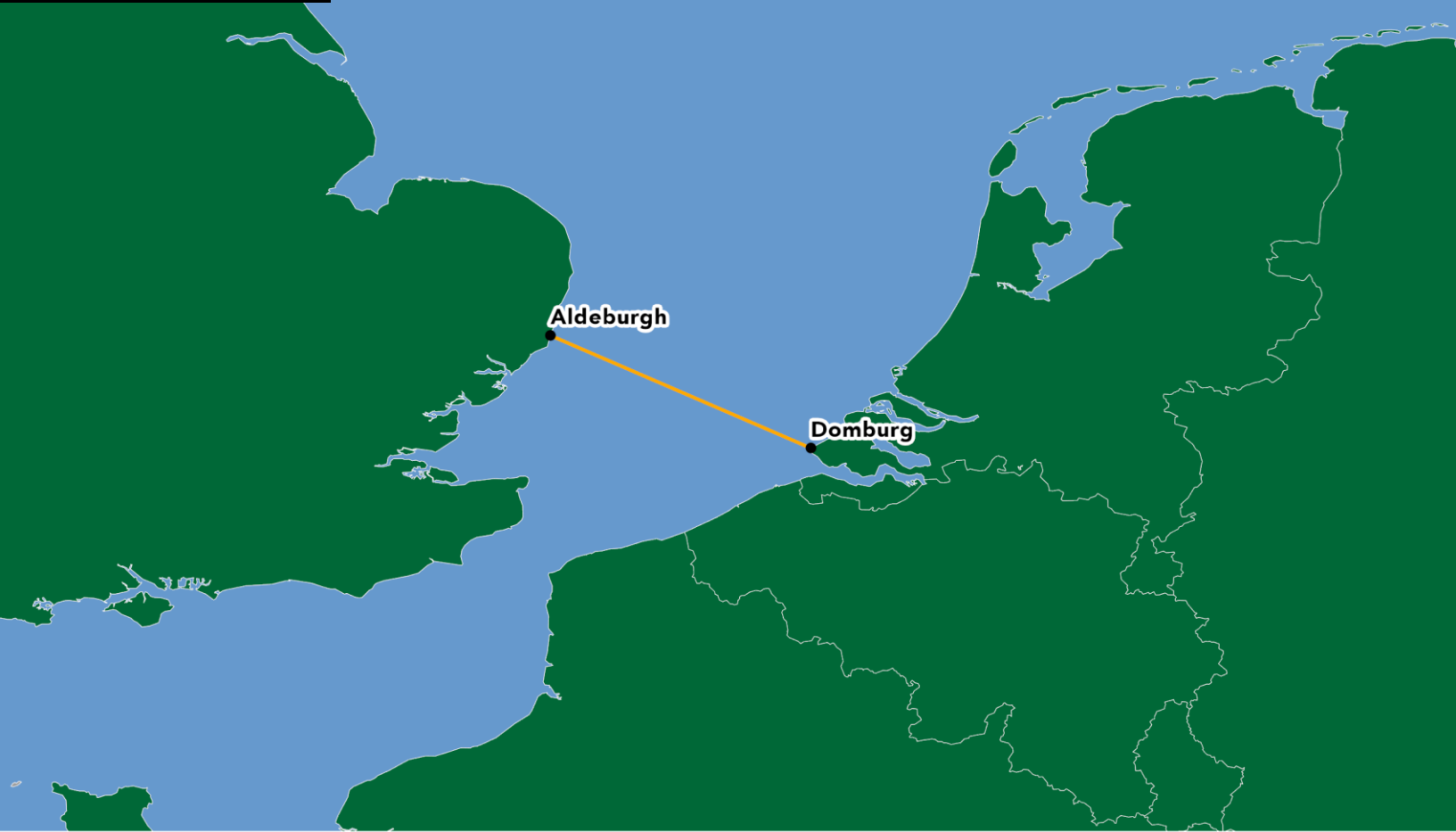
## FARICE-1

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$25,000,000
<b>Length (km)</b>	1,395
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.02
<b>Owners</b>	Farice Ltd., Iceland Telecom Ltd.
<b>System Supplier</b>	Pirelli
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Dunnet Bay (United Kingdom)
- Funningsfjørður (Faroe Islands)
- Seyðisfjörður (Iceland)



## FARLAND

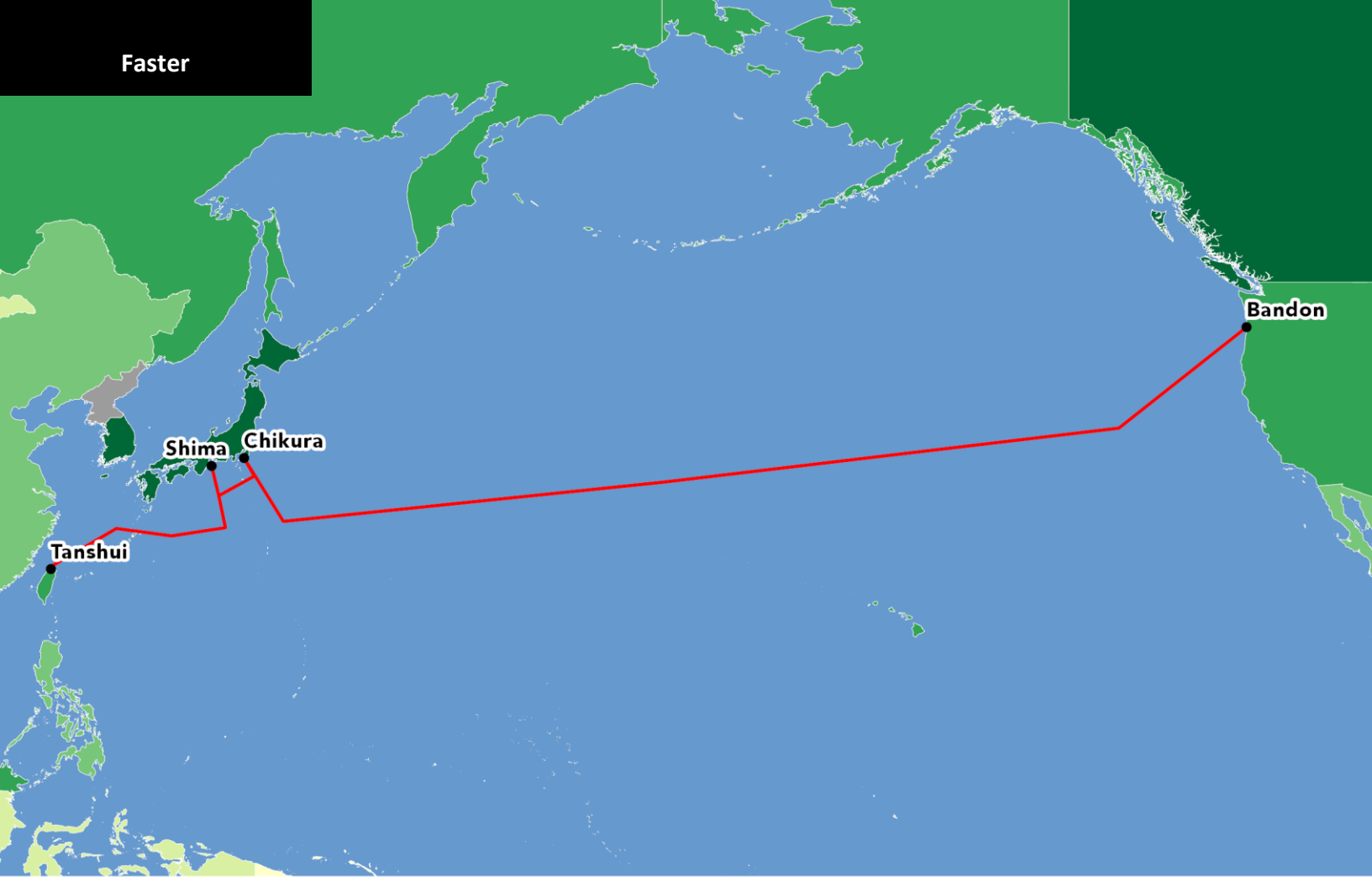
### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	149
<b>Initial Capacity (Tbps)</b>	0.018
<b>Design Capacity (Tbps)</b>	0.018
<b>Owners</b>	British Telecommunications PLC
<b>System Supplier</b>	AT&T Submarine System, Inc.
<b>System Installer</b>	AT&T Submarine System, Inc.
<b>Region</b>	EMEA

### Landing Points

- Domburg (Netherlands)
- Aldeburgh (United Kingdom)

Faster



## FASTER

### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	9,000
<b>Initial Capacity (Tbps)</b>	28
<b>Design Capacity (Tbps)</b>	60
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	China Mobile International Ltd., China Telecom Global, Global Transit, Google, Singtel
<b>System Supplier</b>	NEC
<b>System Installer</b>	Orange Marine
<b>Region</b>	Transpacific

### Landing Points

- Tanshui (Taiwan)
- Chikura (Japan)
- Shima (Japan)
- Bandon (United States)



## FEHMARN BELT

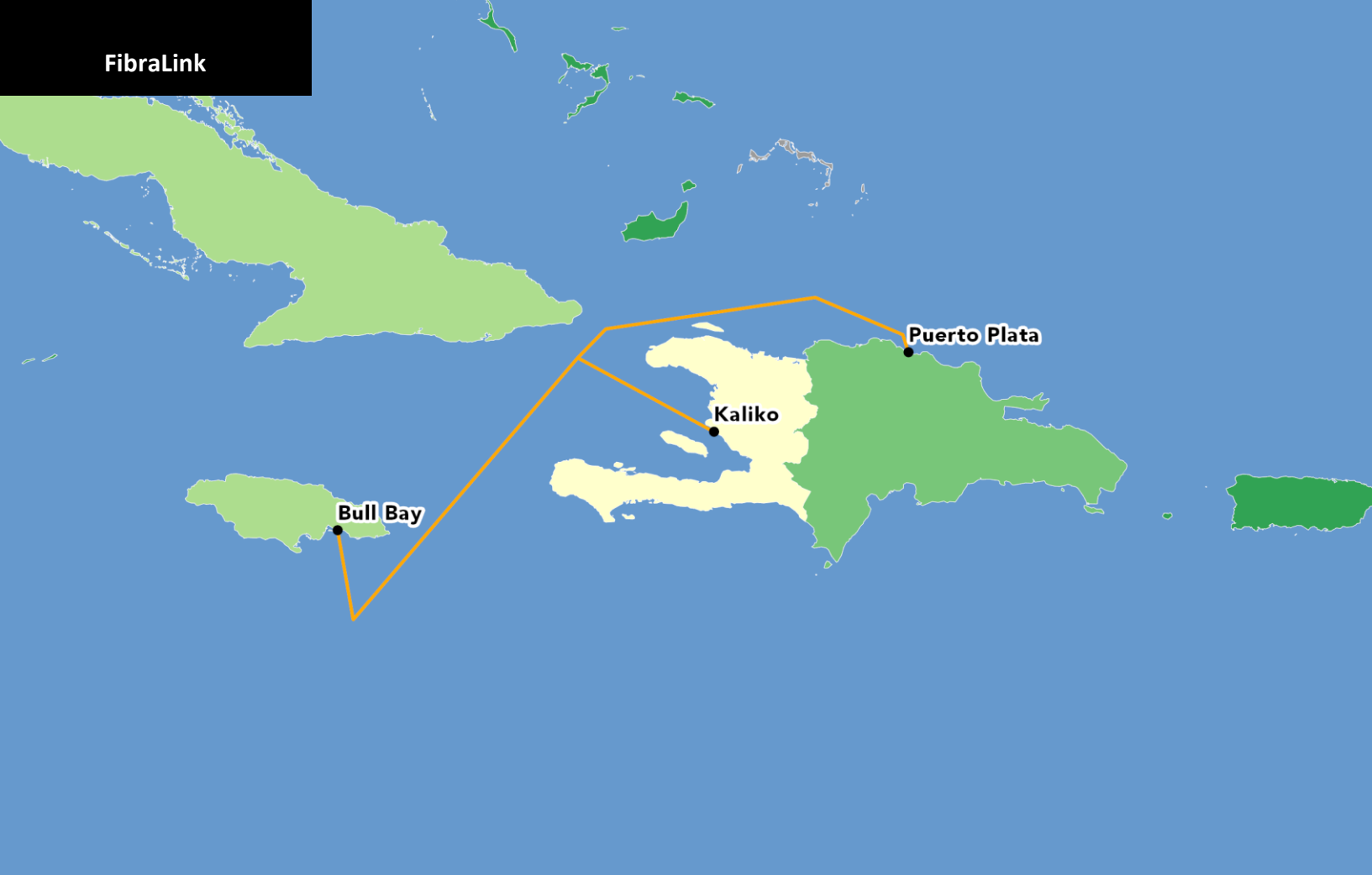
### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	20
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	192
<b>Owners</b>	Telia Carrier AB
<b>System Supplier</b>	Ericsson
<b>System Installer</b>	Nexans
<b>Region</b>	EMEA

### Landing Points

- Rödbyhavn (Denmark)
- Puttgarden (Germany)





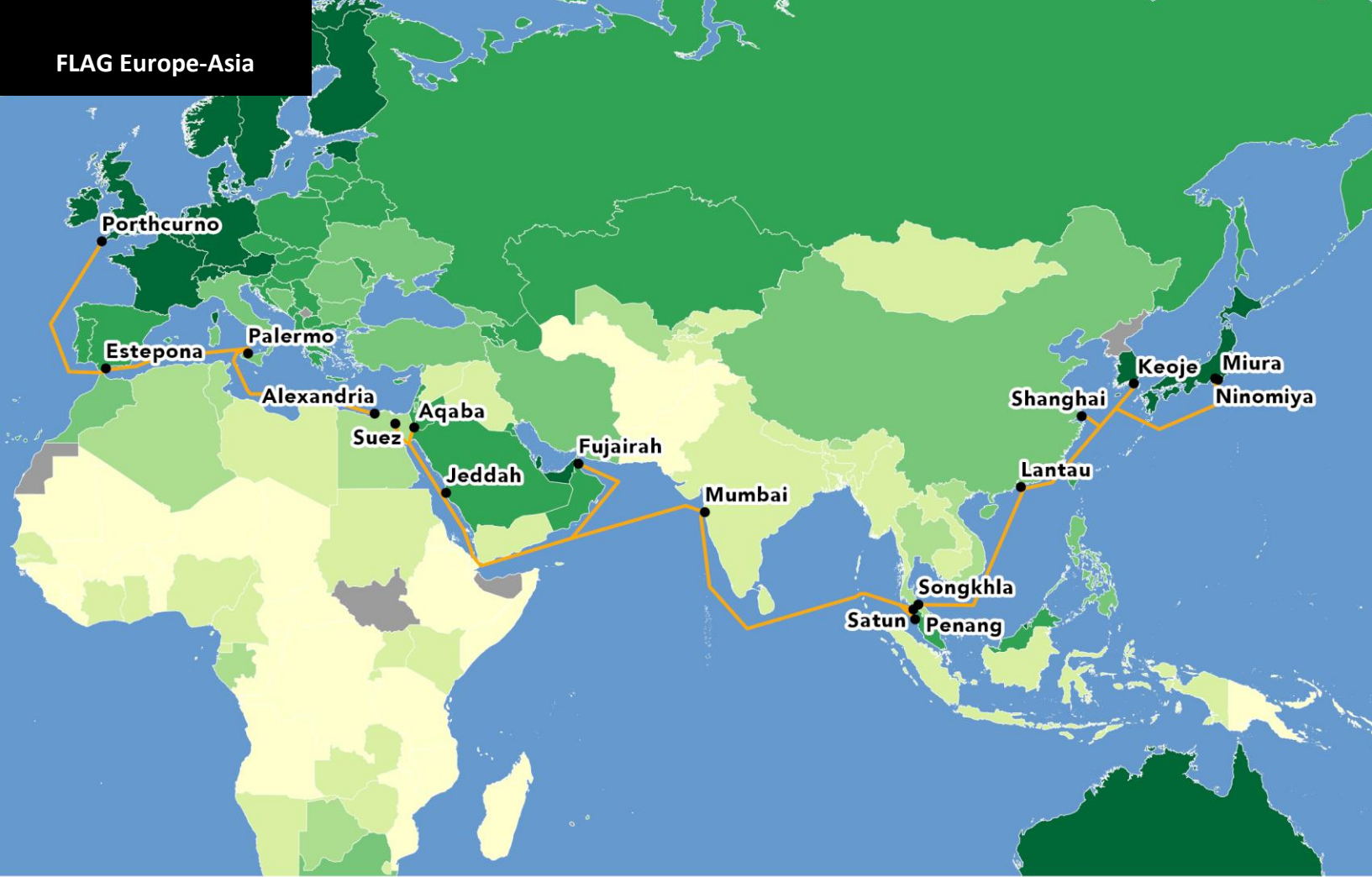
## FIBRALINK

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	2,438
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	7.2
<b>Fiber Pairs</b>	3
<b>Owners</b>	Alcatel, C&W Networks, Columbus Networks
<b>System Supplier</b>	Alcatel, IT International Telecom
<b>System Installer</b>	IT International Telecom
<b>Region</b>	Americas

### Landing Points

- Puerto Plata (Dominican Republic)
- Bull Bay (Jamaica)
- Kaliko (Haiti)



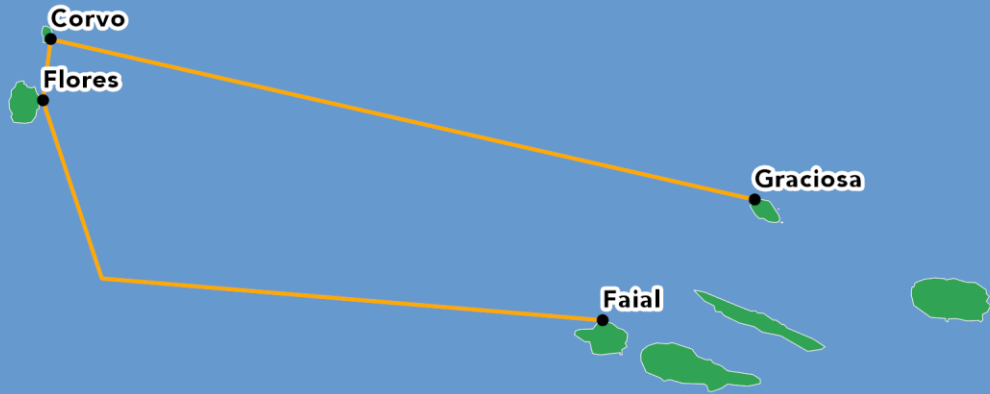
## FLAG EUROPE-ASIA

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$720,000,000
<b>Length (km)</b>	27,433
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.5
<b>Fiber Pairs</b>	2
<b>Owners</b>	Global Cloud Xchange
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Indian Ocean Pan-East Asian; EMEA

### Landing Points

- Ninomiya (Japan)
- Estepona (Spain)
- Jeddah (Saudi Arabia)
- Lantau (Hong Kong)
- Mumbai (India)
- Palermo (Italy)
- Porthcurno (United Kingdom)
- Shanghai (China)
- Miura (Japan)
- Aqaba (Jordan)
- Fujairah (United Arab Emirates)
- Keoje (South Korea)
- Alexandria (Egypt)
- Suez (Egypt)
- Penang (Malaysia)
- Satun (Thailand)
- Songkhla (Thailand)



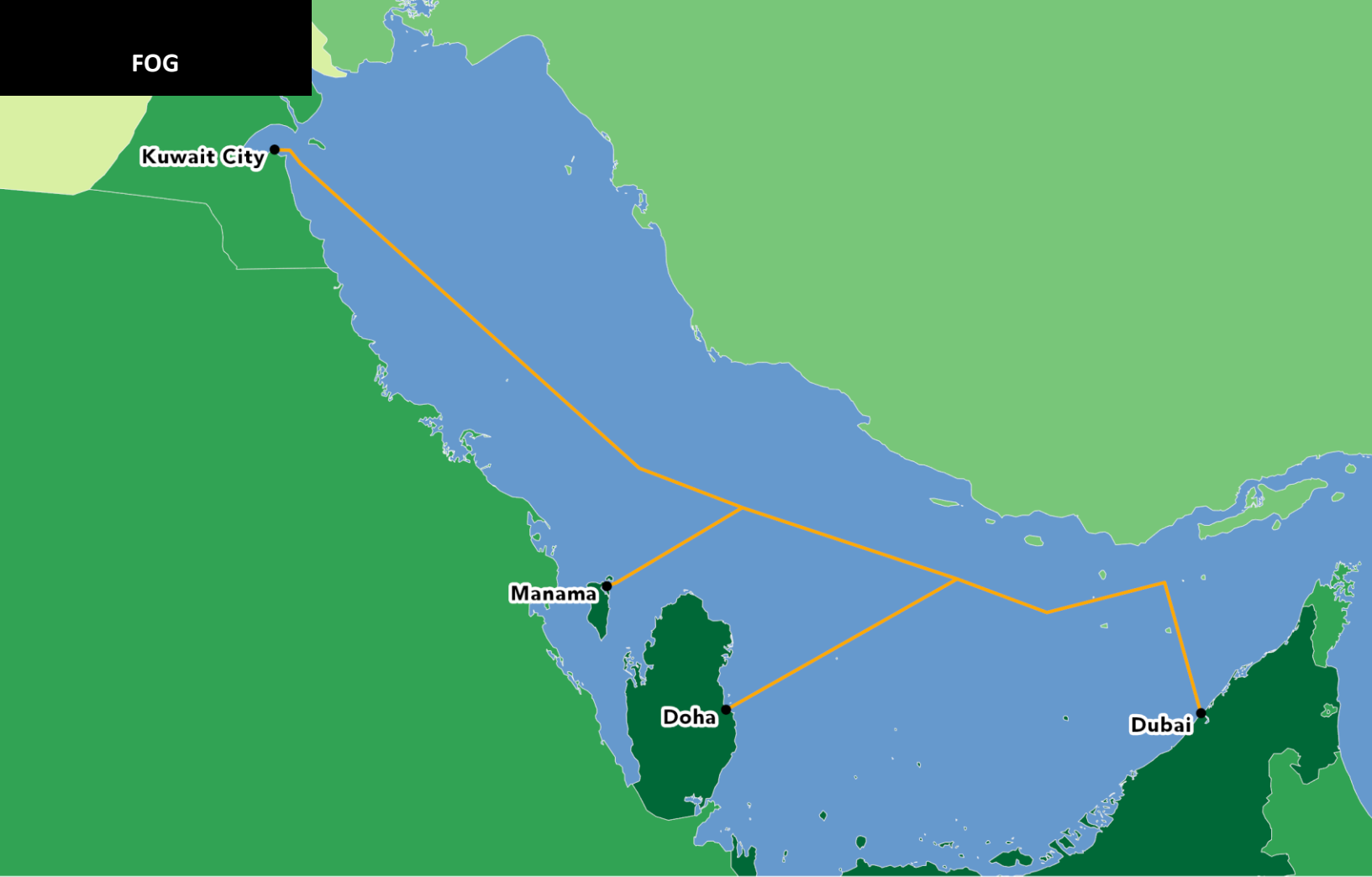
## FLORES-CORVO

### System Details

<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	685
<b>Design Capacity (Tbps)</b>	0.96
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	16
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Viatel
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Nexans
<b>Region</b>	EMEA

### Landing Points

- Corvo (Azores)
- Faial (Azores)
- Graciosa (Azores)
- Flores (Azores)



### FIBER OPTIC GULF

#### System Details

<b>RFS Year</b>	1998
<b>EOS Year</b>	2023
<b>Est. System Cost (USD)</b>	\$80,000,000
<b>Length (km)</b>	1,286
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.02
<b>Fiber Pairs</b>	4
<b>Owners</b>	Bahrain Telephone Co., Kuwait Ministry of Communications, Qatar Telecommunication Company, UAE Telecommunications Company
<b>System Supplier</b>	Fujitsu
<b>Region</b>	EMEA

#### Landing Points

- Manama (Bahrain)
- Dubai (United Arab Emirates)
- Kuwait City (Kuwait)
- Doha (Qatar)

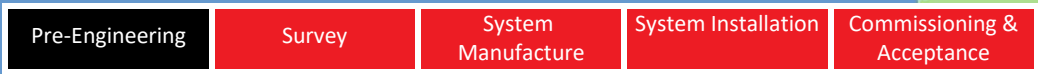


Puerto Baquerizo Moreno

Manta



### PROJECT COMPLETION PHASES



## ECUADOR - GALAPAGOS ISLANDS

### System Details

RFS Year	2020
EOS Year	2045
Length (km)	1,000
Owners	CNT EP
Region	Americas

### Landing Points

- Puerto Baquerizo Moreno (Ecuador)
- Manta (Ecuador)



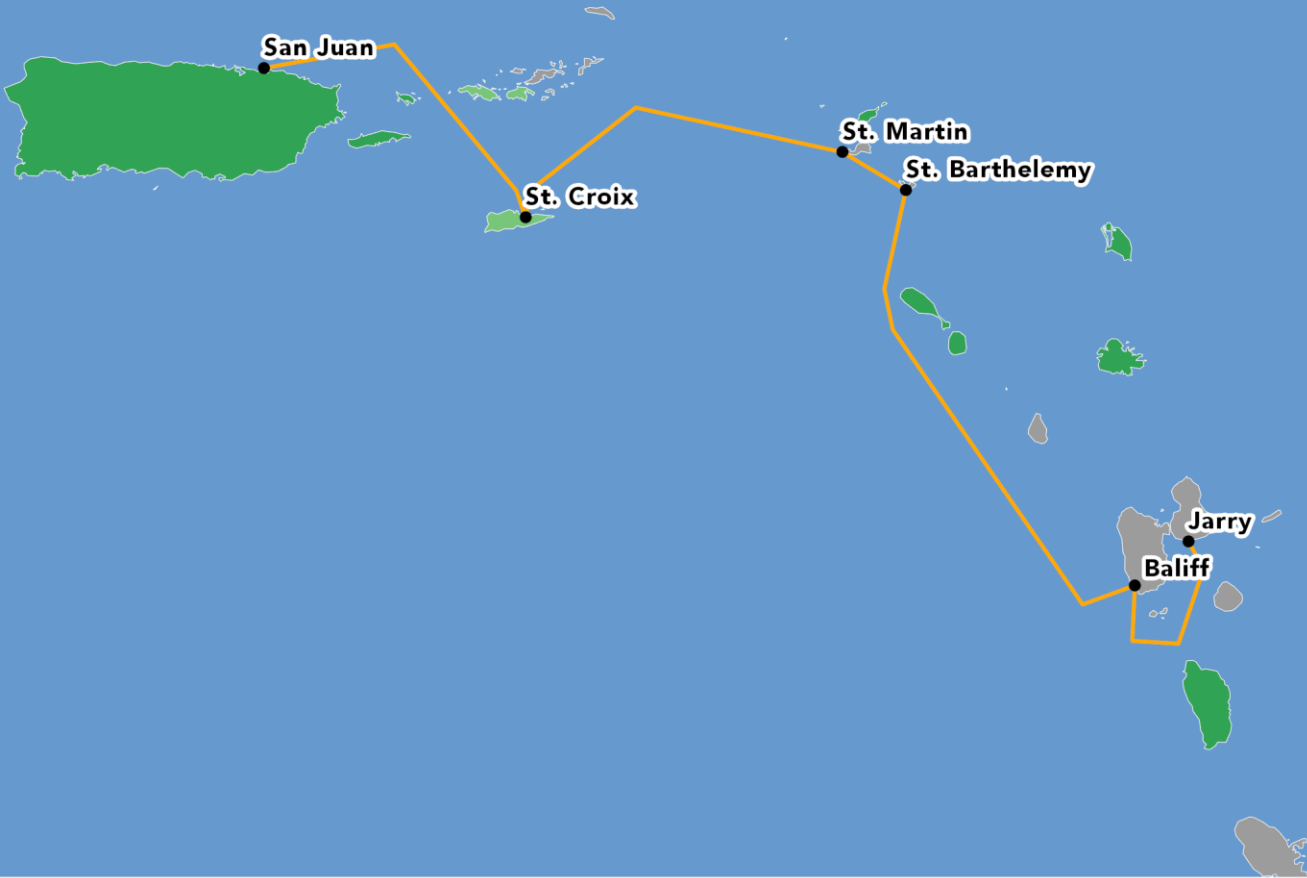
## GULF BRIDGE INTERNATIONAL CABLE SYSTEM

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$445,000,000
<b>Length (km)</b>	4,719
<b>Design Capacity (Tbps)</b>	51.2
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	128
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Gulf Bridge International, Inc.
<b>System Supplier</b>	TE SubCom
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Mumbai (India)
- Fujairah (United Arab Emirates)
- Al-Faw (Iraq)
- Al Khobar (Saudi Arabia)
- Al Daayen (Qatar)
- Kuwait City (Kuwait)
- Bushehr (Iran)
- Al Seeb (Oman)
- Al Hidd (Bahrain)



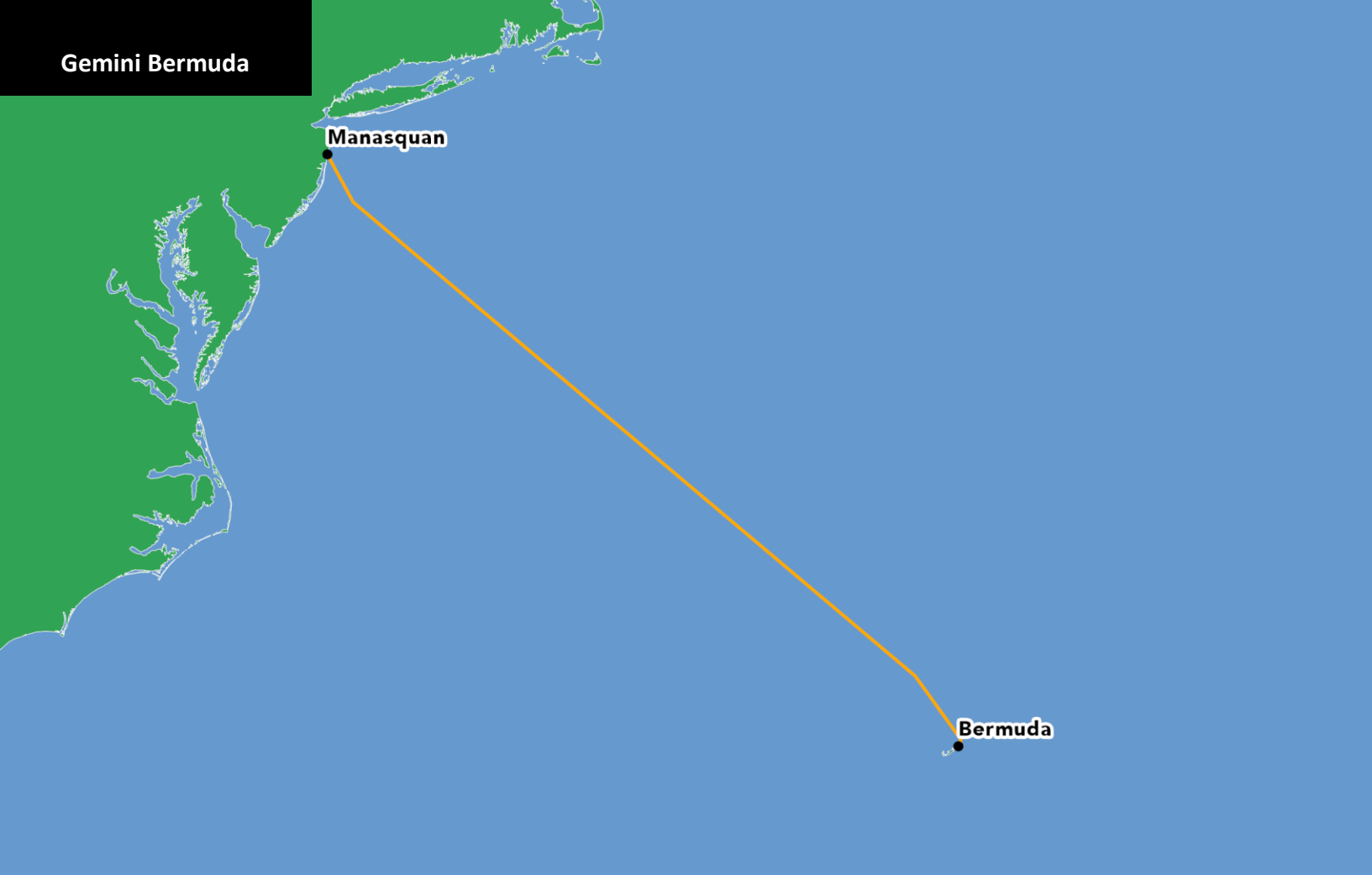
## GLOBAL CARIBBEAN NETWORK

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$17,520,000
<b>Length (km)</b>	1,926
<b>Initial Capacity (Tbps)</b>	1.2
<b>Design Capacity (Tbps)</b>	5
<b>Owners</b>	Global Carribean Network
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Americas

### Landing Points

- St Croix (United States)
- St Martin (Guadeloupe)
- Jarry (Guadeloupe)
- San Juan (Puerto Rico)
- St Barthelemy (Guadeloupe)
- Baliff (Guadeloupe)



## GEMINI BERMUDA

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	1,500
<b>Design Capacity (Tbps)</b>	2.5
<b>Owners</b>	C&W, Verizon
<b>System Installer</b>	Orange Marine
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Americas

### Landing Points

- (Bermuda)
- Manasquan (United States)





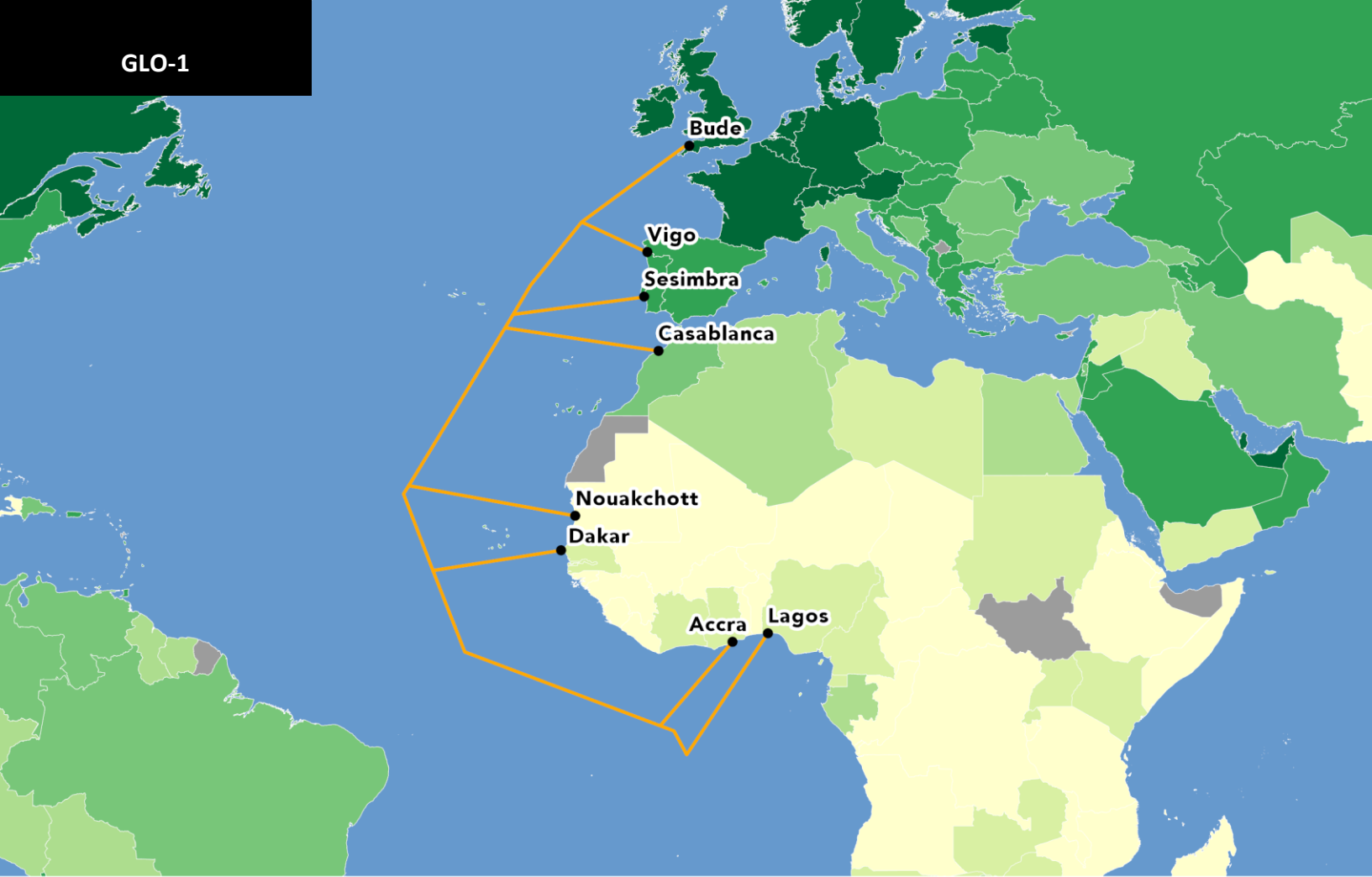
## GEORGIA-RUSSIA

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	280
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	4
<b>Owners</b>	DanTelco, FOPTNET, Rostelecom
<b>Region</b>	EMEA

### Landing Points

- Novorossiysk (Russia)
- Sochi (Russia)
- Poti (Georgia)



## GLOBACOM-1

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$260,000,000
<b>Length (km)</b>	8,717
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	2.5
<b>Fiber Pairs</b>	2
<b>Owners</b>	Globacom Ltd.
<b>System Supplier</b>	IT International Telecom
<b>System Installer</b>	Alcatel Submarine Networks, IT International Telecom
<b>Region</b>	EMEA

### Landing Points

- Accra (Ghana)
- Sesimbra (Portugal)
- Lagos (Nigeria)
- Casablanca (Morocco)
- Vigo (Spain)
- Nouakchott (Mauritania)
- Dakar (Senegal)
- Bude (United Kingdom)



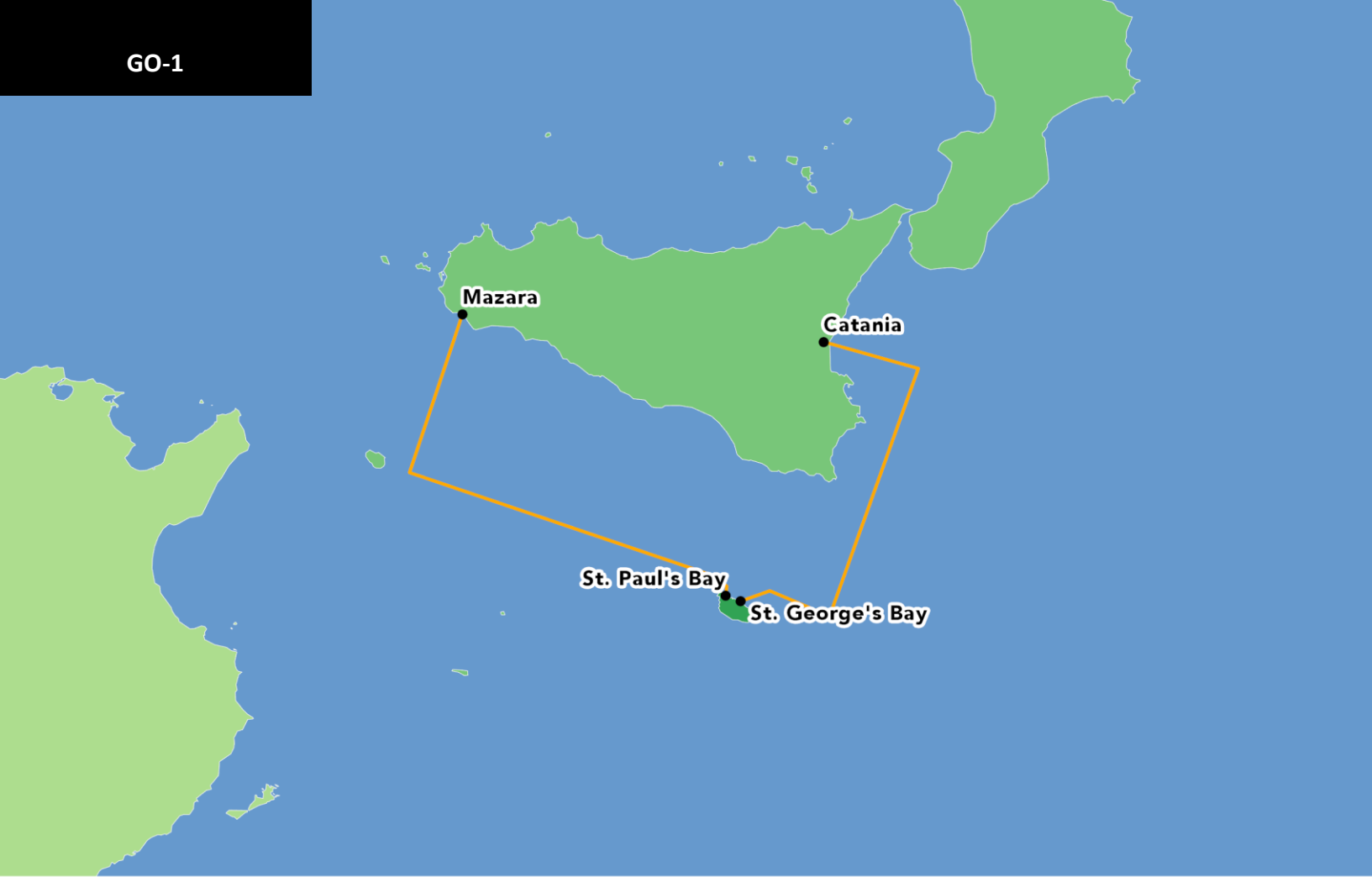
## GLOBENET

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$610,000,000
<b>Length (km)</b>	22,690
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	4.6
<b>Fiber Pairs</b>	4
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Globenet
<b>System Supplier</b>	TE SubCom
<b>Upgrader</b>	Xtera, Xtera
<b>Upgrade Year</b>	2010, 2016
<b>Upgrade Capacity (Gbps)</b>	100, 100
<b>Region</b>	Americas

### Landing Points

- Tuckerton (United States)
- Rio de Janeiro (Brazil)
- Fortaleza (Brazil)
- Barranquilla (Colombia)
- St. David's (Bermuda)
- Maiquetia (Venezuela)
- Boca Raton (United States)



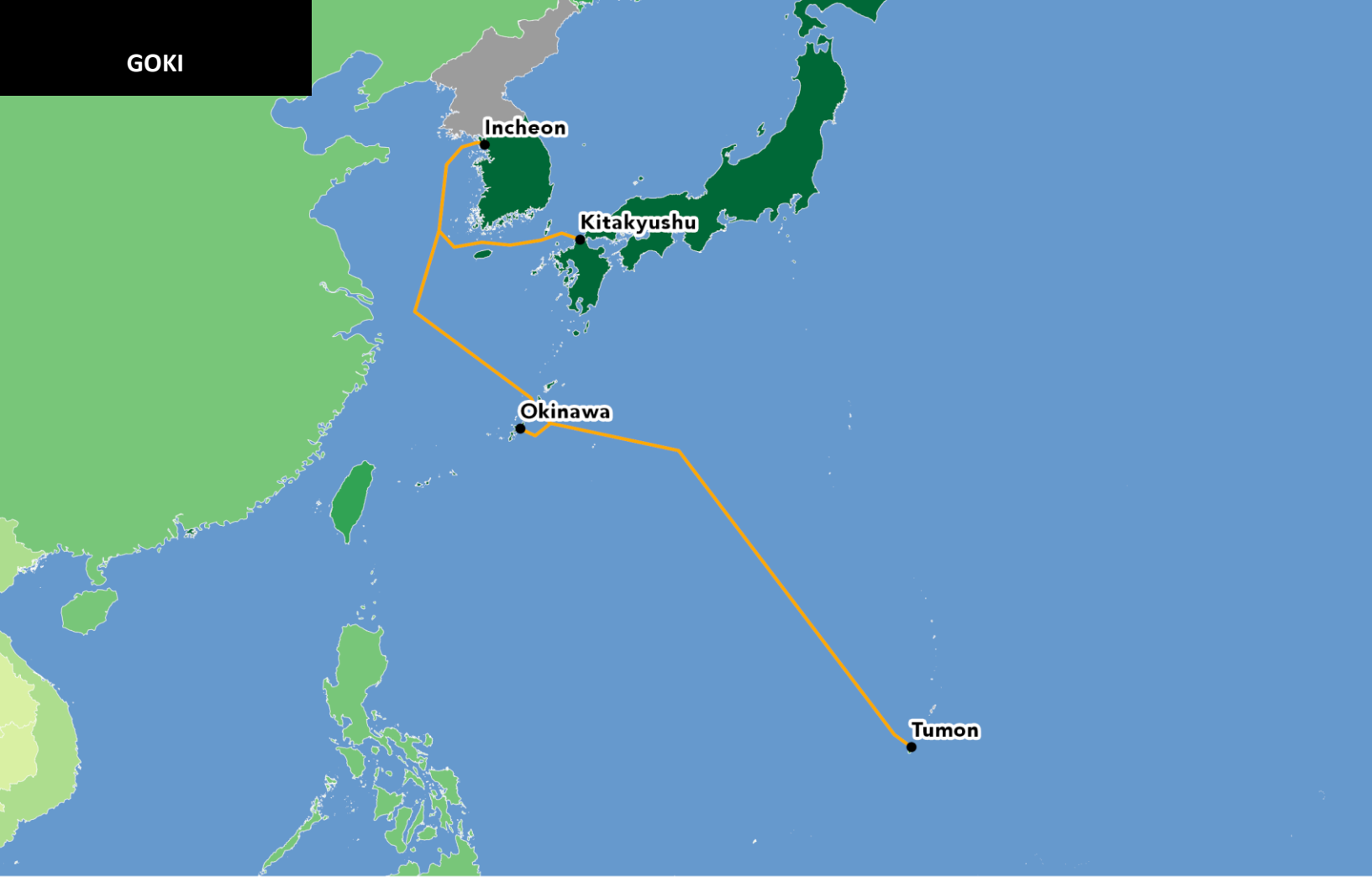
## GO-1

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	290
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.02
<b>Owners</b>	GO
<b>System Installer</b>	Elettra
<b>Region</b>	EMEA

### Landing Points

- St Paul's Bay (Malta)
- Mazara (Italy)
- St George's Bay (Malta)
- Catania (Italy)



## GOKI

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$120,000,000
<b>Length (km)</b>	4,200
<b>Design Capacity (Tbps)</b>	0.08
<b>System Installer</b>	Kokusai Cable Ship
<b>Region</b>	AustralAsia

- Tumon (Guam)
- Kitakyushu (Japan)

### Landing Points

- Okinawa Prefecture (Japan)
- Incheon (Korea)

## Gondwana-1



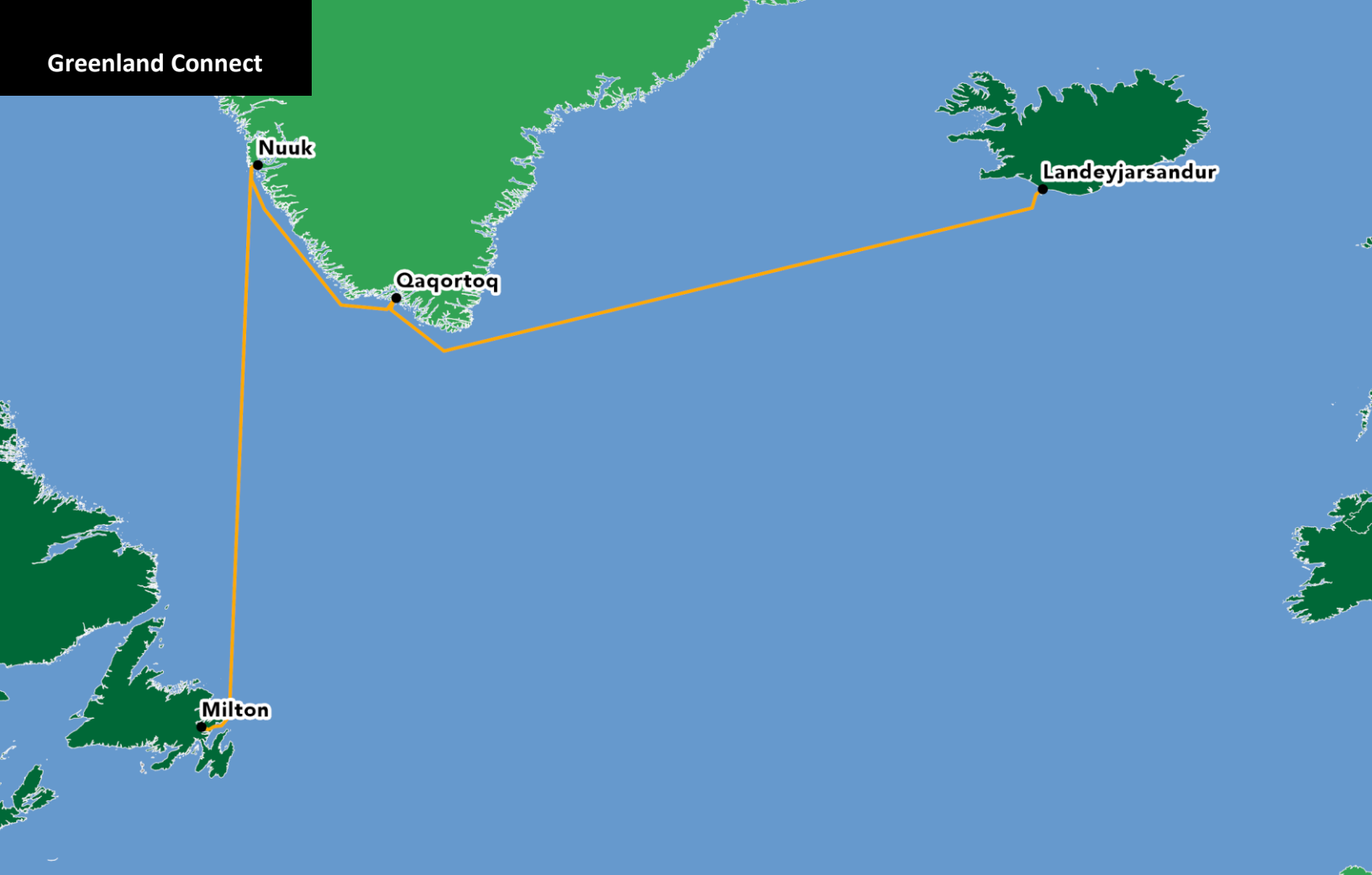
## GONDWANA-1

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$57,500,000
<b>Length (km)</b>	2,152
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	0.64
<b>Owners</b>	OPT Nouvelle Calédonie, Post and Telecommunications Office of New Caledonia
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Noum'ea (New Caledonia)
- Poindimie (New Caledonia)
- Lifou (New Caledonia)
- Mouli Island (New Caledonia)
- Sydney (Australia)



## GREENLAND CONNECT

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$126,000,000
<b>Length (km)</b>	4,733
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	2.56
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	62
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Tele Greenland
<b>System Installer</b>	Elettra
<b>Upgrader</b>	Huawei Marine
<b>Upgrade Year</b>	2017
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Americas, Transatlantic

### Landing Points

- Nuuk (Greenland)
- Landeyjarsandur (Iceland)
- Milton (Canada)
- Qaqortoq (Greenland)



## GREENLAND CONNECT NORTH

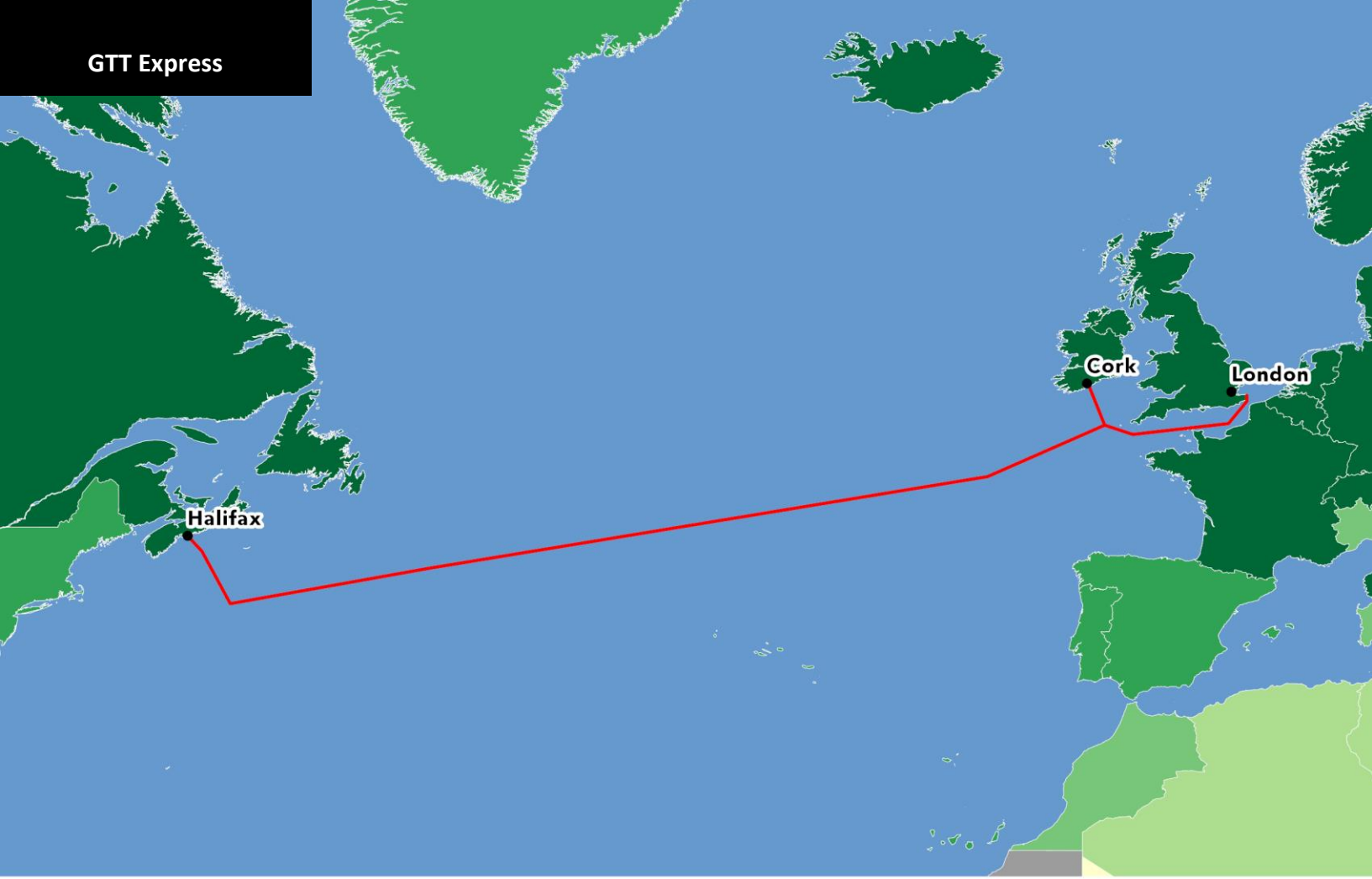
### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$80,000,000
<b>Length (km)</b>	680
<b>Design Capacity (Tbps)</b>	4.8
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Tele Greenland
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Nuuk (Greenland)
- Sisimiut (Greenland)
- Maniitsoq (Greenland)
- Aasiaat (Greenland)





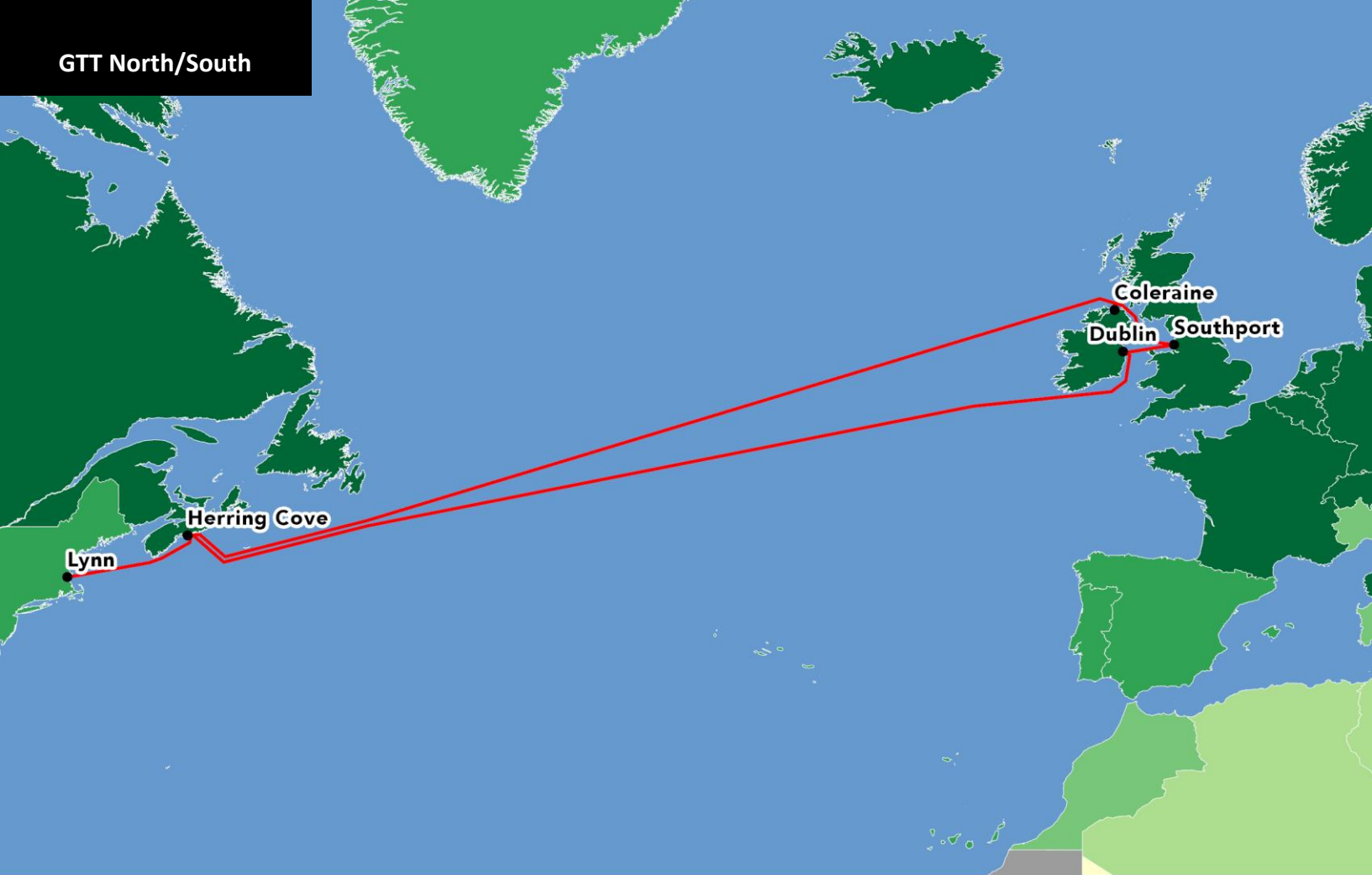
## GTT EXPRESS

### System Details

<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$120,000,000
<b>Length (km)</b>	4,600
<b>Design Capacity (Tbps)</b>	53
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	GTT Communications
<b>System Supplier</b>	TE SubCom
<b>Region</b>	Transatlantic

### Landing Points

- Cork (Ireland)
- London (United Kingdom)
- Halifax (Canada)



## GTT NORTH/SOUTH

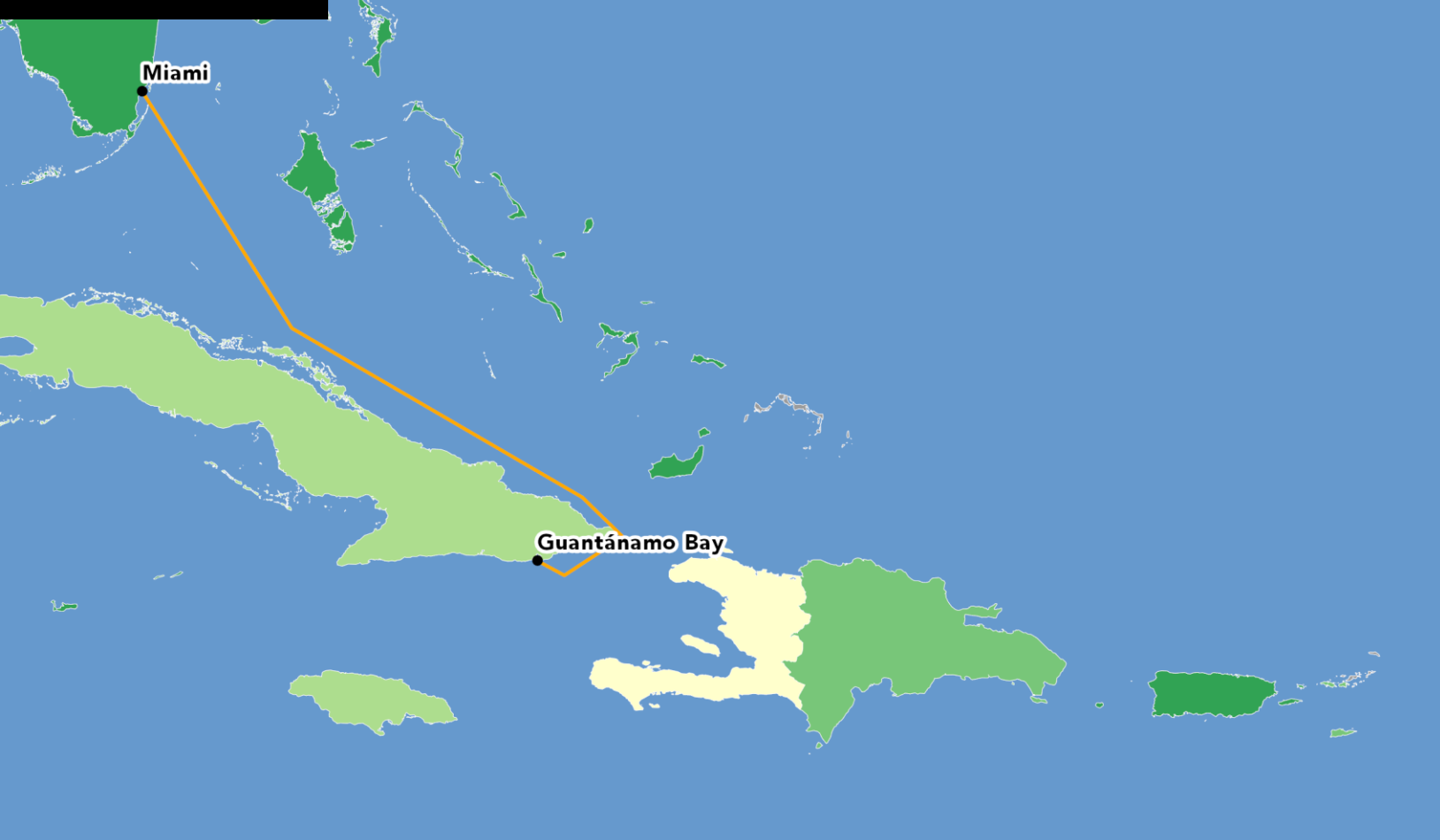
### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$320,000,000
<b>Length (km)</b>	12,111
<b>Initial Capacity (Tbps)</b>	10.16
<b>Design Capacity (Tbps)</b>	25
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	48
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	GTT Communications
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	FCR, Tyco Telecommunications SSI
<b>Upgrader</b>	Huawei Marine
<b>Upgrade Year</b>	2011
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transatlantic

### Landing Points

- Southport (United Kingdom)
- Dublin (Ireland)
- Herring Cove (Canada)
- Coleraine (Ireland)
- Lynn (United States)

## Guantánamo Bay Cable



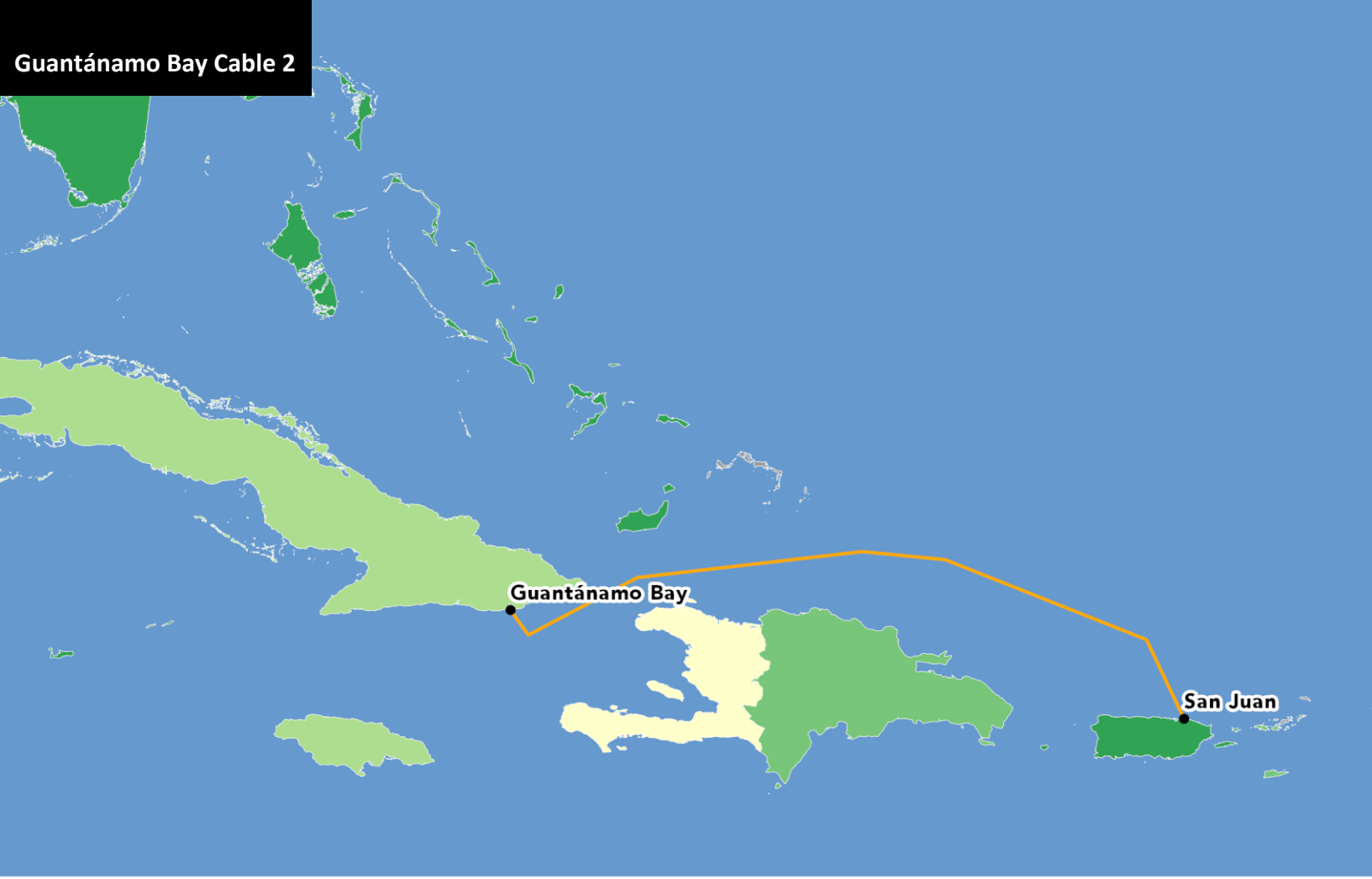
## GUANTÁNAMO BAY CABLE

### System Details

<b>RFS Year</b>	2016
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$31,000,000
<b>Length (km)</b>	1,500
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	US Government
<b>System Supplier</b>	Nexans, Xtera
<b>System Installer</b>	IT International Telecom
<b>Region</b>	Americas

### Landing Points

- Guantánamo Bay (Cuba)
- Miami (United States)



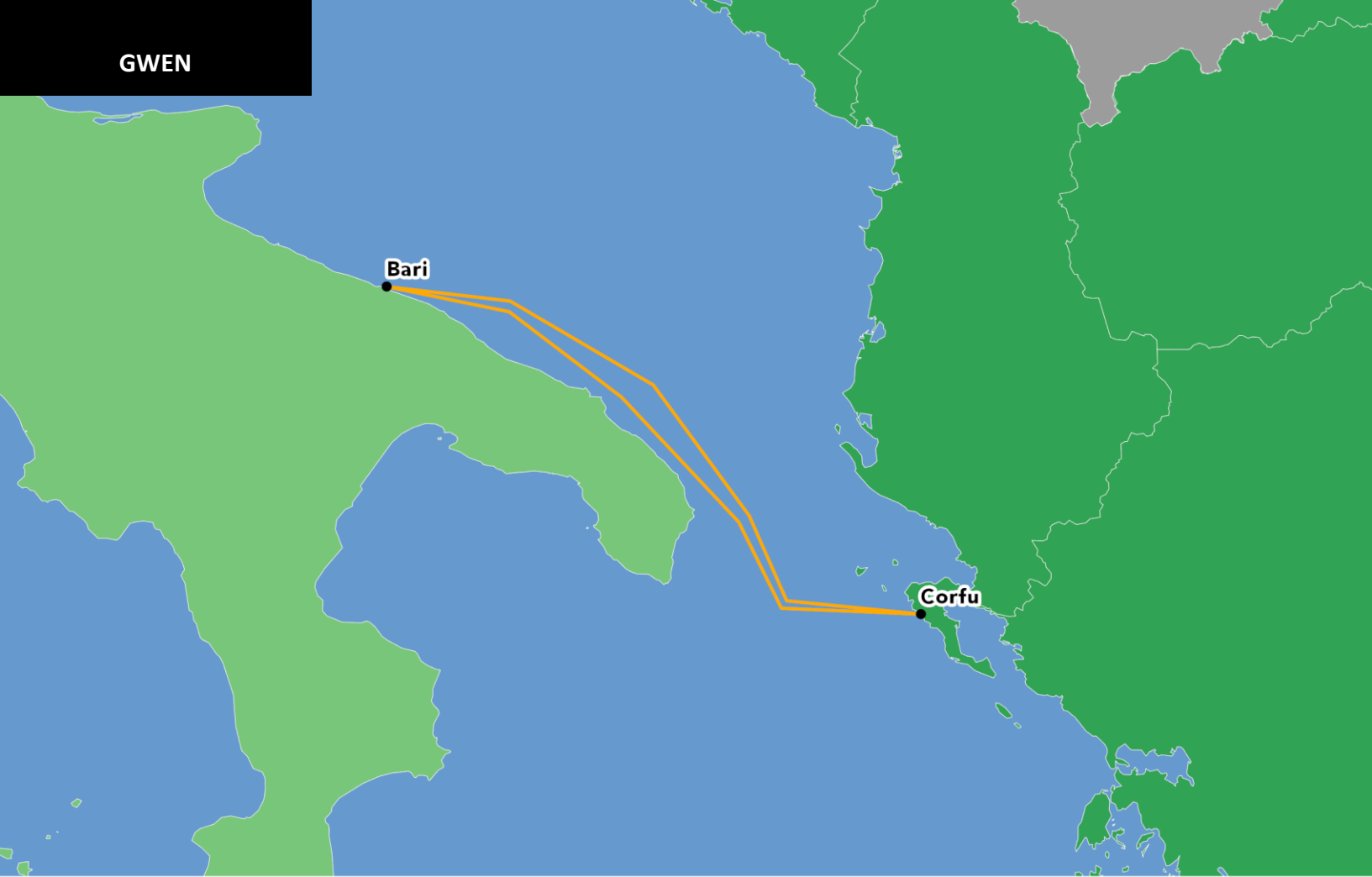
## GUANTÁNAMO BAY CABLE 2

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	1,200
<b>Owners</b>	US Government
<b>System Supplier</b>	Xtera
<b>Region</b>	Americas

### Landing Points

- Guantánamo Bay (Cuba)
- San Juan (Puerto Rico)



## GREECE TO WESTERN EUROPE NETWORK

### System Details

RFS Year	2004
EOS Year	2029
Est. System Cost (USD)	\$20,000,000
Length (km)	647
Fiber Pairs	4
Owners	OTE
Region	EMEA

### Landing Points

- Corfu (Greece)
- Bari (Italy)



H2 Cable

Los Angeles

Chung Hom Kok

Sydney

## H2 CABLE

### System Details

<b>RFS Year</b>	2022
<b>EOS Year</b>	2047
<b>Est. System Cost (USD)</b>	\$500,000,000
<b>Length (km)</b>	21,700
<b>Owners</b>	H2 Cable
<b>System Supplier</b>	SubCom
<b>System Installer</b>	SubCom
<b>Region</b>	Transpacific

### Landing Points

- Chung Hom Kok (Hong Kong)
- Sydney (Australia)
- Los Angeles (United States)



## HANNIBAL

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	180
<b>Design Capacity (Tbps)</b>	9.6
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	Tunisie Telecom
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	EMEA

### Landing Points

- Mazara (Italy)
- Kélibia (Tunisia)



## HANTRU-1

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$130,000,000
<b>Length (km)</b>	2,908
<b>Owners</b>	Federated States of Micronesia Telecommunications Authority, Hannon Armstrong
<b>System Supplier</b>	TE SubCom
<b>Region</b>	AustralAsia

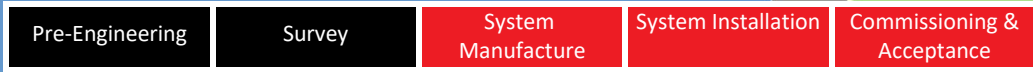
### Landing Points

- Pohnpei (Micronesia)
- Piti (Guam)
- Majuro (Marshall Islands)
- Kwajalein Atoll (Marshall Islands)





**PROJECT COMPLETION PHASES**



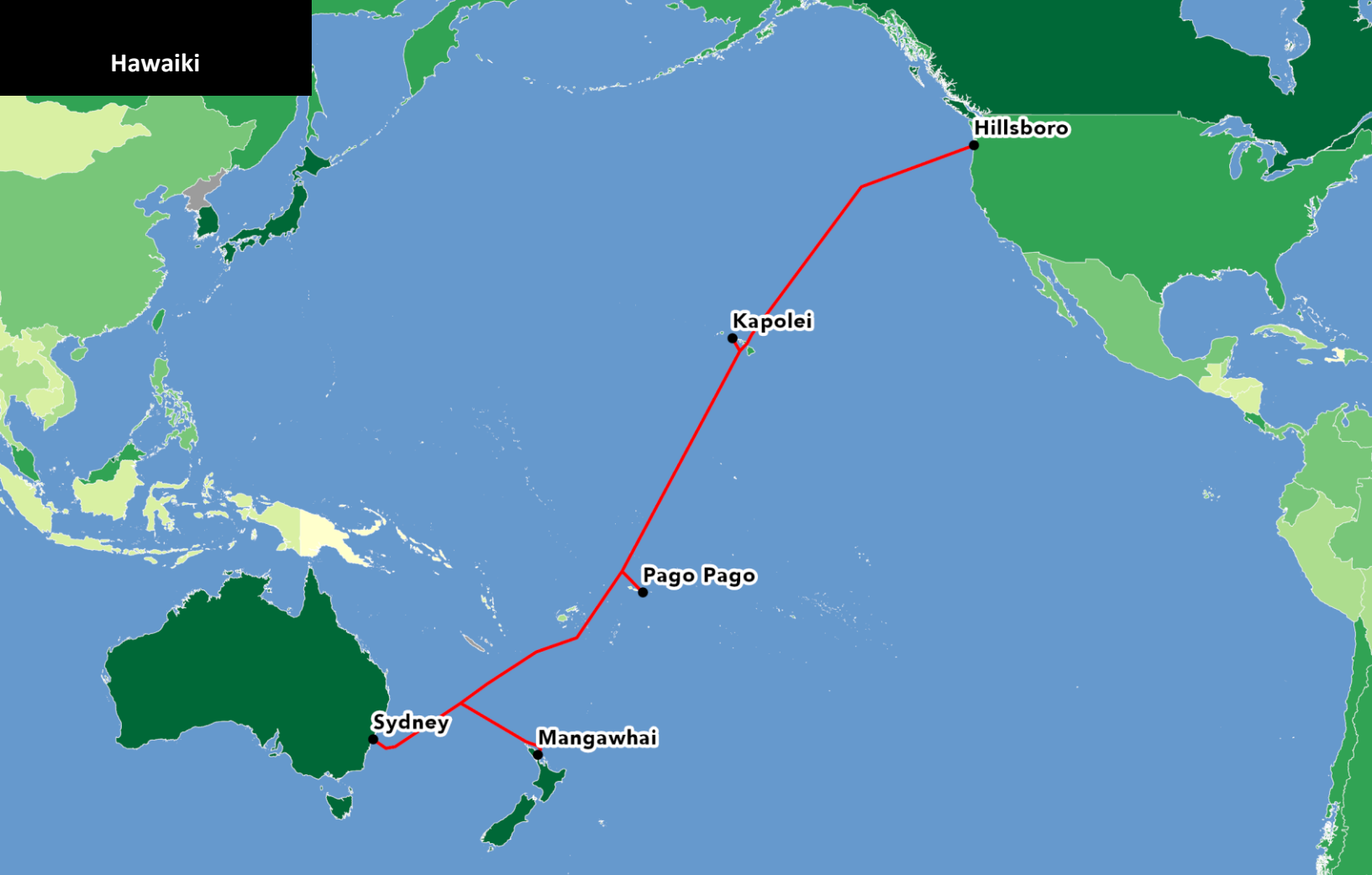
**HAVFRUE/AEC-2**

**System Details**

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$200,000,000
<b>Length (km)</b>	8,179
<b>Design Capacity (Tbps)</b>	108
<b>Fiber Pairs</b>	6
<b>Owners</b>	AquaComms, Bulk Infrastructure AS, Facebook, Google
<b>System Supplier</b>	SubCom
<b>System Installer</b>	SubCom
<b>Region</b>	Transatlantic

**Landing Points**

- Kristiansand (Norway)
- Wall Township (United States)
- Leckanvy (Ireland)
- Blaabjerg (Denmark)



## HAWAIKI

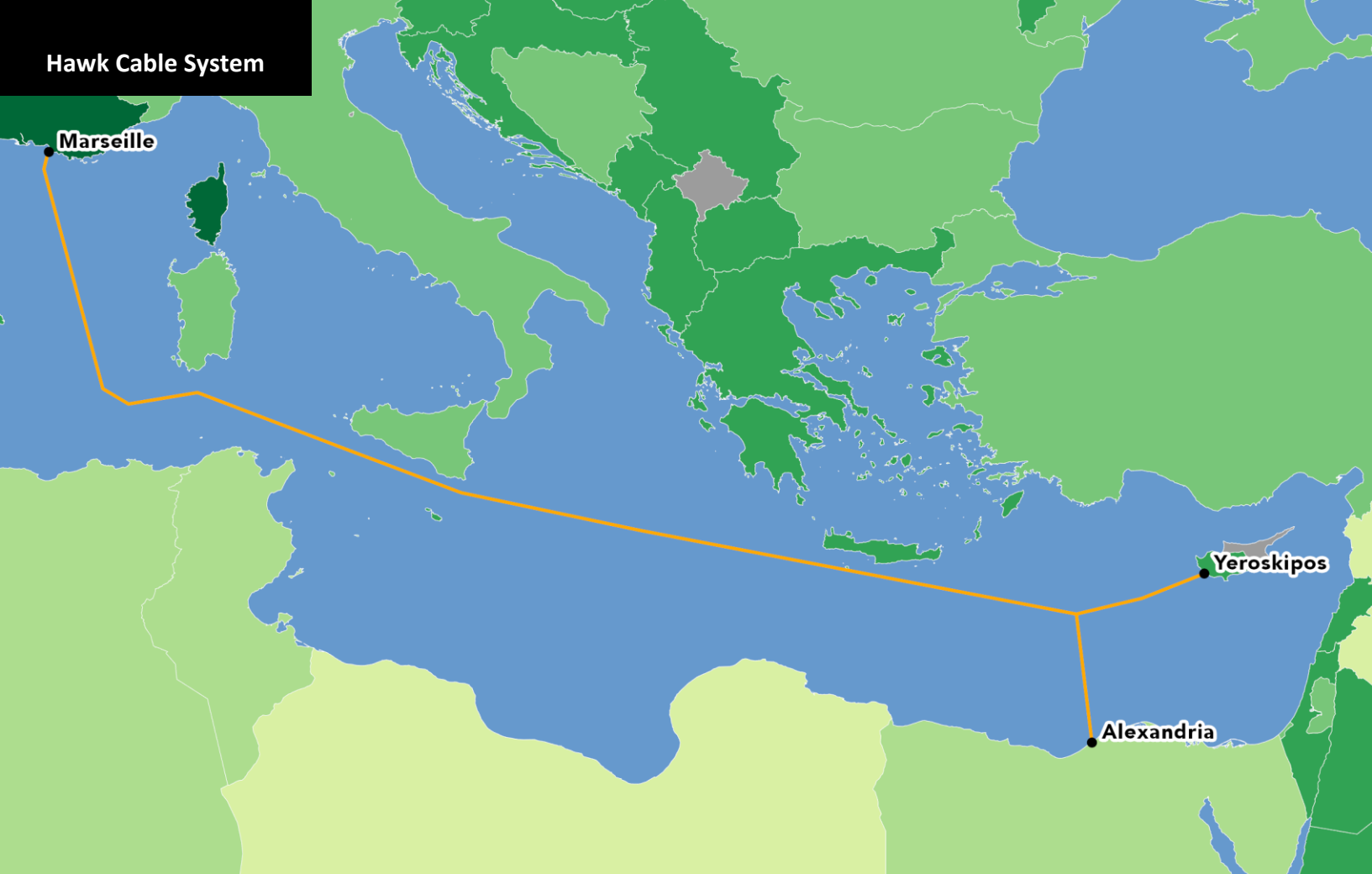
### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	15,000
<b>Initial Capacity (Tbps)</b>	5
<b>Design Capacity (Tbps)</b>	67
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	67
<b>Capacity per Wavelength (Gbps)</b>	250
<b>Owners</b>	Hawaiki Submarine Cable
<b>System Supplier</b>	TE SubCom
<b>System Installer</b>	TE SubCom
<b>Region</b>	AustralAsia; Transpacific

### Landing Points

- Sydney (Australia)
- Hillsboro (United States)
- Kapolei (United States)
- Pago Pago (American Samoa)
- Mangawhai (New Zealand)

## Hawk Cable System



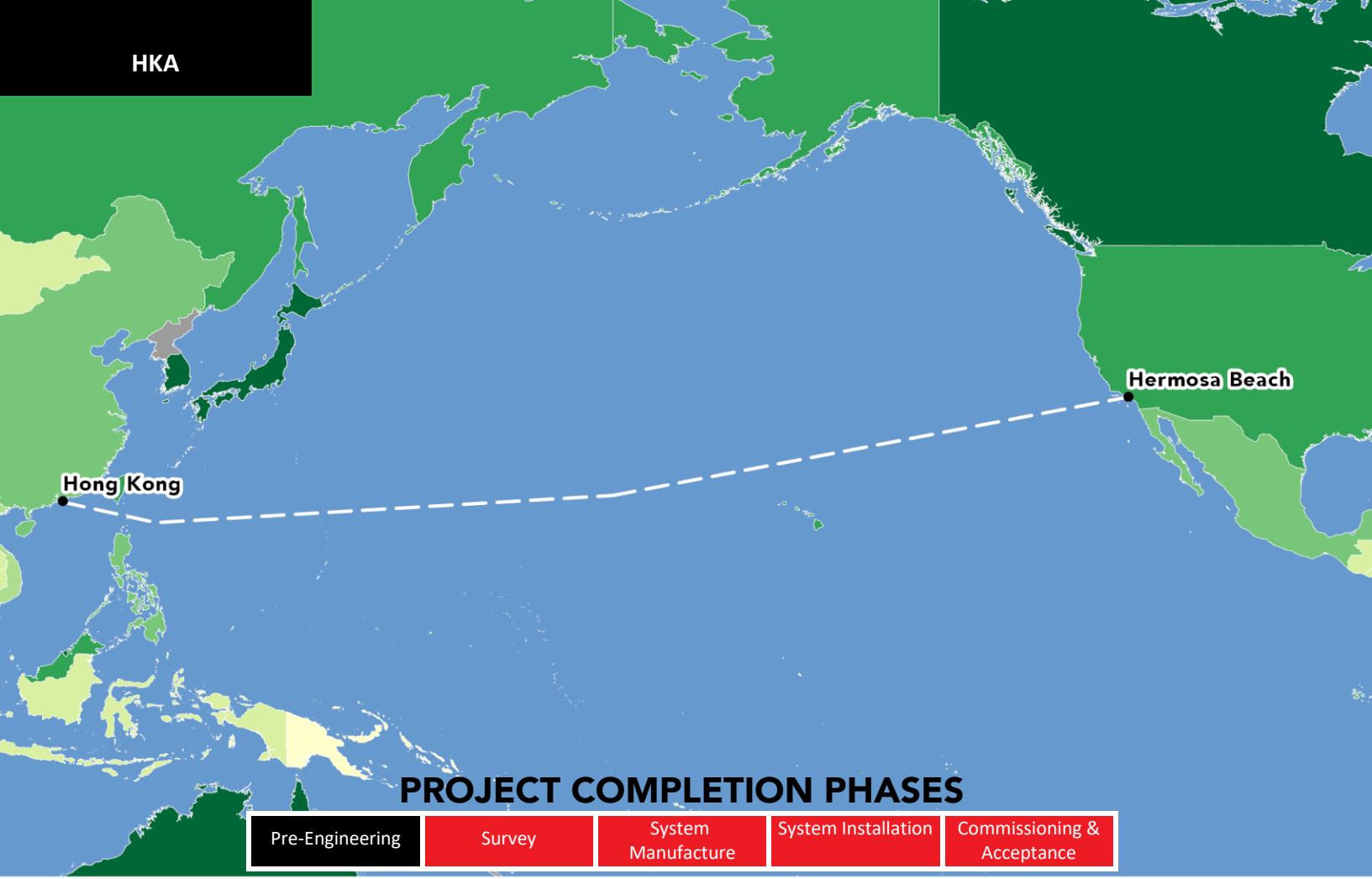
## HAWK CABLE SYSTEM

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	3,181
<b>Initial Capacity (Tbps)</b>	2.72
<b>Design Capacity (Tbps)</b>	2.72
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	68
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Global Cloud Xchange
<b>System Supplier</b>	Fujitsu
<b>System Installer</b>	Elettra, Orange Marine
<b>Region</b>	EMEA

### Landing Points

- Marseille (France)
- Yeroskipos (Cyprus)
- Alexandria (Egypt)



**PROJECT COMPLETION PHASES**



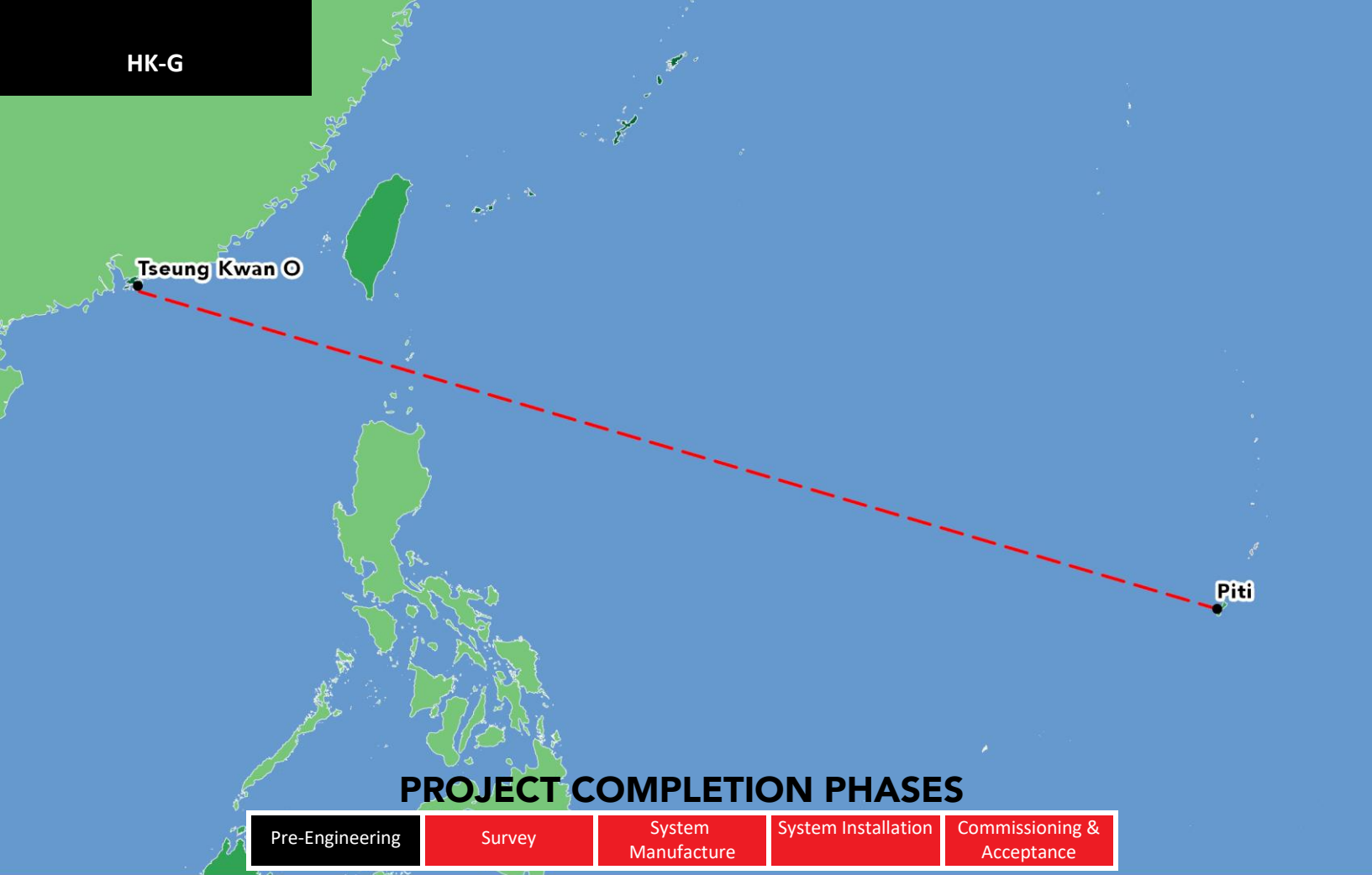
**HONG KONG - AMERICA**

**System Details**

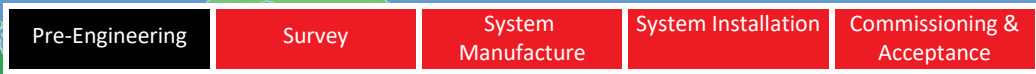
<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$325,000,000
<b>Length (km)</b>	13,000
<b>Design Capacity (Tbps)</b>	80
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Owners</b>	China Telecom Corporation, China Unicom, Facebook, TATA Communications, Telstra
<b>Region</b>	Transpacific

**Landing Points**

- Hermosa Beach (United States)
- Hong Kong (Hong Kong)



**PROJECT COMPLETION PHASES**



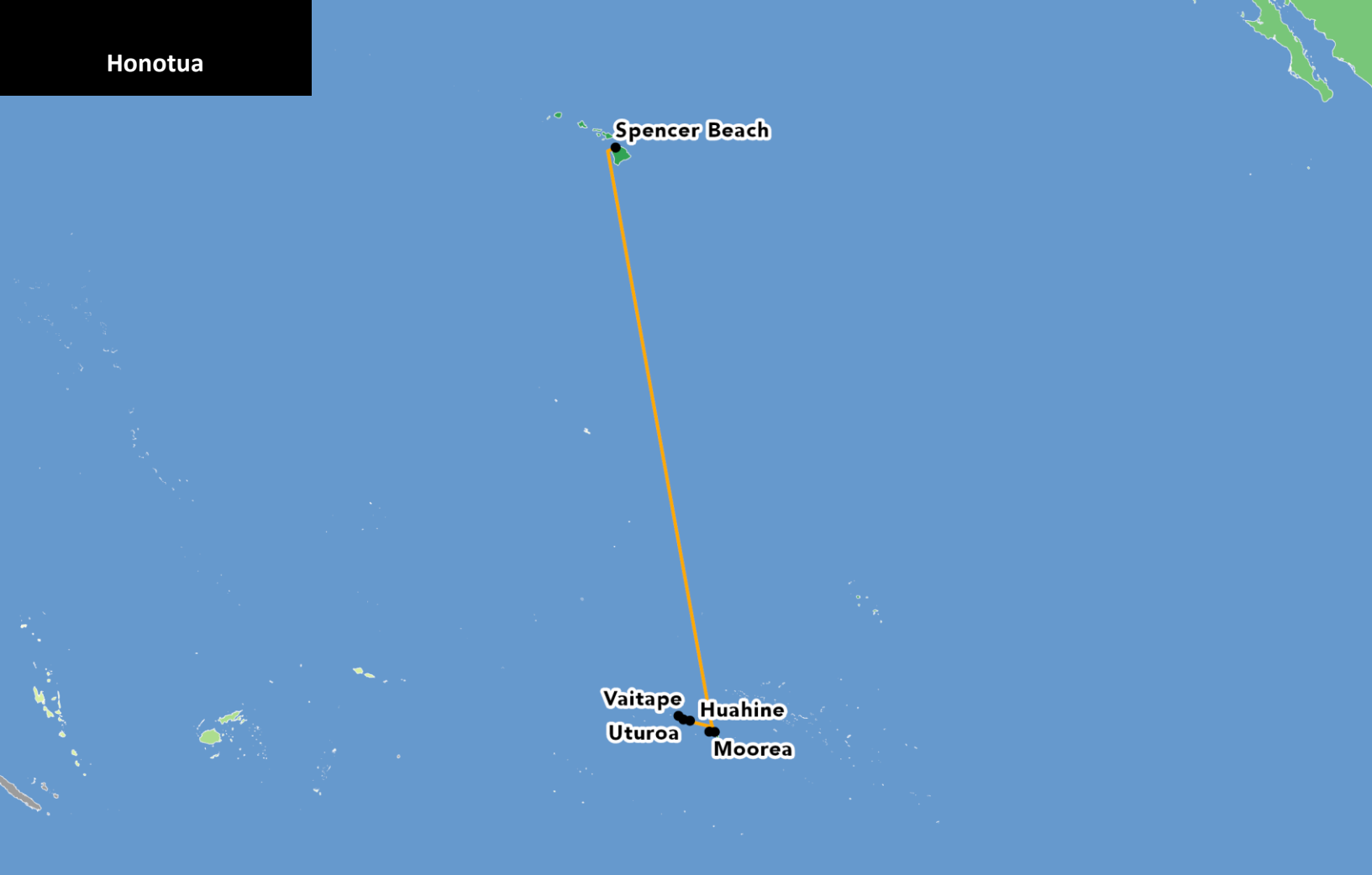
**HONG KONG-GUAM**

**System Details**

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	3,900
<b>Design Capacity (Tbps)</b>	48
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Google, RTI Connectivity
<b>Region</b>	AustralAsia

**Landing Points**

- Tseung Kwan O (Hong Kong)
- Piti (Guam)



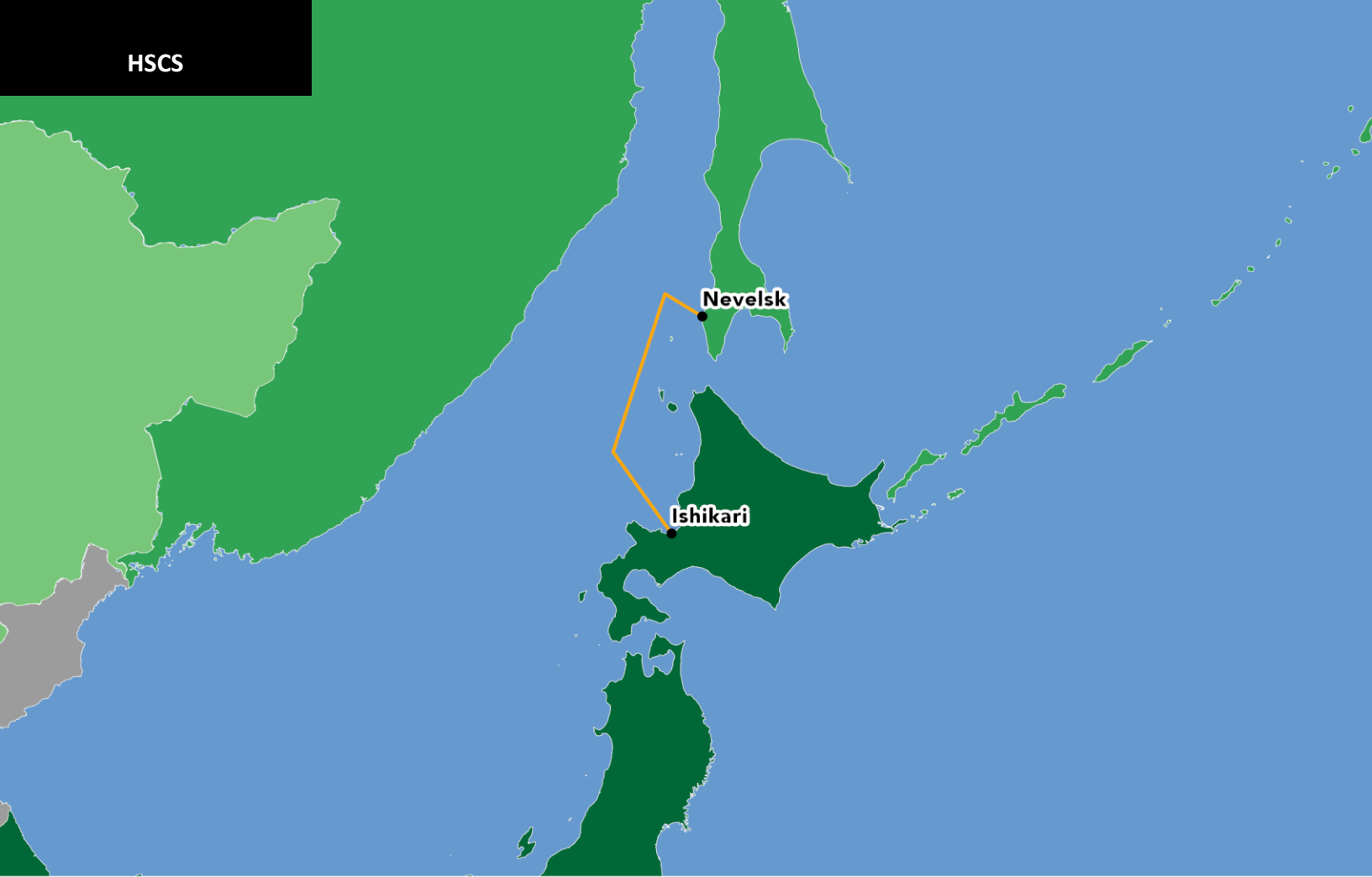
## HONOTUA

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$122,000,000
<b>Length (km)</b>	4,634
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	0.64
<b>Owners</b>	OPT French Polynesia
<b>Region</b>	AustralAsia

### Landing Points

- Spencer Beach (United States)
- Papenoo (French Polynesia)
- Uturoa (French Polynesia)
- Huahine (French Polynesia)
- Vaitape (French Polynesia)
- Moorea (French Polynesia)



## HOKKAIDO-SAKHALIN CABLE SYSTEM

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	559
<b>Design Capacity (Tbps)</b>	0.64
<b>Owners</b>	KDD, TTK
<b>System Installer</b>	KDD
<b>Region</b>	AustralAsia

### Landing Points

- Nevelsk (Russia)
- Ishikari (Japan)



## HUGO

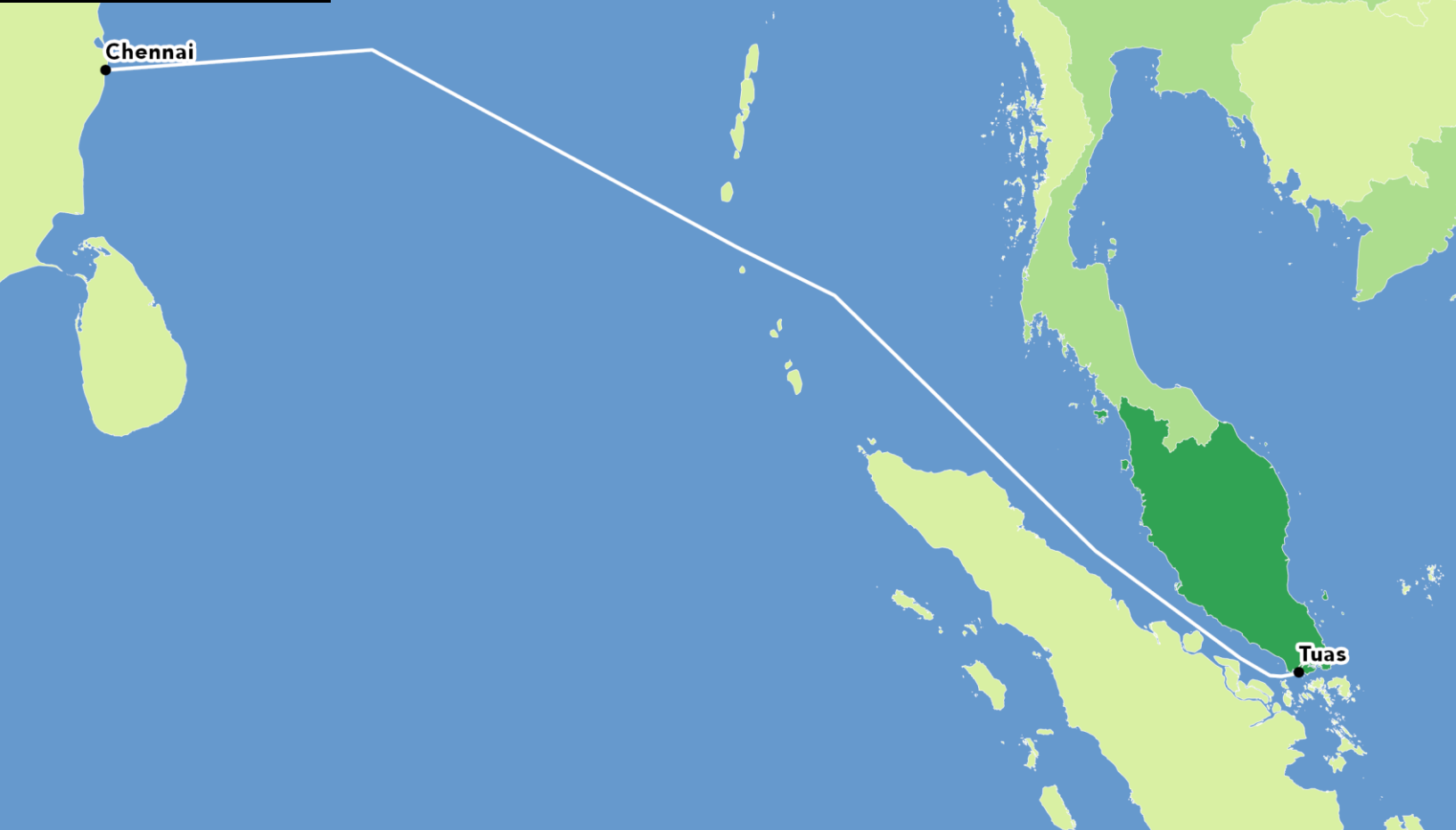
### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$11,960,000
<b>Length (km)</b>	426
<b>Initial Capacity (Tbps)</b>	3.3
<b>Design Capacity (Tbps)</b>	3.3
<b>Owners</b>	C&W
<b>System Installer</b>	Alcatel Submarine Networks, Tyco Telecommunications SSI
<b>Region</b>	EMEA

### Landing Points

- Porthcurno (United Kingdom)
- Guernsey (Guernsey)
- Lannion (France)





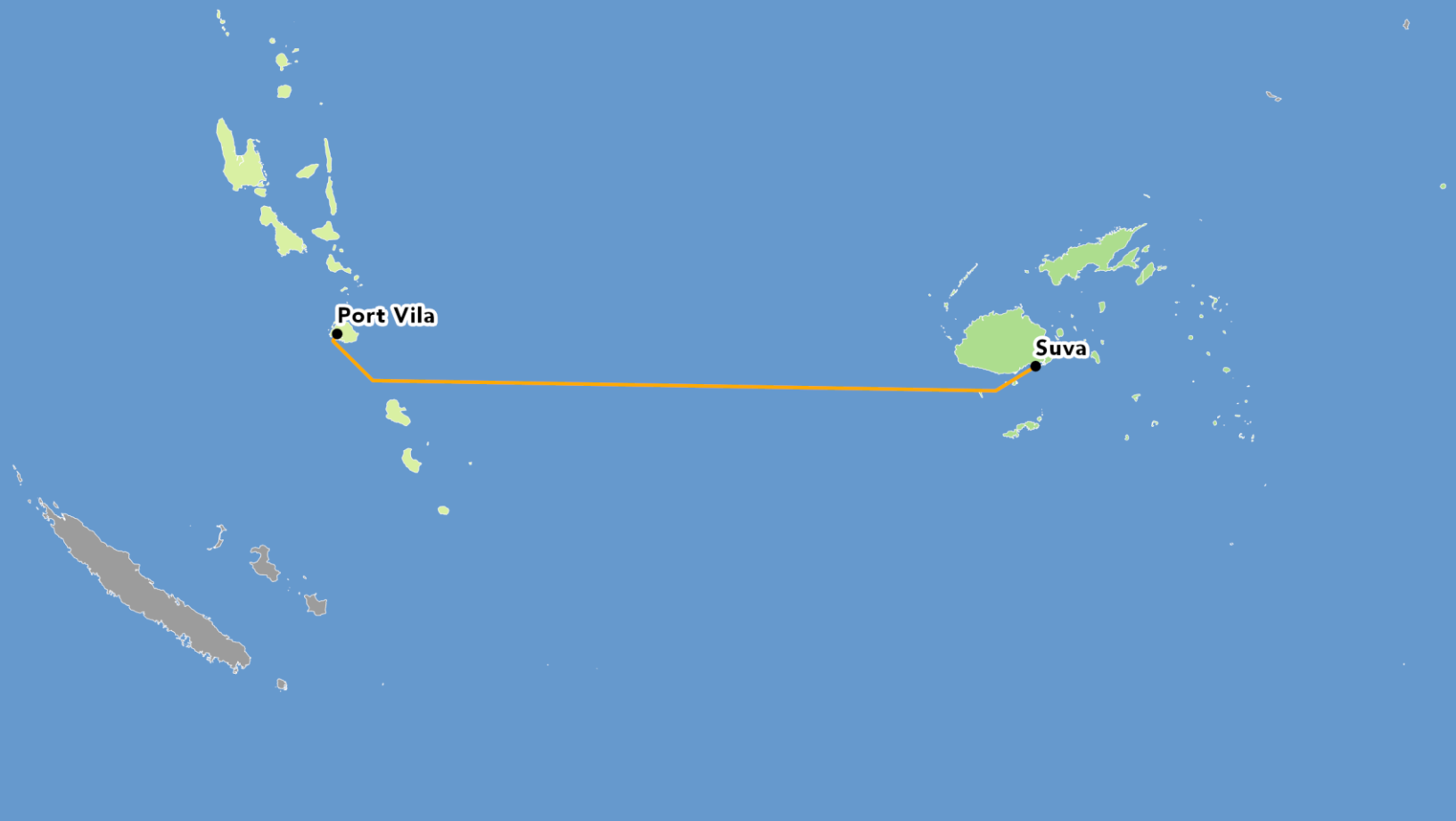
## I2I CABLE NETWORK

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$90,000,000
<b>Length (km)</b>	3,100
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	84
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	105
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Bharti Airtel
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2014
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Tuas (Singapore)
- Chennai (India)



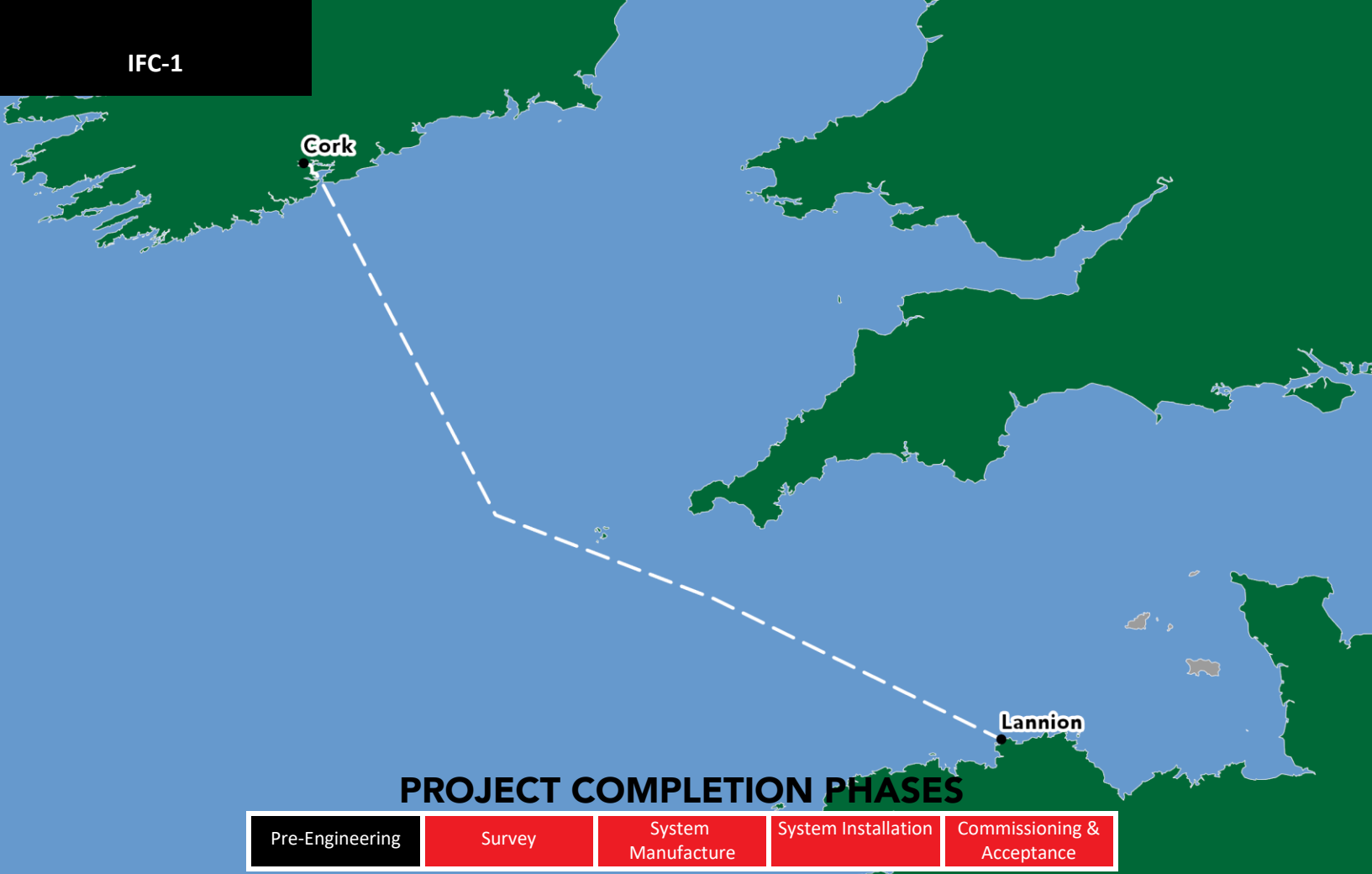
## INTERCHANGE I

### System Details

<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$32,000,000
<b>Length (km)</b>	1,259
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	Interchange Limited
<b>System Supplier</b>	TE SubCom
<b>Region</b>	AustralAsia

### Landing Points

- Port Vila (Vanuatu)
- Suva (Fiji)



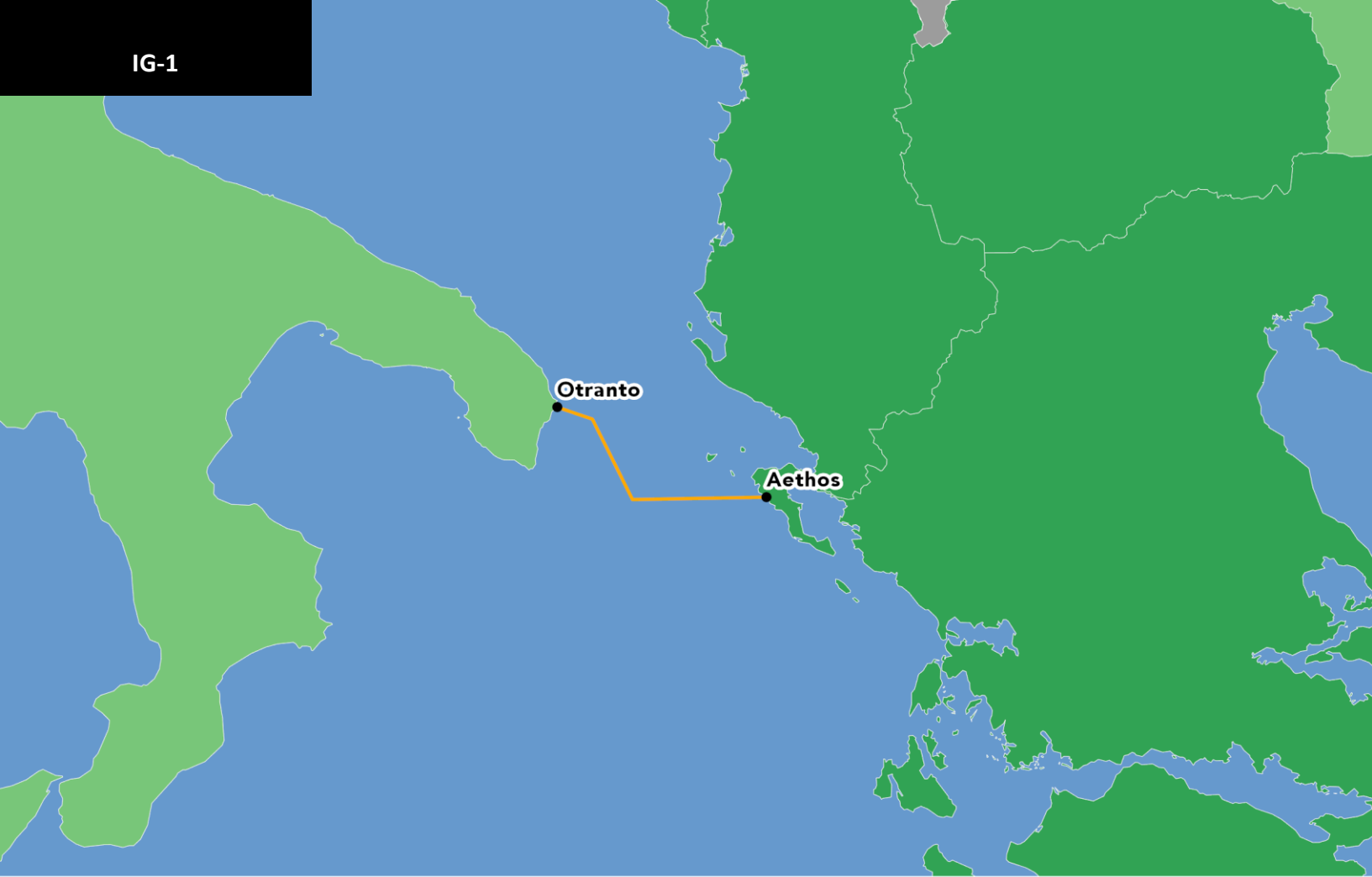
## IFC-1

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	492
<b>Design Capacity (Tbps)</b>	120
<b>Fiber Pairs</b>	6
<b>Owners</b>	Ireland-France Subsea Cable
<b>Region</b>	EMEA

### Landing Points

- Lannion (France)
- Cork (Ireland)



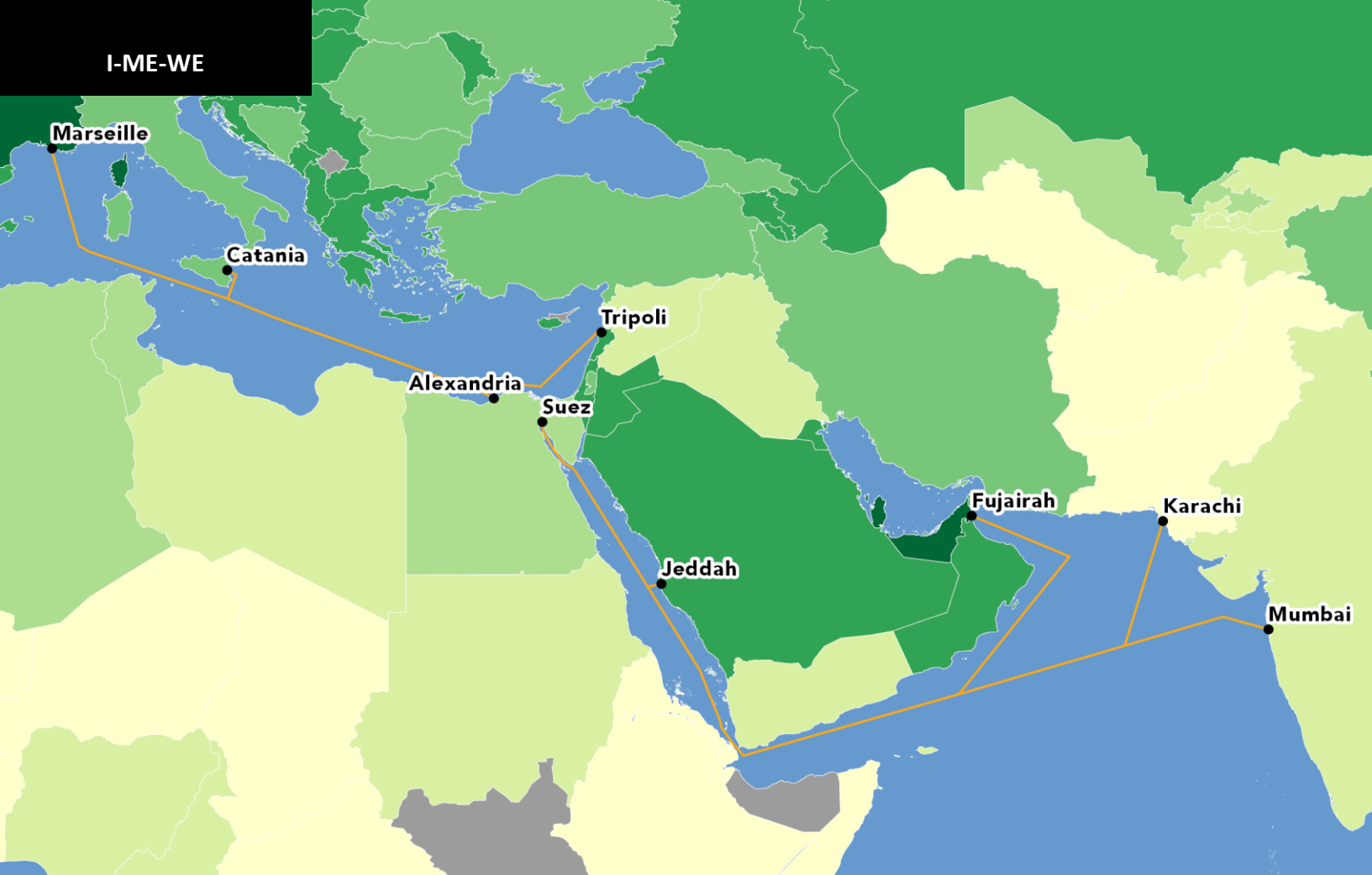
## ITALY GREECE-1

### System Details

RFS Year	2002
EOS Year	2027
Length (km)	172
Fiber Pairs	24
Region	EMEA

### Landing Points

- Aethos (Greece)
- Otranto (Italy)



## INDIA-MIDDLE EAST-WESTERN EUROPE

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$320,000,000
<b>Length (km)</b>	13,000
<b>Initial Capacity (Tbps)</b>	0.52
<b>Design Capacity (Tbps)</b>	5.6
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	128
<b>Owners</b>	Bharti Airtel, Etisalat, France Telecom, Ogero, PTCL, STC, TATA Communications
<b>System Supplier</b>	Mitsubishi Electric Corporation
<b>System Installer</b>	S.B. Submarine Systems
<b>Upgrade Year</b>	2012, 2014
<b>Upgrade Capacity (Gbps)</b>	40, 40
<b>Region</b>	EMEA

### Landing Points

- Karachi (Pakistan)
- Fujairah (United Arab Emirates)
- Mumbai (India)
- Tripoli (Lebanon)
- Marseille (France)
- Catania (Italy)
- Jeddah (Saudi Arabia)
- Suez (Egypt)
- Alexandria (Egypt)



## INDIGO CENTRAL

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$150,000,000
<b>Length (km)</b>	4,850
<b>Design Capacity (Tbps)</b>	36
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Google, SubPartners
<b>System Supplier</b>	SubCom
<b>Region</b>	AustralAsia

### Landing Points

- Perth (Australia)
- Sydney (Australia)



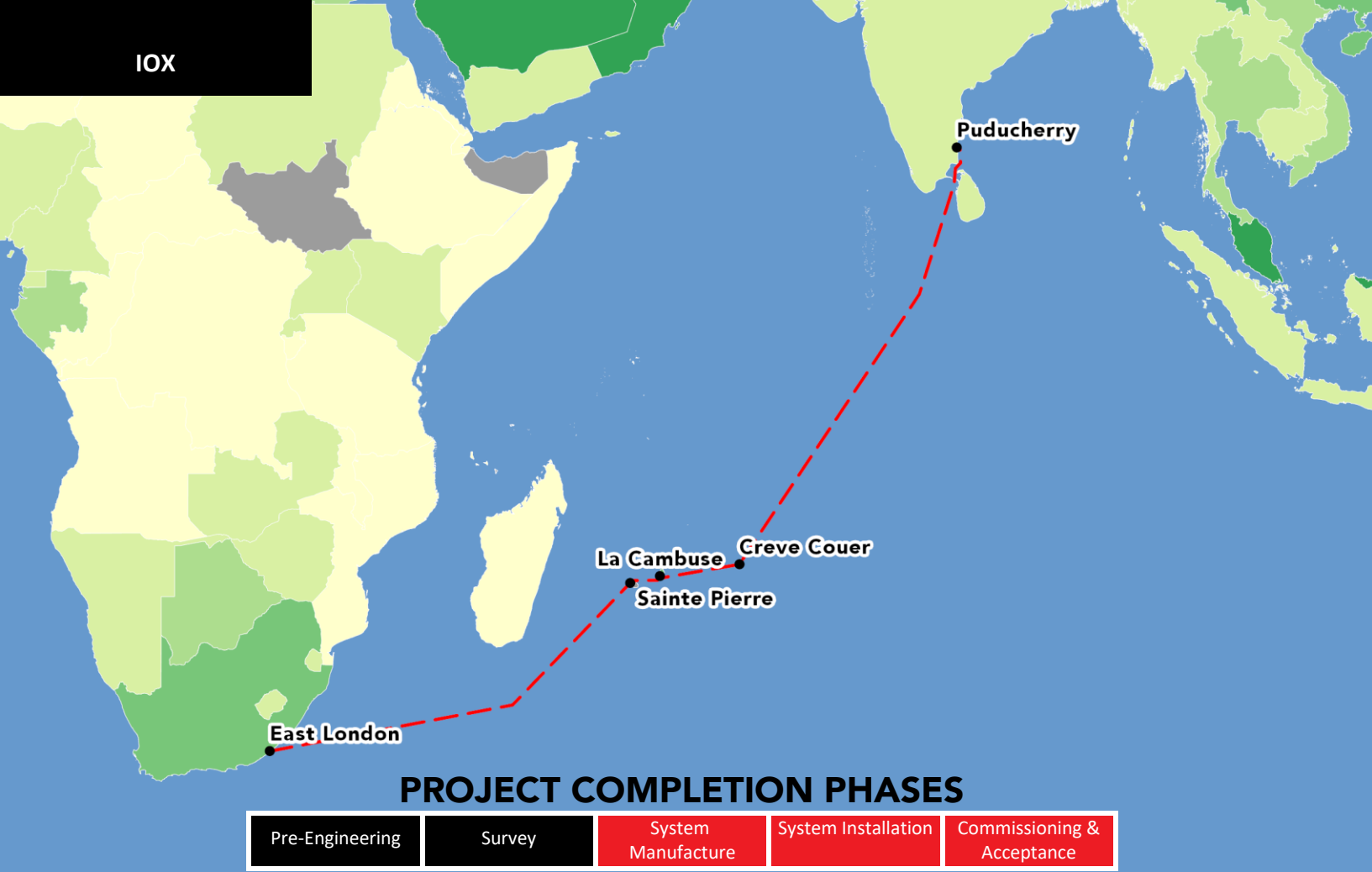
## INDIGO WEST

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$225,000,000
<b>Length (km)</b>	4,600
<b>Design Capacity (Tbps)</b>	36
<b>Fiber Pairs</b>	2
<b>Owners</b>	AARNet, Google, Indosat Ooredoo, Telstra
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Tuas (Singapore)
- Jakarta (Indonesia)
- Perth (Australia)



## INDIAN OCEAN XCHANGE

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$220,000,000
<b>Length (km)</b>	8,850
<b>Initial Capacity (Tbps)</b>	54
<b>Design Capacity (Tbps)</b>	54
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	130
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	IOX Cable Ltd
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Creve Couer (Rodrigues)
- Puducherry (India)
- East London (South Africa)
- Sainte Pierre (LA Reunion)
- La Cambuse (Mauritius)





## ITALY-ALBANIA

### System Details

<b>RFS Year</b>	1998
<b>EOS Year</b>	2023
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	236
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	1
<b>Region</b>	EMEA

### Landing Points

- Durres (Albania)
- Bari (Italy)



## ITALY-GREECE

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	161
<b>Initial Capacity (Tbps)</b>	0.00169
<b>Design Capacity (Tbps)</b>	0.00169
<b>Fiber Pairs</b>	4
<b>Owners</b>	Telecom Italia
<b>Region</b>	EMEA

### Landing Points

- Otranto (Italy)
- Otranto (Greece)



## ITALY-LIBYA

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	570
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.12
<b>Fiber Pairs</b>	2
<b>Owners</b>	Telecom Italia
<b>Upgrade Year</b>	2011
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	EMEA

### Landing Points

- Tripoli (Libya)
- Mazara (Italy)

## Italy-Monaco



## ITALY-MONACO

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	162
<b>Initial Capacity (Tbps)</b>	0.000565
<b>Design Capacity (Tbps)</b>	0.000565
<b>Fiber Pairs</b>	1
<b>Owners</b>	Telecom Italia
<b>Region</b>	EMEA

### Landing Points

- Savona (Italy)
- Monaco (Monaco)



## JAKA2DELEMA

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$116,000,000
<b>Length (km)</b>	1,800
<b>Initial Capacity (Tbps)</b>	0.96
<b>Design Capacity (Tbps)</b>	9.6
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	32
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	PT Telekom
<b>System Supplier</b>	Fujitsu, NSW
<b>System Installer</b>	Orange Marine
<b>Upgrader</b>	Fujitsu
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

### Landing Points

- Bandjermasin (Indonesia)
- Pontianak (Indonesia)
- Mataram (Indonesia)
- Jember (Indonesia)
- Toweli (Indonesia)
- Sangata (Indonesia)
- Pangkalanbun (Indonesia)
- Ketapang (Indonesia)
- Benculuk (Indonesia)



## JAKABARE

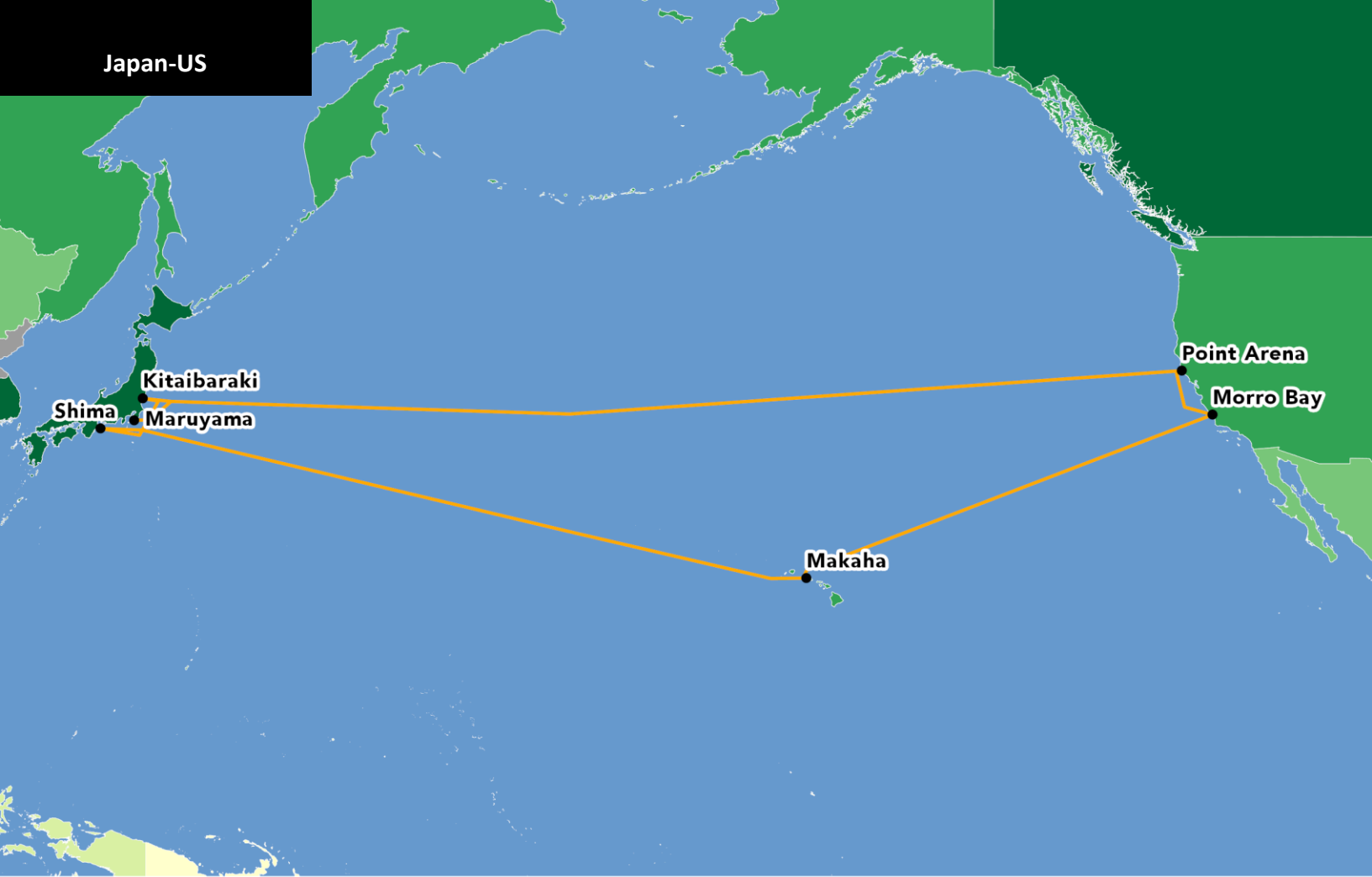
## JAKABARE

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	1,330
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	1.28
<b>Owners</b>	Indosat
<b>System Installer</b>	ASEAN Cablesip, Orange Marine
<b>Region</b>	AustralAsia

### Landing Points

- Jakarta (Indonesia)
- Pontianak (Indonesia)
- Batam (Indonesia)
- Tuas (Singapore)



## JAPAN-US

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$590,000,000
<b>Length (km)</b>	21,880
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	16
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Japan Telecom, MCI WorldCom, NTT Worldwide Network
<b>System Supplier</b>	Fujitsu, Ocean Cable Company
<b>System Installer</b>	Alcatel Submarine Networks, Global Marine Systems Limited
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2012

### Landing Points

- Shima (Japan)
- Morro Bay (United States)
- Makaha (United States)
- Point Arena (United States)
- Maruyama (Japan)
- Kitaibaraki (Japan)



## JASUKA

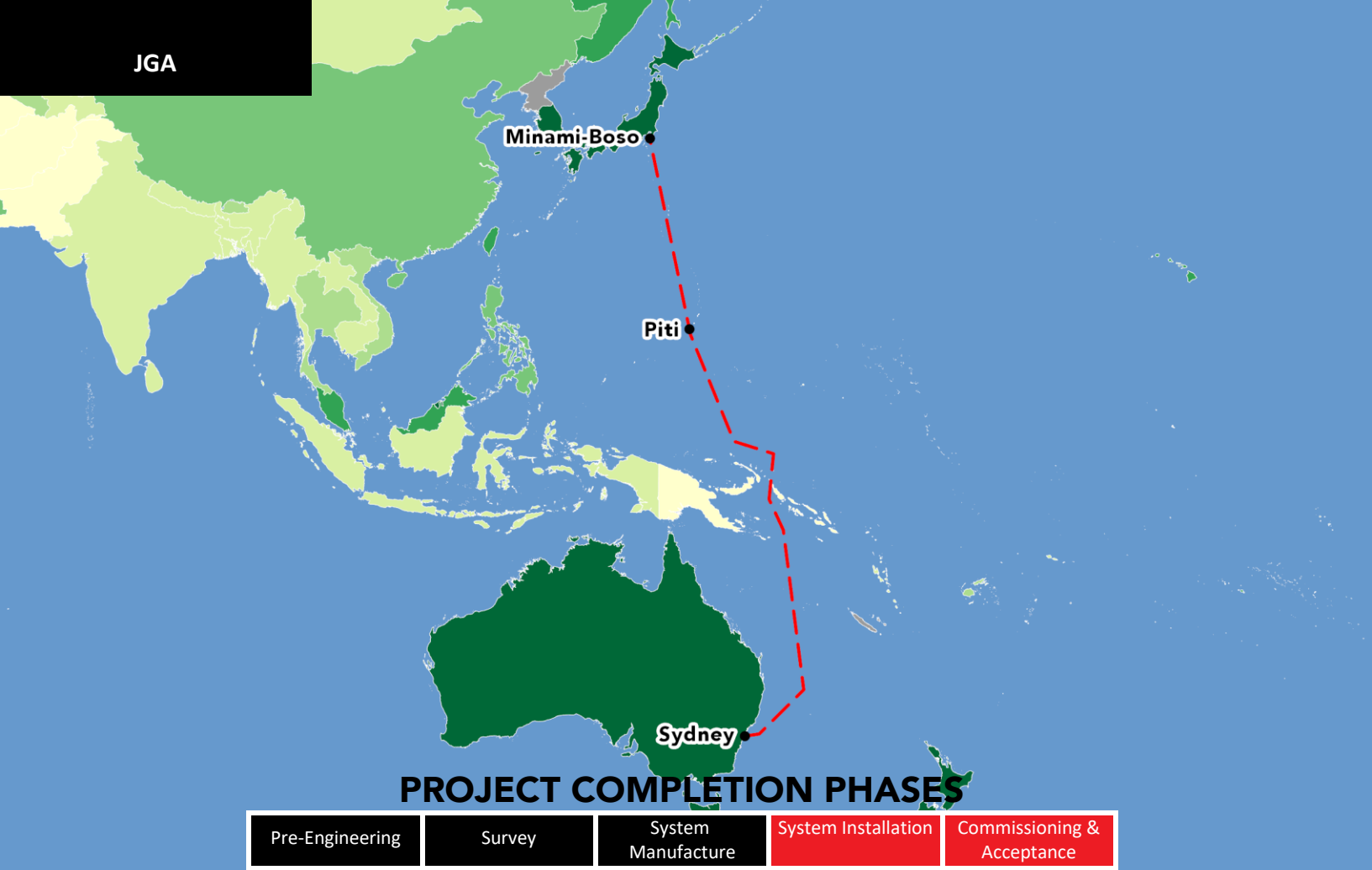
### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$280,000,000
<b>Length (km)</b>	354
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.32
<b>Owners</b>	PT Telekom
<b>Upgrader</b>	Nokia Siemens Networks
<b>Upgrade Year</b>	2011
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	AustralAsia

### Landing Points

- Tanjung Pandan (Indonesia)
- Jakarta (Indonesia)
- Batam (Indonesia)
- Pontianak (Indonesia)





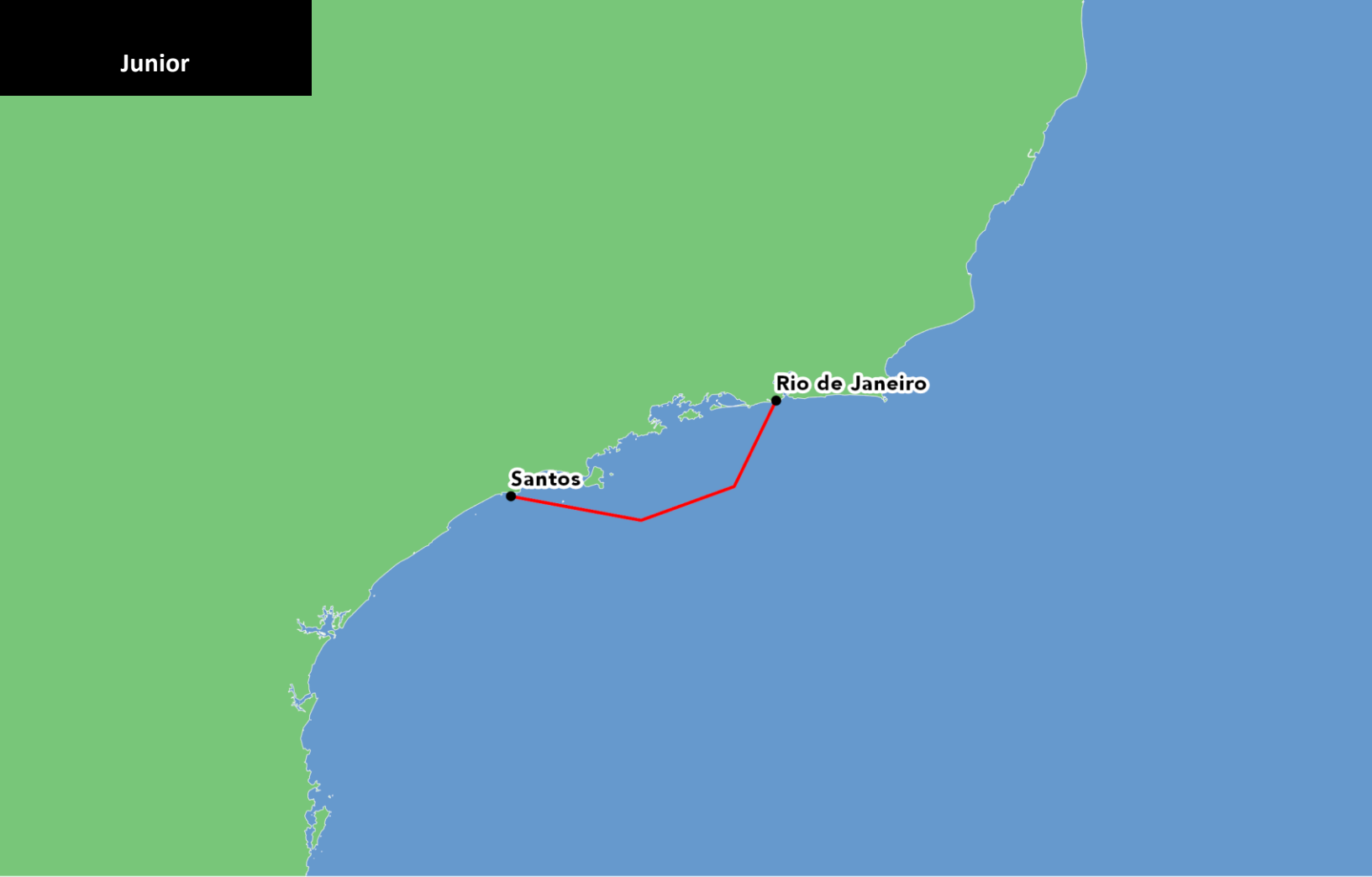
## JAPAN-GUAM-AUSTRALIA

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$240,000,000
<b>Length (km)</b>	9,500
<b>Design Capacity (Tbps)</b>	36
<b>Owners</b>	AARNet, Google, RTI Connectivity
<b>System Supplier</b>	Alcatel Submarine Networks, NEC
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Transpacific

### Landing Points

- Sunshine Coast (Australia)
- Piti (Guam)
- Minami-Boso (Japan)
- Sydney (Australia)



## JUNIOR

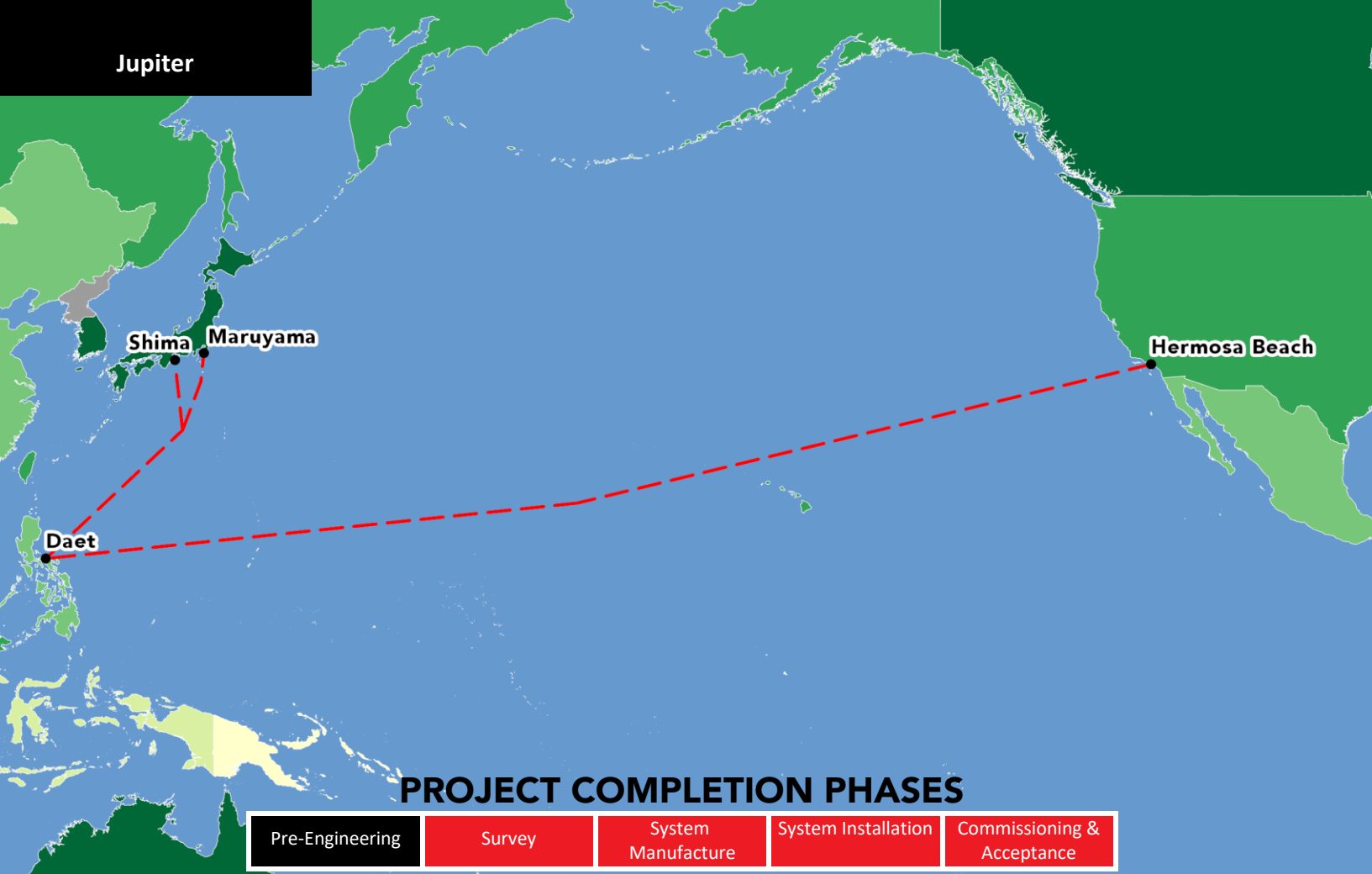
### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Length (km)</b>	390
<b>Fiber Pairs</b>	8
<b>Owners</b>	Google
<b>System Supplier</b>	PadTec
<b>Region</b>	Americas

### Landing Points

- Santos (Brazil)
- Rio de Janeiro (Brazil)

# Jupiter



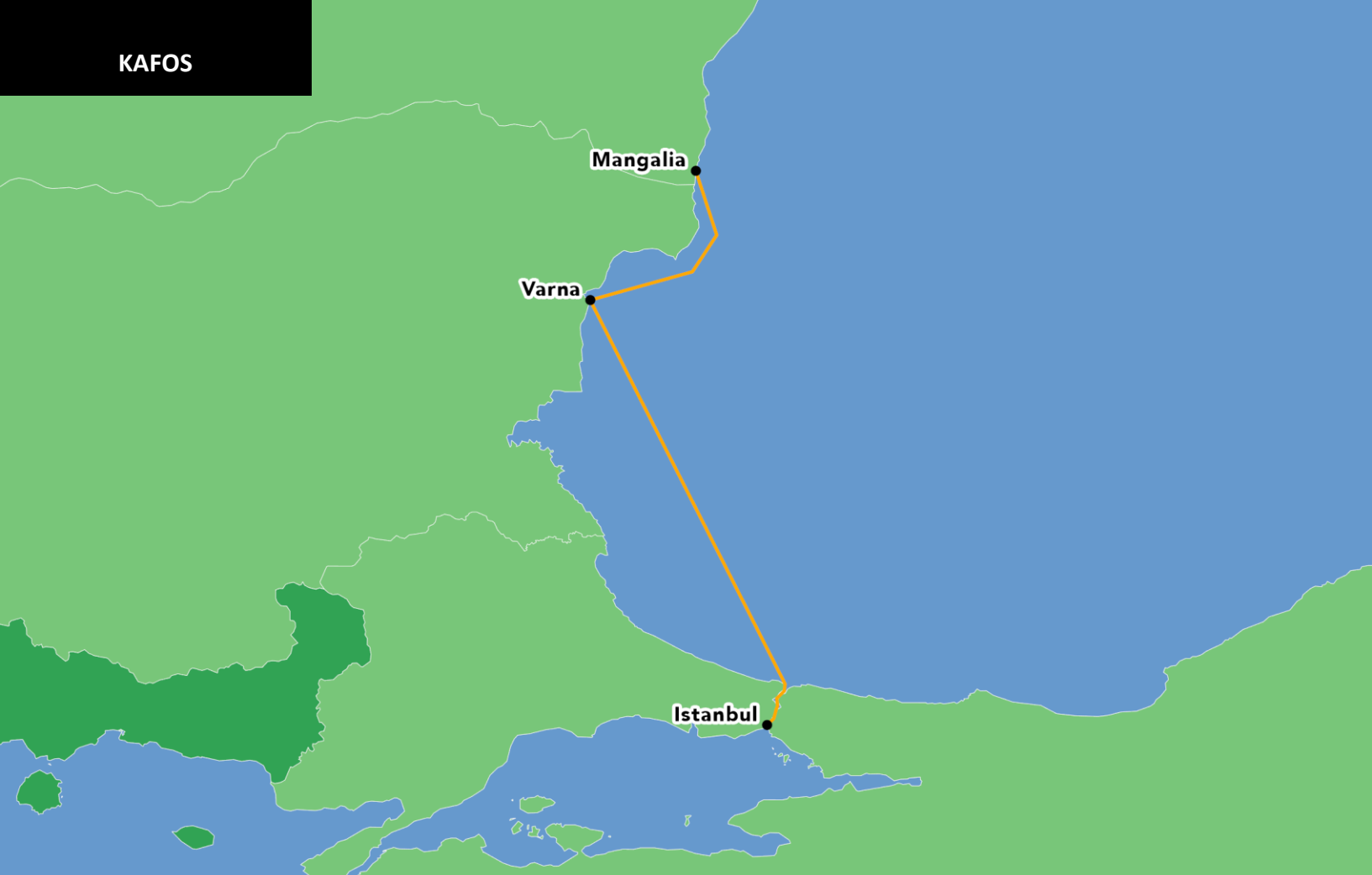
## JUPITER

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Length (km)</b>	14,000
<b>Initial Capacity (Tbps)</b>	60
<b>Design Capacity (Tbps)</b>	60
<b>Capacity per Wavelength (Gbps)</b>	400
<b>Owners</b>	Amazon, Facebook, NTT Communications Corporation, PCCW Global, PLDT, SoftBank Mobile Corporation
<b>System Supplier</b>	SubCom
<b>System Installer</b>	SubCom
<b>Region</b>	Transpacific

### Landing Points

- Tierra Del Mar (United States)
- Daet (Philippines)
- Shima (Japan)
- Hermosa Beach (United States)
- Maruyama (Japan)



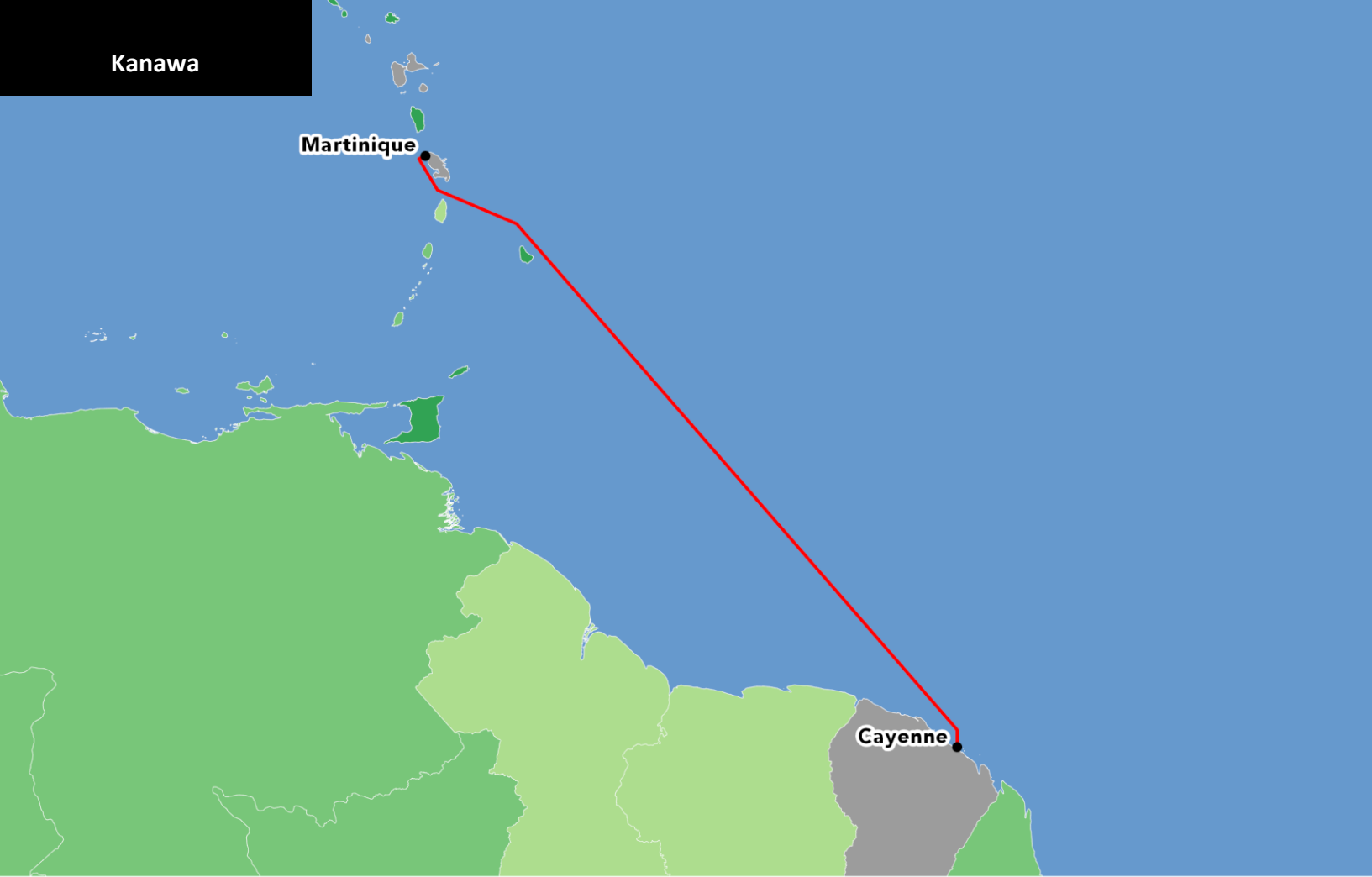
## KARADENİZ FİBER OPTİK SİSTEMİ

### System Details

<b>RFS Year</b>	1997
<b>EOS Year</b>	2022
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	4,640
<b>Initial Capacity (Tbps)</b>	0.0012
<b>Design Capacity (Tbps)</b>	0.0012
<b>Owners</b>	BTC, Turk Telecom
<b>System Installer</b>	Alcatel Submarine Networks, FCR
<b>Region</b>	EMEA

### Landing Points

- Varna (Bulgaria)
- Istanbul (Turkey)
- Mangalia (Romania)



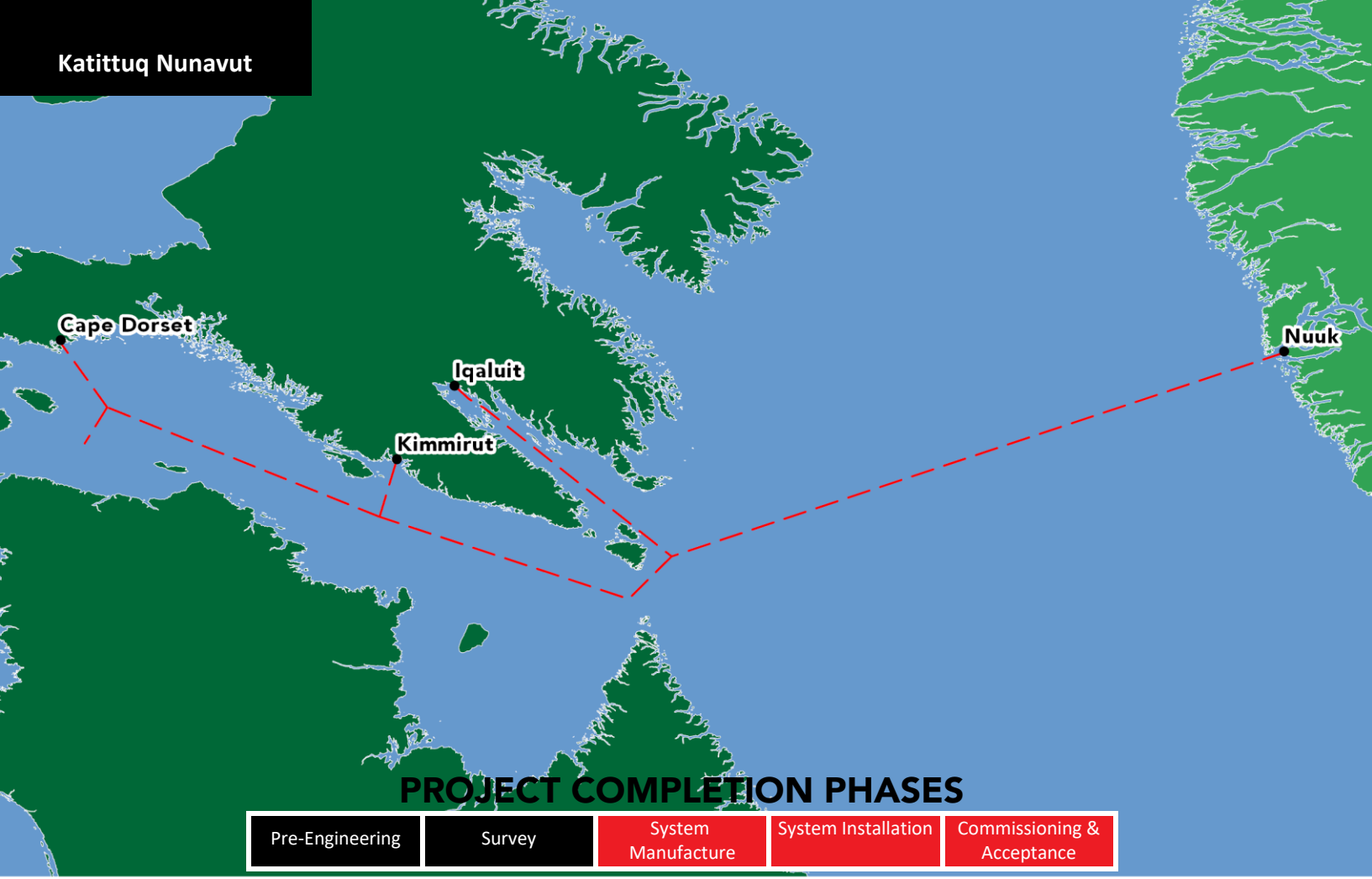
## KANAWA

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	1,746
<b>Design Capacity (Tbps)</b>	10
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	50
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	French Guiana Government
<b>System Installer</b>	Orange Marine
<b>Region</b>	Americas

### Landing Points

- (Martinique)
- Cayenne (French Guiana)



## KATITTUQ NUNAVUT

### System Details

RFS Year	2021
EOS Year	2046
Est. System Cost (USD)	\$80,000,000
Length (km)	2,400
Fiber Pairs	6
Wavelengths per Fiber Pair	100
Capacity per Wavelength (Gbps)	100
Region	Arctic

### Landing Points

- Nuuk (Greenland)
- Kimmirut (Canada)
- Iqaluit (Canada)
- Cape Dorset (Canada)



## KATTEGAT-2

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	75
<b>Owners</b>	TDC
<b>Region</b>	EMEA

- Vestero (Denmark)
- Osterby (Denmark)

### Landing Points

- Skalvik (Sweden)
- Lyngsa (Denmark)



## KELTRA-2

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Length (km)</b>	209
<b>Design Capacity (Tbps)</b>	0.02
<b>Fiber Pairs</b>	6
<b>Owners</b>	Telecom Italia, Tunisie Telecom
<b>Region</b>	EMEA

### Landing Points

- Trapini (Italy)
- Kélibia (Tunisia)





## KOREA-JAPAN CABLE NETWORK

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Length (km)</b>	500
<b>Initial Capacity (Tbps)</b>	2.88
<b>Design Capacity (Tbps)</b>	28.8
<b>Fiber Pairs</b>	12
<b>Wavelengths per Fiber Pair</b>	24
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	KEPCO, SoftBank Telecom Corporation
<b>System Supplier</b>	Fujitsu
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2015
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

### Landing Points

- Kitakyushu (Japan)
- Fukuoka (Japan)
- Busan (South Korea)



## KODIAK KENAI

### System Details

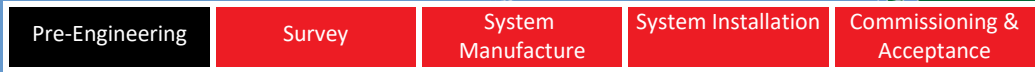
<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	971
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.01
<b>Fiber Pairs</b>	4
<b>Owners</b>	Kodiak Kenai Cable Company
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2010
<b>Upgrade Capacity (Gbps)</b>	10
<b>Region</b>	Americas

### Landing Points

- Seward (United States)
- Kodiak (United States)
- Homer (United States)
- Narrow Cape (United States)
- Kenai (United States)
- Anchorage (United States)



**PROJECT COMPLETION PHASES**



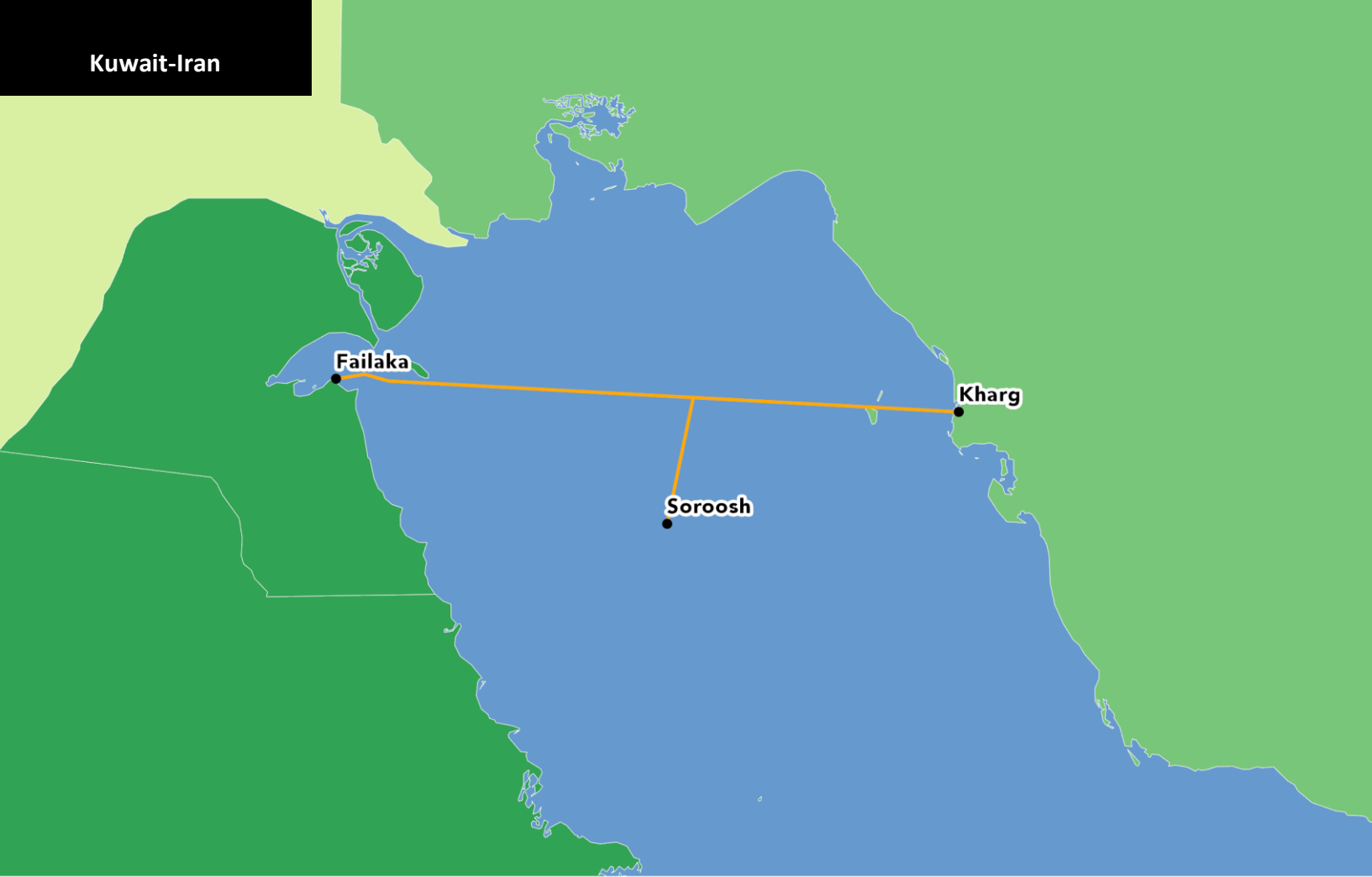
**KOETE**

**System Details**

<b>RFS Year</b>	2022
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$450,000,000
<b>Length (km)</b>	11,500
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Fibre Expressway

**Landing Points**

- Perth (Australia)
  - Carnarvon (Australia)
  - Dampier (Australia)
  - Broome (Australia)
  - Flying Fish Cove (Australia)
  - Singapore (Singapore)
- Geraldton (Australia)
  - Exmouth (Australia)
  - Port Hedland (Australia)
  - Darwin (Australia)
  - Jakarta (Indonesia)
  - Kuantan (Malaysia)



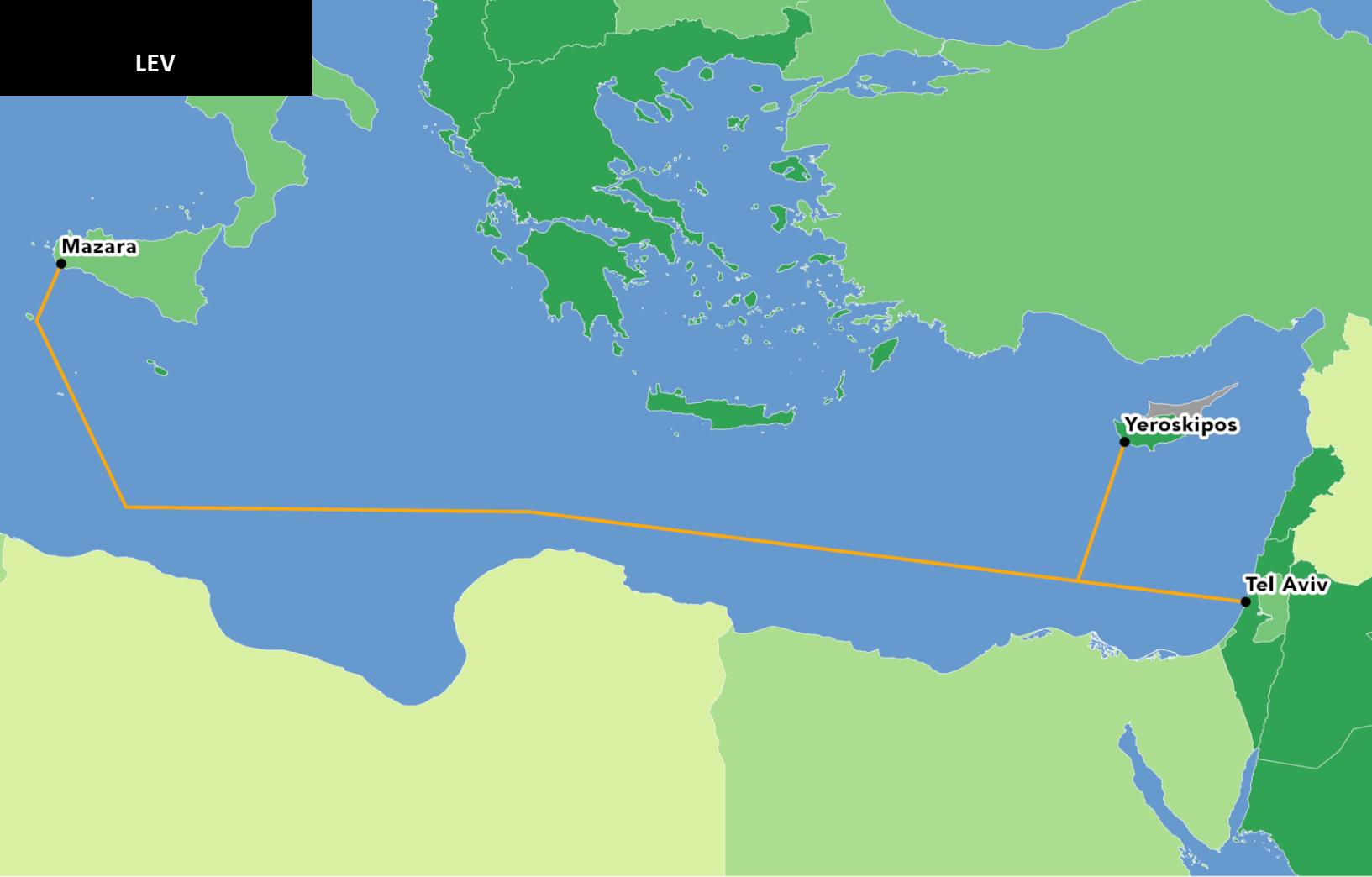
## KUWAIT-IRAN

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	334
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	6
<b>Owners</b>	Iran Ministry of Communications, Kuwait and Telecommunication Infrastructure Company
<b>Region</b>	EMEA

### Landing Points

- Soroosh (Iran)
- Kharg (Iran)
- Failaka (Kuwait)



LEV

**System Details**

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$175,000,000
<b>Length (km)</b>	2,600
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	8
<b>Owners</b>	Cyprus Telecommunications Authority
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Alcatel Submarine Networks, Tyco Telecommunications
<b>Region</b>	EMEA

**Landing Points**

- Yeroskipos (Cyprus)
- Mazara (Italy)
- Tel Aviv (Israel)



## LOWER INDIAN OCEAN NETWORK

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	1,091
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	France Telecom, Orange Madagascar
<b>System Installer</b>	FCR, Orange Marine
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Terre Rouge (Mauritius)
- Sainte Marie (Reunion Island)
- Toamasina (Madagascar)



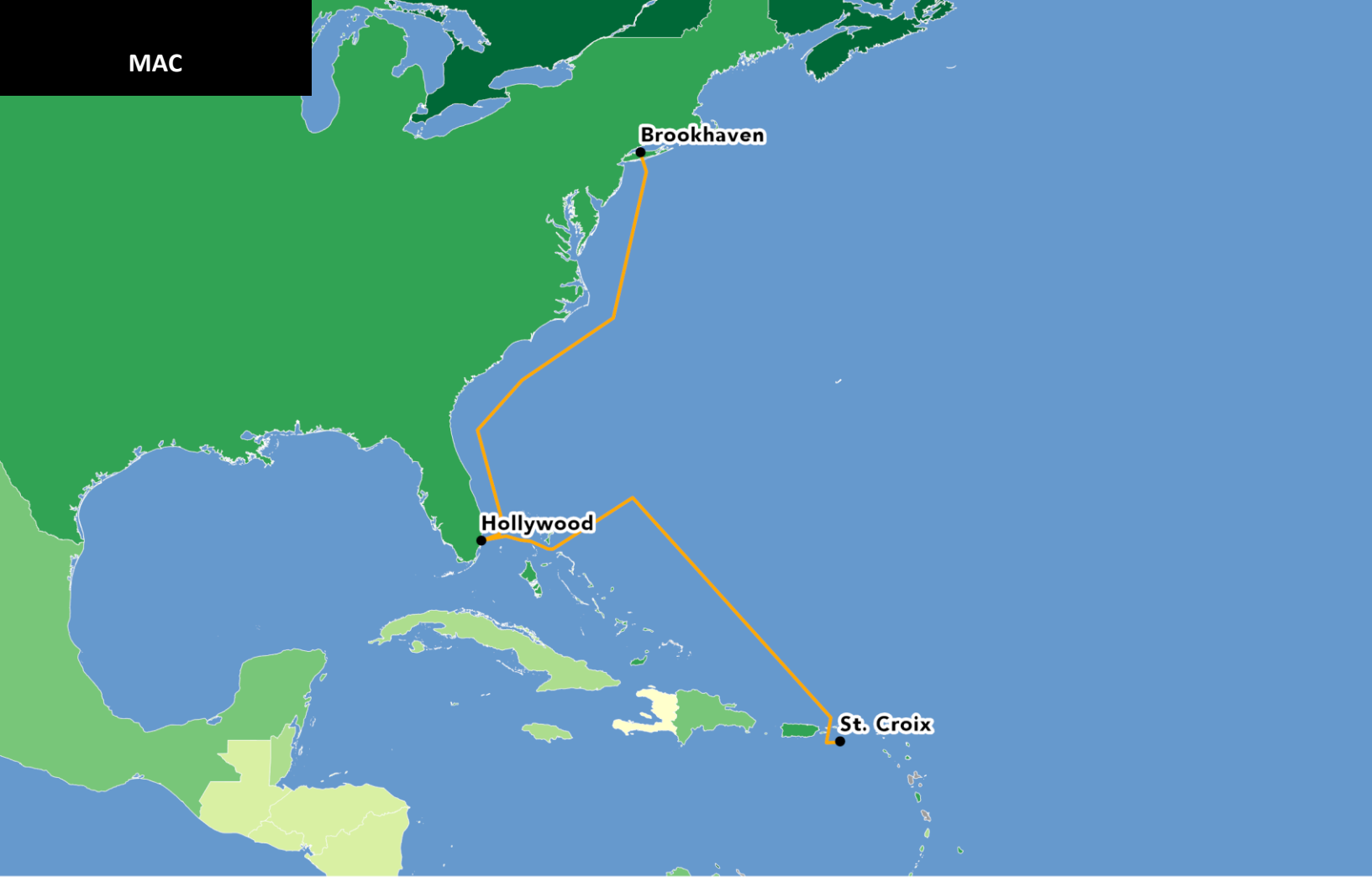
## LOWER INDIAN OCEAN NETWORK 2

### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$76,000,000
<b>Length (km)</b>	3,000
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Emtel Ltd., France Telecom, Orange Madagascar, Telkom Kenya
<b>System Installer</b>	Alpha Logistics, Elettra, Orange Marine
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Mayotte (Mayotte)
- Mombasa (Kenya)



## MID-ATLANTIC CROSSING

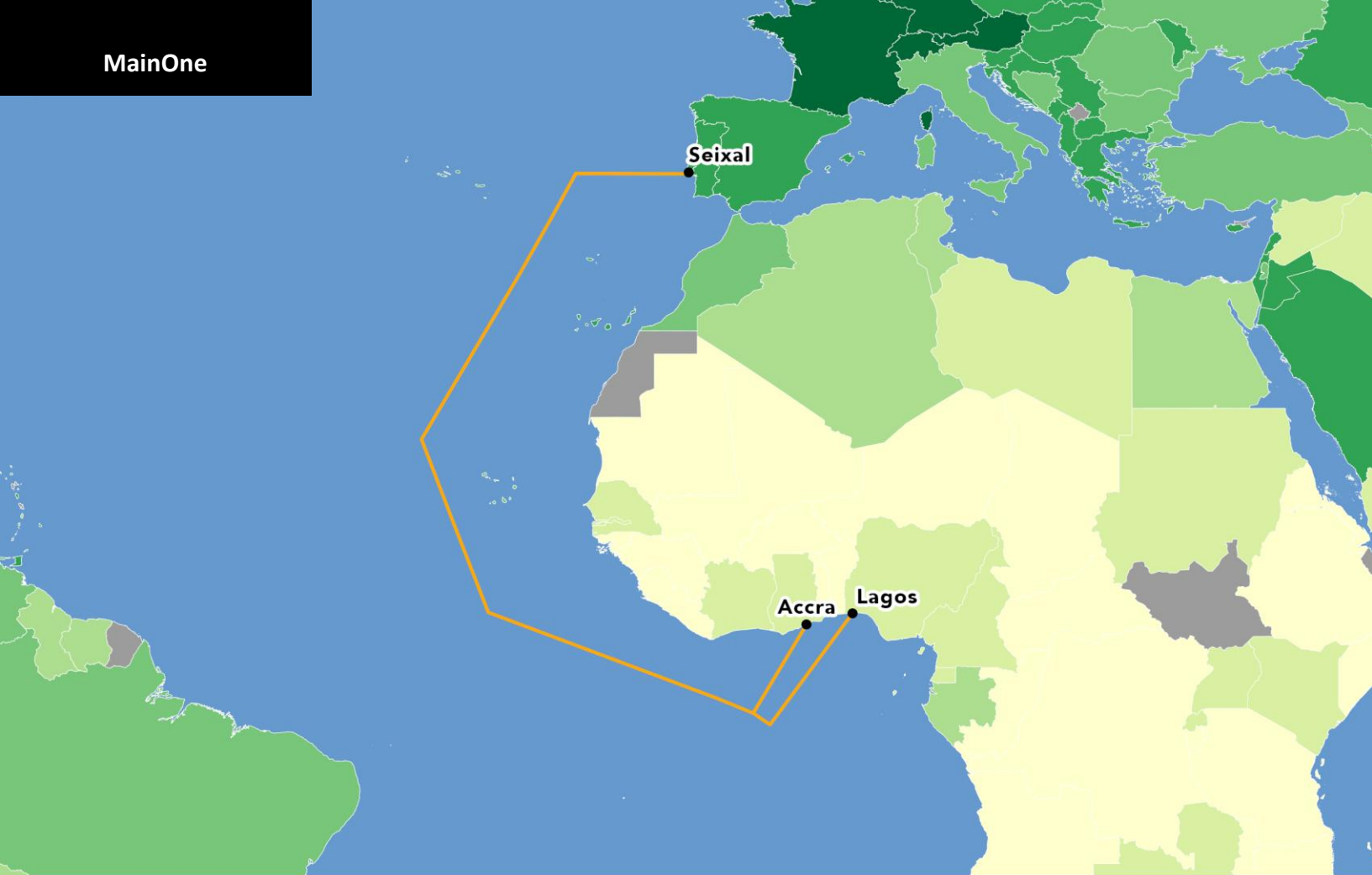
### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$200,000,000
<b>Length (km)</b>	7,461
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.92
<b>Fiber Pairs</b>	2
<b>Owners</b>	CenturyLink
<b>System Installer</b>	Alcatel Submarine Networks, FCR
<b>Upgrader</b>	Infinera, Infinera
<b>Upgrade Year</b>	2010, 2011
<b>Upgrade Capacity (Gbps)</b>	10, 10
<b>Region</b>	Americas

### Landing Points

- St Croix (United States)
- Hollywood (United States)
- Brookhaven (United States)





## MAINONE CABLE

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$240,000,000
<b>Length (km)</b>	7,000
<b>Initial Capacity (Tbps)</b>	1.92
<b>Design Capacity (Tbps)</b>	10
<b>Capacity per Wavelength (Gbps)</b>	100
<b>System Supplier</b>	TE SubCom
<b>Upgrader</b>	Xtera
<b>Upgrade Year</b>	2015
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Accra (Ghana)
- Lagos (Nigeria)
- Seixal (Portugal)



### PROJECT COMPLETION PHASES



## MALBEC

### System Details

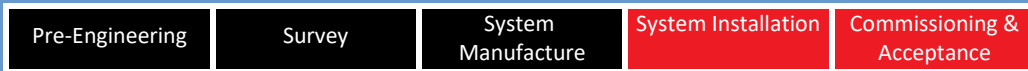
<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$65,000,000
<b>Length (km)</b>	2,500
<b>Fiber Pairs</b>	6
<b>Owners</b>	Facebook, Globenet
<b>Region</b>	Americas

### Landing Points

- Porto Alegre (Brazil)
- Rio de Janeiro (Brazil)
- Buenos Aires (Argentina)



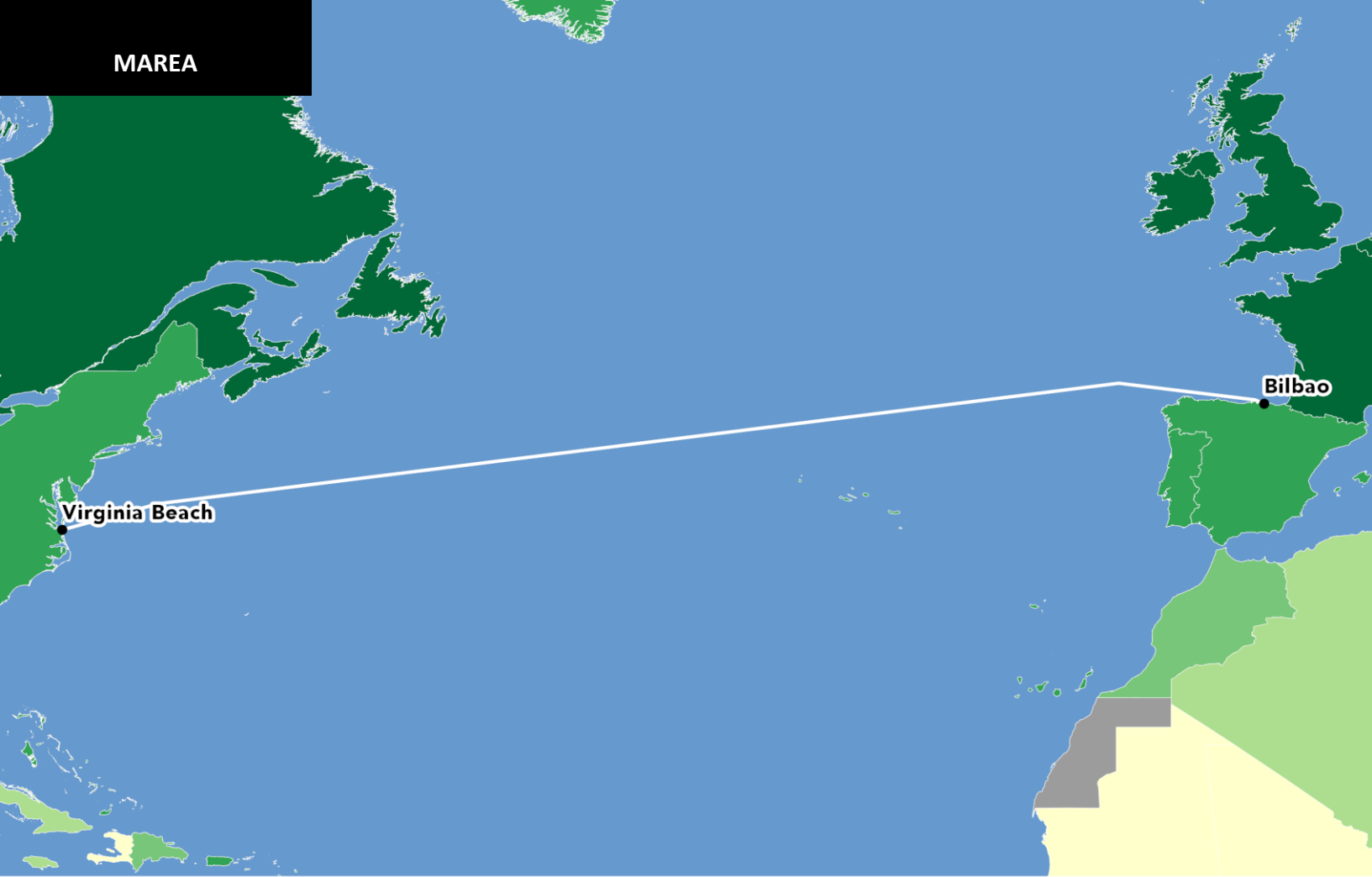
## PROJECT COMPLETION PHASES



## MANATUA CABLE SYSTEM

System Details		Landing Points	
<b>RFS Year</b>	2020	• Vaitape (French Polynesia)	• Toahotu (French Polynesia)
<b>EOS Year</b>	2045	• Aitutaki (Cook Islands)	• Rarotonga (Cook Islands)
<b>Est. System Cost (USD)</b>	\$100,000,000	• Avatele (Niue)	• Apia (Samoa)
<b>Length (km)</b>	3,600		
<b>Design Capacity (Tbps)</b>	10		
<b>Fiber Pairs</b>	3		
<b>Owners</b>	Avaroa Cable Ltd, Manatua Cable Consortium, OPT French Polynesia, Samoa Submarine Cable Company, Telecom Niue Limited		
<b>System Supplier</b>	SubCom		
<b>Region</b>	AustralAsia		

# MAREA



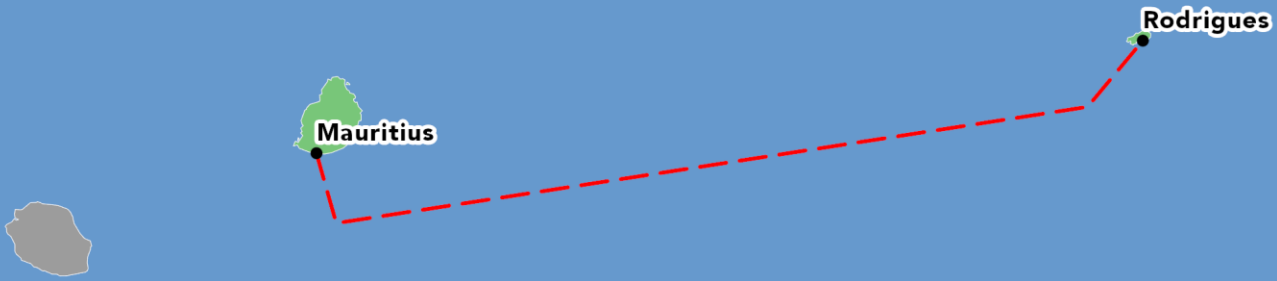
## MAREA

### System Details

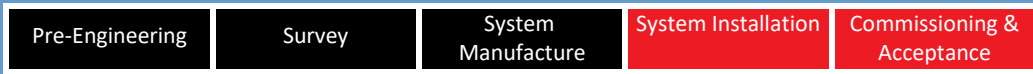
<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$165,000,000
<b>Length (km)</b>	6,600
<b>Design Capacity (Tbps)</b>	200
<b>Fiber Pairs</b>	8
<b>Owners</b>	Facebook, Microsoft, Telxius
<b>System Supplier</b>	TE SubCom
<b>System Installer</b>	TE SubCom
<b>Region</b>	Transatlantic

### Landing Points

- Bilbao (Spain)
- Virginia Beach (United States)



### PROJECT COMPLETION PHASES



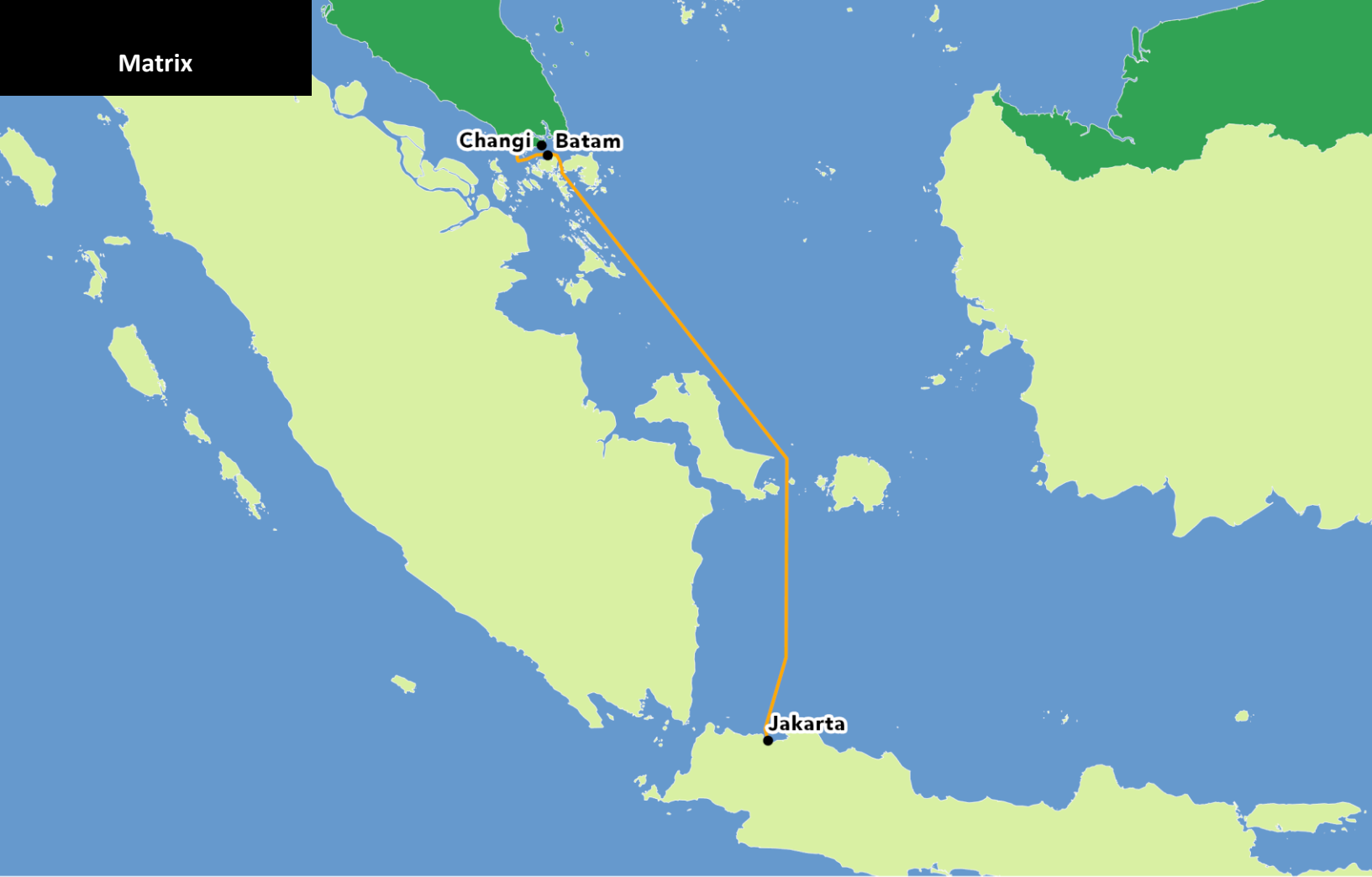
## MAURITIUS AND RODRIGUES SUBMARINE CABLE SYSTEM

#### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Length (km)</b>	700
<b>Design Capacity (Tbps)</b>	16
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Mauritius Telecom, PCCW Global
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	E-marine PJSC
<b>Region</b>	Indian Ocean

#### Landing Points

- (Mauritius)
- (Rodrigues)



## MATRIX

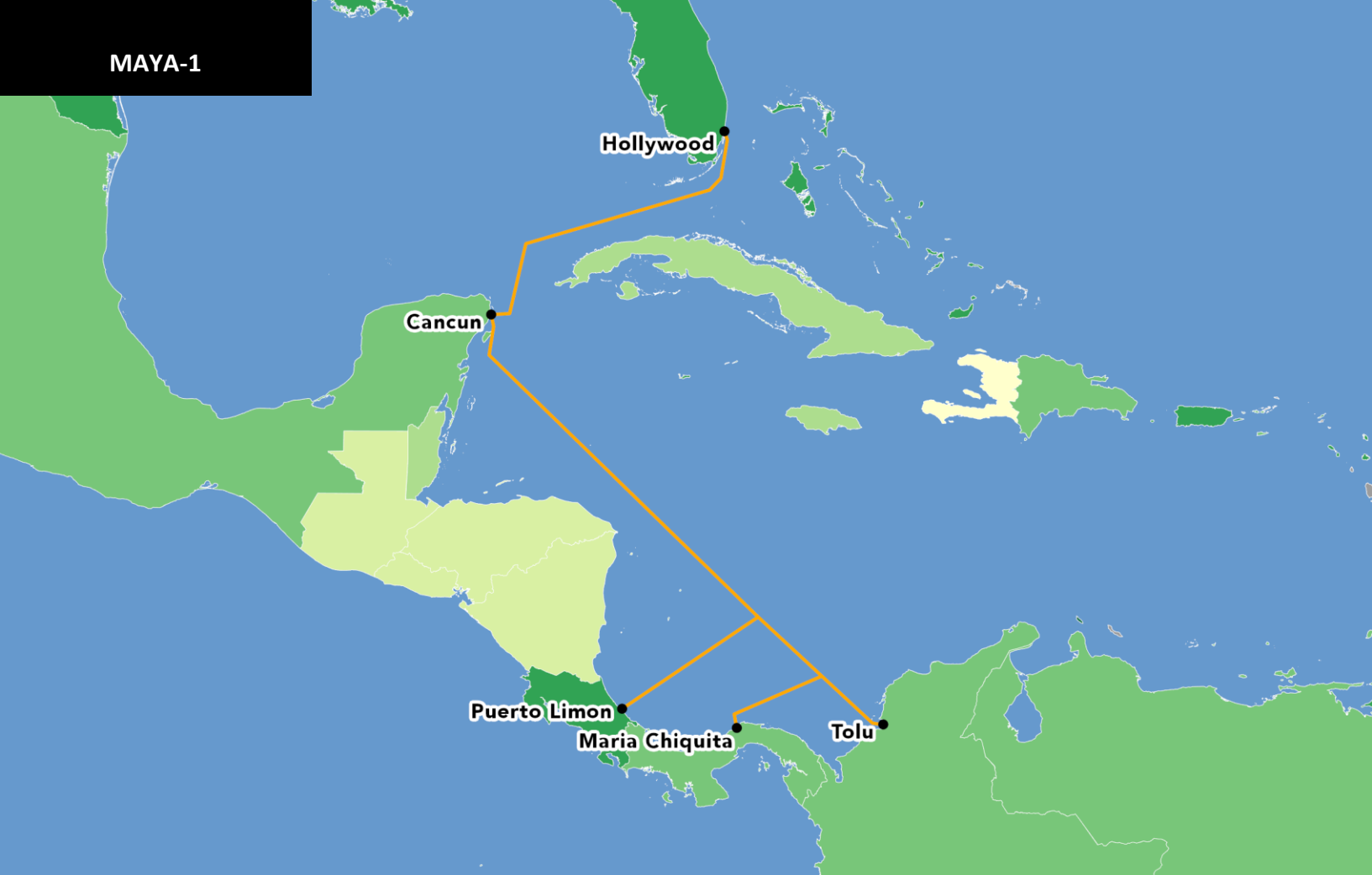
### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	1,438
<b>Initial Capacity (Tbps)</b>	0.6
<b>Design Capacity (Tbps)</b>	2.56
<b>Fiber Pairs</b>	4
<b>Owners</b>	Matrix Networks, NAP Info
<b>System Supplier</b>	TE SubCom
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	AustralAsia

### Landing Points

- Jakarta (Indonesia)
- Batam (Indonesia)
- Changi (Singapore)

# MAYA-1



## MAYA-1

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$120,000,000
<b>Length (km)</b>	4,506
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.9225
<b>Fiber Pairs</b>	2
<b>Owners</b>	MAYA-1 Consortium
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Alcatel Submarine Networks, Tyco Telecommunications
<b>Upgrader</b>	Alcatel-Lucent Submarine Networks
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Americas

### Landing Points

- Maria Chiquita (Panama)
- Tolu (Colombia)
- Cancun (Mexico)
- Hollywood (United States)
- Puerto Limon (Costa Rica)



## MORATELINDO BATAM - DUMAI CABLE

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	330
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	Moratelindo
<b>Region</b>	AustralAsia

### Landing Points

- Dumai (Indonesia)
- Batam (Indonesia)





## MALAYSIA-CAMBODIA-THAILAND

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$60,000,000
<b>Length (km)</b>	1,425
<b>Initial Capacity (Tbps)</b>	1.5
<b>Design Capacity (Tbps)</b>	30
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	50
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Symphony Communication Public Company Limited, Telcotech Limited, Telekom Malaysia Berhad
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	AustralAsia

### Landing Points

- Sihanoukville (Cambodia)
- Rayoung (Thailand)
- Cherating (Malaysia)



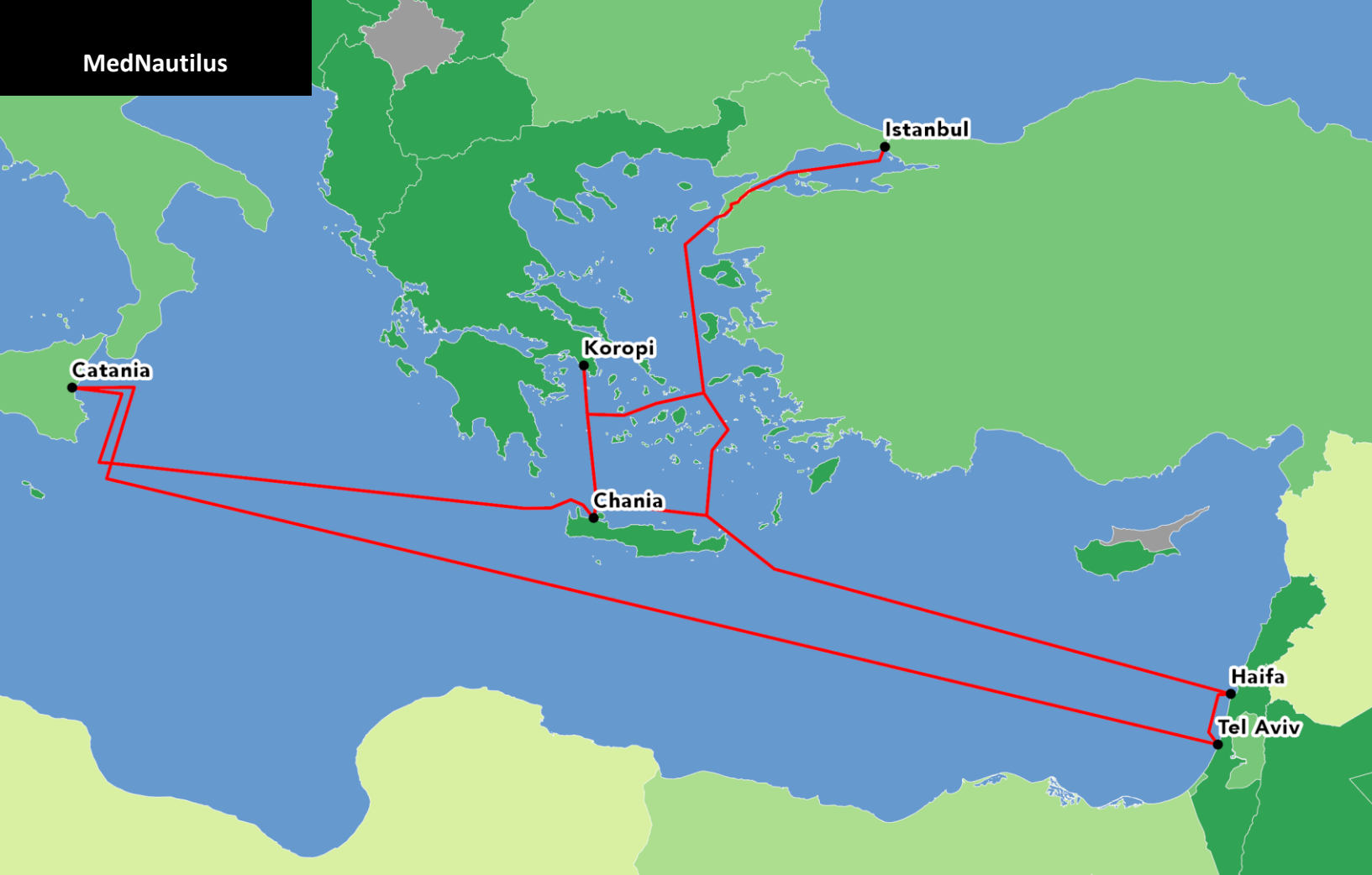
## MED CABLE NETWORK

### System Details

<b>RFS Year</b>	2005
<b>EOS Year</b>	2030
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	1,300
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.02
<b>Owners</b>	Med Cable
<b>Region</b>	EMEA

### Landing Points

- Annaba (Algeria)
- Algiers (Algeria)
- Marseille (France)



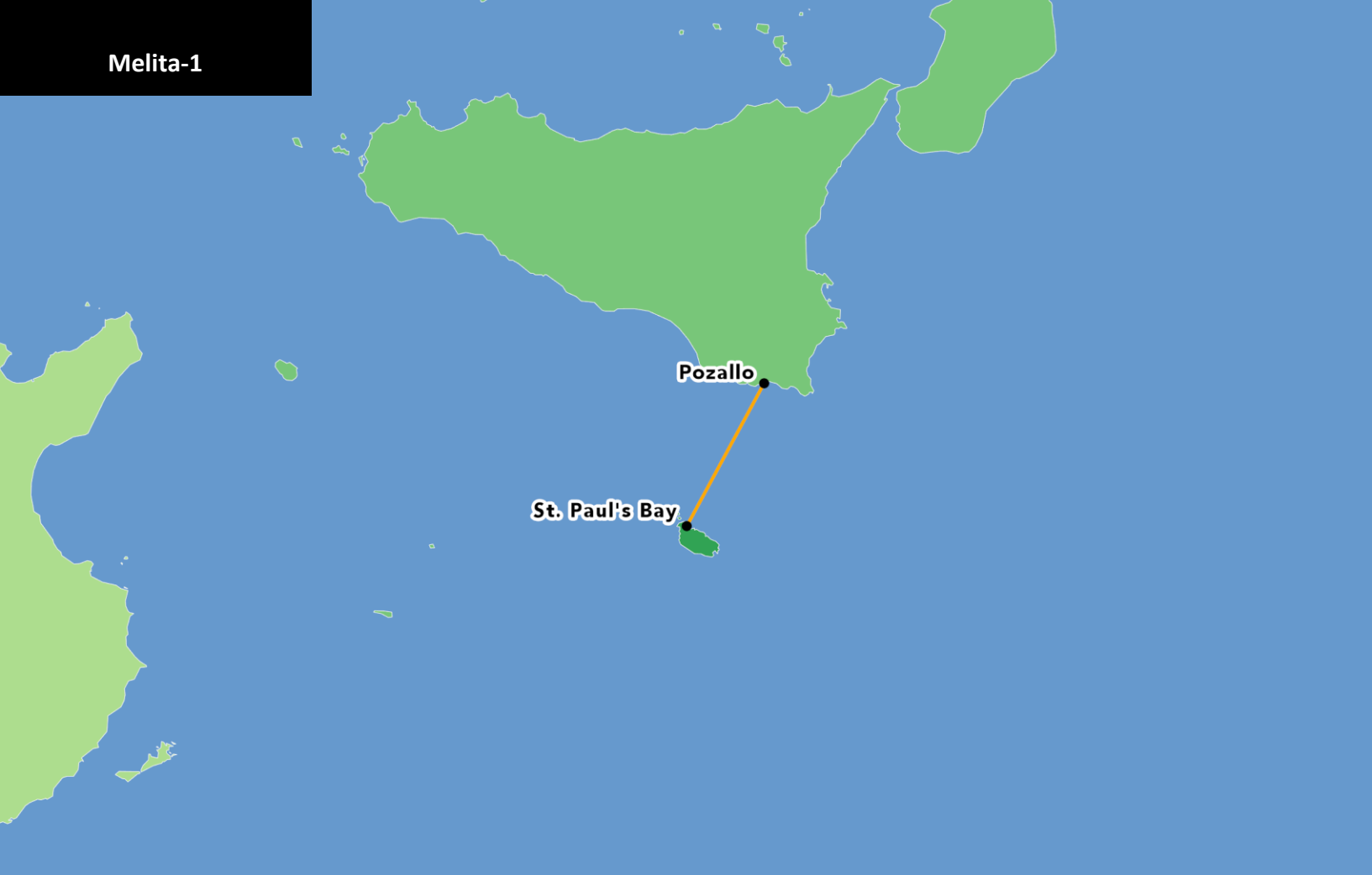
## MEDNAUTILUS

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$190,000,000
<b>Length (km)</b>	5,729
<b>Initial Capacity (Tbps)</b>	3.84
<b>Design Capacity (Tbps)</b>	38.4
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100
<b>System Installer</b>	Alcatel Submarine Networks, Orange Marine
<b>Upgrader</b>	Infinera, Infinera, Infinera
<b>Upgrade Year</b>	2011, 2012, 2013
<b>Upgrade Capacity (Gbps)</b>	10, 100, 40
<b>Region</b>	EMEA

### Landing Points

- Chania (Greece)
- Haifa (Israel)
- Koropi (Greece)
- Catania (Italy)
- Istanbul (Turkey)
- Tel Aviv (Israel)



## MELITA-1

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$14,000,000
<b>Length (km)</b>	100
<b>Initial Capacity (Tbps)</b>	0.00005
<b>Design Capacity (Tbps)</b>	0.00005
<b>Owners</b>	Melita Infrastructure Ltd.
<b>Region</b>	EMEA

### Landing Points

- St Paul's Bay (Malta)
- Pozallo (Italy)



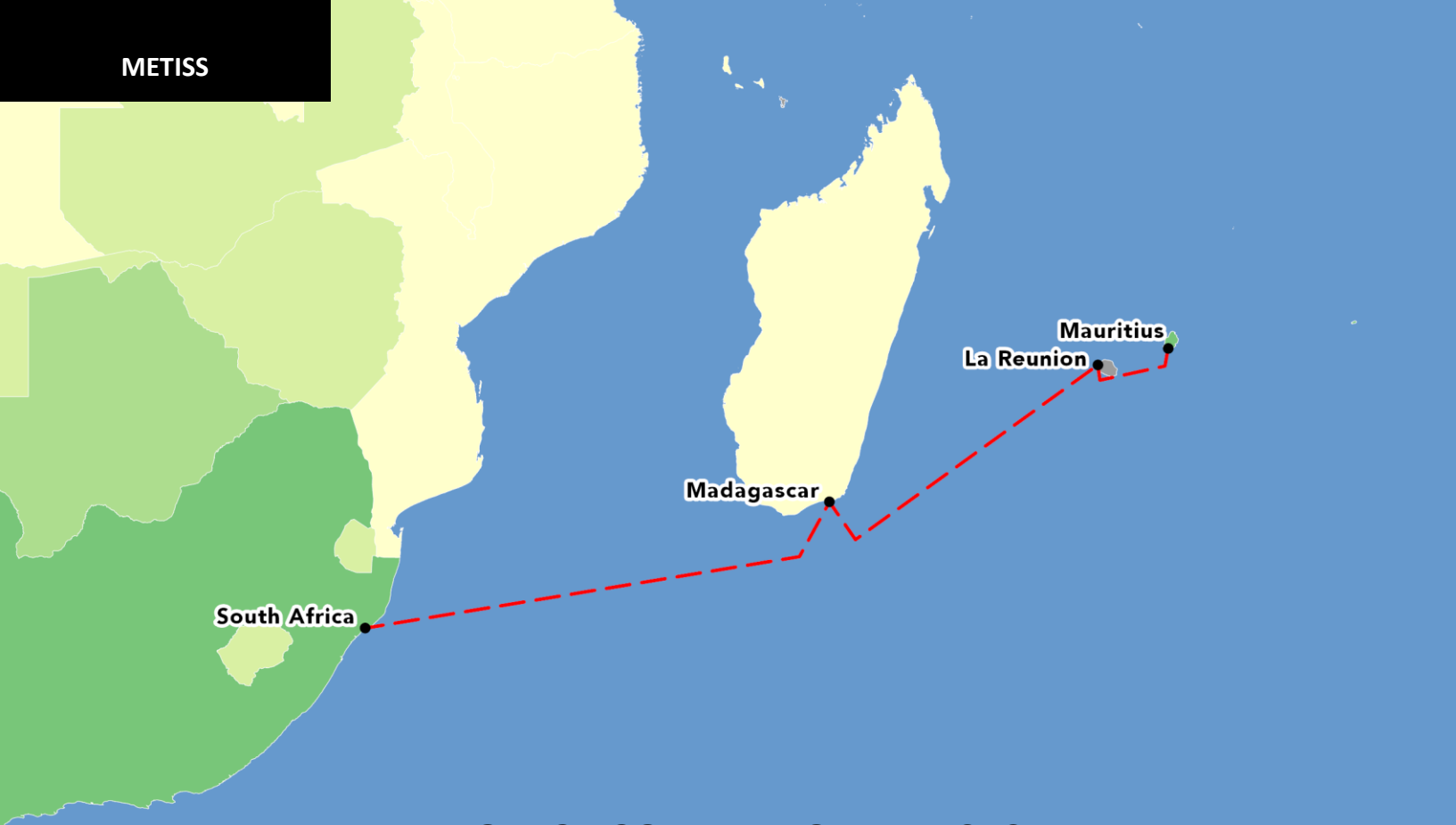
**MIDDLE EAST NORTH AFRICA**

**System Details**

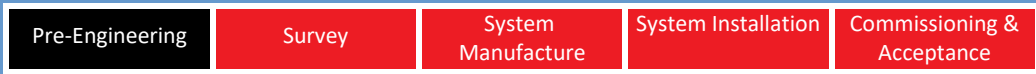
<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$210,000,000
<b>Length (km)</b>	8,800
<b>Initial Capacity (Tbps)</b>	57.6
<b>Design Capacity (Tbps)</b>	57.6
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	96
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	MENA Submarine Cable Systems, Telecom Egypt
<b>System Supplier</b>	TE SubCom
<b>System Installer</b>	Alcatel Submarine Networks, Elettra
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

**Landing Points**

- Zafarana (Egypt)
- Jeddah (Saudi Arabia)
- Al Seeb (Oman)
- Mazara (Italy)
- Djibouti City (Djibouti)
- Abu Talat (Egypt)



### PROJECT COMPLETION PHASES



## MELTING POT INDIANOCEANIC SUBMARINE SYSTEM

#### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$75,000,000
<b>Length (km)</b>	3,000
<b>Design Capacity (Tbps)</b>	24
<b>Owners</b>	Canal+ Telecom, CEB FiberNet, Emtel Ltd., SFR, Telma, ZEOP
<b>Region</b>	Indian Ocean Pan-East Asian

#### Landing Points

- (Mauritius)
- (LA Reunion)
- (Madagascar)
- (South Africa)



### MORATEL INTERNATIONAL CABLE 1

#### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	70
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	Moratelindo
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	AustralAsia

#### Landing Points

- Changi (Singapore)
- Batam (Indonesia)



## MINERVA

### System Details

RFS Year	2007
EOS Year	2032
Initial Capacity (Tbps)	0.01
Design Capacity (Tbps)	0.01
Region	EMEA

### Landing Points

- Catania (Italy)
- Mazara (Italy)
- Yeroskipos (Cyprus)





## MATARAM-KUPANG CABLE SYSTEM

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$94,000,000
<b>Length (km)</b>	1,318
<b>Design Capacity (Tbps)</b>	1.8
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	30
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	PT Telekom
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Nexans
<b>Region</b>	AustralAsia

### Landing Points

- Waingapu (Indonesia)
- Saraemee (Indonesia)
- Kupang (Indonesia)
- Ambalawi (Indonesia)
- Sumbawa Besar (Indonesia)
- Mataram (Indonesia)
- Ende (Indonesia)



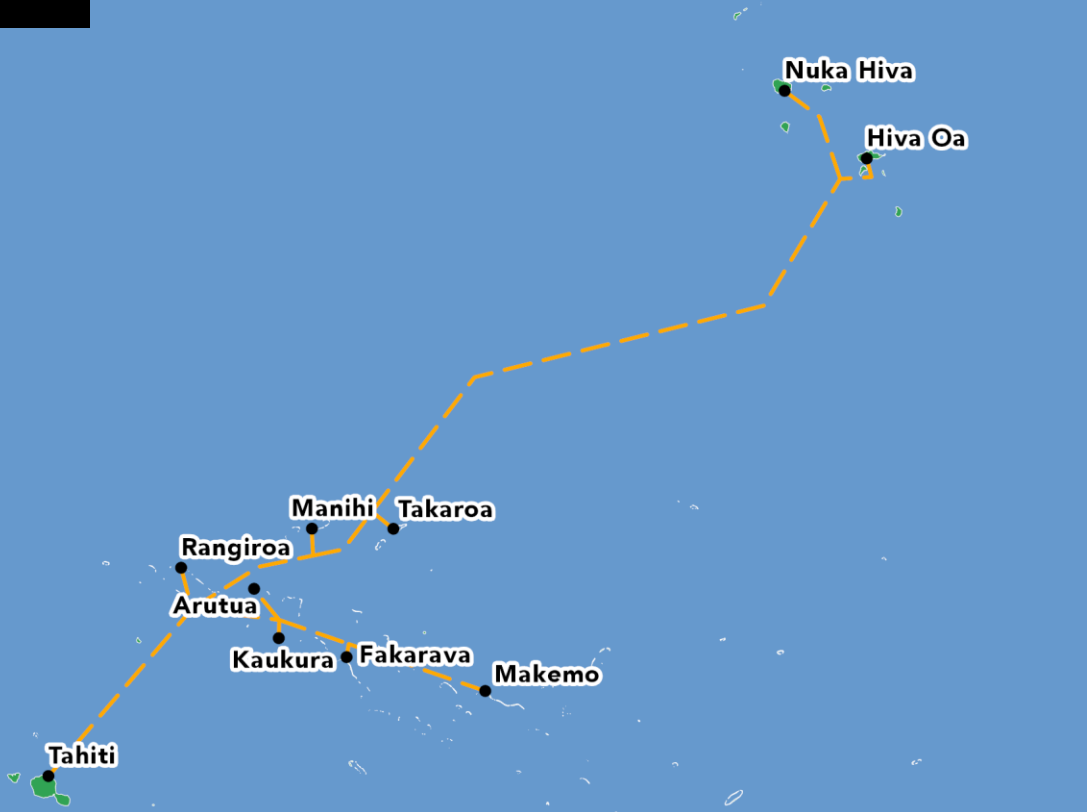
**MONET**

**System Details**

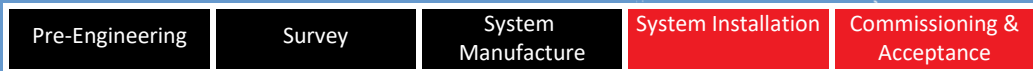
<b>RFS Year</b>	2017
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$280,000,000
<b>Length (km)</b>	10,556
<b>Design Capacity (Tbps)</b>	60
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Algar Telecom, Angola Cables, Antel, Google
<b>System Supplier</b>	TE SubCom
<b>System Installer</b>	TE SubCom
<b>Region</b>	Americas

**Landing Points**

- Fortaleza (Brazil)
- Santos (Brazil)
- Boca Raton (United States)



**PROJECT COMPLETION PHASES**



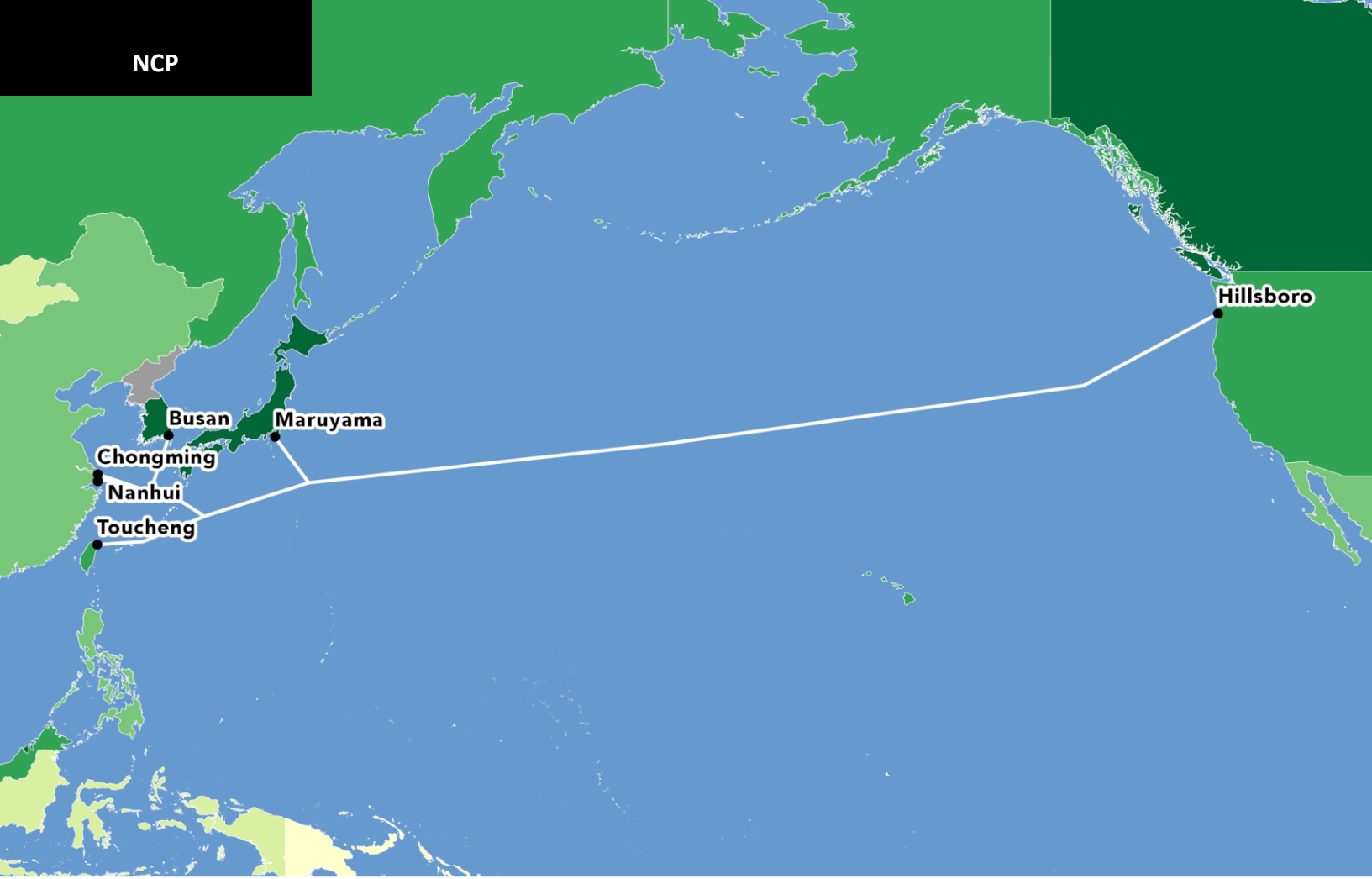
**NATITUA**

**System Details**

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$62,500,000
<b>Length (km)</b>	2,500
<b>Design Capacity (Tbps)</b>	10
<b>Owners</b>	OPT French Polynesia
<b>Region</b>	AustralAsia

**Landing Points**

- Nuka Hiva (French Polynesia)
  - Makemo (French Polynesia)
  - Arutua (French Polynesia)
  - Takaroa (French Polynesia)
  - Rangiroa (French Polynesia)
- Hiva Oa (French Polynesia)
  - Fakarava (French Polynesia)
  - Kaukura (French Polynesia)
  - Manihi (French Polynesia)
  - Tahiti (French Polynesia)



## NEW CROSS PACIFIC

### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	13,618
<b>Design Capacity (Tbps)</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	China Mobile, China Telecom Corporation, China Unicom, Chunghwa Telecom Co., KT Corporation, Microsoft, SoftBank Mobile Corporation
<b>System Supplier</b>	SubCom
<b>Region</b>	Transpacific

### Landing Points

- Hillsboro (United States)
- Toucheng (Taiwan)
- Nanhui District (China)
- Busan (South Korea)
- Chongming (China)
- Maruyama (Japan)



## NIGERIA-CAMEROON SUBMARINE CABLE SYSTEM

### System Details

<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$30,000,000
<b>Length (km)</b>	1,100
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	6
<b>Owners</b>	Cameroon Government, Main One Cable Company
<b>System Supplier</b>	Huawei Marine
<b>Region</b>	EMEA

### Landing Points

- Lagos (Nigeria)
- Kribi (Cameroon)



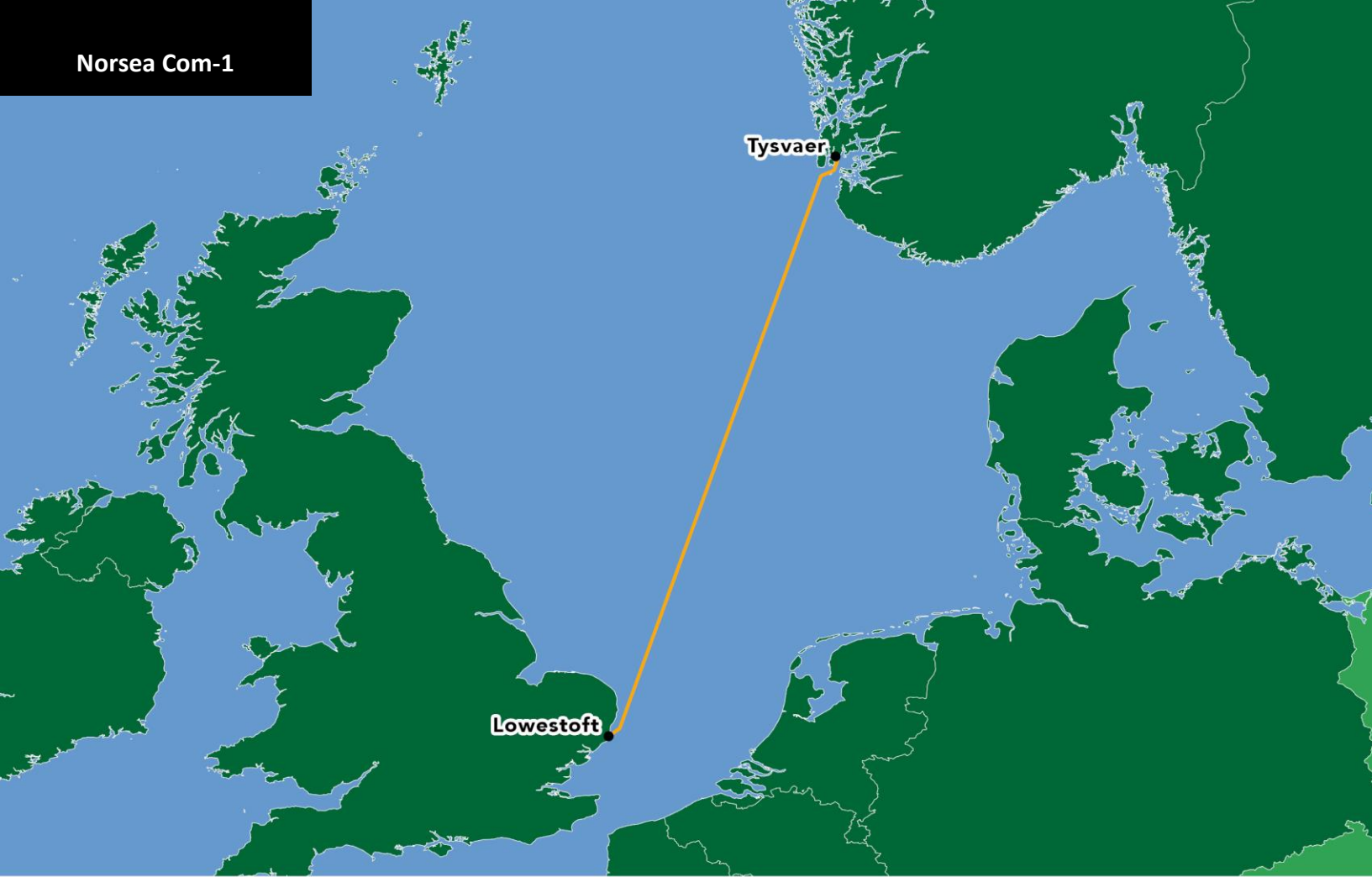
## NEPTUNE CANADA

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$62,000,000
<b>Length (km)</b>	800
<b>Owners</b>	University of Victoria
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Americas

### Landing Points

- Port Alberni (Canada)



## NORSEA COM-1

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Length (km)</b>	800
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	0.16
<b>Owners</b>	North Sea Communications AS, Tampnet
<b>System Supplier</b>	Alcatel Kable Norge
<b>Region</b>	EMEA

### Landing Points

- Tysvær (Norway)
- Lowestoft (United Kingdom)



## NORTHSTAR

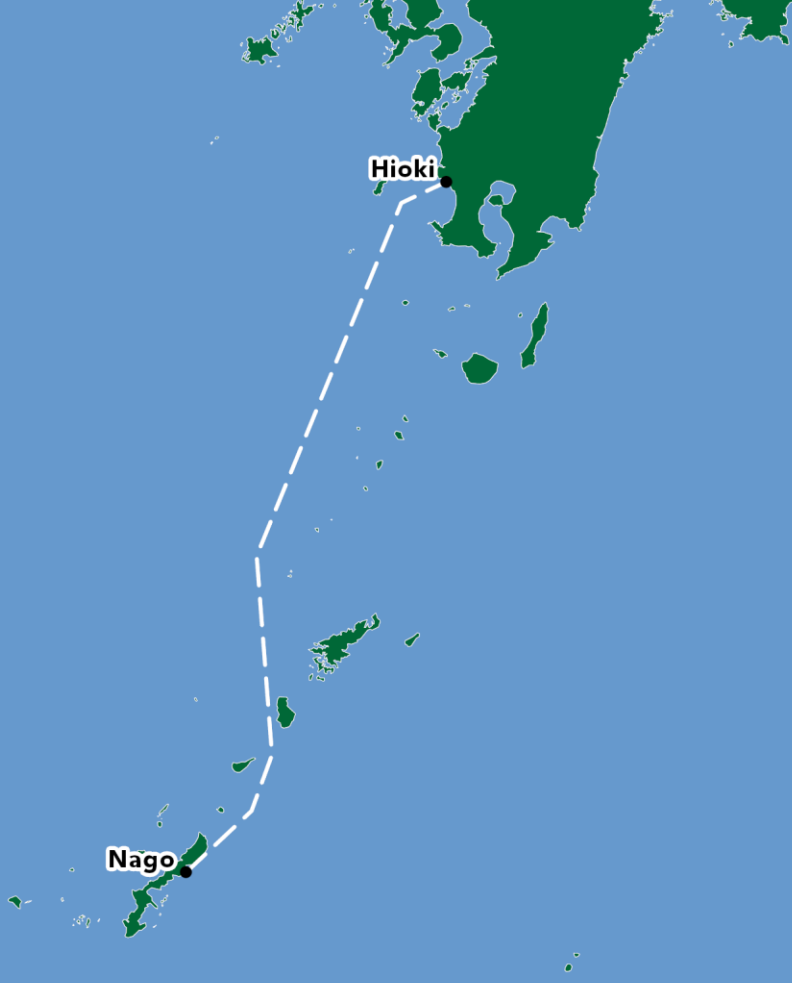
### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$90,000,000
<b>Length (km)</b>	3,385
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	Alaska Communications Systems, Cable & Wireless
<b>System Installer</b>	Alcatel Submarine Networks, Cable & Wireless
<b>Region</b>	Americas

### Landing Points

- Juneau (United States)
- Valdez (United States)
- Whittier (United States)
- Nedonna Beach (United States)





### OKINAWA CELLULAR CABLE

#### System Details

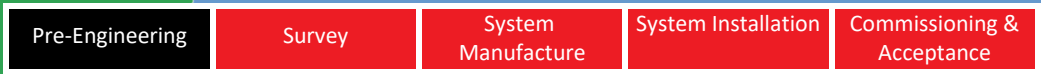
<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	760
<b>Design Capacity (Tbps)</b>	80
<b>Owners</b>	Okinawa Cellular
<b>System Supplier</b>	NEC
<b>System Installer</b>	NEC

#### Landing Points

- Hioki (Japan)
- Nago (Japan)



**PROJECT COMPLETION PHASES**



**ORIENT EXPRESS**

**System Details**

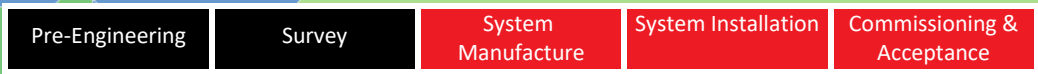
<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Length (km)</b>	1,300
<b>Owners</b>	Du, wi-tribe Pakistan
<b>Region</b>	EMEA, Indian Ocean Pan-East Asian

**Landing Points**

- Kalba (United Arab Emirates)
- Karachi (Pakistan)
- Gwadar (Pakistan)



## PROJECT COMPLETION PHASES



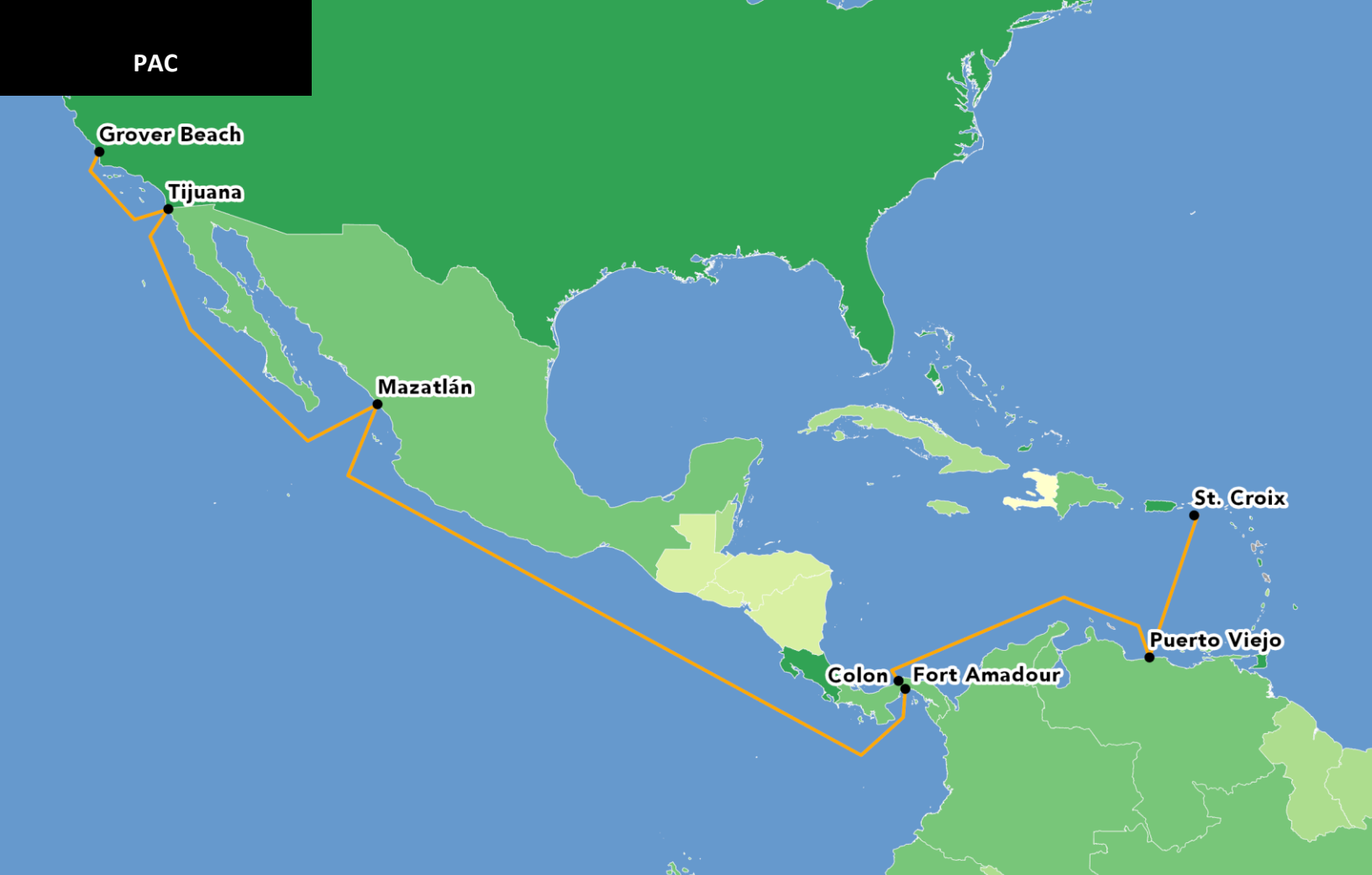
## ORAN-VALENCIA

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	560
<b>Design Capacity (Tbps)</b>	20
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Algerian Ministry of Post, Information Technology and Communications
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	EMEA

### Landing Points

- Valencia (Spain)
- Oran (Algeria)



## PAN-AMERICAN CROSSING

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	9,451
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	3.2
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	16
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	CenturyLink
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Xtera
<b>Region</b>	Americas

### Landing Points

- Tijuana (Mexico)
- Fort Amador (Panama)
- Mazatlán (Mexico)
- Puerto Viejo (Venezuela)
- Colon (Panama)
- Grover Beach (United States)
- St Croix (United States)



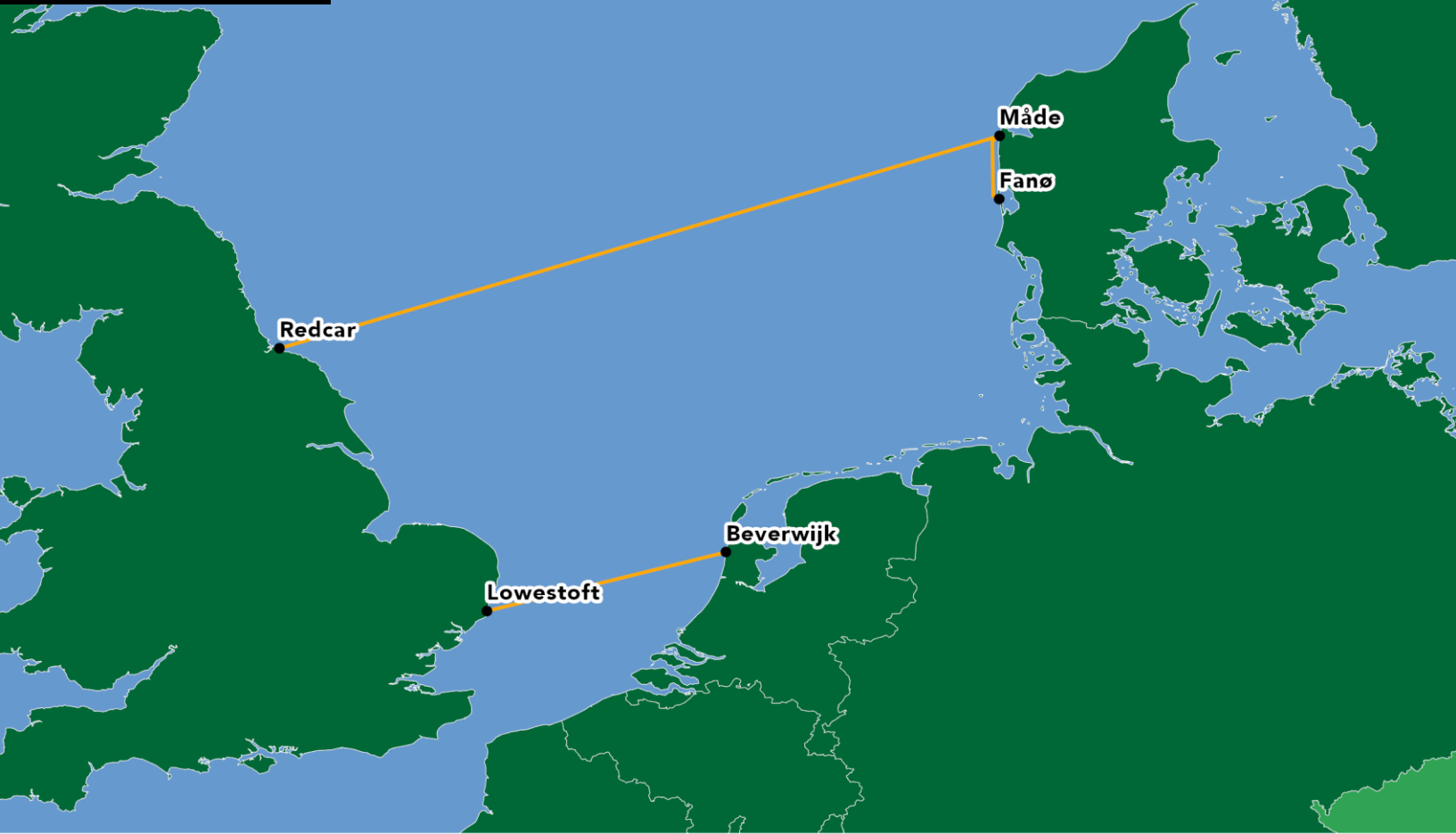
## PAN AMERICAN

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$260,000,000
<b>Length (km)</b>	6,867
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.07
<b>Fiber Pairs</b>	2
<b>Owners</b>	Antel, C&W, Cable Andino, CANTV, CNT EP, Embratel, Entel, Setar, Telecom Colombia, Telmex
<b>Region</b>	Americas

### Landing Points

- Butler's Bay (St. Croix)
- Baby Beach (Aruba)
- Battery Pratt (Panama)
- Lurin (Peru)
- Salinas (Ecuador)
- Arica (Chile)
- Barranquilla (Colombia)
- Panama City (Panama)
- Punto Fijo (Venezuela)
- Magen's Bay (Virgin Islands)



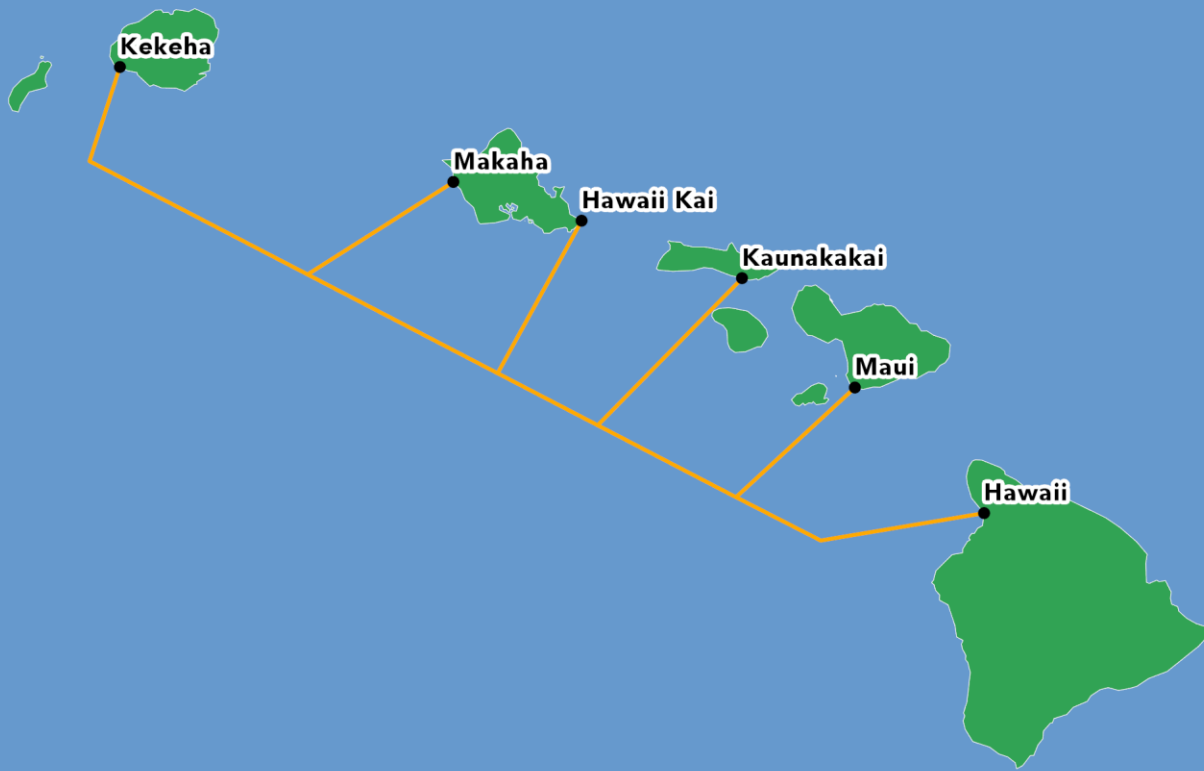
## PANGEA

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	511
<b>Initial Capacity (Tbps)</b>	7
<b>Design Capacity (Tbps)</b>	7
<b>Owners</b>	Pangea Ltd.
<b>System Supplier</b>	Nexans
<b>System Installer</b>	Alcatel Submarine Networks, Nexans
<b>Region</b>	EMEA

### Landing Points

- Redcar (United Kingdom)
- Lowestoft (United Kingdom)
- Beverwijk (Netherlands)
- Måde (Denmark)
- Fanø (Denmark)



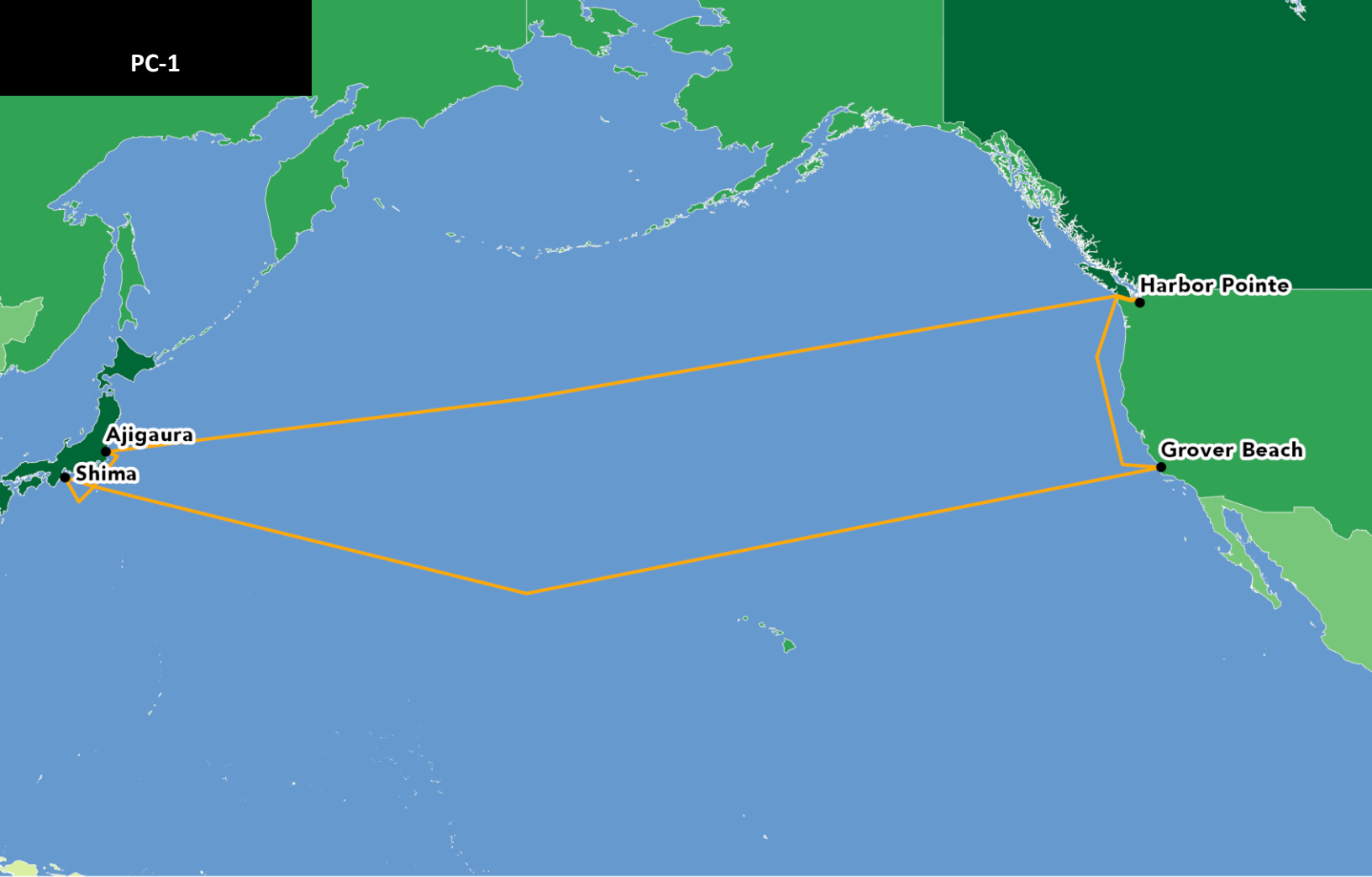
## PANIOLO

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Length (km)</b>	575
<b>Fiber Pairs</b>	24
<b>System Supplier</b>	IT International Telecom
<b>System Installer</b>	IT International Telecom
<b>Region</b>	AustralAsia

### Landing Points

- Kaunakakai (United States)
- Hawaii Kai (United States)
- Hawaii (United States)
- Kekeha (United States)
- Maui (United States)
- Makaha (United States)



## PACIFIC CROSSING 1

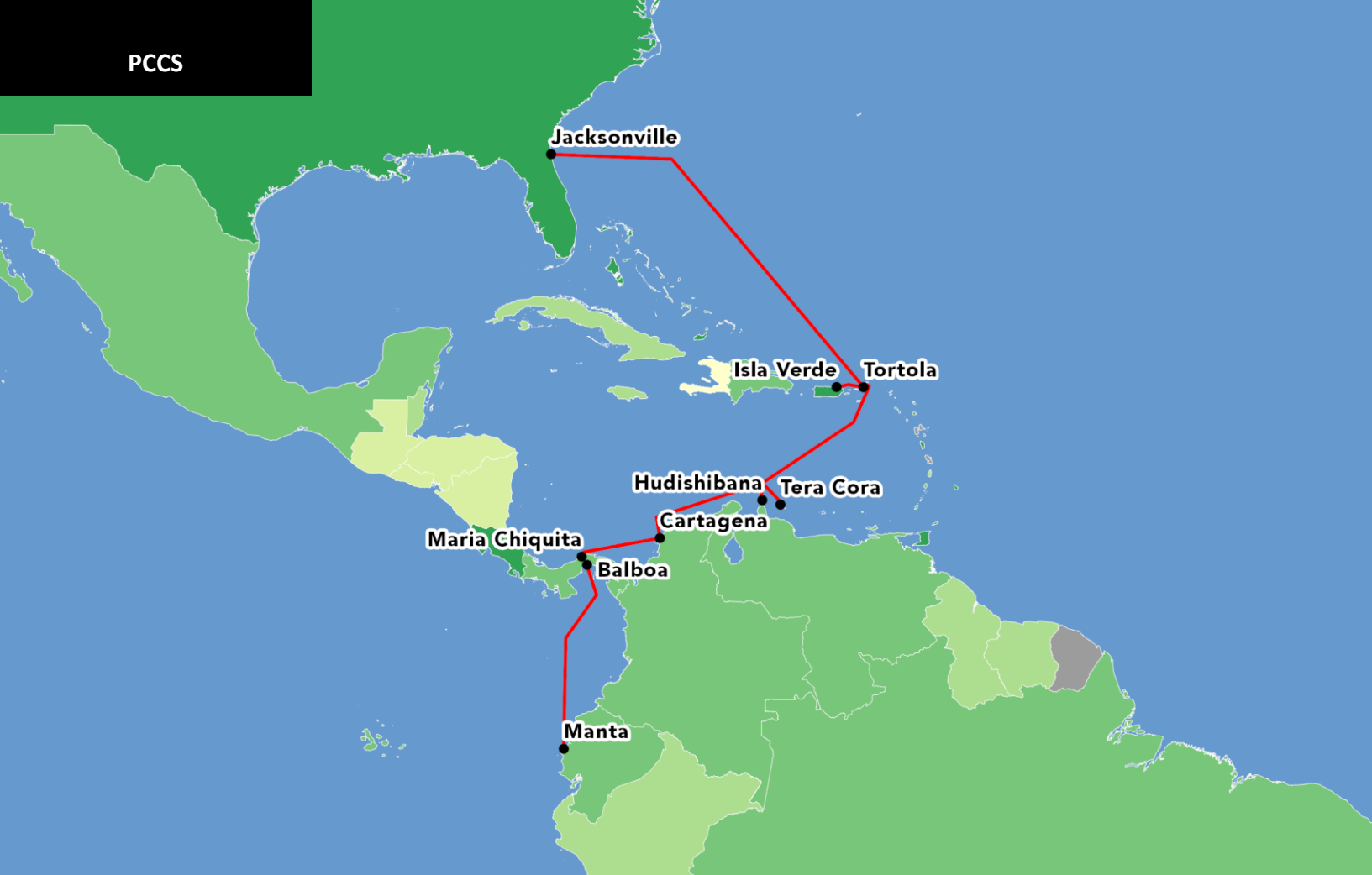
### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$650,000,000
<b>Length (km)</b>	20,910
<b>Initial Capacity (Tbps)</b>	1.8
<b>Design Capacity (Tbps)</b>	8.4
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	20
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	AT&T Submarine System, Inc., NT Communications
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Transpacific

### Landing Points

- Shima (Japan)
- Harbor Pointe (United States)
- Ajigaura (Japan)
- Grover Beach (United States)





## PACIFIC CARIBBEAN CABLE SYSTEM

### System Details

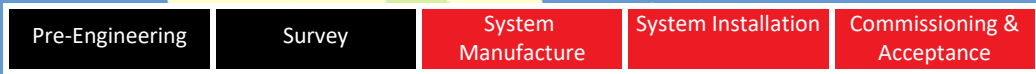
<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$160,000,000
<b>Length (km)</b>	6,000
<b>Design Capacity (Tbps)</b>	60
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Cable & Wireless Communications, Setar, Telconet, Telxius
<b>Region</b>	Americas

### Landing Points

- Cartagena (Colombia)
- Tortola (British Virgin Islands)
- Balboa (Panama)
- Tera Cora (Curaçao)
- Maria Chiquita (Panama)
- Isla Verde (Puerto Rico)
- Hudishibana (Aruba)
- Manta (Ecuador)
- Jacksonville (United States)



**PROJECT COMPLETION PHASES**



**PAKISTAN EAST AFRICA CONNECTING EUROPE**

**System Details**

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$170,000,000
<b>Length (km)</b>	12,000
<b>Design Capacity (Tbps)</b>	60
<b>Capacity per Wavelength (Gbps)</b>	200
<b>Owners</b>	China-ASEAN Information Harbor, Tropic Science
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Huawei Marine
<b>Region</b>	EMEA

**Landing Points**

- Zafarana (Egypt)
- Mombasa (Kenya)
- Marseille (France)
- Karachi (Pakistan)
- Gwadar (Pakistan)
- Bosaso (Somalia)
- Victoria (Seychelles)
- Mogadishu (Somalia)
- Kismayo (Somalia)
- Hobyo (Somalia)
- Djibouti City (Djibouti)
- Abu Talat (Egypt)



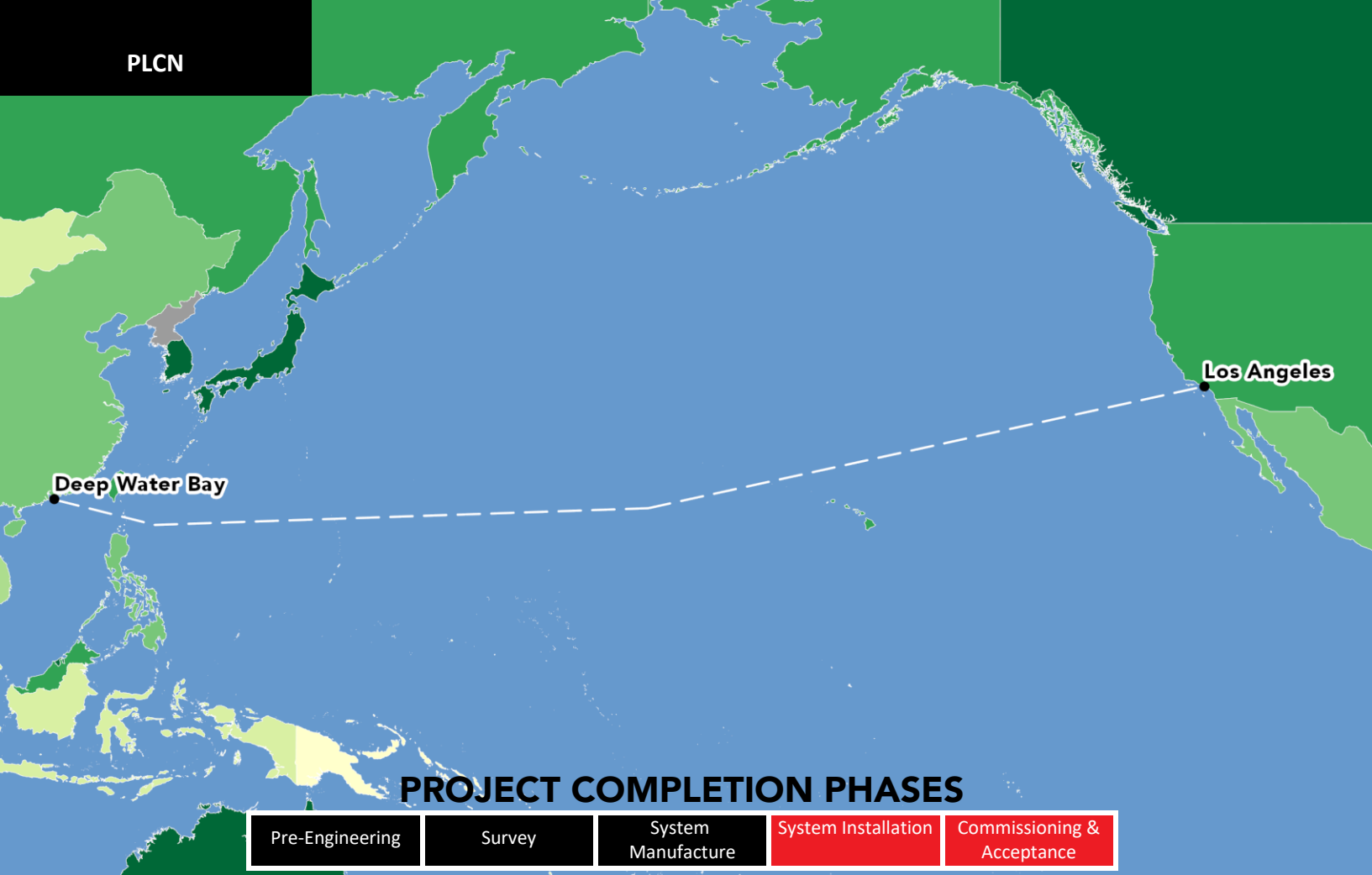
## PAN-EUROPEAN CROSSING

### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	170
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	CenturyLink
<b>Region</b>	EMEA

### Landing Points

- Bredene (Belgium)
- Broadstairs (United Kingdom)
- Veules-les-Roses (France)
- Seaford (United Kingdom)



## PACIFIC LIGHT CABLE NETWORK

### System Details

<b>RFS Year</b>	2019
<b>EOS Year</b>	2044
<b>Est. System Cost (USD)</b>	\$400,000,000
<b>Length (km)</b>	12,900
<b>Initial Capacity (Tbps)</b>	144
<b>Design Capacity (Tbps)</b>	144
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	240
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Facebook, Google, Pacific Light Data Communication
<b>System Supplier</b>	SubCom
<b>Region</b>	Transpacific

### Landing Points

- Deep Water Bay (Hong Kong)
- Los Angeles (United States)



## PIPE PACIFIC CABLE

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$180,000,000
<b>Length (km)</b>	7,185
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	2.56
<b>Owners</b>	PIPE Networks Ltd.
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Infinera
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

### Landing Points

- Sydney (Australia)
- Madang (Papua New Guinea)
- Piti (Guam)



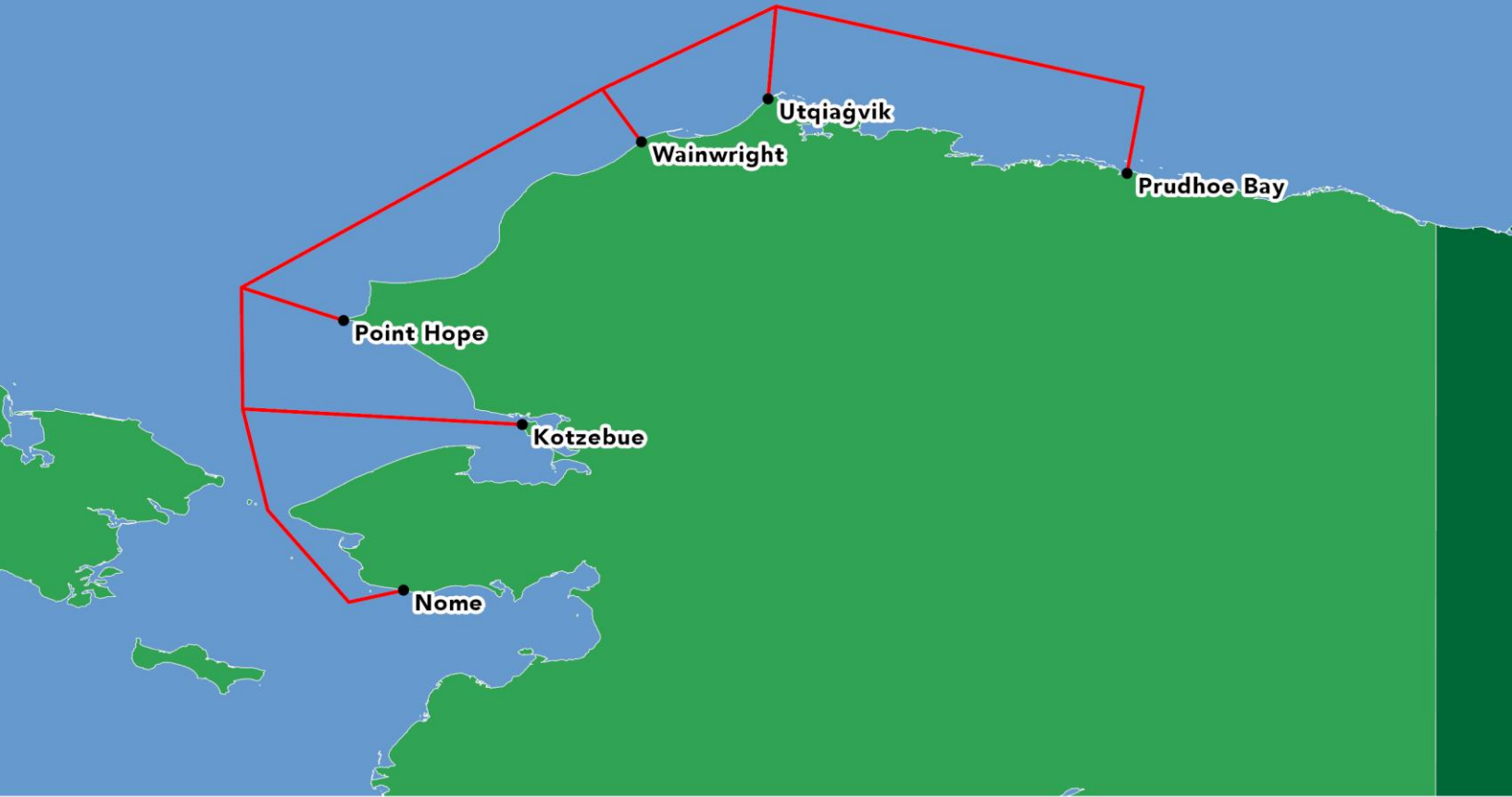
## QATAR-UAE

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	208
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.02
<b>Region</b>	EMEA

### Landing Points

- Doha (United Arab Emirates)
- Halul Island (Qatar)
- Abu Dhabi (United Arab Emirates)
- Das Island (United Arab Emirates)



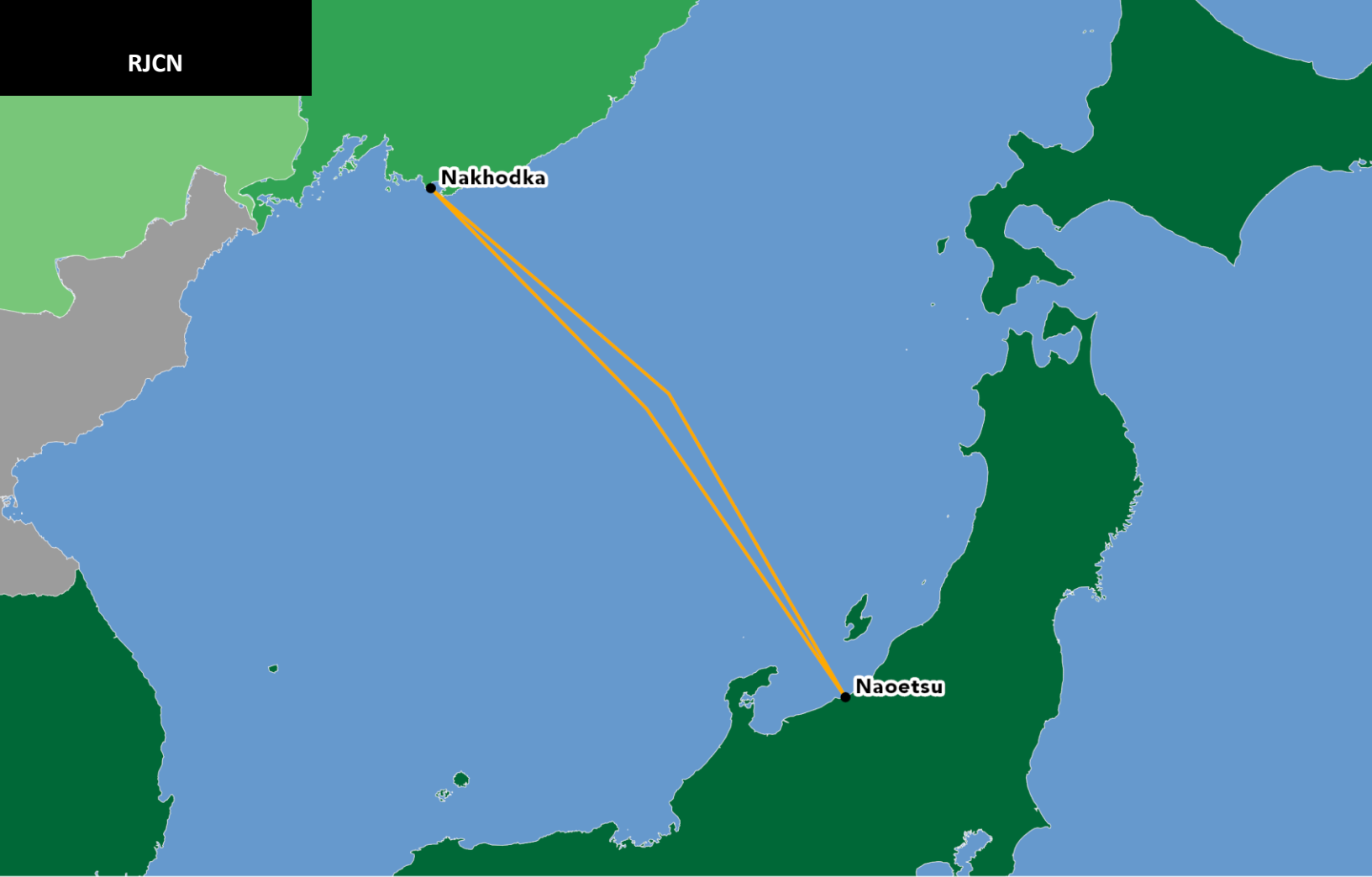
## QUINTILLION SUBSEA

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2041
<b>Est. System Cost (USD)</b>	\$150,000,000
<b>Length (km)</b>	1,200
<b>Design Capacity (Tbps)</b>	30
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Quintillion Subsea Holdings
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel-Lucent Submarine Networks
<b>Region</b>	Arctic

### Landing Points

- Prudhoe Bay (United States)
- Wainwright (United States)
- Kotzebue (United States)
- Utqiagvik (United States)
- Point Hope (United States)
- Nome (United States)



## RUSSIAN-JAPAN CABLE NETWORK

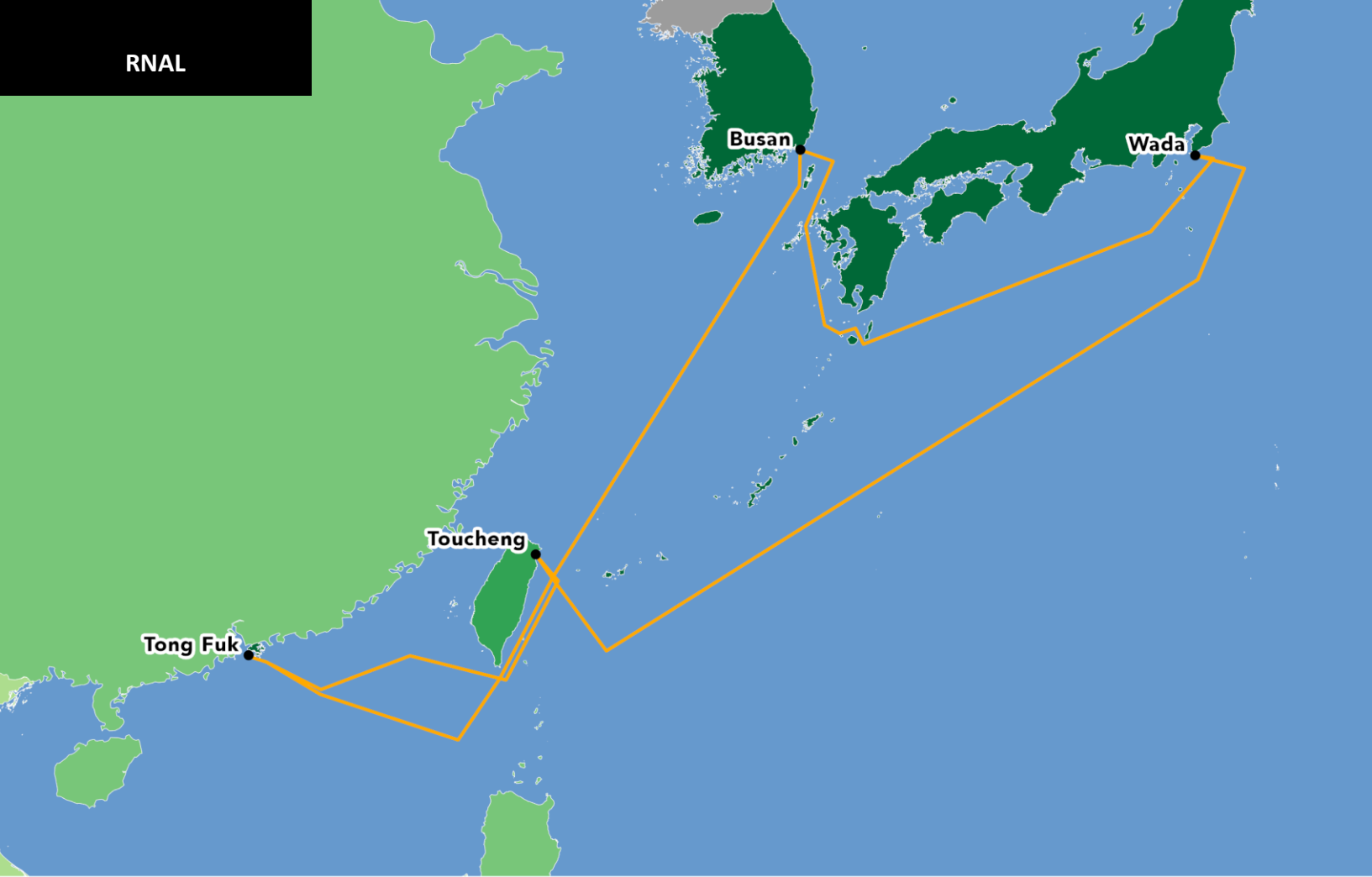
### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$50,000,000
<b>Length (km)</b>	1,795
<b>Initial Capacity (Tbps)</b>	0.64
<b>Design Capacity (Tbps)</b>	0.64
<b>Owners</b>	Rostelecom
<b>Region</b>	AustralAsia

### Landing Points

- Naoetsu (Japan)
- Nakhodka (Russia)





## REACH NORTH ASIA LOOP

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$900,000,000
<b>Length (km)</b>	9,792
<b>Initial Capacity (Tbps)</b>	0.08
<b>Design Capacity (Tbps)</b>	0.08
<b>Fiber Pairs</b>	6
<b>Owners</b>	CenturyLink, FLAG Telecom, Global Cloud Xchange
<b>Upgrader</b>	Infinera, Infinera
<b>Upgrade Year</b>	2011, 2014
<b>Upgrade Capacity (Gbps)</b>	40, 40
<b>Region</b>	AustralAsia

### Landing Points

- Wada (Japan)
- Busan (South Korea)
- Toucheng (Taiwan)
- Tong Fuk (Hong Kong)

SABR

Recife

Cape Town

## PROJECT COMPLETION PHASES

Pre-Engineering

Survey

System  
Manufacture

System Installation

Commissioning &  
Acceptance

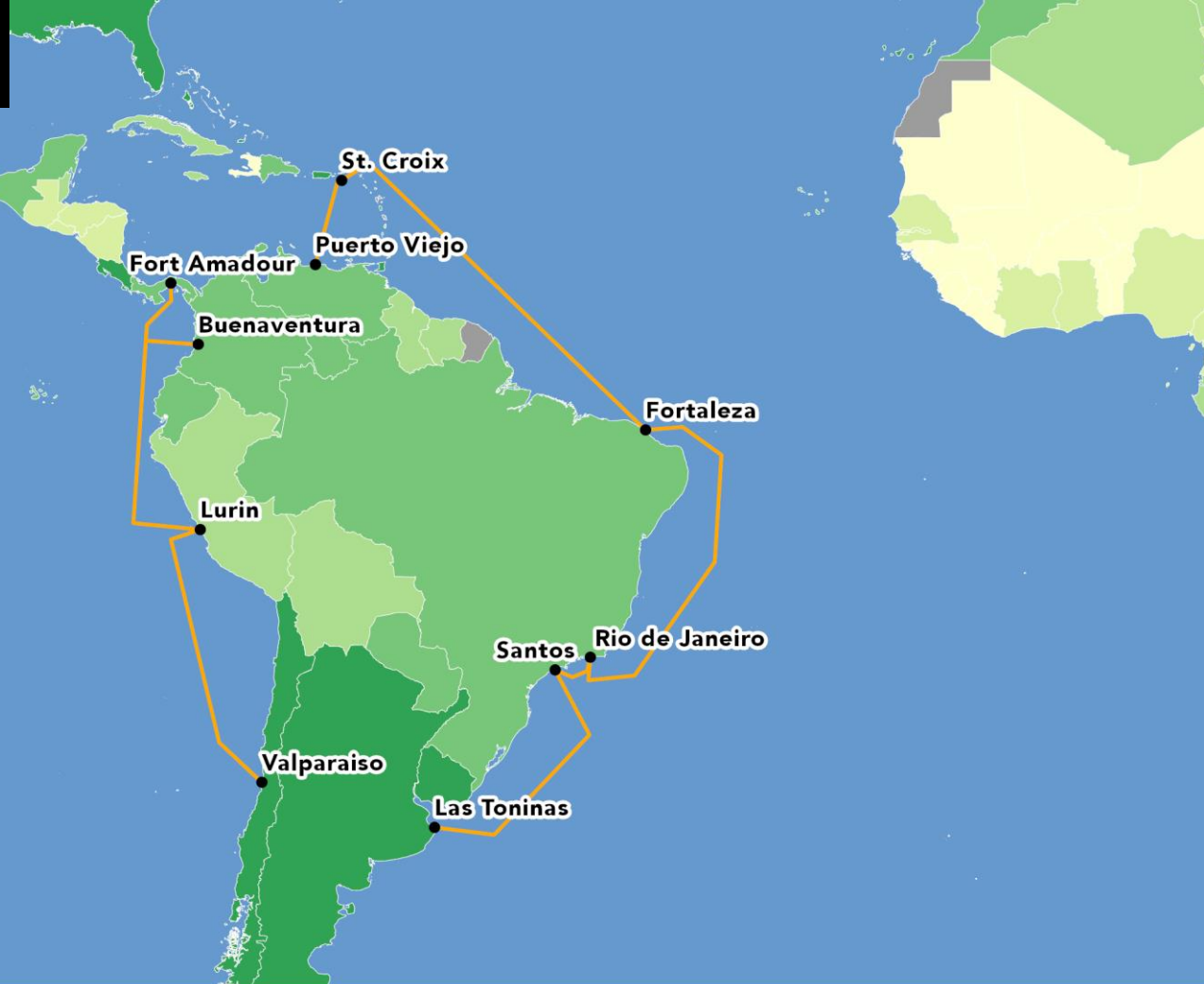
## SOUTH AFRICA-BRAZIL

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Length (km)</b>	6,200
<b>Design Capacity (Tbps)</b>	60
<b>Owners</b>	Seaborn Networks
<b>Region</b>	Transatlantic

### Landing Points

- Recife (Brazil)
- Cape Town (South Africa)



## SOUTH AMERICAN CROSSING

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$520,000,000
<b>Length (km)</b>	15,983
<b>Initial Capacity (Tbps)</b>	0.1
<b>Design Capacity (Tbps)</b>	4.84
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	30
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	CenturyLink
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Infinera, Infinera
<b>Upgrade Year</b>	2010, 2011
<b>Upgrade Capacity (Gbps)</b>	10, 10
<b>Region</b>	Americas

### Landing Points

- Buenaventura (Colombia)
- St Croix (United States)
- Fort Amadour (Panama)
- Valparaiso (Chile)
- Puerto Viejo (Venezuela)
- Lurin (Peru)
- Fortaleza (Brazil)
- Las Toninas (Argentina)
- Santos (Brazil)
- Rio de Janeiro (Brazil)



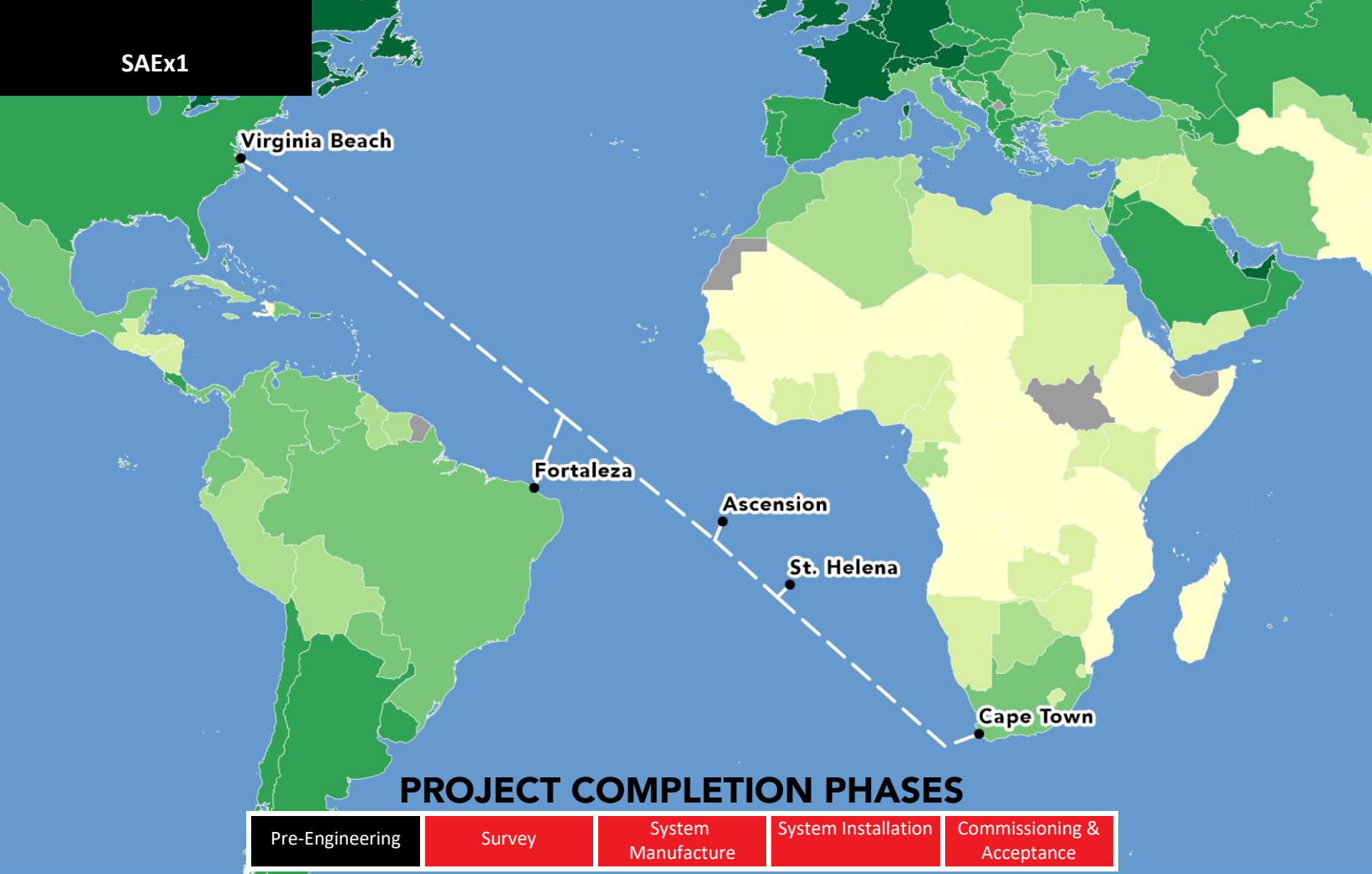
## SOUTH ATLANTIC CABLE SYSTEM

### System Details

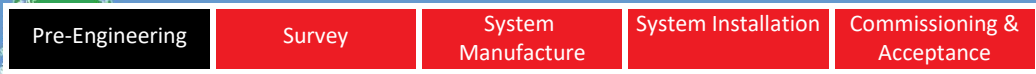
<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$130,000,000
<b>Length (km)</b>	6,300
<b>Initial Capacity (Tbps)</b>	40
<b>Design Capacity (Tbps)</b>	40
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Angola Cables
<b>System Supplier</b>	NEC
<b>System Installer</b>	Orange Marine
<b>Region</b>	Transatlantic

### Landing Points

- Fortaleza (Brazil)
- Luanda (Angola)



### PROJECT COMPLETION PHASES



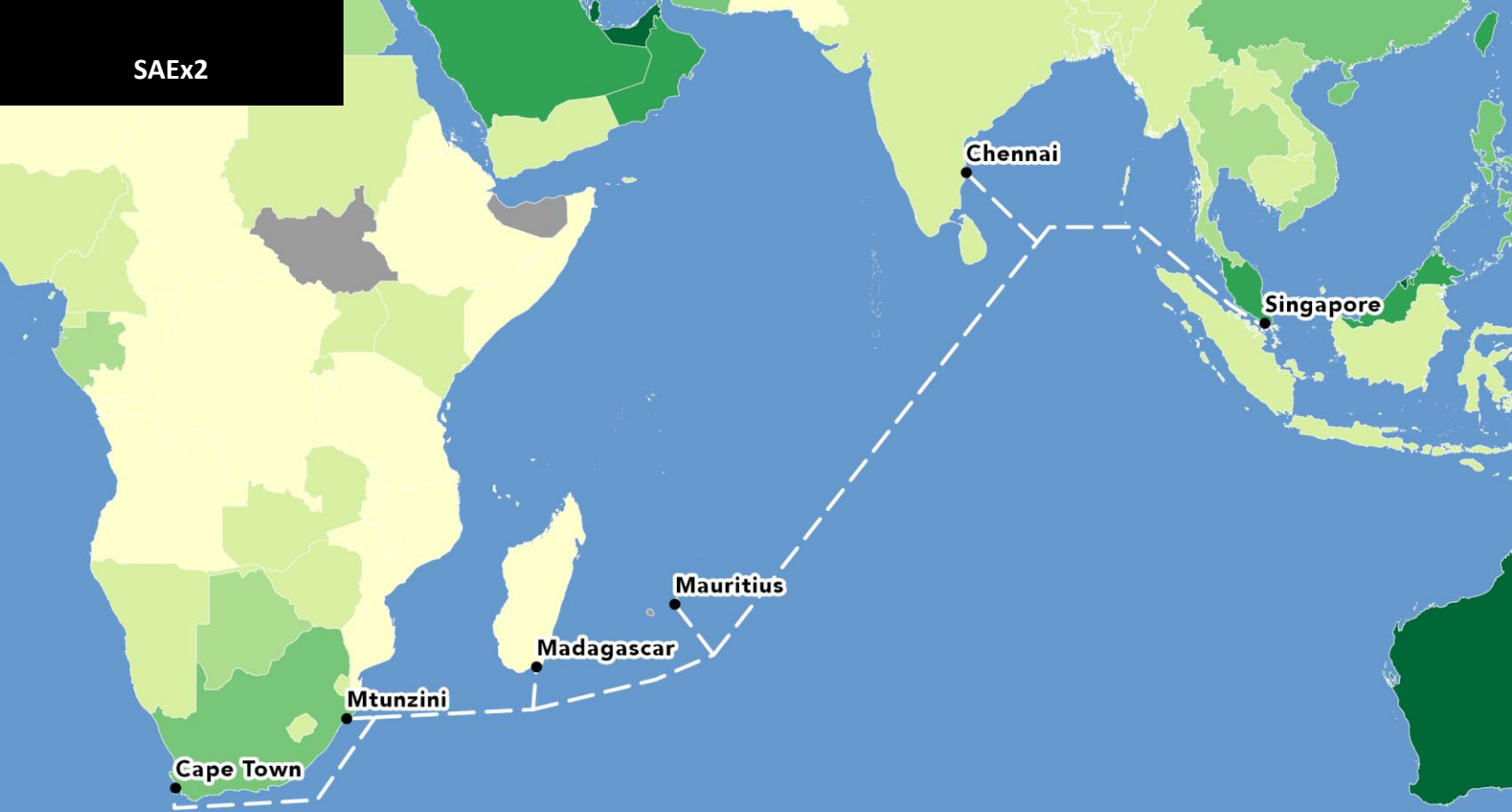
## SOUTH ATLANTIC EXPRESS 1

### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$450,000,000
<b>Length (km)</b>	14,720
<b>Design Capacity (Tbps)</b>	108
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	60
<b>Capacity per Wavelength (Gbps)</b>	200
<b>Owners</b>	SAEx International Limited
<b>Region</b>	Transatlantic

### Landing Points

- (Ascension)
- (St. Helena)
- Virginia Beach (United States)
- Cape Town (South Africa)
- Fortaleza (Brazil)



### PROJECT COMPLETION PHASES



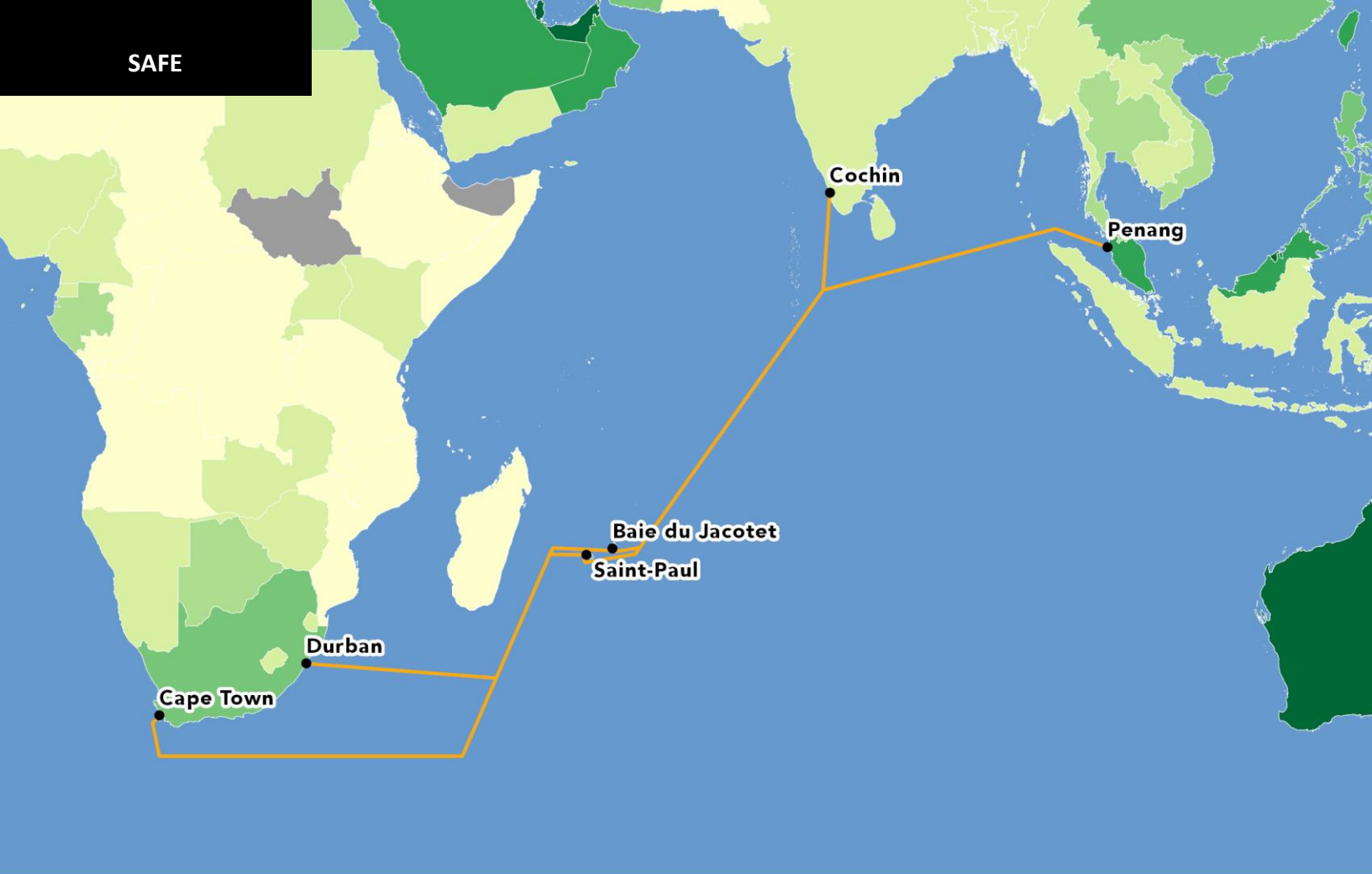
## SOUTH ATLANTIC EXPRESS 2

### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	13,900
<b>Design Capacity (Tbps)</b>	72
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	60
<b>Capacity per Wavelength (Gbps)</b>	200
<b>Owners</b>	SAEx International Limited
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Cape Town (South Africa)
- Chennai (India)
- (Madagascar)
- (Singapore)
- (Mauritius)
- Mtunzini (South Africa)



## SOUTH AFRICA-FAR EAST

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	13,669
<b>Initial Capacity (Tbps)</b>	0.44
<b>Design Capacity (Tbps)</b>	0.44
<b>Owners</b>	France Telecom, TATA Communications, Telekom Malaysia Berhad, Telekom SA
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	FCR, Tyco Telecommunications
<b>Upgrader</b>	Alcatel-Lucent Submarine Networks
<b>Upgrade Year</b>	2014
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Cape Town (South Africa)
- Cochin (India)
- Penang (Malaysia)
- Baie du Jacotet (Mauritius)
- Saint-Paul (Reunion)
- Durban (South Africa)





## SOUTH ATLANTIC INTER LINK

### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$487,000,000
<b>Length (km)</b>	5,900
<b>Design Capacity (Tbps)</b>	32
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	CamTel, China Unicom
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	Transatlantic

### Landing Points

- Fortaleza (Brazil)
- Kribi (Cameroon)





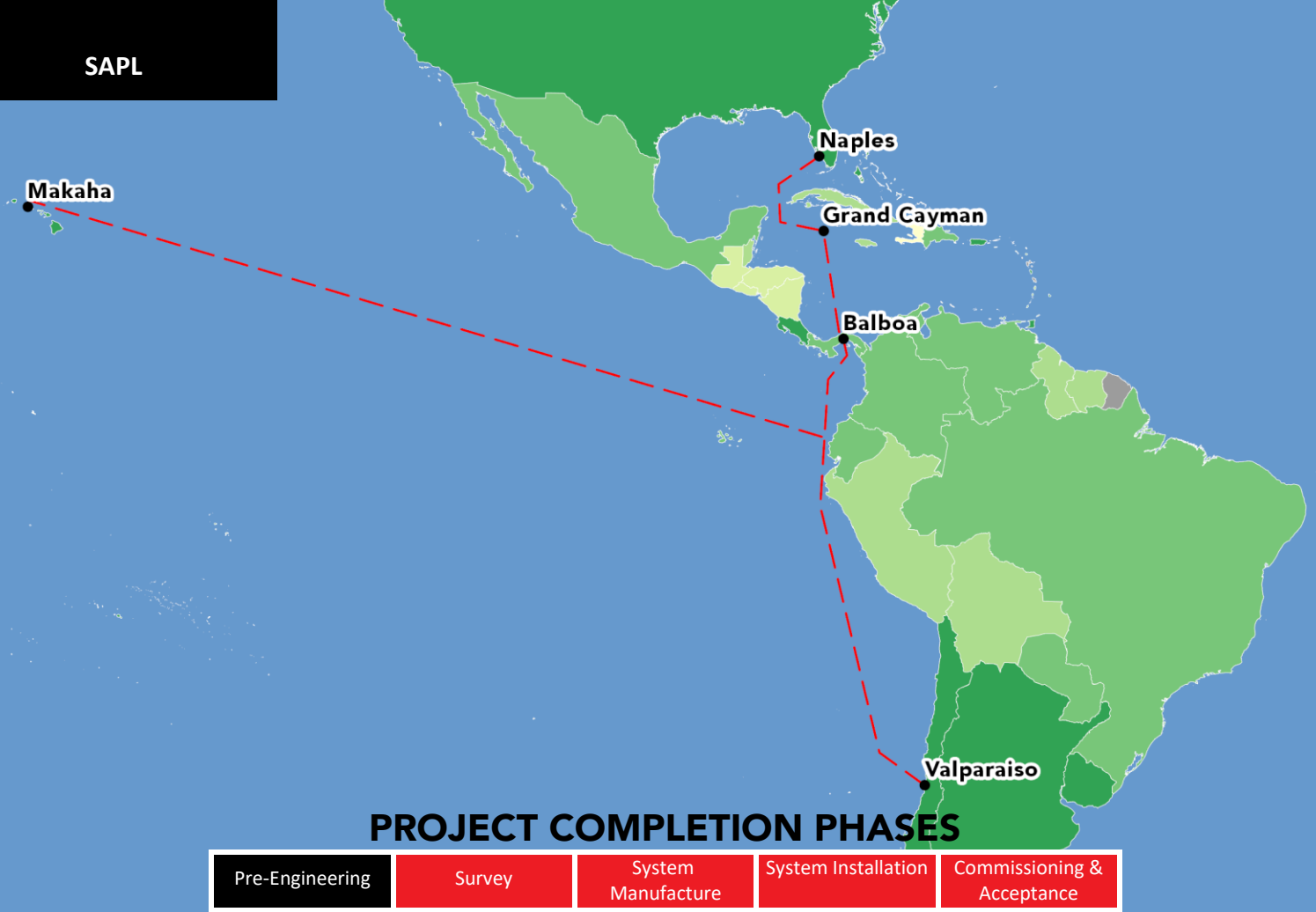
## SOUTH AMERICA-1

### System Details

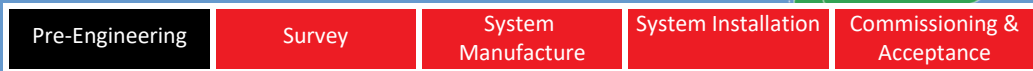
<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$650,000,000
<b>Length (km)</b>	24,140
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	19.2
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	48
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Telxius
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Infinera, Infinera, Infinera
<b>Upgrade Year</b>	2009, 2010, 2012
<b>Upgrade Capacity (Gbps)</b>	10, 100, 40
<b>Region</b>	Americas

### Landing Points

- Puerto Barrios (Guatemala)
- Barranquilla (Colombia)
- Fortaleza (Brazil)
- Lurin (Peru)
- Rio de Janeiro (Brazil)
- Salvador (Brazil)
- Santos (Brazil)
- Puerto San Jose (Guatemala)
- Arica (Chile)
- Boca Raton (United States)
- Mancora (Peru)
- Las Toninas (Argentina)
- Salinas (Ecuador)
- San Juan (Puerto Rico)
- Valparaiso (Chile)



**PROJECT COMPLETION PHASES**



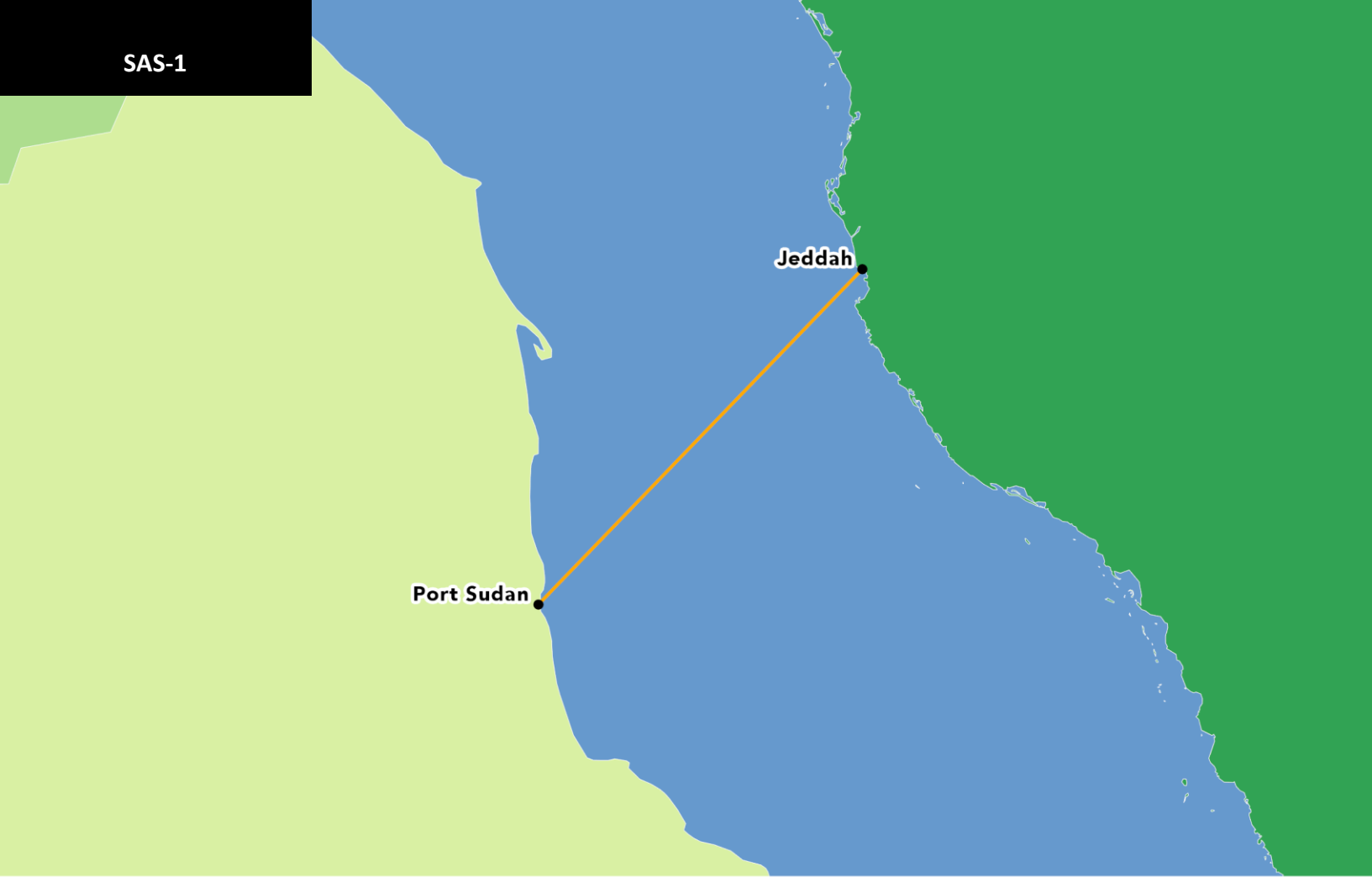
**SOUTH AMERICA PACIFIC LINK**

**System Details**

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$450,000,000
<b>Length (km)</b>	17,600
<b>Initial Capacity (Tbps)</b>	10
<b>Design Capacity (Tbps)</b>	30
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	150
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Ocean Networks
<b>Region</b>	Transpacific

**Landing Points**

- Grand Cayman (Cayman Islands)
- Valparaiso (Chile)
- Naples (United States)
- Makaha (United States)
- Balboa (Panama)



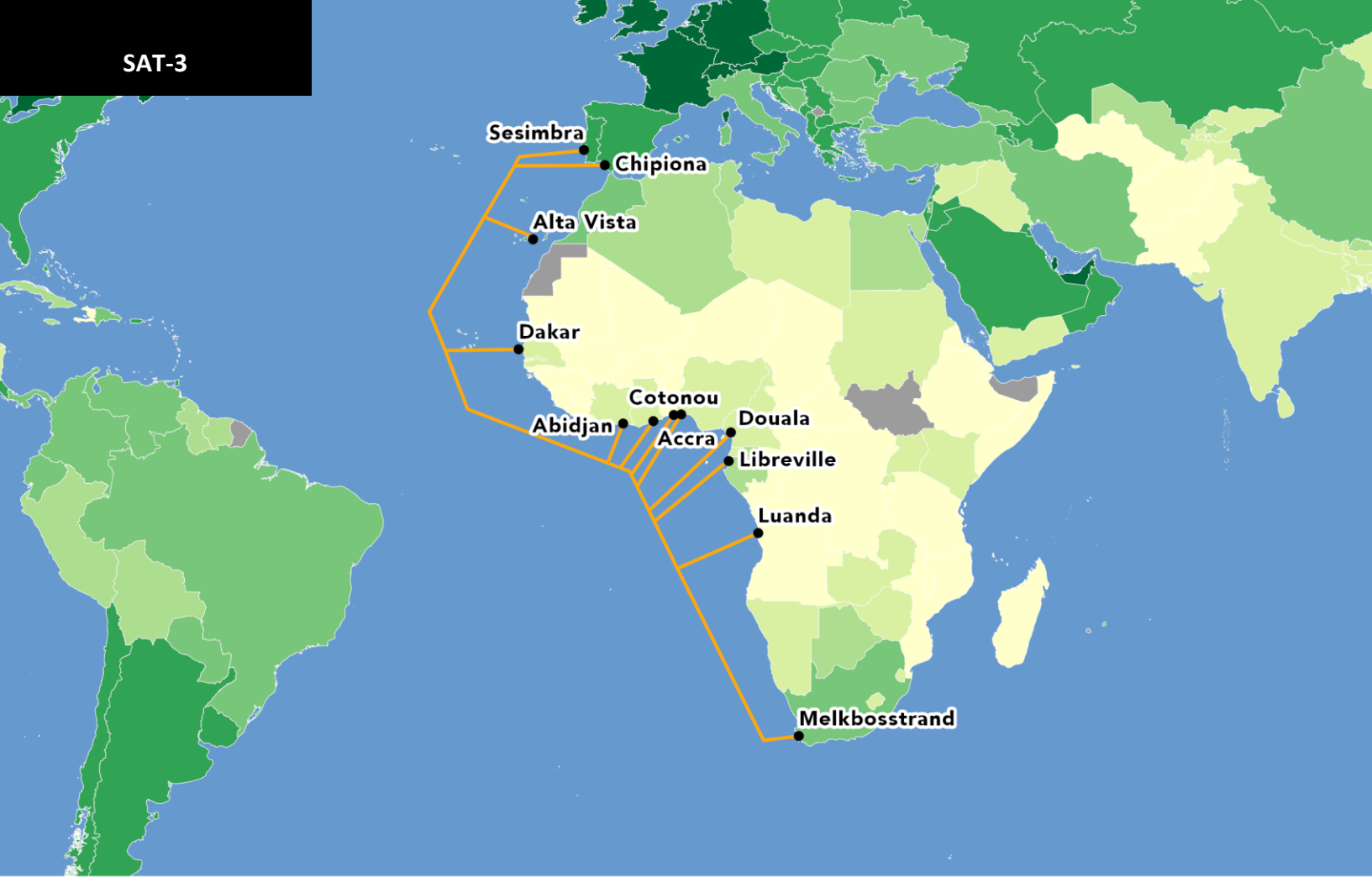
### SAUDI ARABIA-SUDAN

#### System Details

<b>RFS Year</b>	2003
<b>EOS Year</b>	2028
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	333
<b>Initial Capacity (Tbps)</b>	1.28
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	4
<b>Owners</b>	Saudi Telecom Company
<b>Region</b>	EMEA

#### Landing Points

- Jeddah (Saudi Arabia)
- Port Sudan (Sudan)



### SOUTH ATLANTIC 3

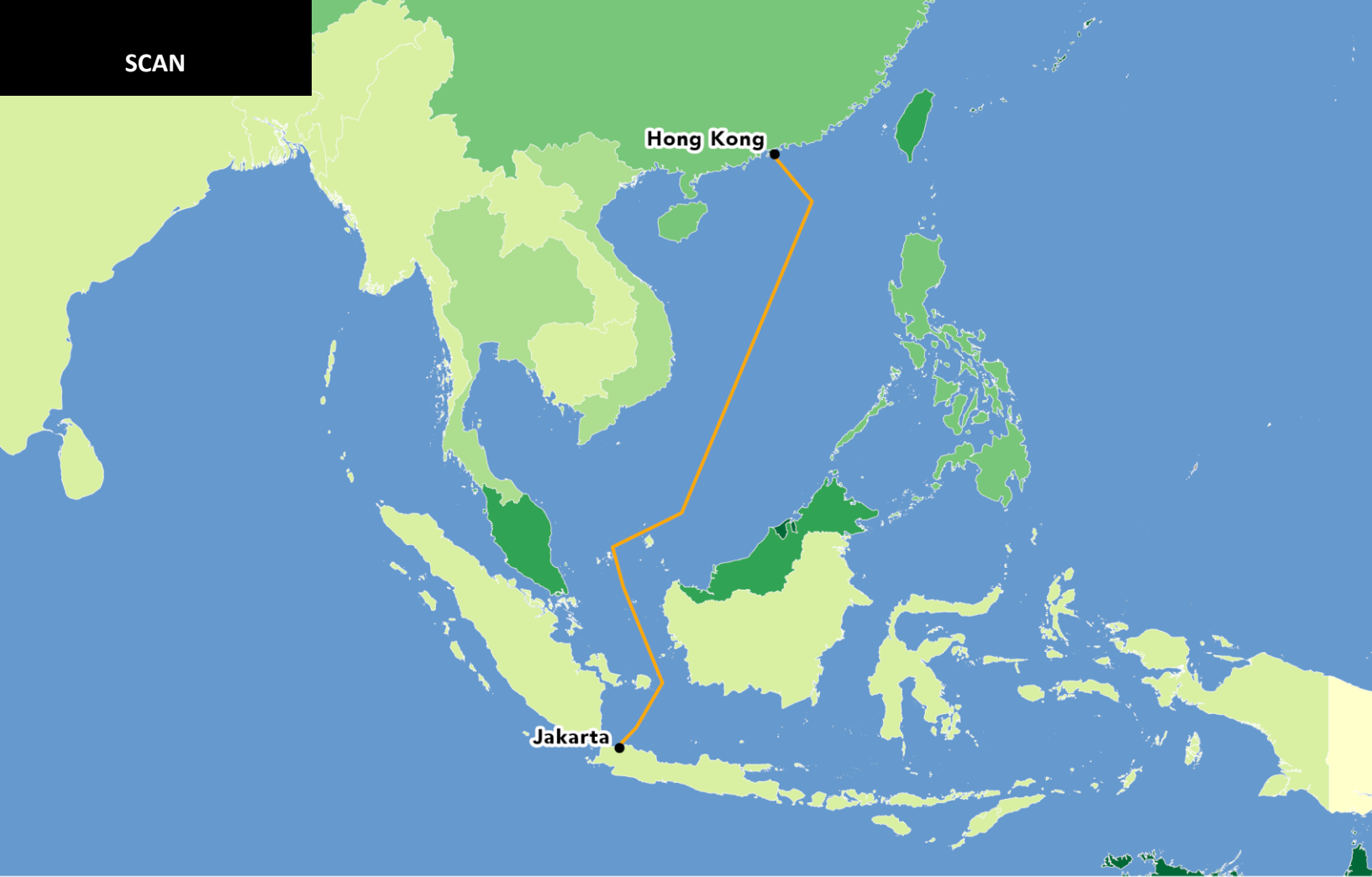
#### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$370,000,000
<b>Length (km)</b>	14,350
<b>Initial Capacity (Tbps)</b>	0.34
<b>Design Capacity (Tbps)</b>	0.8
<b>Fiber Pairs</b>	2
<b>Capacity per Wavelength (Gbps)</b>	40

**Owners**  
 British Telecommunications PLC, C&W, CamTel, CIT, Côte d'Ivoire Telecom, CPRM, France Telecom, Ghana Telecom, Maroc Telecom of Morocco, Nigerian Telecommunications Ltd, Nitel, OPT Benin, OPT Gabon, TATA Communications, TCI, Telecom Namibia, Telekom SA, Telxius, Togo Telecom

#### Landing Points

- Douala (Cameroon)
- Accra (Ghana)
- Chipiona (Spain)
- Lagos (Nigeria)
- Luanda (Angola)
- Sesimbra (Portugal)
- Abidjan (Ivory Coast)
- Alta Vista (Spain)
- Dakar (Senegal)
- Libreville (Gabon)
- Melkbosstrand (South Africa)
- Cotonou (Benin)



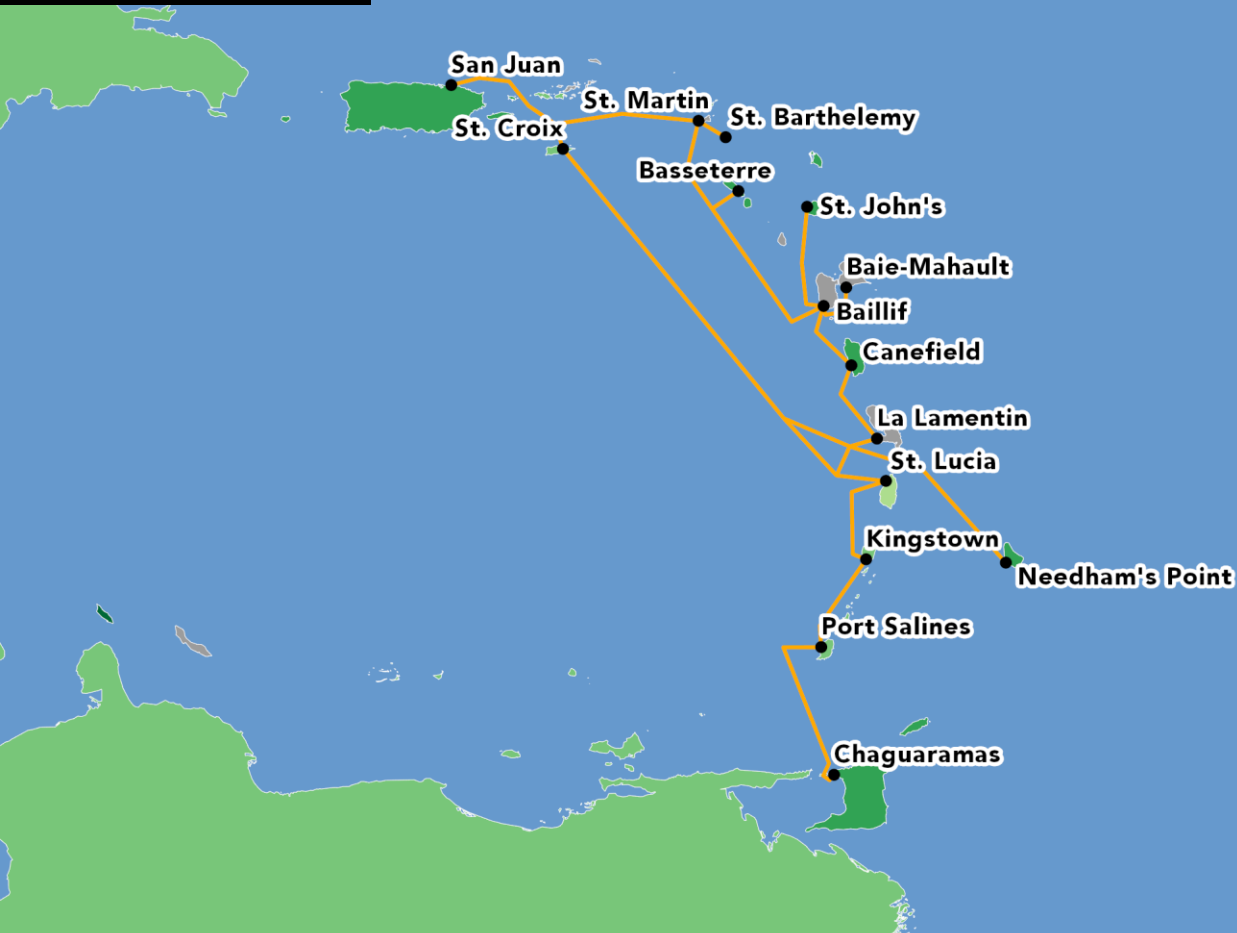
## SUBMARINE CABLE ASIA NETWORK

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$337,000,000
<b>Length (km)</b>	4,300
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	1.92
<b>Owners</b>	PT. Fangbian Iskan Corporindo, Telemedia Pacific Inc.
<b>Region</b>	AustralAsia

### Landing Points

- Jakarta (Indonesia)
- (Hong Kong)



## SOUTHERN CARIBBEAN FIBER

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Length (km)</b>	2,100
<b>Initial Capacity (Tbps)</b>	1.28
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	8
<b>Owners</b>	Digicel, Group Loret
<b>System Supplier</b>	Alcatel Submarine Networks, TE SubCom
<b>System Installer</b>	Alcatel Submarine Networks, TE SubCom
<b>Region</b>	Americas

### Landing Points

- Chaguaramas (Trinidad)
- Kingstown (St. Vincent)
- (St. Lucia)
- Canefield (Dominica)
- Baie-Mahault (Guadeloupe)
- Basseterre (St. Kitts & Nevis)
- St Martin
- San Juan (Puerto Rico)
- Port Salines (Grenada)
- Needham's Point (Barbados)
- La Lamentin (Martinique)
- Baillif (Guadeloupe)
- St. John's (Antigua)
- St Barthelemy
- St Croix (United States)



## SCOTLAND-ORKNEY-SHETLAND

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$12,000,000
<b>Length (km)</b>	400
<b>Owners</b>	British Telecommunications PLC
<b>Region</b>	EMEA

### Landing Points

- Shetland (Scotland)
- Orkney (Scotland)
- (Scotland)

# Seabras-1



## SEABRAS-1

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$509,000,000
<b>Length (km)</b>	10,750
<b>Initial Capacity (Tbps)</b>	72
<b>Design Capacity (Tbps)</b>	72
<b>Fiber Pairs</b>	6
<b>Wavelengths per Fiber Pair</b>	120
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Seaborn Group
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Americas

### Landing Points

- Wall Township (United States)
- Praia Grande (Brazil)





## SEACOM

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$600,000,000
<b>Length (km)</b>	13,601
<b>Initial Capacity (Tbps)</b>	0.11
<b>Design Capacity (Tbps)</b>	4.2
<b>Owners</b>	Convergence Partners, Herakles Telecom LLC, Industrial Promotion Services, Seacom Ltd, Shanduka Group, VenFin Limited
<b>System Supplier</b>	Tyco Telecommunications SSI
<b>System Installer</b>	Tyco Telecommunications SSI
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Dar es Salaam (Tanzania)
- Maputo (Mozambique)
- Mumbai (India)
- Mombasa (Kenya)
- Djibouti City (Djibouti)
- Mtunzini (South Africa)
- Zafarana (Egypt)



## SOUTH EAST ALASKA

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	GCI
<b>Region</b>	Americas

### Landing Points

- Ketchikan (United States)
- Angoon (United States)
- Wrangell (United States)
- Hawk Inlet (United States)
- Juneau (United States)
- Petersburg (United States)
- Sitka (United States)



### SOUTH EAST ASIA-MIDDLE EAST-WESTERN EUROPE 3

#### System Details

<b>RFS Year</b>	1999
<b>EOS Year</b>	2024
<b>Est. System Cost (USD)</b>	\$1,500,000,000
<b>Length (km)</b>	39,622
<b>Initial Capacity (Tbps)</b>	0.04
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Cyprus Telecommunications Authority, SEA-ME-WE 3 Consortium, TATA Communications, Telekom Malaysia Berhad
<b>System Supplier</b>	Fujitsu, KDD-SCS, Pirelli, Tyco Telecommunications
<b>System Installer</b>	Alcatel Submarine Networks, Tyco Telecommunications

#### Landing Points

- Fangshan (Taiwan)
- Medan (Indonesia)
- Marmaris (Turkey)
- Karachi (Pakistan)
- Alexandria (Egypt)
- Muscat (Oman)
- (Hong Kong)
- Cochin (India)
- Batangas (Philippines)
- Goonhilly (United Kingdom)
- Tetouan (Morocco)
- Tuas (Singapore)
- Taipa (China)
- Shantou (China)
- Sesimbra (Portugal)
- Pyapon (Myanmar)
- Penmarch (France)
- Ostend (Belgium)
- Norden (Germany)
- Shanghai (China)
- Mersing (Malaysia)
- Mazara (Italy)
- Keoje (South Korea)
- Jeddah (Saudi Arabia)
- Fujairah (United Arab Emirates)
- (Djibouti)
- Da Nang (Vietnam)
- Chania (Greece)
- Ancol (Indonesia)
- Satun (Thailand)
- Tungku (Brunei)
- Toucheng (Taiwan)
- Suez (Egypt)
- Mt. Lavinia (Sri Lanka)
- Mumbai (India)
- Perth (Australia)
- Penang (Malaysia)
- Okinawa Prefecture (Japan)
- Yeroskipos (Cyprus)



**SOUTH EAST ASIA-MIDDLE EAST-WESTERN EUROPE 4**

**System Details**

<b>RFS Year</b>	2005
<b>EOS Year</b>	2030
<b>Est. System Cost (USD)</b>	\$500,000,000
<b>Length (km)</b>	18,846
<b>Initial Capacity (Tbps)</b>	1.28
<b>Design Capacity (Tbps)</b>	12.8
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100

**Landing Points**

- Karachi (Pakistan)
- Bizerte (Tunisia)
- Colombo (Sri Lanka)
- Alexandria (Egypt)
- Tuas (Singapore)
- Melaka (Malaysia)
- Palermo (Italy)
- Suez (Egypt)
- Annaba (Algeria)
- Chennai (India)
- Cox's Bazar (Bangladesh)
- Jeddah (Saudi Arabia)
- Marseille (France)
- Mumbai (India)
- Satun (Thailand)
- Fujairah (United Arab Emirates)





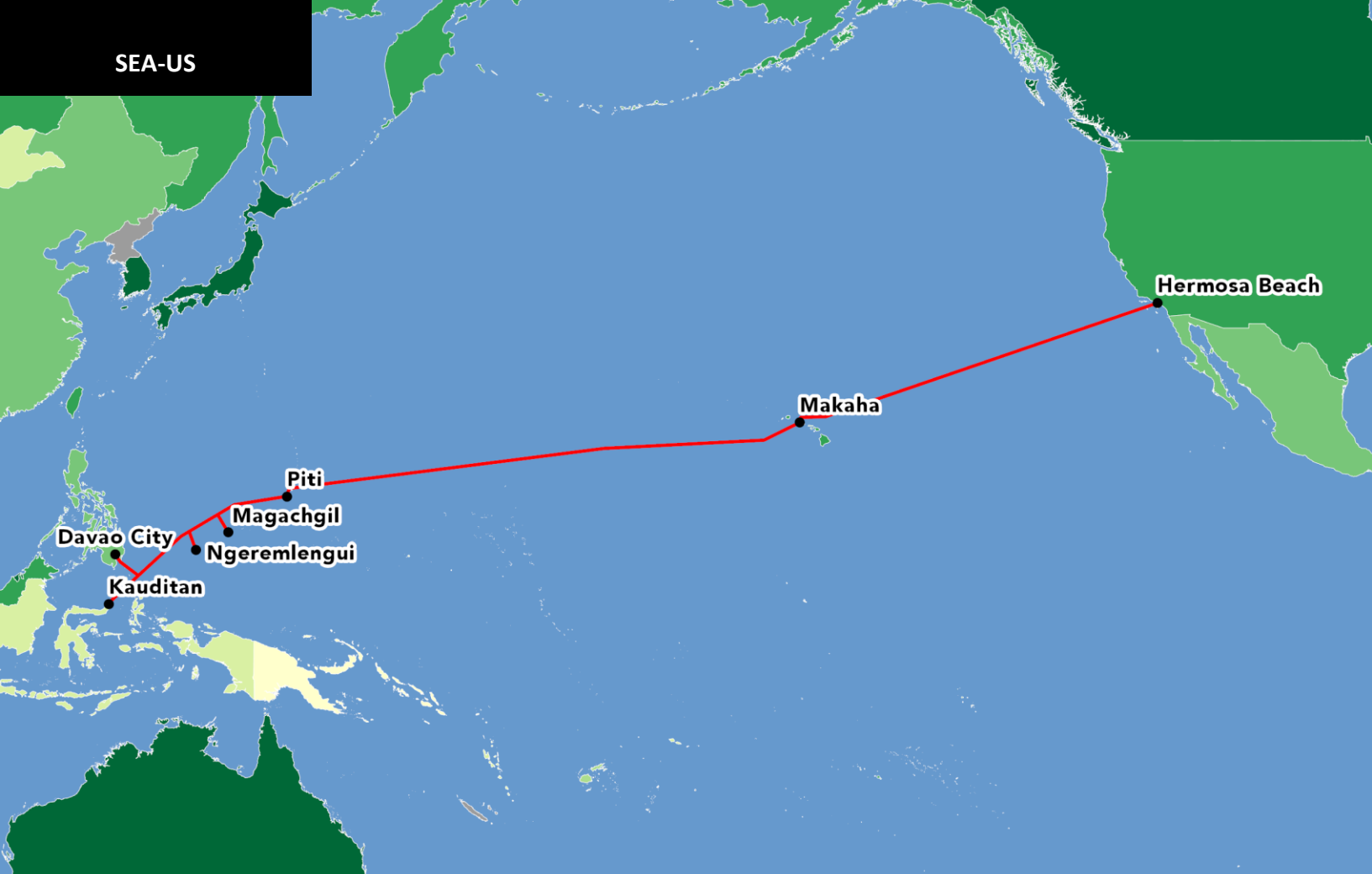
**SOUTH EAST ASIA-MIDDLE EAST-WESTERN EUROPE 5**

**System Details**

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$1,000,000,000
<b>Length (km)</b>	20,000
<b>Initial Capacity (Tbps)</b>	24
<b>Design Capacity (Tbps)</b>	24
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	100

**Landing Points**

- Matarata (Sri Lanka)
- Catania (Italy)
- Dumai (Indonesia)
- Karachi (Pakistan)
- Marmaris (Turkey)
- Medan (Indonesia)
- Ngwe Saung (Myanmar)
- Toulon (France)
- Yanbu (Saudi Arabia)
- Al Hudaydah (Yemen)
- Djibouti City (Djibouti)
- Fujairah (United Arab Emirates)
- Abu Talat (Egypt)
- Zafarana (Egypt)
- Melaka (Malaysia)
- Qalhat (Oman)
- Tuas (Singapore)
- Kuakata (Bangladesh)



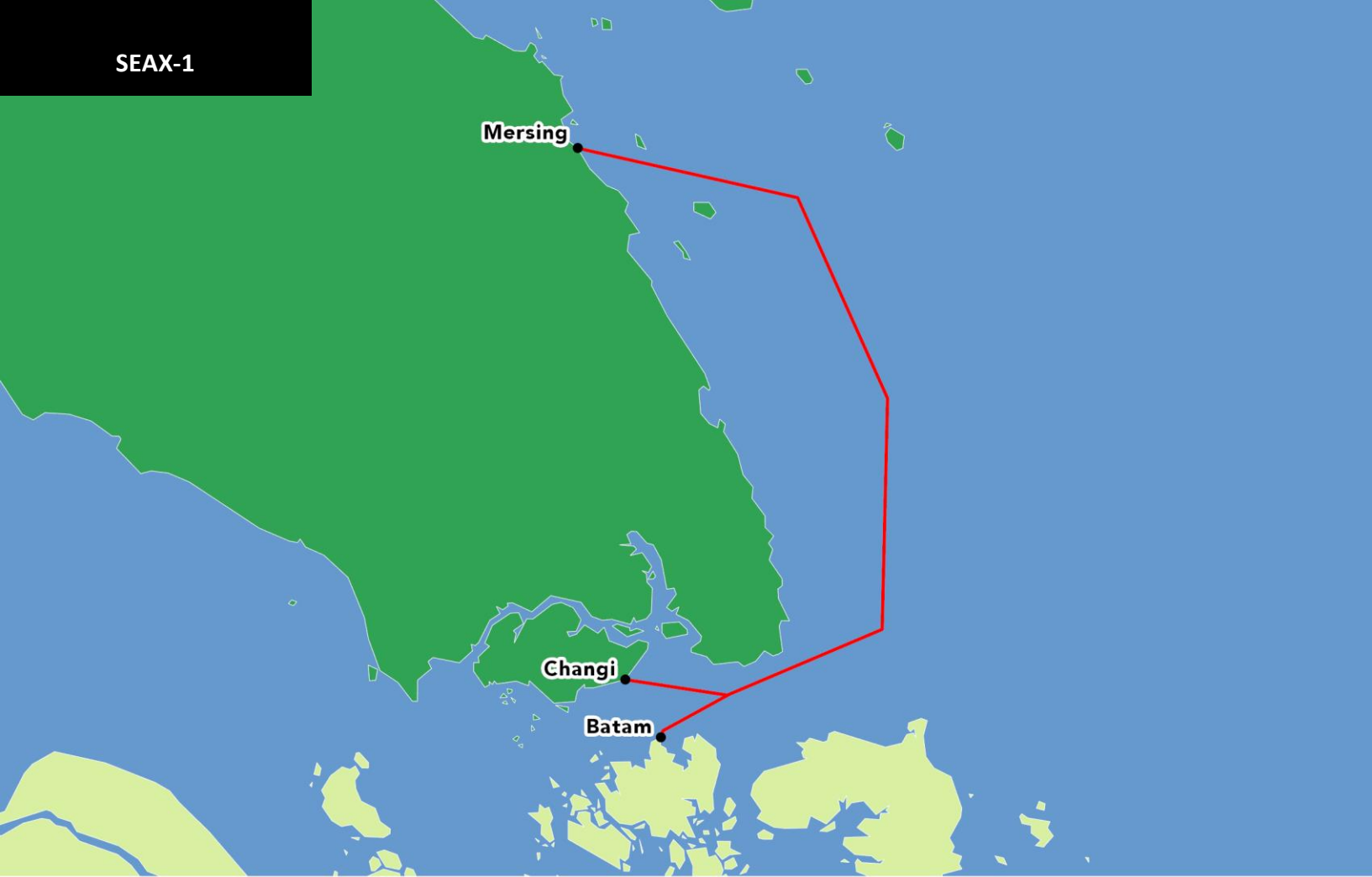
## SOUTH EAST ASIA-UNITED STATES

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	15,400
<b>Initial Capacity (Tbps)</b>	20
<b>Design Capacity (Tbps)</b>	20
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	100
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Globe Telecom, GTA, GTI, Hawaiian Telecom, RTI, Telin, Telkom USA
<b>System Supplier</b>	NEC
<b>System Installer</b>	S.B. Submarine Systems
<b>Region</b>	Transpacific

### Landing Points

- Piti (Guam)
- Makaha (United States)
- Kauditan (Indonesia)
- Davao City (Philippines)
- Ngeremlengui (Palau)
- Magachgil (Micronesia)
- Hermosa Beach (United States)



**SEAX-1**

**System Details**

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$6,250,000
<b>Length (km)</b>	250
<b>Fiber Pairs</b>	24
<b>Owners</b>	Super SEA Cable Networks Pte. Ltd.
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Huawei Marine
<b>Region</b>	AustralAsia

**Landing Points**

- Mersing (Malaysia)
- Batam (Indonesia)
- Changi (Singapore)



## SURINAME-GUYANA SUBMARINE CABLE SYSTEM

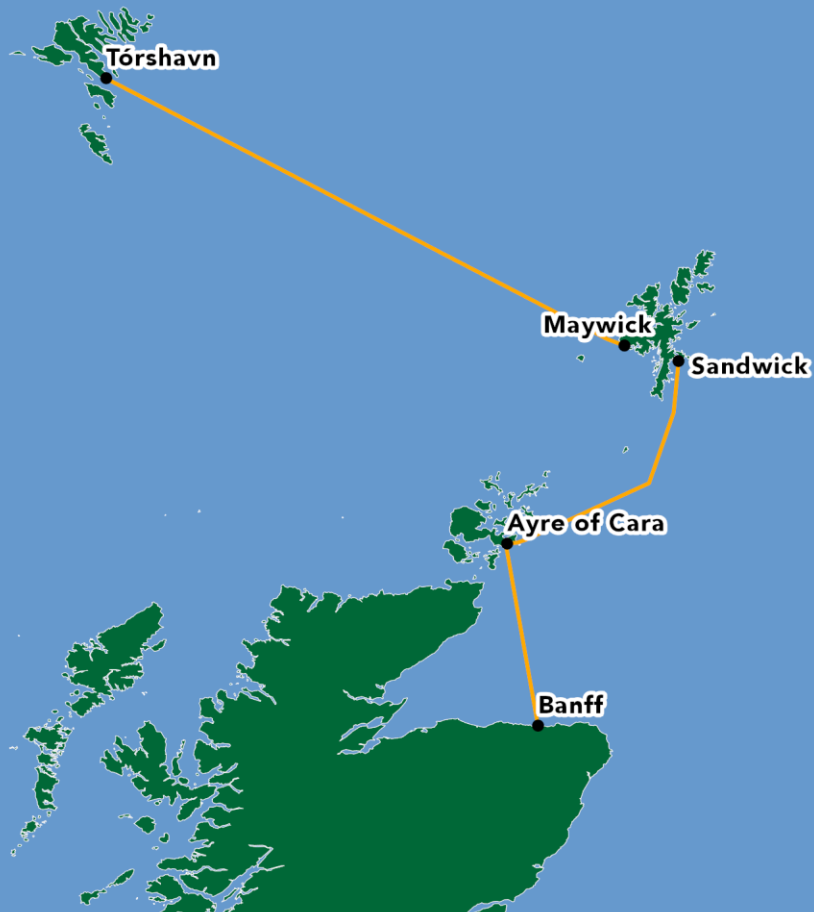
### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$54,000,000
<b>Length (km)</b>	1,249
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Guyana Telephone and Telegraph Co. Ltd., Telesur
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	Americas

### Landing Points

- Totness (Suriname)
- Georgetown (Guyana)
- Macqueripe (Trinidad)





## SHETLAND-FAROESE 2

### System Details

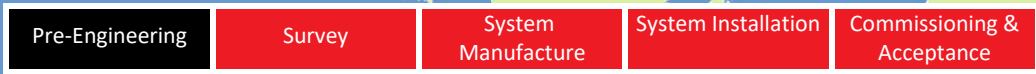
<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$27,000,000
<b>Length (km)</b>	828
<b>Initial Capacity (Tbps)</b>	0.02
<b>Design Capacity (Tbps)</b>	0.57
<b>Owners</b>	Faroese Telecom
<b>System Supplier</b>	IT International Telecom, NSW
<b>Upgrader</b>	Xtera
<b>Region</b>	EMEA

### Landing Points

- Tórshavn (Faroe Islands)
- Maywick (United Kingdom)
- Ayre of Cara (United Kingdom)
- Sandwick (United Kingdom)
- Banff (United Kingdom)



**PROJECT COMPLETION PHASES**



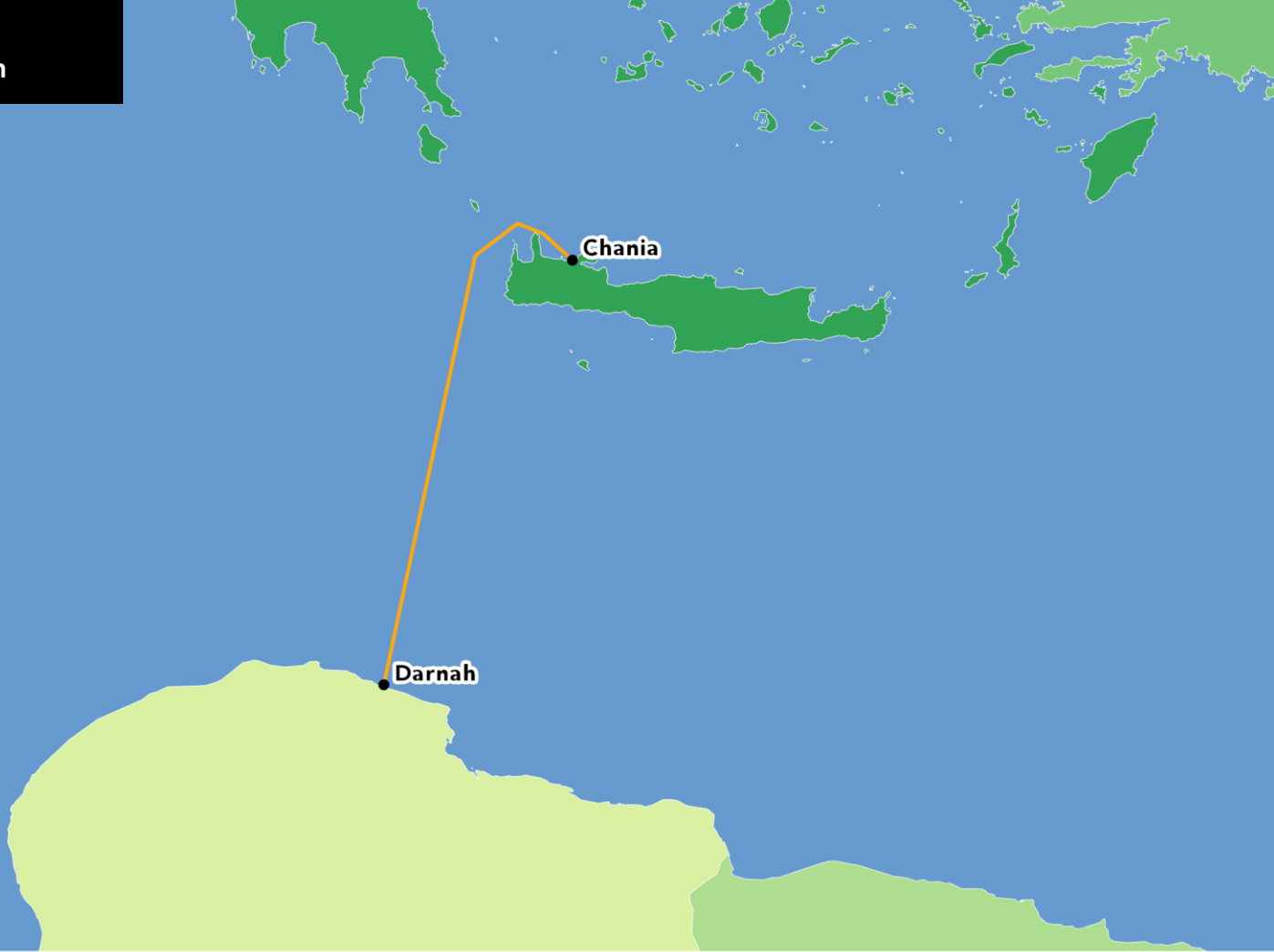
**SINGAPORE-MYANMAR**

**System Details**

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$80,000,000
<b>Length (km)</b>	2,200
<b>Fiber Pairs</b>	4
<b>Owners</b>	Campana Group

**Landing Points**

- Tuas (Singapore)
- Yangon (Myanmar)



## SILPHIUM

### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	426
<b>Initial Capacity (Tbps)</b>	0.07
<b>Design Capacity (Tbps)</b>	1.2
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	40
<b>Capacity per Wavelength (Gbps)</b>	10
<b>Owners</b>	Libyan Post, Telecom and Information Technology Company
<b>System Supplier</b>	Huawei Marine, Nexans
<b>System Installer</b>	Huawei Marine
<b>Region</b>	EMEA

### Landing Points

- Chania (Greece)
- Darnah (Libya)



## SOUTH-EAST ASIA JAPAN CABLE

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$400,000,000
<b>Length (km)</b>	8,986
<b>Initial Capacity (Tbps)</b>	28
<b>Design Capacity (Tbps)</b>	28
<b>Fiber Pairs</b>	6
<b>Capacity per Wavelength (Gbps)</b>	100

**Owners**

Brunei International  
 Gateway Sendirian Berhad,  
 China Mobile, China  
 Telecom Corporation, China  
 Telecom International Ltd.,  
 Donghwa Telecom Co.,  
 Globe Telecom, Google,  
 SJC Consortium, Telemidia  
 Pacific Inc., Telin, TOT  
 Public Co Ltd.

**System Supplier**

TE SubCom

**System Installer**

S.B. Submarine Systems

**Upgrader**

TE SubCom, TE SubCom

### Landing Points

- Tuas (Singapore)
- Shantou (China)
- Lantau (Hong Kong)
- Telisai (Brunei)
- Nasugbu (Philippines)
- Chikura (Japan)



## SOUTHEAST ASIA-JAPAN 2

### System Details

<b>RFS Year</b>	2020
<b>EOS Year</b>	2045
<b>Est. System Cost (USD)</b>	\$265,000,000
<b>Length (km)</b>	10,500
<b>Design Capacity (Tbps)</b>	144
<b>Fiber Pairs</b>	8
<b>Owners</b>	China Mobile, Chuan Wei, Chunghwa Telecom Co., Facebook, KDDI, Singapore Telecommunications Limited, SK Broadband, VNPT
<b>System Supplier</b>	NEC
<b>Region</b>	AustralAsia

### Landing Points

- Tanshui (Taiwan)
- Sihanoukville (Cambodia)
- Quy Nhon (Vietnam)
- Lingang (China)
- (Hong Kong)
- Changi (Singapore)
- Songkhla (Thailand)
- Shima (Japan)
- Busan (South Korea)
- Fangshan (Taiwan)
- Chikura (Japan)



## SISTEM KABEL RAKYAT 1 MALAYSIA

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	3,500
<b>Design Capacity (Tbps)</b>	6
<b>Owners</b>	Telekom Malaysia Berhad, TIME dotCom Berhad
<b>System Supplier</b>	NEC
<b>System Installer</b>	Telekom Malaysia Berhad
<b>Region</b>	AustralAsia

### Landing Points

- Miri (Malaysia)
- Kuching (Malaysia)
- Cherating (Malaysia)
- Mersing (Malaysia)
- Kota Kinabalu (Malaysia)
- Bintulu (Malaysia)



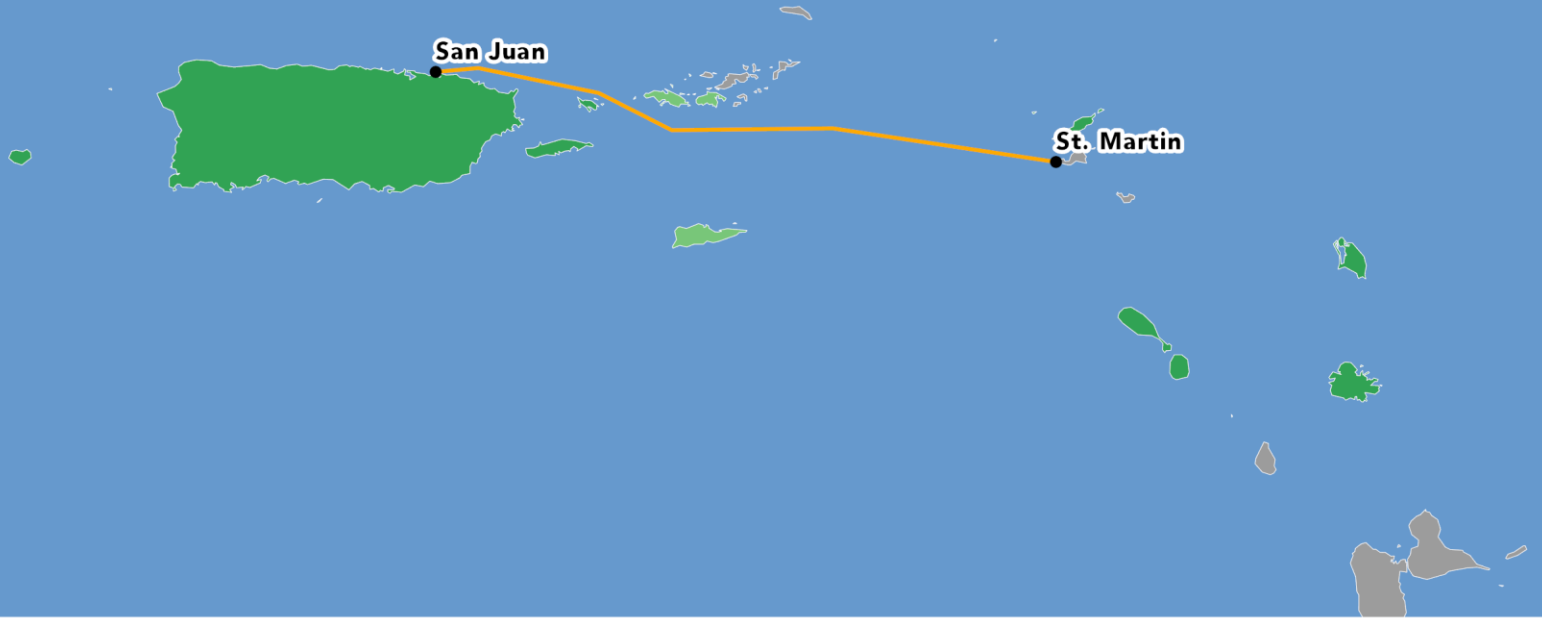
## SULAWESI-MALUKU-PAPUA CABLE SYSTEM

### System Details

<b>RFS Year</b>	2015
<b>EOS Year</b>	2040
<b>Est. System Cost (USD)</b>	\$71,100,000
<b>Length (km)</b>	2,000
<b>Design Capacity (Tbps)</b>	40
<b>Owners</b>	PT Telekom
<b>Region</b>	AustralAsia

### Landing Points

- Papua (Indonesia)
- Maluku (Indonesia)
- Sulawesi (Indonesia)



## ST. MAARTEN-PUERTO RICO 1

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$15,000,000
<b>Length (km)</b>	382
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Region</b>	Americas

### Landing Points

- St Martin (Netherlands Antilles)
- San Juan (Puerto Rico)





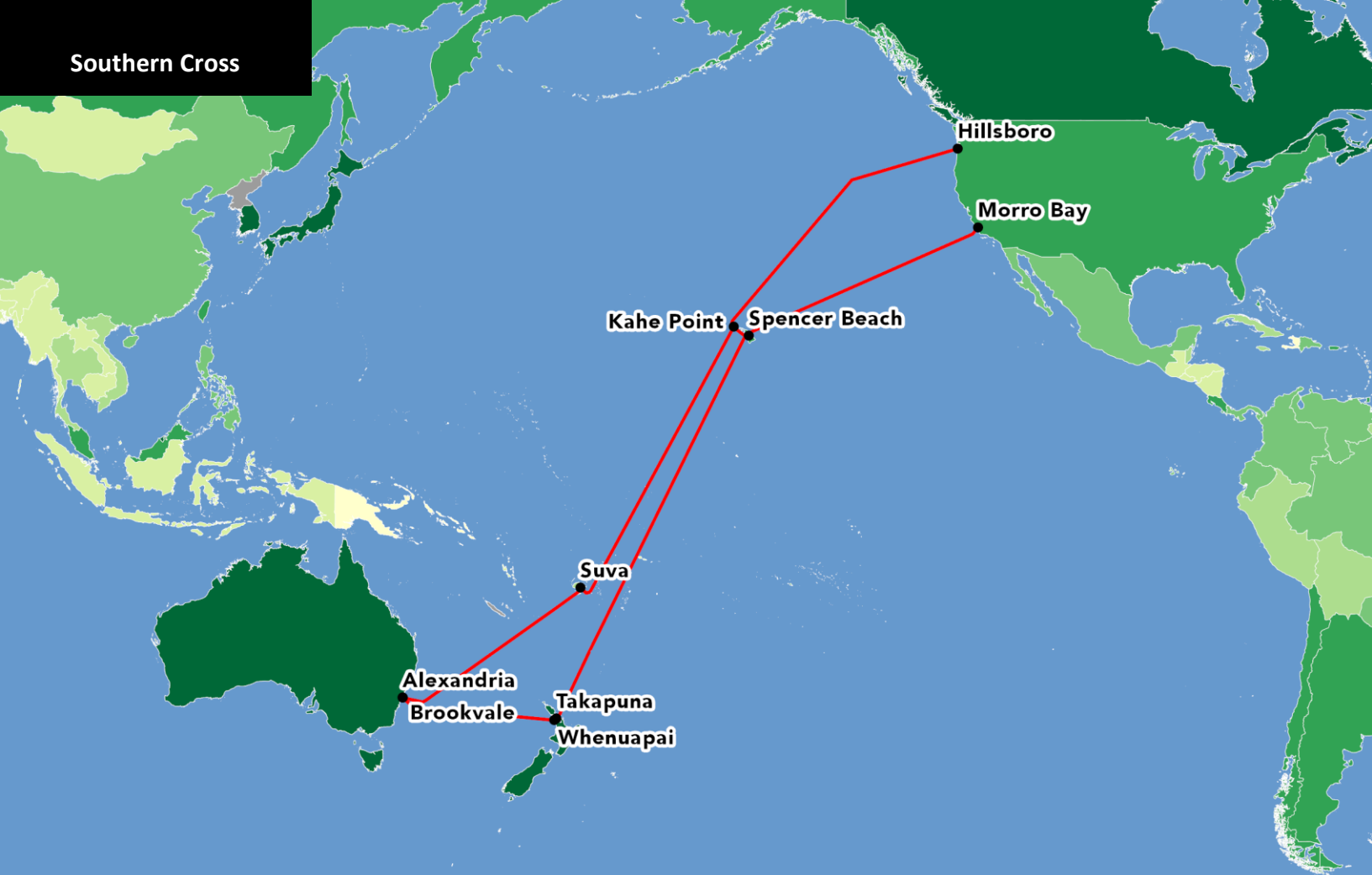
## SOLAS

### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$6,000,000
<b>Length (km)</b>	140
<b>Initial Capacity (Tbps)</b>	0.05
<b>Design Capacity (Tbps)</b>	0.005
<b>Owners</b>	Eircom
<b>System Installer</b>	Global Marine Systems Limited
<b>Region</b>	EMEA

### Landing Points

- Kilmore Quay (Ireland)
- Oxwich Bay (United Kingdom)



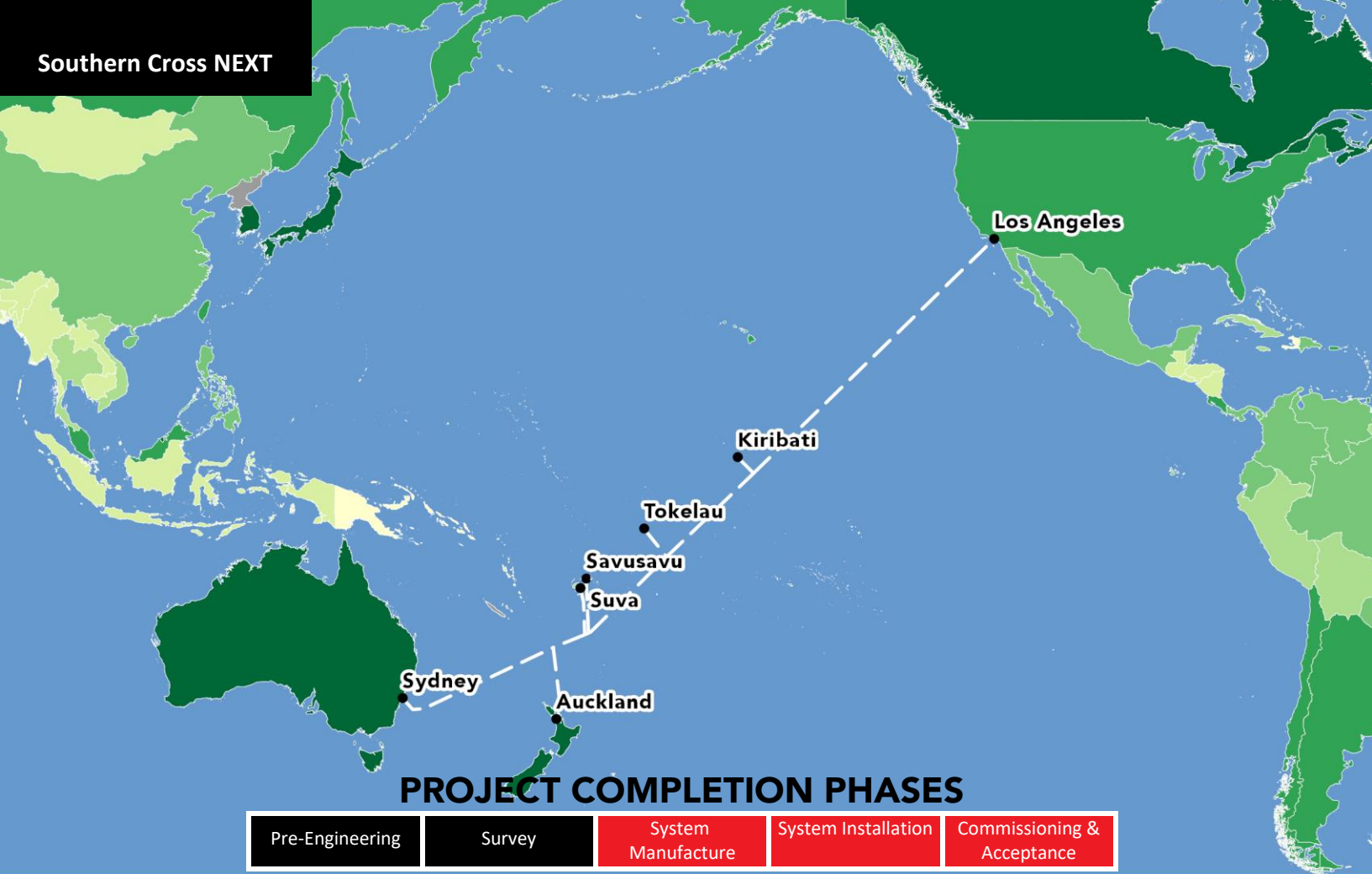
## SOUTHERN CROSS CABLE NETWORK

### System Details

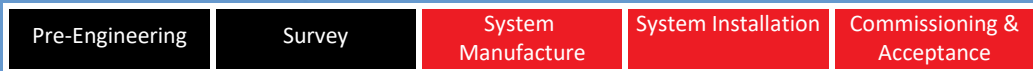
<b>RFS Year</b>	2000
<b>EOS Year</b>	2030
<b>Est. System Cost (USD)</b>	\$1,300,000,000
<b>Length (km)</b>	30,000
<b>Initial Capacity (Tbps)</b>	3.6
<b>Design Capacity (Tbps)</b>	22
<b>Fiber Pairs</b>	3
<b>Wavelengths per Fiber Pair</b>	16
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Southern Cross Cables Limited, Verizon
<b>System Supplier</b>	Alcatel Submarine Networks, Fujitsu
<b>System Installer</b>	Alcatel Submarine Networks
<b>Upgrader</b>	Ciena, Ciena
<b>Upgrade Year</b>	2012, 2013
<b>Upgrade Capacity (Gbps)</b>	40, 40
<b>Region</b>	AustralAsia; Transpacific

### Landing Points

- Whenuapai (New Zealand)
- Takapuna (New Zealand)
- Suva (Fiji)
- Spencer Beach (United States)
- Morro Bay (United States)
- Kahe Point (United States)
- Hillsboro (United States)
- Brookvale (Australia)
- Alexandria (Australia)



**PROJECT COMPLETION PHASES**



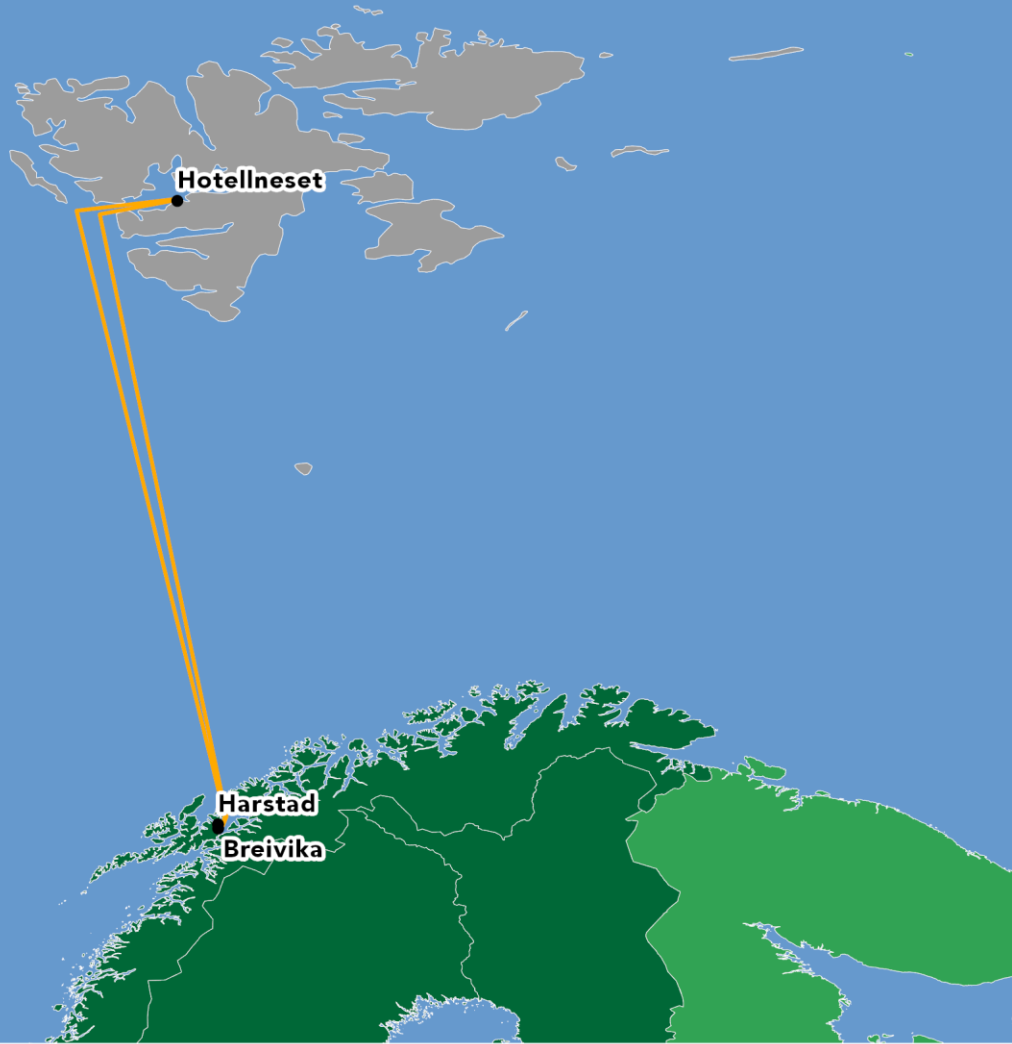
**SOUTHERN CROSS NEXT**

**System Details**

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$350,000,000
<b>Length (km)</b>	12,500
<b>Design Capacity (Tbps)</b>	72
<b>Fiber Pairs</b>	4
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Fintel, Southern Cross Cables Limited
<b>Region</b>	Transpacific

**Landing Points**

- Savusavu (Fiji)
- (Tokelau)
- Los Angeles (United States)
- Sydney (Australia)
- (Kiribati)
- Suva (Fiji)
- Auckland (New Zealand)



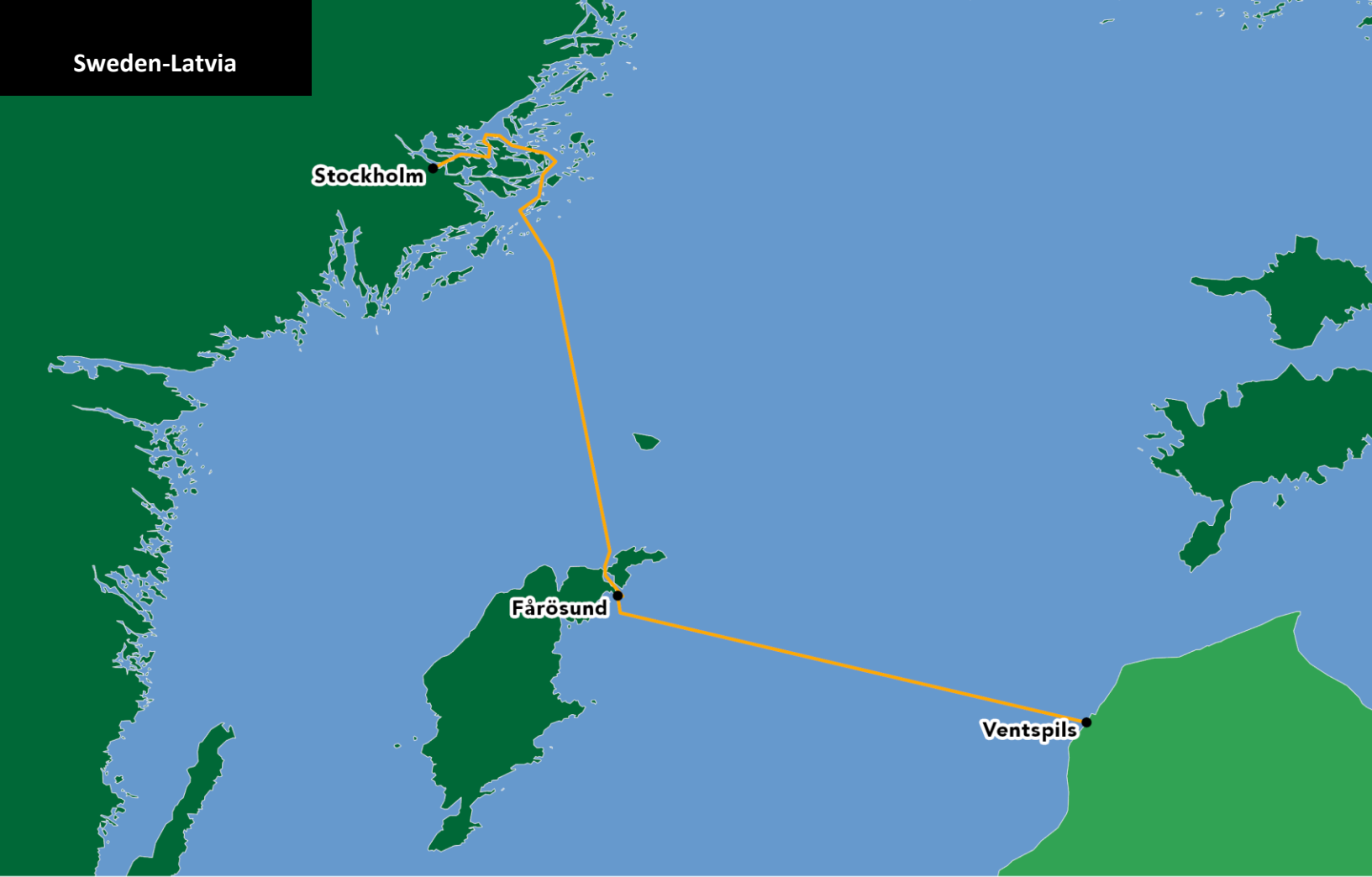
## SVALBARD

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$80,000,000
<b>Length (km)</b>	2,800
<b>Initial Capacity (Tbps)</b>	4.8
<b>Design Capacity (Tbps)</b>	4.8
<b>Owners</b>	Telenor
<b>System Supplier</b>	Nexans, Tyco Telecommunications
<b>System Installer</b>	Global Marine Systems Limited, Nexans, Tyco Telecommunications
<b>Region</b>	EMEA

### Landing Points

- Hotellneset (Norway)
- Breivika (Norway)
- Harstad (Norway)



## SWEDEN-LATVIA

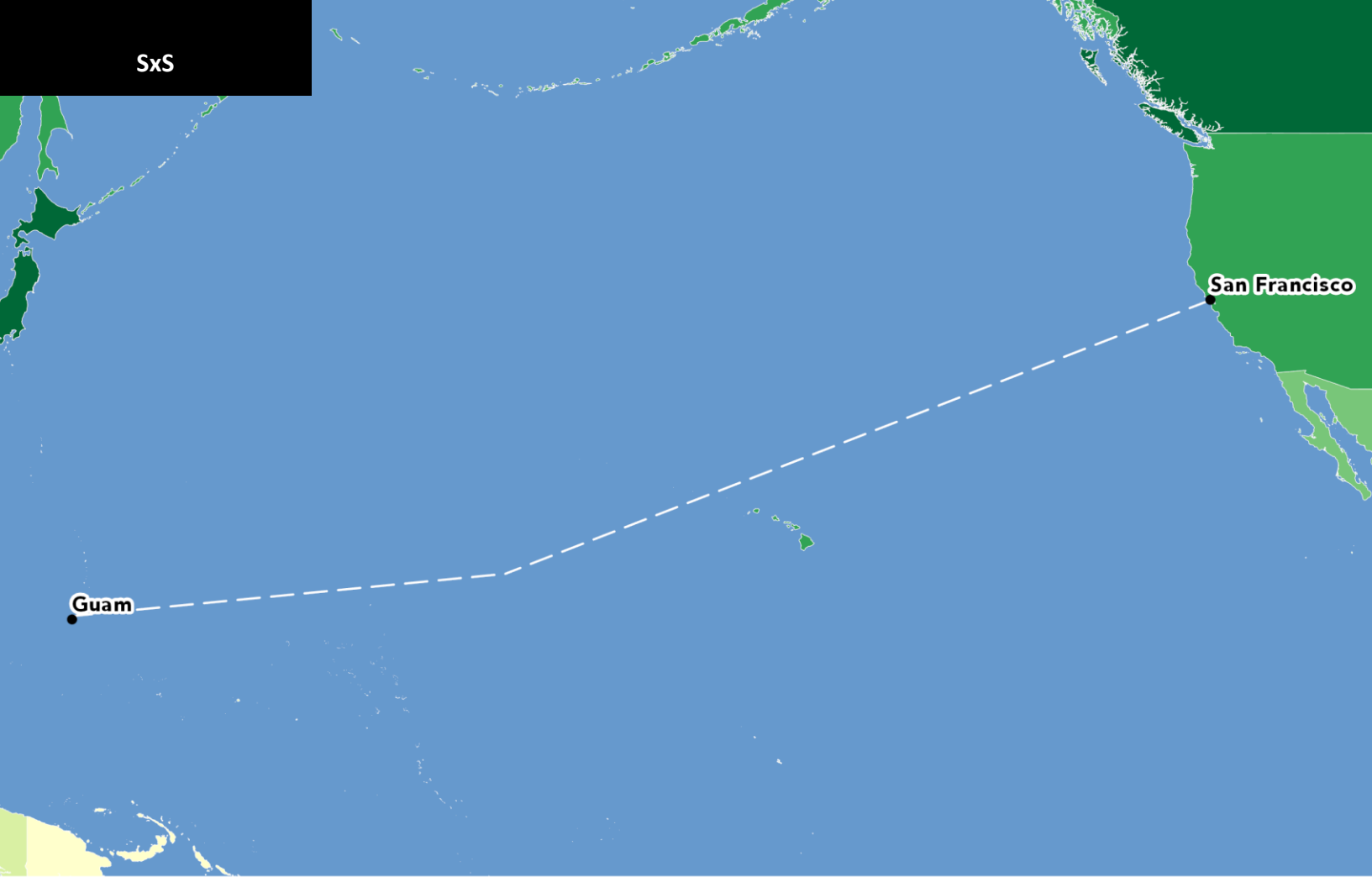
### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Length (km)</b>	175
<b>Initial Capacity (Tbps)</b>	0.0025
<b>Design Capacity (Tbps)</b>	0.0025
<b>Fiber Pairs</b>	34
<b>Owners</b>	Baltcom
<b>System Supplier</b>	TE SubCom
<b>Region</b>	EMEA

- Ventspils (Latvia)
- Fårösund (Sweden)

### Landing Points

- Stockholm (Sweden)



## SXS CABLE SYSTEM

### System Details

<b>RFS Year</b>	2021
<b>EOS Year</b>	2046
<b>Est. System Cost (USD)</b>	\$315,000,000
<b>Length (km)</b>	10,500
<b>Design Capacity (Tbps)</b>	96
<b>Owners</b>	RTI Connectivity
<b>System Supplier</b>	NEC

### Landing Points

- San Francisco (United States)
- (Guam)



## TANGERINE

### System Details

<b>RFS Year</b>	2000
<b>EOS Year</b>	2025
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	121
<b>Initial Capacity (Tbps)</b>	0.24
<b>Design Capacity (Tbps)</b>	0.24
<b>Fiber Pairs</b>	96
<b>Owners</b>	CenturyLink
<b>Region</b>	EMEA

### Landing Points

- Ostend (Belguim)
- Broadstairs (United Kingdom)



## TANNAT

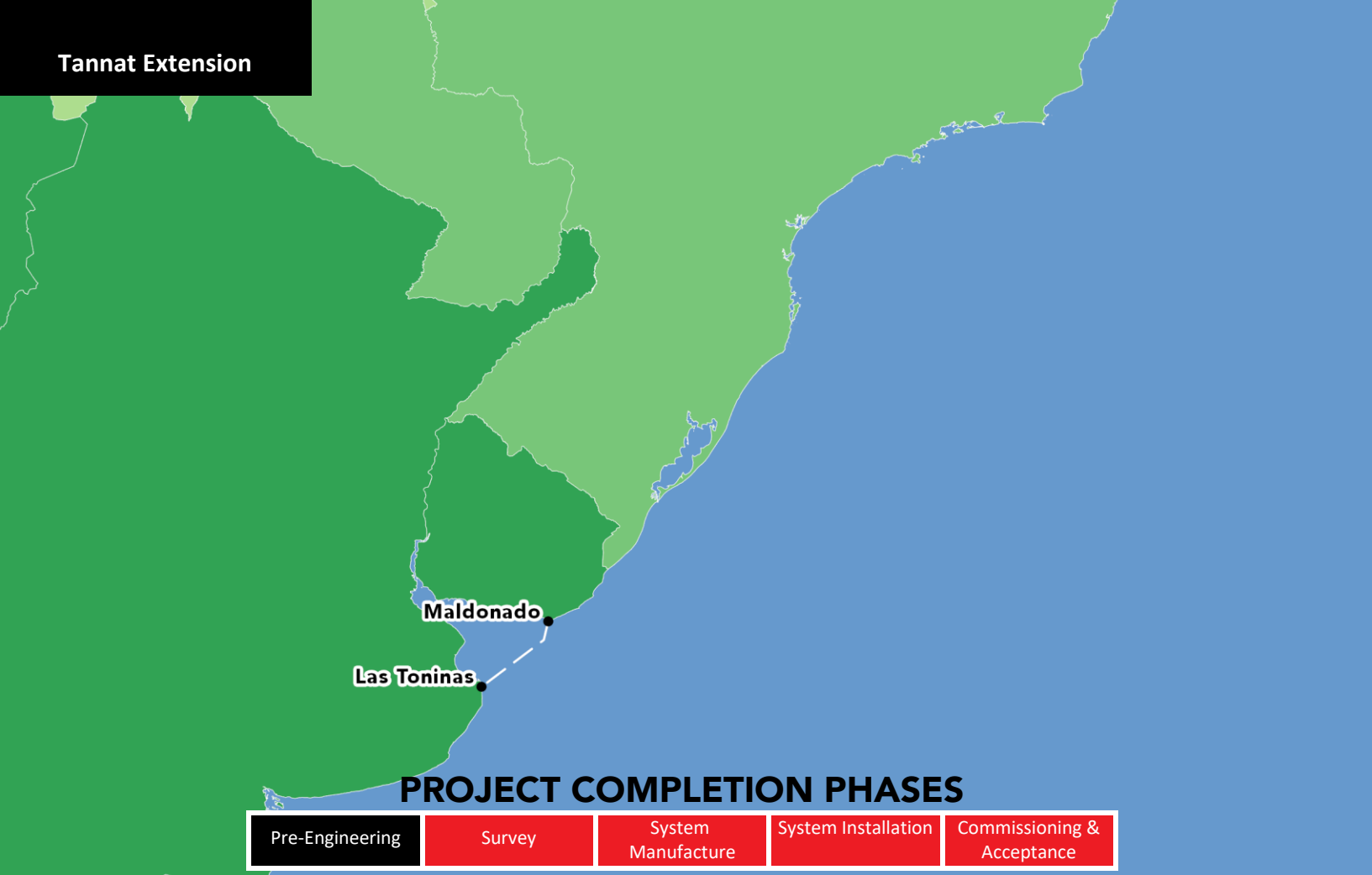
### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$50,000,000
<b>Length (km)</b>	2,000
<b>Design Capacity (Tbps)</b>	90
<b>Fiber Pairs</b>	6
<b>Owners</b>	Antel, Google, Government of Uruguay
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Americas

### Landing Points

- Maldonado (Uruguay)
- Santos (Brazil)





### PROJECT COMPLETION PHASES



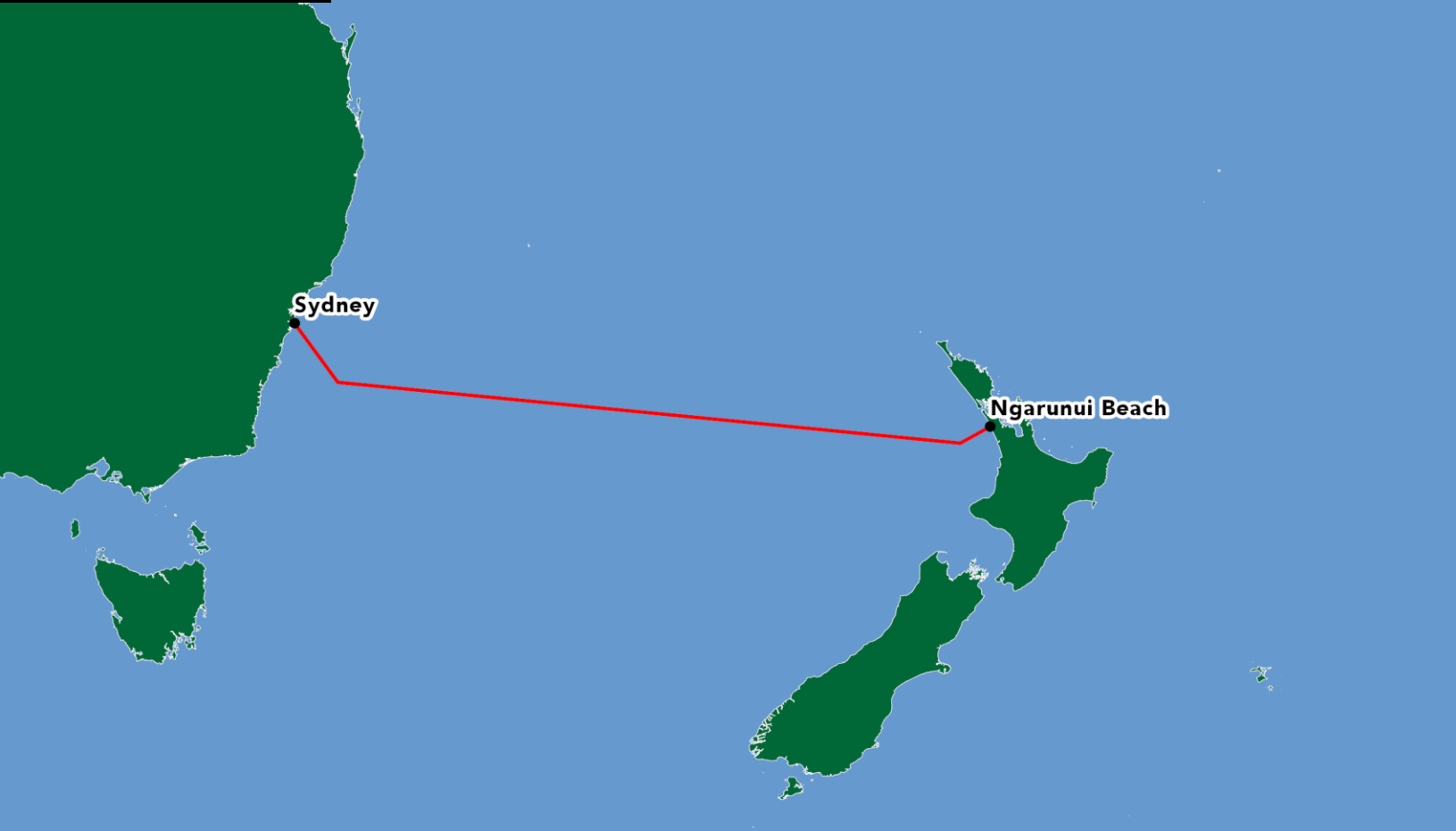
## TANNAT EXTENSION

### System Details

RFS Year	2020
EOS Year	2025
Design Capacity (Tbps)	90
Capacity per Wavelength (Gbps)	100
Owners	Google
System Supplier	SubCom
Region	Americas

### Landing Points

- Maldonado (Uruguay)
- Las Toninas (Argentina)



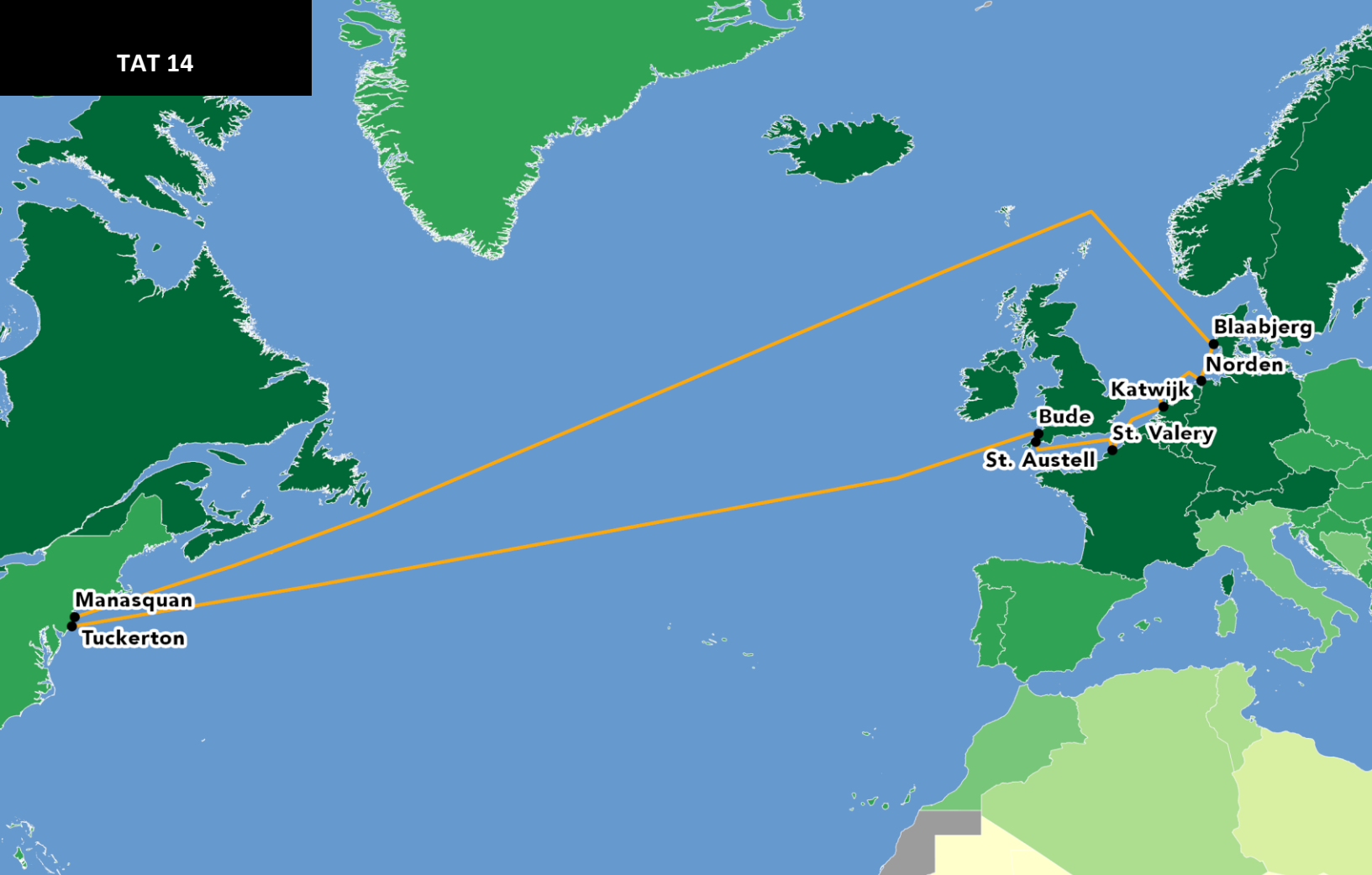
## TASMAN GLOBAL ACCESS

### System Details

<b>RFS Year</b>	2017
<b>EOS Year</b>	2042
<b>Est. System Cost (USD)</b>	\$60,000,000
<b>Length (km)</b>	2,300
<b>Design Capacity (Tbps)</b>	20
<b>Fiber Pairs</b>	2
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Spark New Zealand, Telstra, Vodafone Limited
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Sydney (Australia)
- Ngarunui Beach (New Zealand)



## TAT-14

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$400,000,000
<b>Length (km)</b>	15,453
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	9.38
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	40
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	KPN Telecom, TAT-14 Consortium
<b>System Supplier</b>	Mitsubishi Electric Corporation
<b>System Installer</b>	Global Marine Systems Limited
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	40
<b>Region</b>	Transatlantic

### Landing Points

- Tuckerton (United States)
- St. Austell (United Kingdom)
- Manasquan (United States)
- Bude (United Kingdom)
- St. Valery (France)
- Norden (Germany)
- Katwijk (Netherlands)
- Blaabjerg (Denmark)



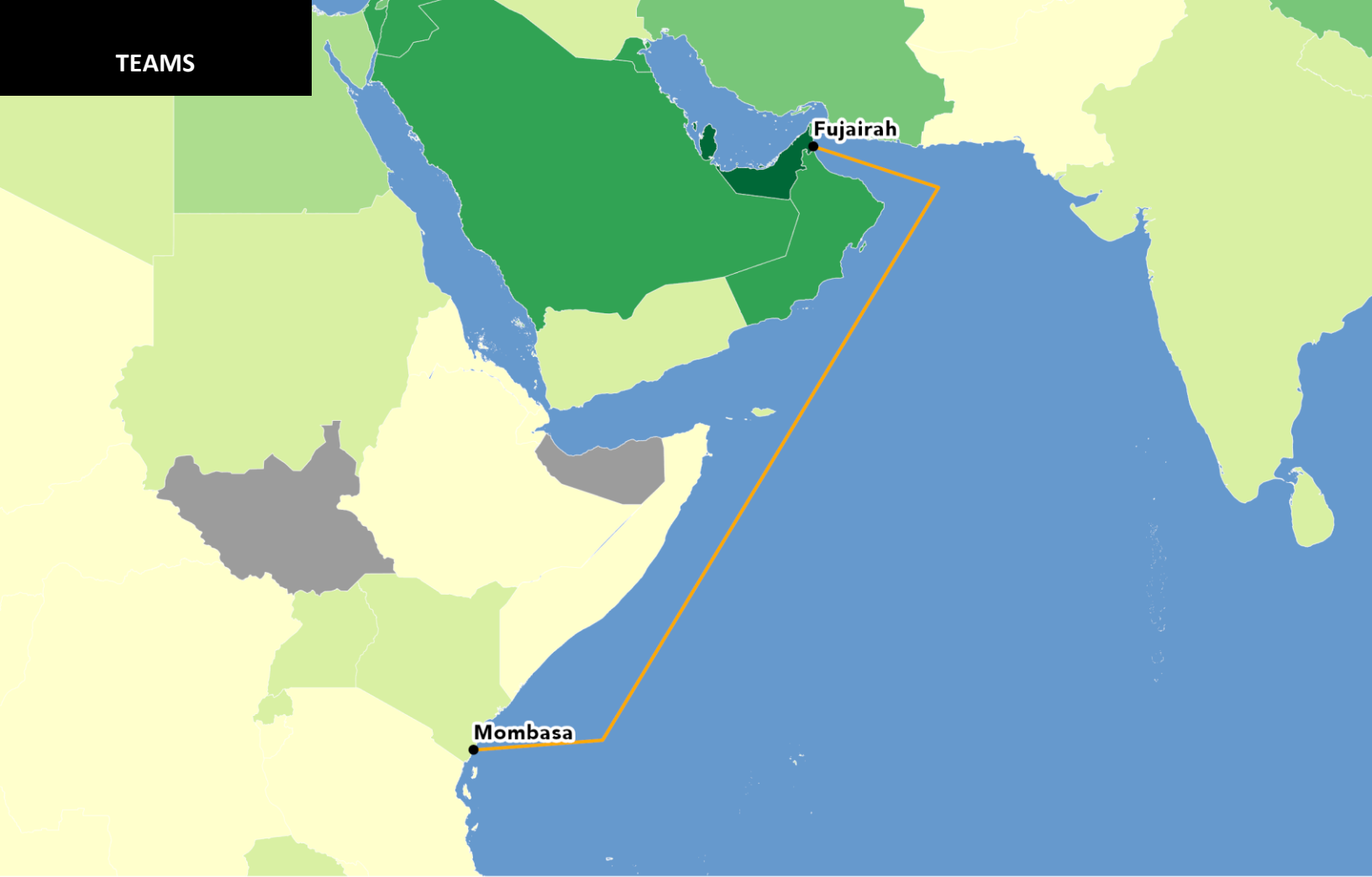
## TELECOM EGYPT NORTH

### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$150,000,000
<b>Length (km)</b>	2,938
<b>Initial Capacity (Tbps)</b>	10
<b>Design Capacity (Tbps)</b>	20
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	25
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Telecom Egypt
<b>Upgrader</b>	Infinera
<b>Upgrade Year</b>	2012
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Marseille (France)
- Alexandria (Egypt)
- Cyprus (Republic of Cyprus)



## THE EAST AFRICAN MARINE SYSTEM

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$130,000,000
<b>Length (km)</b>	4,500
<b>Initial Capacity (Tbps)</b>	0.12
<b>Design Capacity (Tbps)</b>	1.28
<b>Owners</b>	Etisalat, TEAMS Ltd.
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Mombasa (Kenya)
- Fujairah (United Arab Emirates)



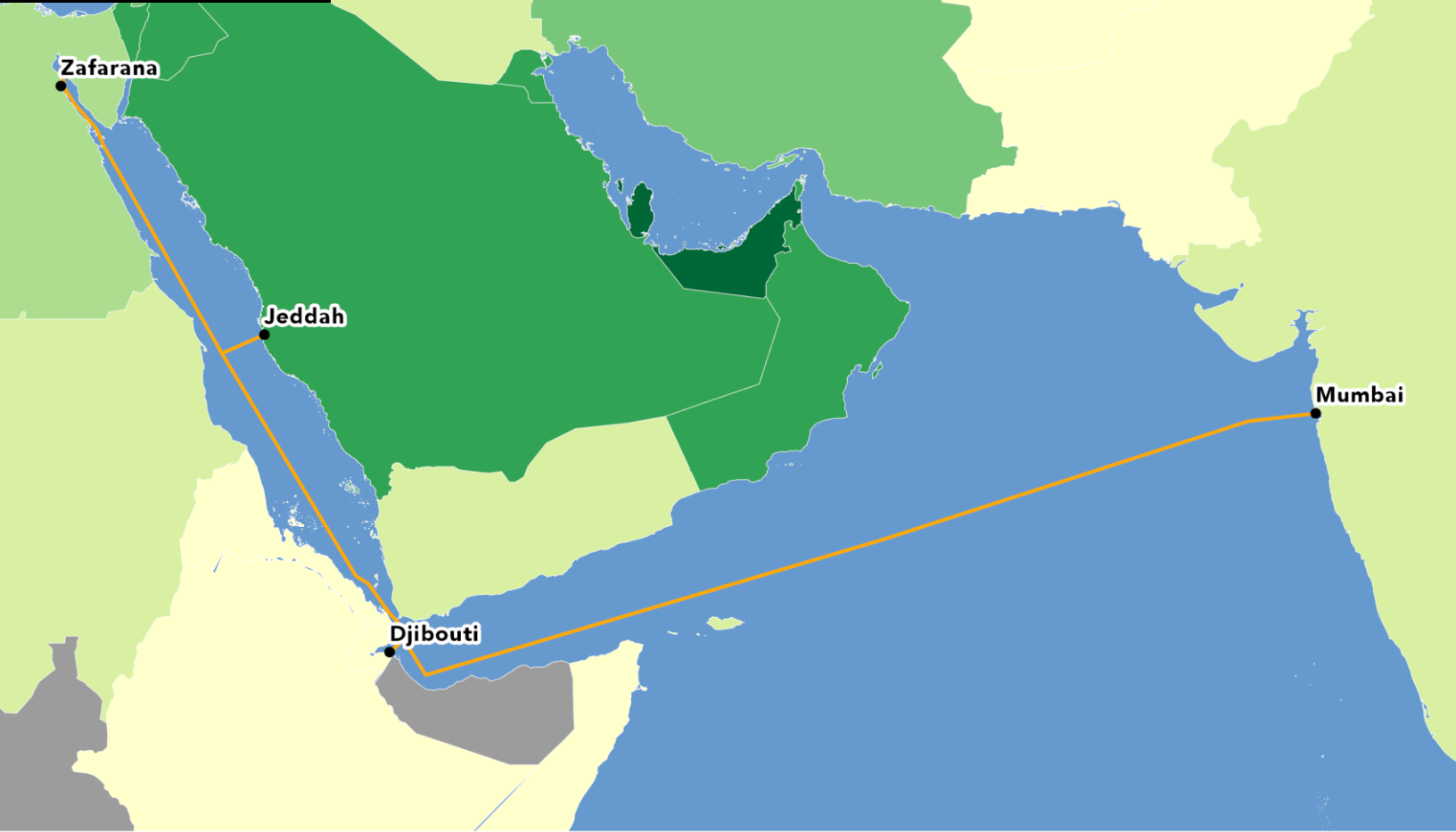
## TGN ATLANTIC

### System Details

<b>RFS Year</b>	2001
<b>EOS Year</b>	2026
<b>Est. System Cost (USD)</b>	\$340,000,000
<b>Length (km)</b>	12,670
<b>Initial Capacity (Tbps)</b>	2.56
<b>Design Capacity (Tbps)</b>	50
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	64
<b>Owners</b>	TATA Communications
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transatlantic

### Landing Points

- Wall Township (United States)
- Highbridge (United Kingdom)



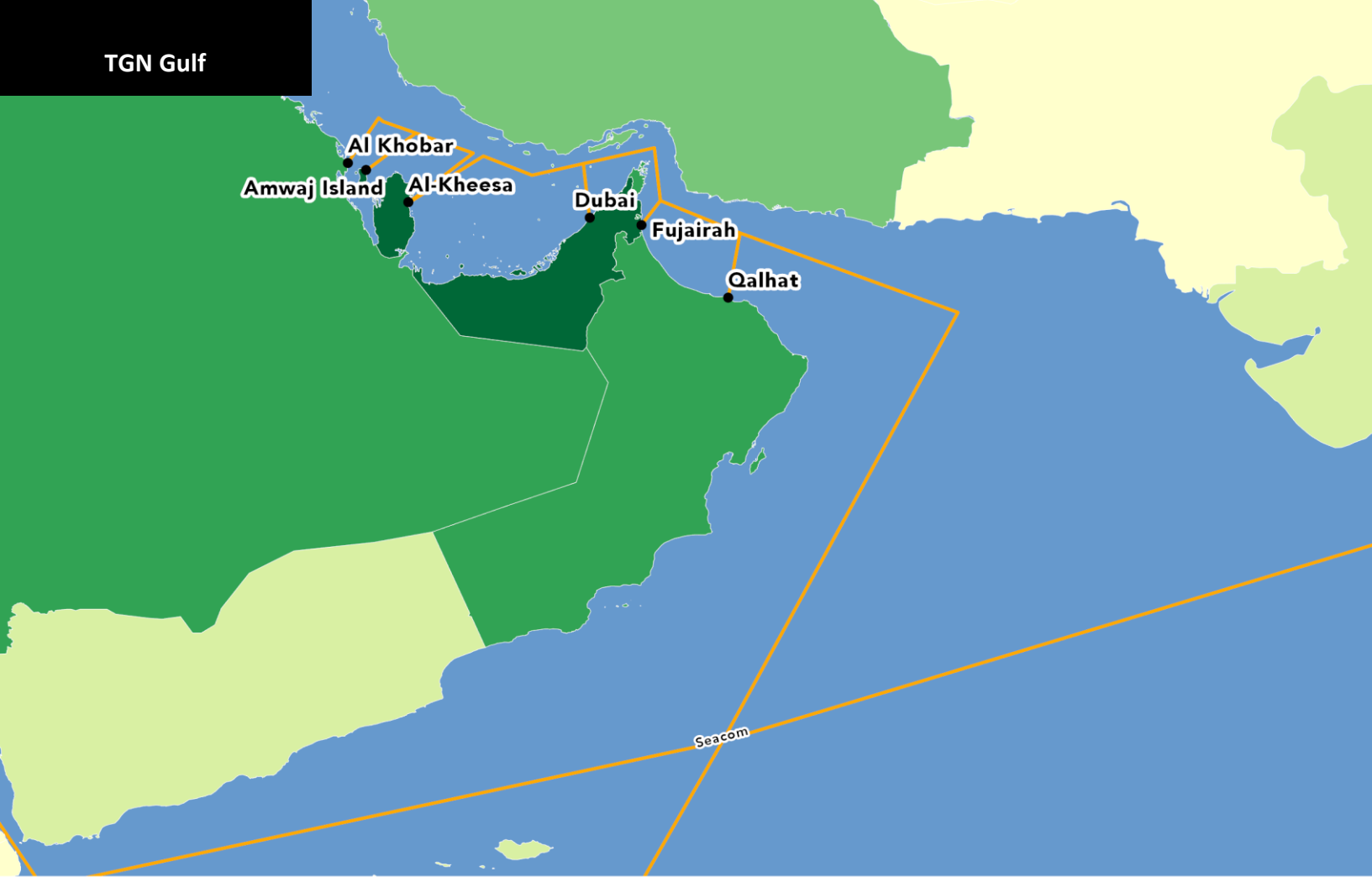
## TGN EURASIA

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$250,000,000
<b>Length (km)</b>	9,240
<b>Initial Capacity (Tbps)</b>	0.16
<b>Design Capacity (Tbps)</b>	1.28
<b>Owners</b>	TATA Communications
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- (Djibouti)
- Jeddah (Saudi Arabia)
- Mumbai (India)
- Zafarana (Egypt)



## TGN GULF

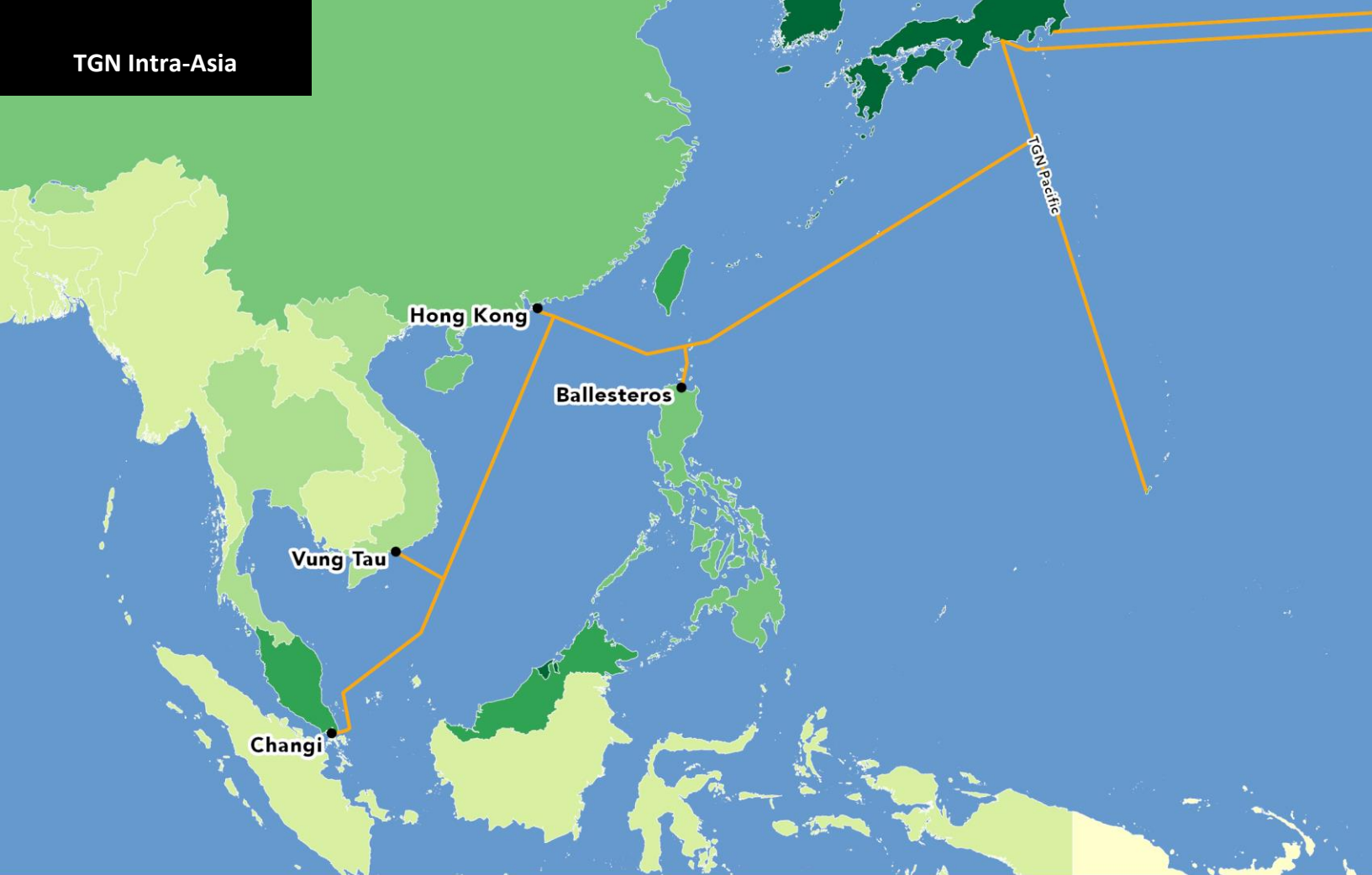
### System Details

<b>RFS Year</b>	2011
<b>EOS Year</b>	2036
<b>Est. System Cost (USD)</b>	\$200,000,000
<b>Length (km)</b>	2,306
<b>Design Capacity (Tbps)</b>	1.28
<b>Fiber Pairs</b>	2
<b>Owners</b>	TATA Communications
<b>System Supplier</b>	TE SubCom
<b>Region</b>	EMEA

### Landing Points

- Qalhat (Oman)
- Dubai (United Arab Emirates)
- Al-Kheesa (Qatar)
- Fujairah (United Arab Emirates)
- Amwaj Island (Bahrain)
- Al Khobar (Saudi Arabia)





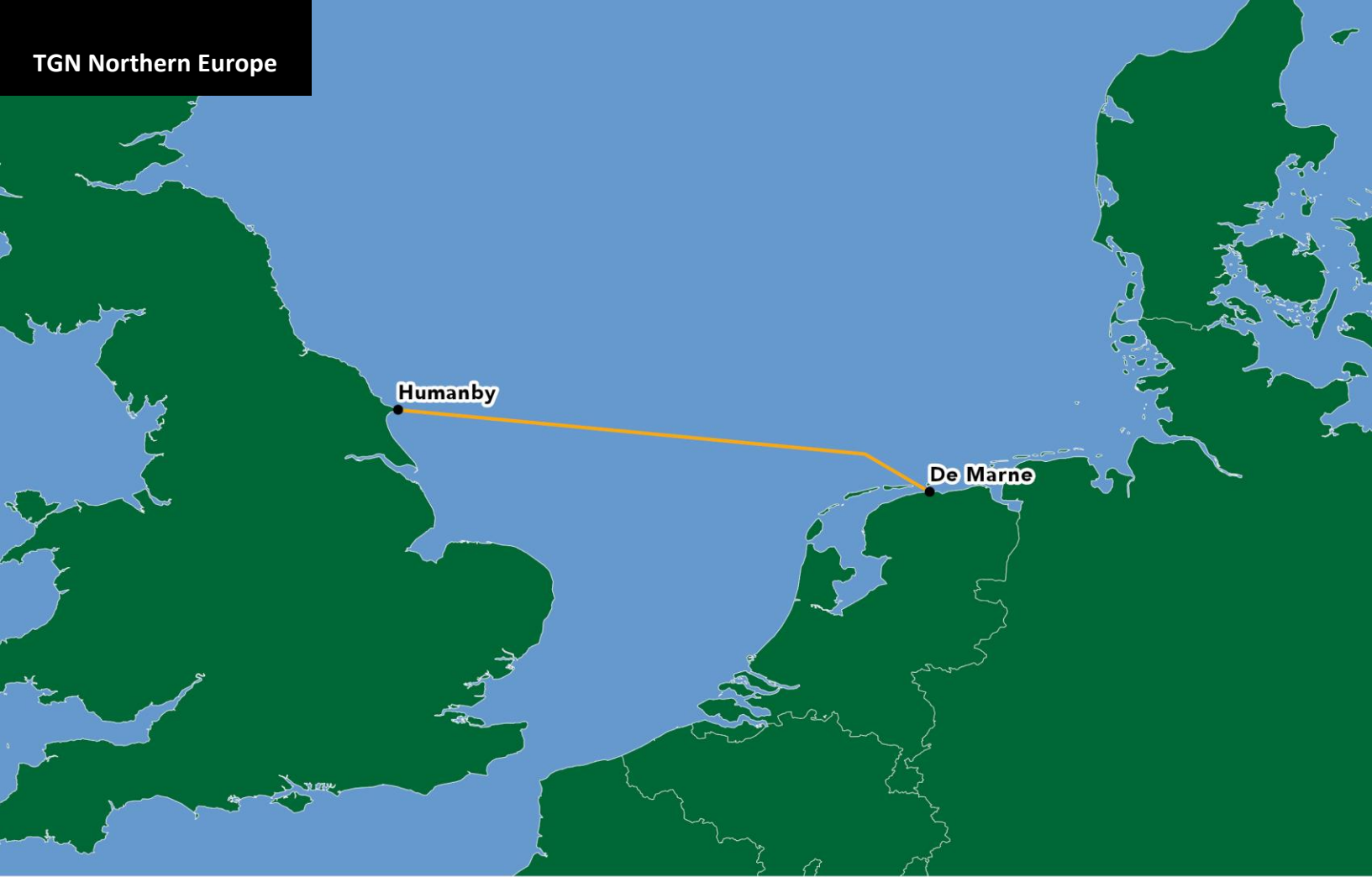
## TGN INTRA-ASIA

### System Details

<b>RFS Year</b>	2009
<b>EOS Year</b>	2034
<b>Est. System Cost (USD)</b>	\$180,000,000
<b>Length (km)</b>	6,485
<b>Initial Capacity (Tbps)</b>	3.84
<b>Design Capacity (Tbps)</b>	3.84
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	TATA Communications
<b>System Installer</b>	Orange Marine
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2014
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	AustralAsia

### Landing Points

- Vung Tau (Vietnam)
- Changi (Singapore)
- (Hong Kong)
- Ballesteros (Philippines)



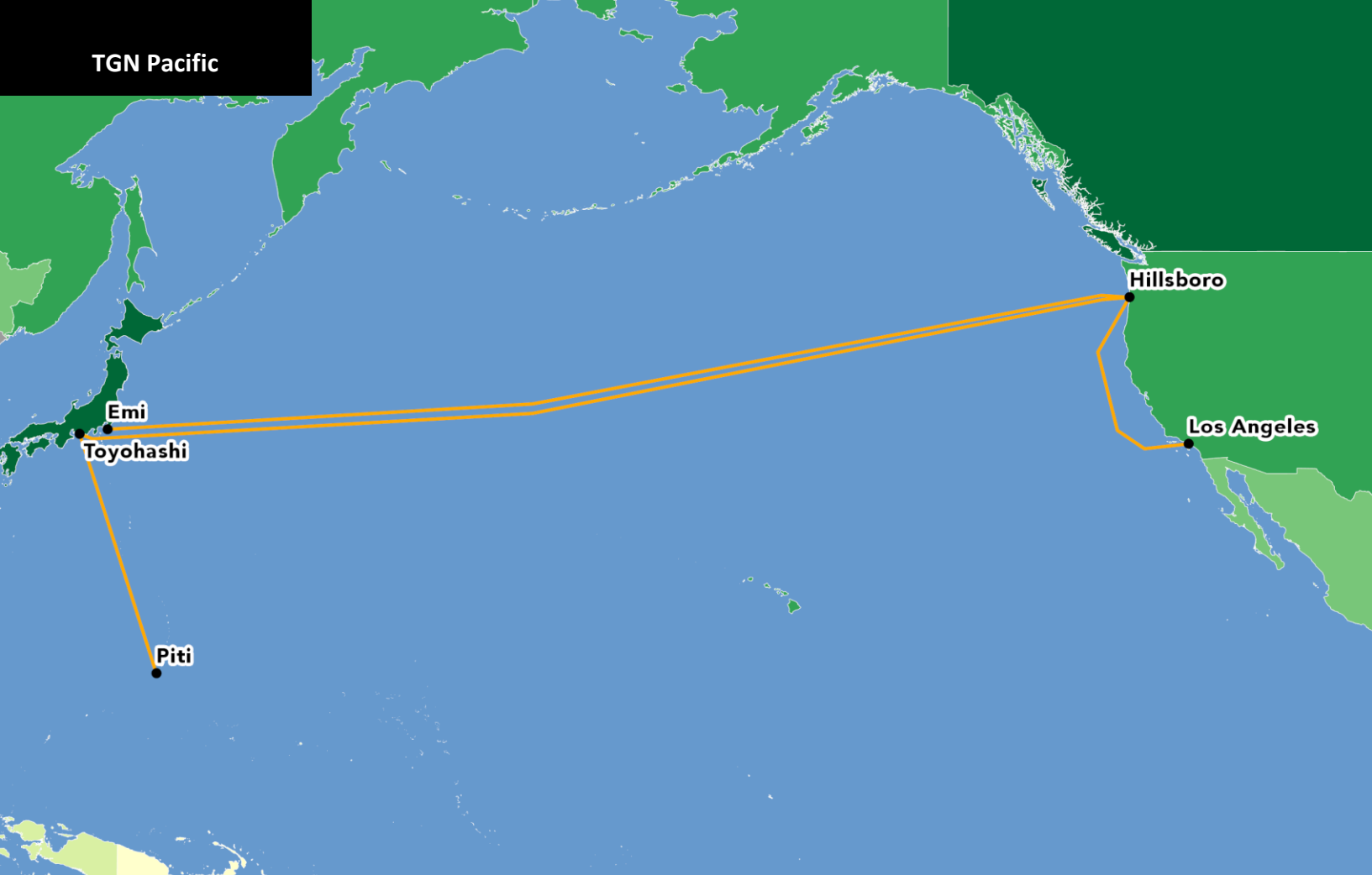
## TGN NORTHERN EUROPE

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Length (km)</b>	551
<b>Initial Capacity (Tbps)</b>	3.84
<b>Design Capacity (Tbps)</b>	3.84
<b>Fiber Pairs</b>	4
<b>Owners</b>	TATA Communications
<b>Region</b>	EMEA

### Landing Points

- Humanby (United Kingdom)
- De Marne (Netherlands)



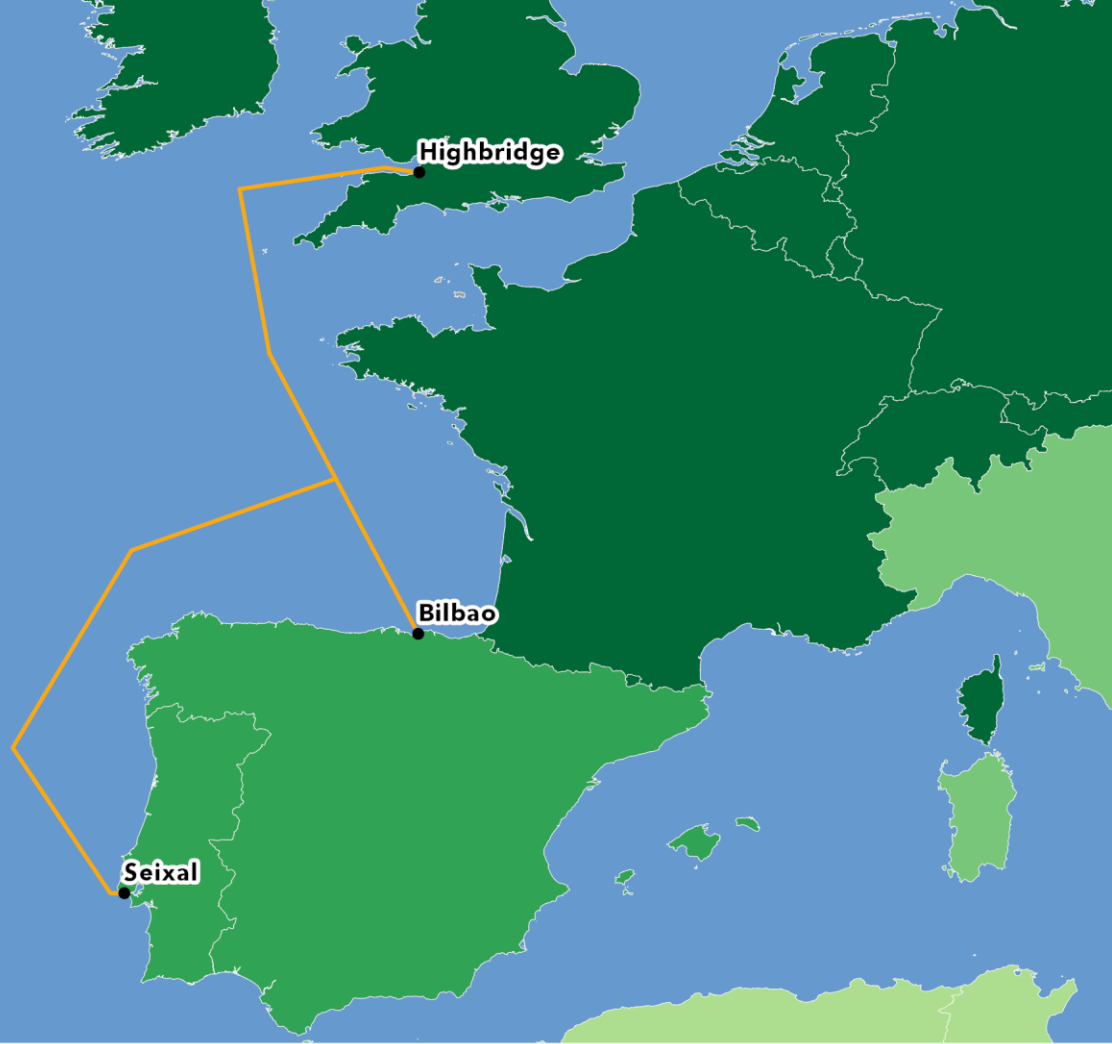
## TGN PACIFIC

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$580,000,000
<b>Length (km)</b>	21,424
<b>Initial Capacity (Tbps)</b>	5.12
<b>Design Capacity (Tbps)</b>	76.8
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	96
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	TATA Communications
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2014
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transpacific

### Landing Points

- Toyohashi (Japan)
- Los Angeles (United States)
- Emi (Japan)
- Piti (Guam)
- Hillsboro (United States)



## TGN WESTERN EUROPE

### System Details

<b>RFS Year</b>	2002
<b>EOS Year</b>	2027
<b>Est. System Cost (USD)</b>	\$100,000,000
<b>Length (km)</b>	3,487
<b>Initial Capacity (Tbps)</b>	3.84
<b>Design Capacity (Tbps)</b>	3.84
<b>Owners</b>	TATA Communications
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Region</b>	EMEA

### Landing Points

- Seixal (Portugal)
- Bilbao (Spain)
- Highbridge (United Kingdom)



## TGN TATA INDIACOM

### System Details

<b>RFS Year</b>	2005
<b>EOS Year</b>	2030
<b>Est. System Cost (USD)</b>	\$90,000,000
<b>Length (km)</b>	3,175
<b>Initial Capacity (Tbps)</b>	5.12
<b>Design Capacity (Tbps)</b>	5.12
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	64
<b>Owners</b>	TATA Communications
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Changi (Singapore)
- Chennai (India)



## THAILAND-INDONESIA-SINGAPORE

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$36,000,000
<b>Length (km)</b>	1,003
<b>Initial Capacity (Tbps)</b>	0.03
<b>Design Capacity (Tbps)</b>	0.03
<b>Owners</b>	CAT Telecom, PT Telekom, Singtel
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	ASEAN Cablesip, Tyco Telecommunications
<b>Region</b>	AustralAsia

### Landing Points

- Songkhla (Thailand)
- Batam (Indonesia)



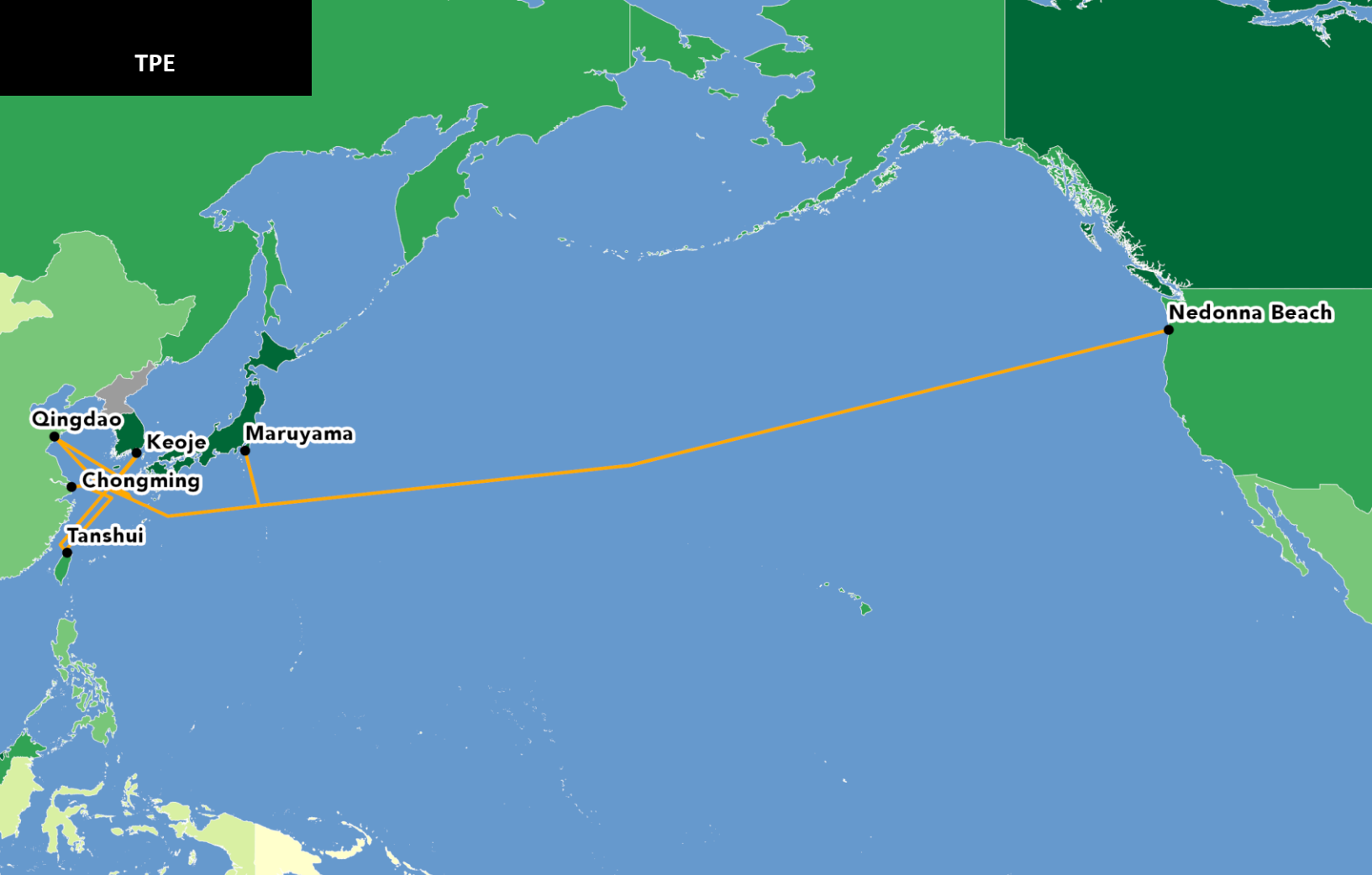
## TOBRUK-EMASED

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	180
<b>Design Capacity (Tbps)</b>	25.6
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	80
<b>Capacity per Wavelength (Gbps)</b>	40
<b>Owners</b>	Libyan Post, Telecom and Information Technology Company
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	Orange Marine
<b>Region</b>	EMEA

### Landing Points

- El Quawef (Libya)
- Tobruk (Libya)



## TRANS-PACIFIC EXPRESS

### System Details

<b>RFS Year</b>	2008
<b>EOS Year</b>	2033
<b>Est. System Cost (USD)</b>	\$440,000,000
<b>Length (km)</b>	16,163
<b>Initial Capacity (Tbps)</b>	1.28
<b>Design Capacity (Tbps)</b>	25.6
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	64
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	China Telecom Corporation, China Unicom, Chunghwa Telecom International, Verizon
<b>System Supplier</b>	TE SubCom, Tyco Telecommunications
<b>System Installer</b>	Global Marine Systems Limited, Tyco Telecommunications
<b>Upgrader</b>	TE SubCom

### Landing Points

- Tanshui (Taiwan)
- Nedonna Beach (United States)
- Maruyama (Japan)
- Qingdao (China)
- Keoje (South Korea)
- Chongming (China)





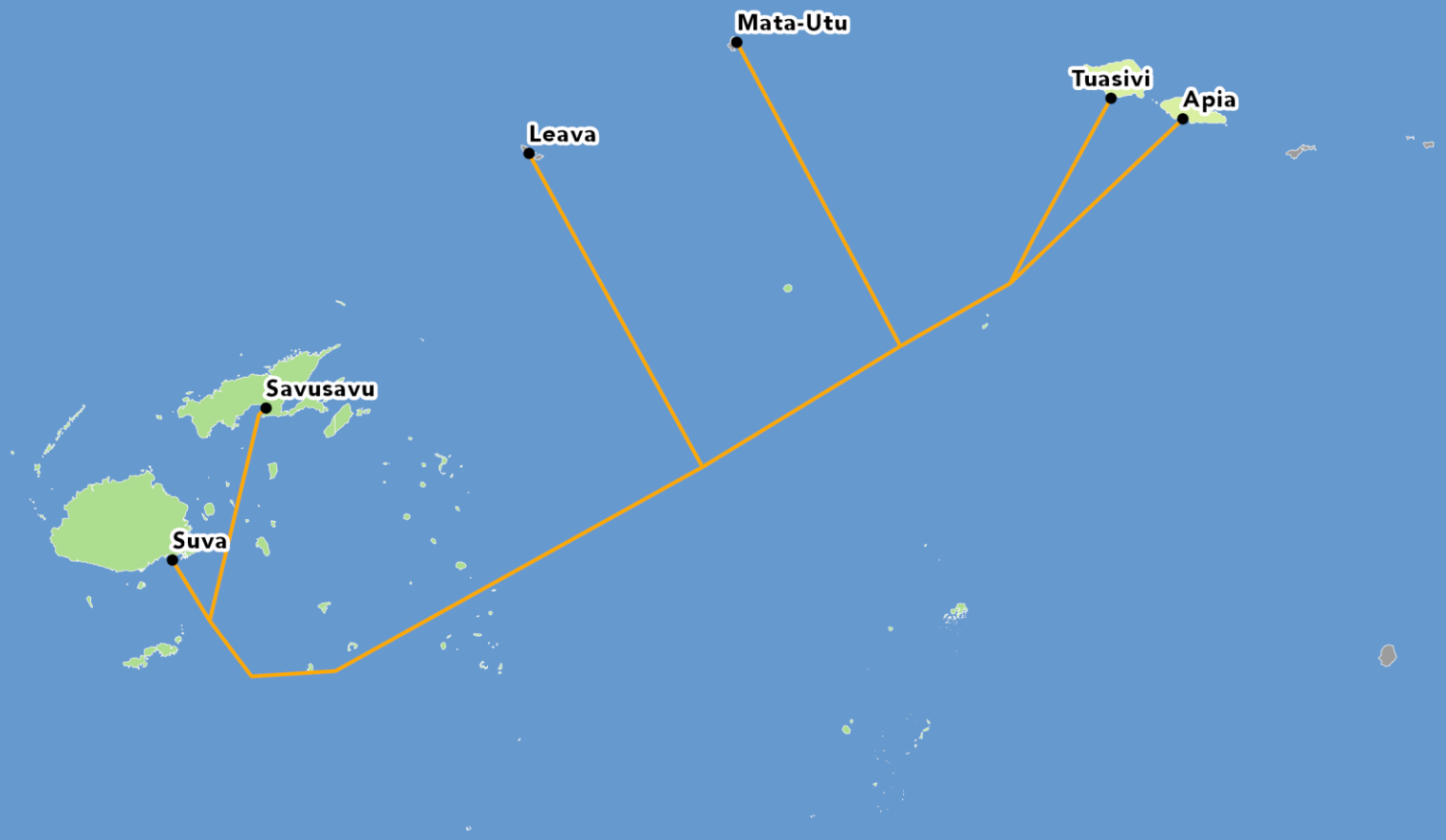
## TAIWAN STRAIT EXPRESS

### System Details

<b>RFS Year</b>	2013
<b>EOS Year</b>	2038
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	270
<b>Design Capacity (Tbps)</b>	6.4
<b>Fiber Pairs</b>	8
<b>Owners</b>	China Mobile, China Unicom, Chunghwa Telecom Co., Far EastTone Telecommunications, Taiwan International Gateway Corporation, Taiwan Mobile
<b>System Supplier</b>	Huawei Marine
<b>System Installer</b>	S.B. Submarine Systems
<b>Region</b>	AustralAsia

### Landing Points

- New Taipei City (Taiwan)
- Fuzhou (China)



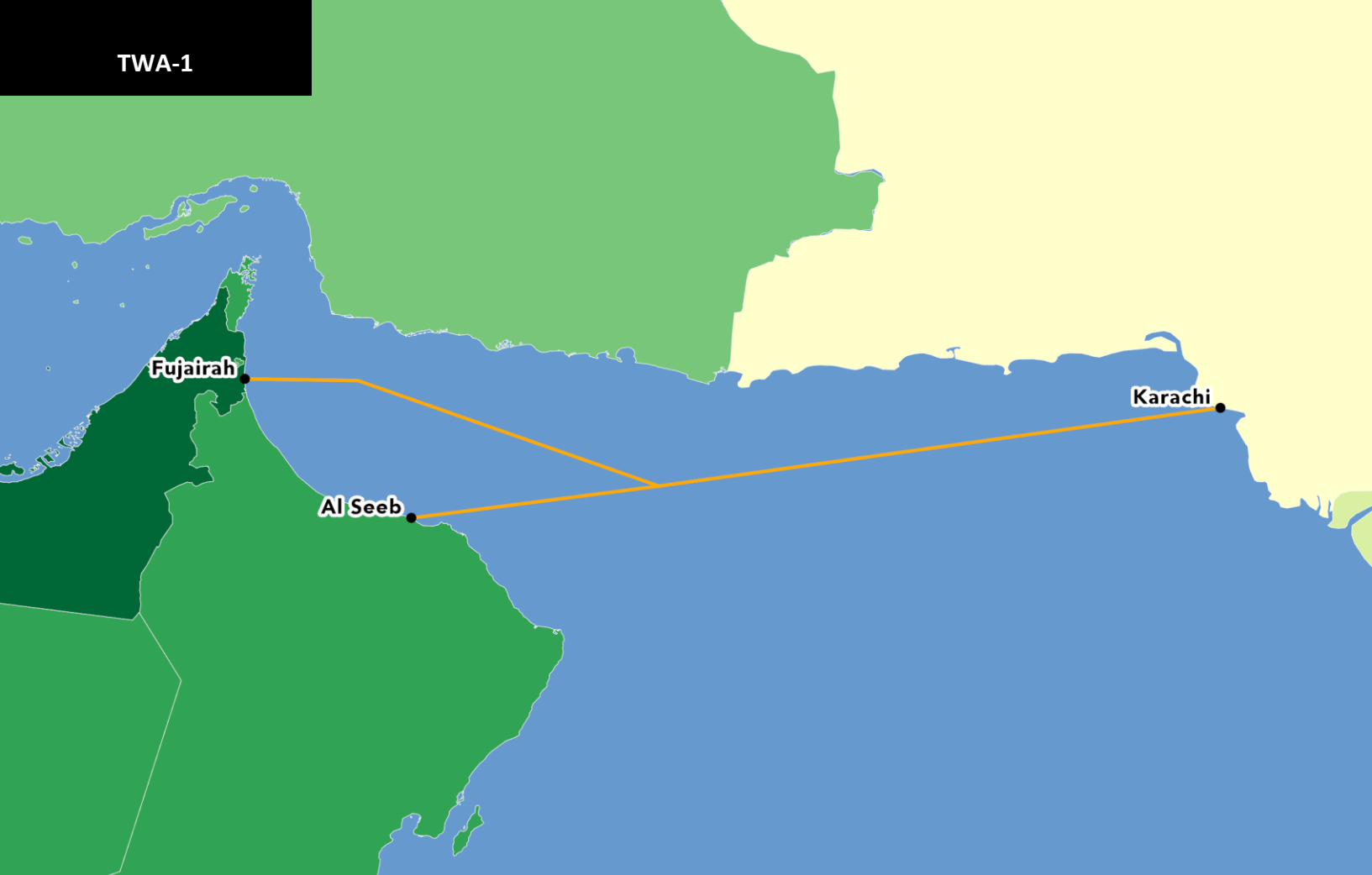
## TUI SAMOA

### System Details

<b>RFS Year</b>	2018
<b>EOS Year</b>	2043
<b>Est. System Cost (USD)</b>	\$32,500,000
<b>Length (km)</b>	1,410
<b>Initial Capacity (Tbps)</b>	0.2
<b>Design Capacity (Tbps)</b>	17.6
<b>Fiber Pairs</b>	2
<b>Wavelengths per Fiber Pair</b>	88
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Samoa Submarine Cable Company
<b>System Supplier</b>	Alcatel Submarine Networks
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	AustralAsia

### Landing Points

- Tuasivi (Samoa)
- Savusavu (Fiji)
- Leava (Wallis and Futuna)
- Suva (Fiji)
- Mata-Utu (Wallis and Futuna)
- Apia (Samoa)



## TRANSWORLD ASSOCIATES

### System Details

<b>RFS Year</b>	2006
<b>EOS Year</b>	2031
<b>Est. System Cost (USD)</b>	\$40,000,000
<b>Length (km)</b>	1,300
<b>Initial Capacity (Tbps)</b>	1.28
<b>Design Capacity (Tbps)</b>	1.28
<b>Owners</b>	Trans-World Associates
<b>System Supplier</b>	Huawei Marine, Tyco Telecommunications
<b>System Installer</b>	Tyco Telecommunications
<b>Upgrade Year</b>	2016
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	EMEA

### Landing Points

- Karachi (Pakistan)
- Al Seeb (Oman)
- Fujairah (United Arab Emirates)



## UGARIT

### System Details

<b>RFS Year</b>	1995
<b>EOS Year</b>	2020
<b>Est. System Cost (USD)</b>	\$16,000,000
<b>Length (km)</b>	240
<b>Initial Capacity (Tbps)</b>	0.000622
<b>Design Capacity (Tbps)</b>	0.000622
<b>Owners</b>	Cyprus Telecommunications Authority
<b>System Supplier</b>	AT&T Submarine System, Inc.
<b>System Installer</b>	AT&T Submarine System, Inc.
<b>Region</b>	EMEA

### Landing Points

- Pentaskhinos (Cyprus)
- Tartus (Syria)



## UNISUR

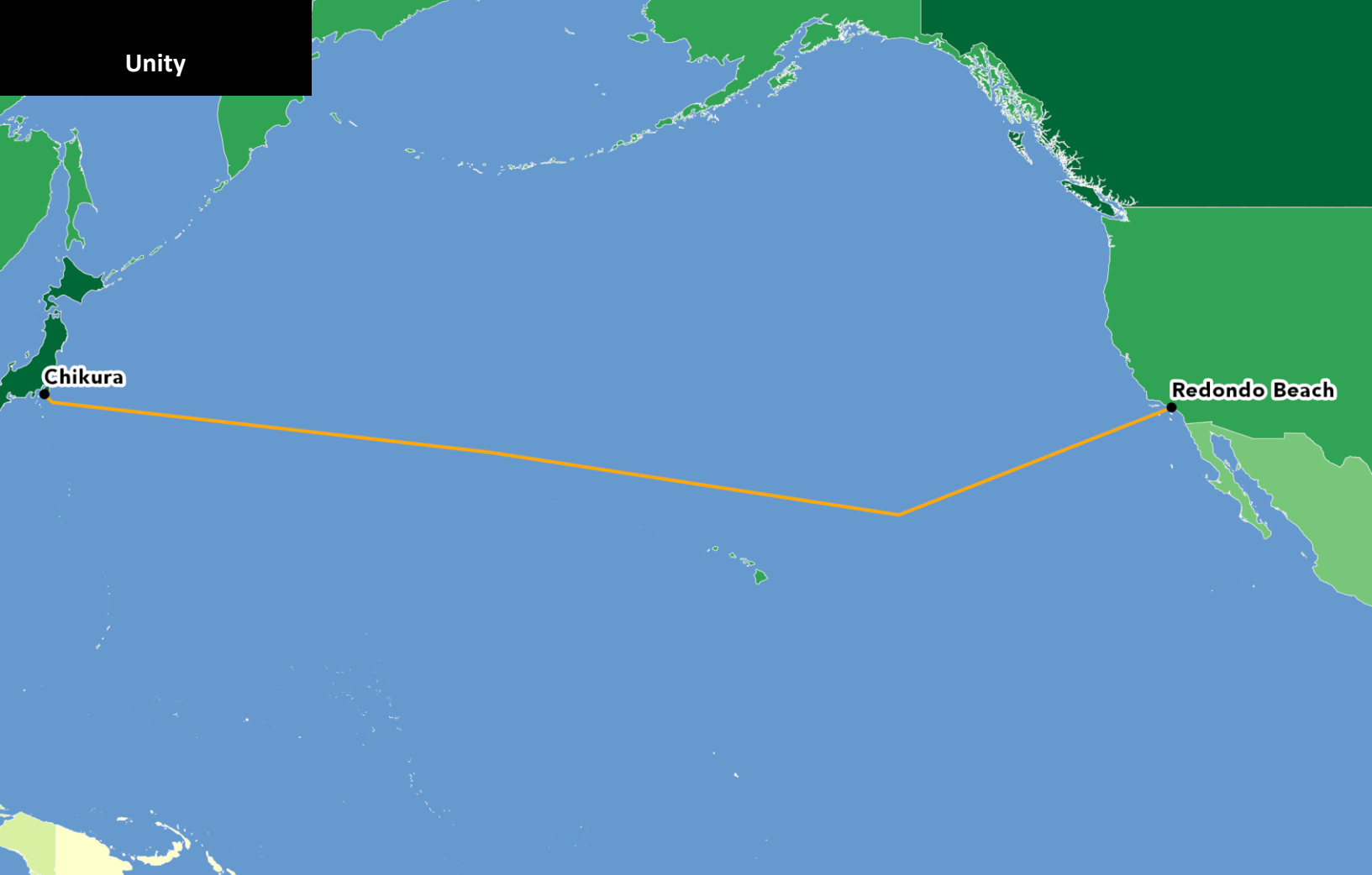
### System Details

<b>RFS Year</b>	1994
<b>EOS Year</b>	2019
<b>Est. System Cost (USD)</b>	\$74,000,000
<b>Length (km)</b>	1,720
<b>Initial Capacity (Tbps)</b>	0.00056
<b>Design Capacity (Tbps)</b>	0.00056
<b>Owners</b>	Antel, Embratel, Telecom Argentina, Telxius
<b>Region</b>	Americas

### Landing Points

- Maldonado (Uruguay)
- Florianopolis (Brazil)
- Las Toninas (Argentina)

# Unity



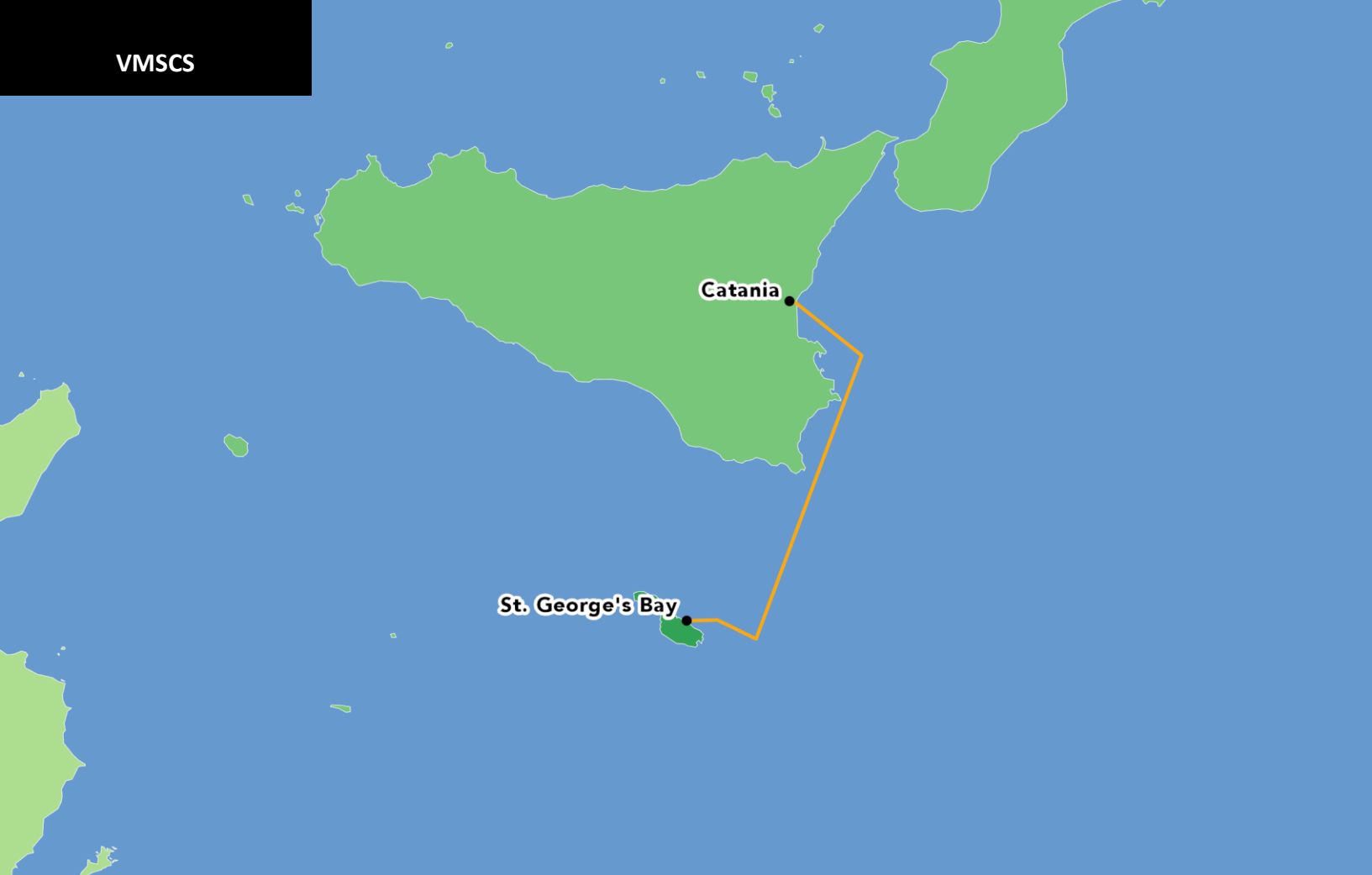
## UNITY

### System Details

<b>RFS Year</b>	2010
<b>EOS Year</b>	2035
<b>Est. System Cost (USD)</b>	\$300,000,000
<b>Length (km)</b>	9,486
<b>Initial Capacity (Tbps)</b>	1.92
<b>Design Capacity (Tbps)</b>	76.8
<b>Fiber Pairs</b>	8
<b>Wavelengths per Fiber Pair</b>	96
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Bharti Airtel, Global Transit, Google, Singtel
<b>System Supplier</b>	Tyco Telecommunications
<b>System Installer</b>	Kokusai Cable Ship, Tyco Telecommunications
<b>Upgrader</b>	Ciena
<b>Upgrade Year</b>	2013
<b>Upgrade Capacity (Gbps)</b>	100
<b>Region</b>	Transpacific

### Landing Points

- Redondo Beach (United States)
- Chikura (Japan)



## VODAFONE MALTA-SICILY CABLE SYSTEM

### System Details

<b>RFS Year</b>	2004
<b>EOS Year</b>	2029
<b>Est. System Cost (USD)</b>	\$10,000,000
<b>Length (km)</b>	250
<b>Initial Capacity (Tbps)</b>	0.01
<b>Design Capacity (Tbps)</b>	0.01
<b>Owners</b>	Vodafone Malta
<b>Region</b>	EMEA

### Landing Points

- Catania (Italy)
- St. George's Bay (Malta)



## WEST AFRICA CABLE SYSTEM

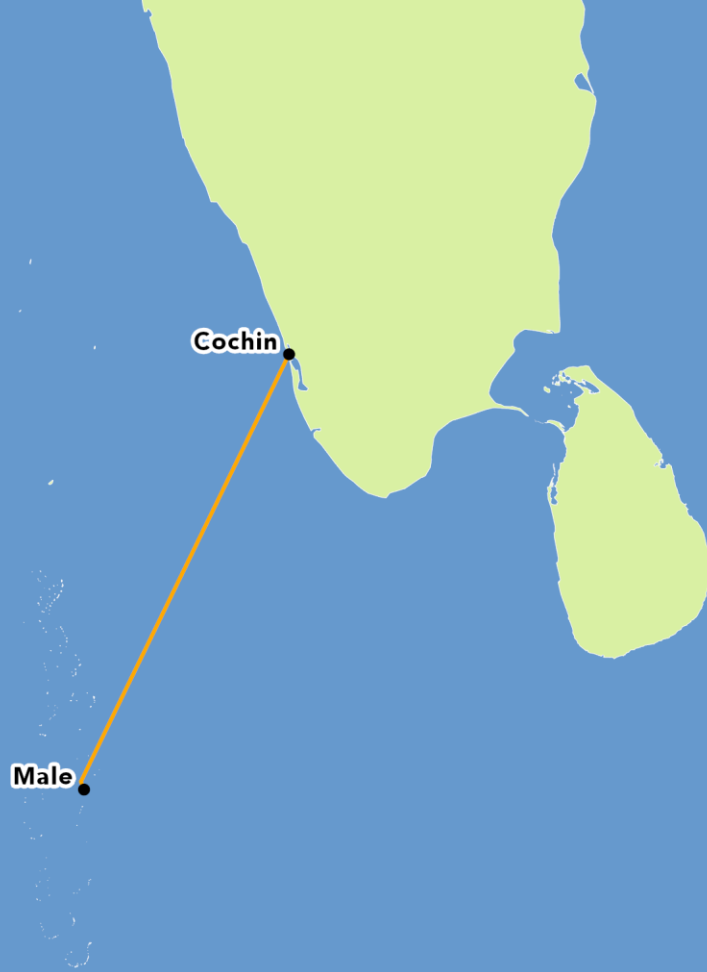
### System Details

<b>RFS Year</b>	2012
<b>EOS Year</b>	2037
<b>Est. System Cost (USD)</b>	\$600,000,000
<b>Length (km)</b>	14,350
<b>Initial Capacity (Tbps)</b>	5.12
<b>Design Capacity (Tbps)</b>	14.5
<b>Fiber Pairs</b>	4
<b>Wavelengths per Fiber Pair</b>	32
<b>Capacity per Wavelength (Gbps)</b>	100
<b>Owners</b>	Broadband Infracore, C&W, Congo Telecom, MTN Group, Office Congolais de Poste et Telecommunication, TATA Communications, Telecom Namibia, Telekom SA, Togo Telecom, Vodacom
<b>System Supplier</b>	Huawei Marine
<b>Upgrader</b>	Huawei Marine

### Landing Points

- Yzerfontein (South Africa)
- Seixal (Portugal)
- Praia (Cape Verde)
- Muanda (Democratic Republic of Congo)
- Limbe (Cameroon)
- El Goro (Spain)
- Abidjan (Ivory Coast)
- Swakopmund (Namibia)
- Sangano (Angola)
- Point Noire (Congo)
- Lome (Togo)
- Lagos (Nigeria)
- Accra (Ghana)





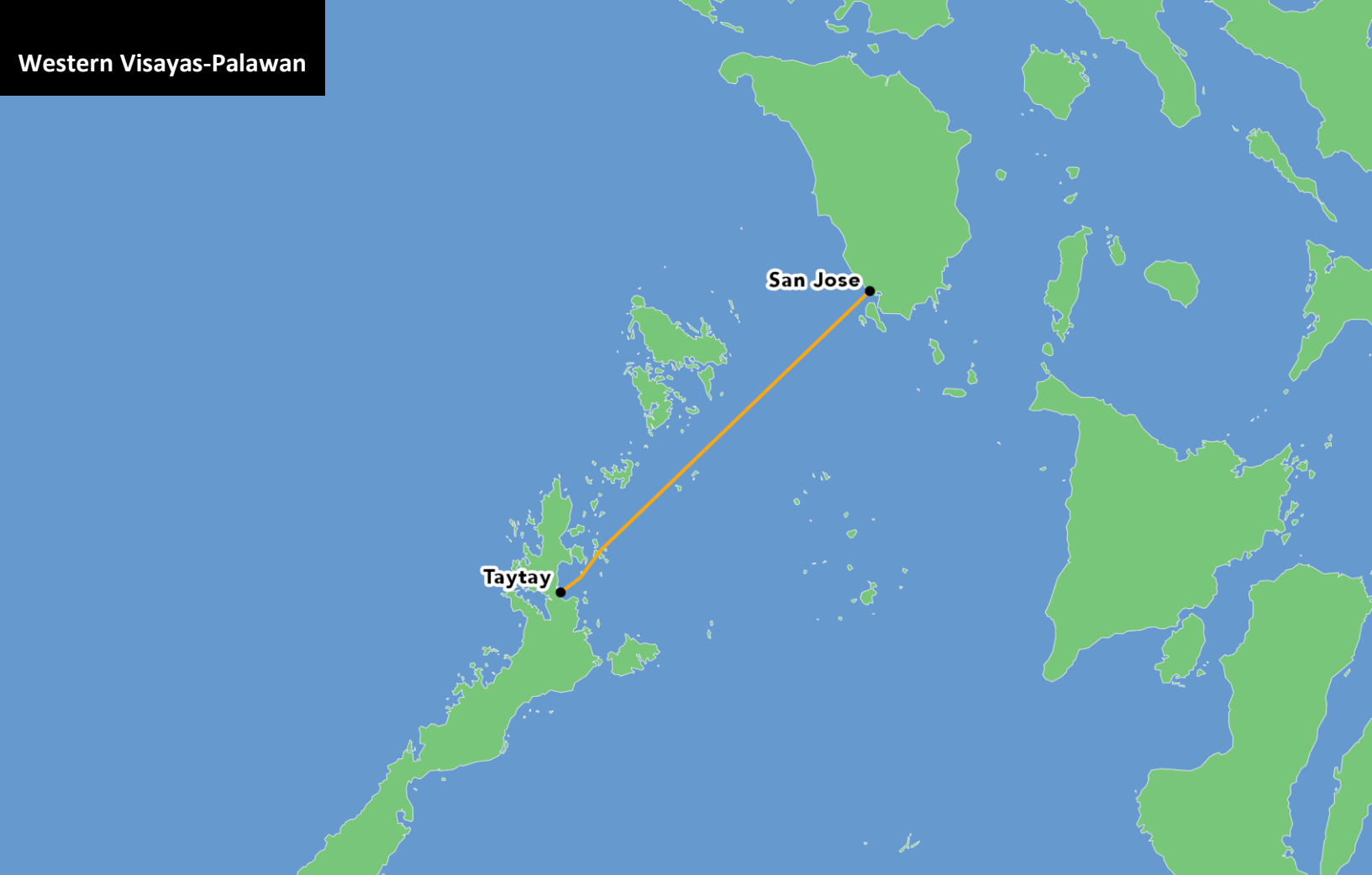
## WARF

### System Details

<b>RFS Year</b>	2007
<b>EOS Year</b>	2032
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	680
<b>Owners</b>	WARF Telecom International
<b>System Installer</b>	Alcatel Submarine Networks
<b>Region</b>	Indian Ocean Pan-East Asian

### Landing Points

- Male (India)
- Cochin (India)



## WESTERN VISAYAS-PALAWAN

### System Details

<b>RFS Year</b>	2014
<b>EOS Year</b>	2039
<b>Est. System Cost (USD)</b>	\$20,000,000
<b>Length (km)</b>	300
<b>Owners</b>	PLDT
<b>Region</b>	AustralAsia

### Landing Points

- Taytay (Philippines)
- San Jose (Philippines)