

# The Future of Telecommunications On the Falkland Islands

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Tim Passingham – Chairman



Introductions

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What changes present  
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What specifically can benefit the  
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# Agenda

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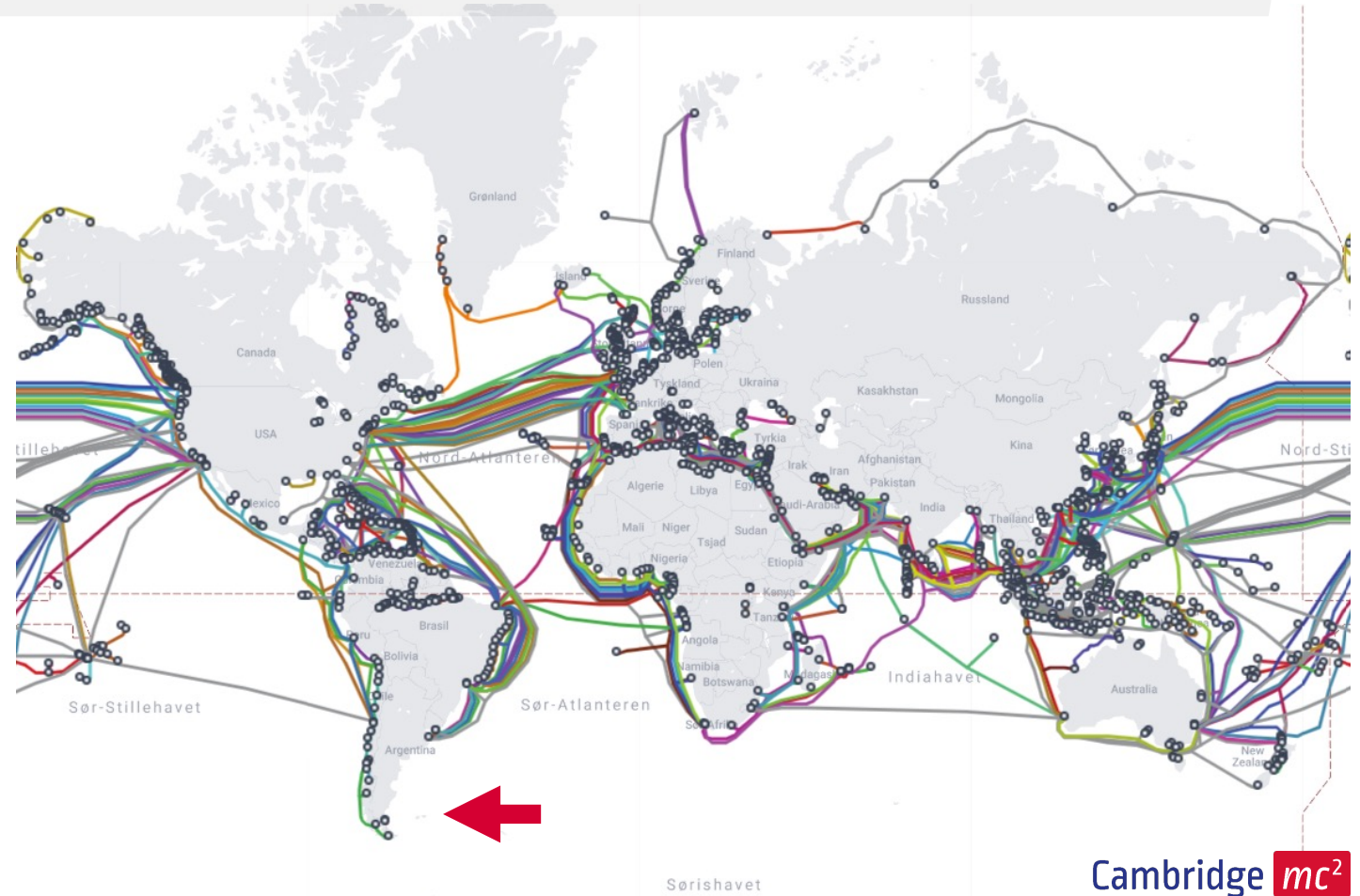
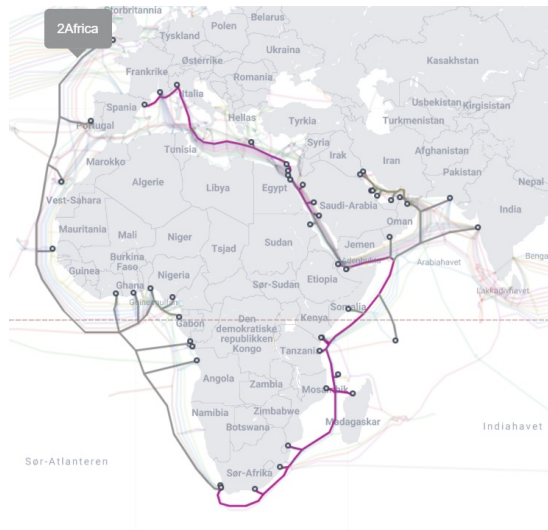




# What is happening in the market?

# There is increasing and significant investment in submarine fibre cables that underpin the internet globally

- 570 systems in use, 77 new in planning
- Meta (Facebook), Alphabet (Google)
- 99% of all internet traffic (i.e. 1% satellite)



## Direct-to-Smartphone became a reality in 2024– an opportunity for the mobile industry, but also a potential threat to traditional business models

Apple takes 20% stake in Globalstar with \$1.5bn satellite investment to boost iPhone connectivity

Connectivity

**Google Brings Satellite SOS Feature to Android With Pixel 9**

**Vodafone, AST SpaceMobile and University of Málaga launch new space and land mobile broadband research and validation hub for Europe**

AT&T and Verizon customers will soon be able to make video calls by satellite

T-Mobile Starlink service now open to everyone in the US, is free to use until July



## Developments in telecommunications are moving fast!

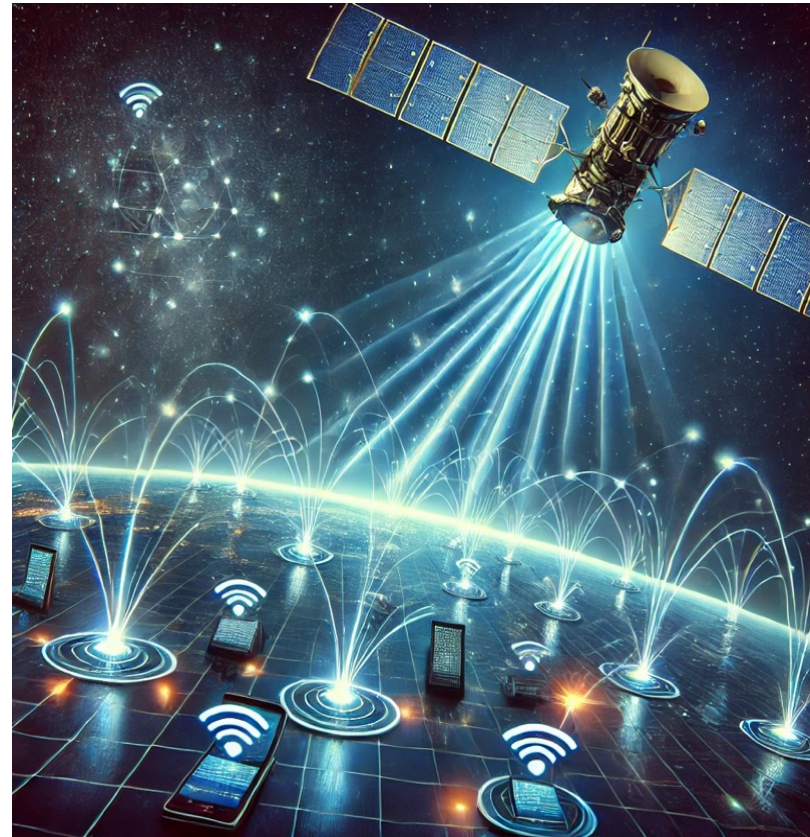
- Satellite and fibre - coexist
- Terrestrial networks dominating urban and suburban environments.
- Space X has played a critical role in the democratisation of space and for remote regions

Satellite System	Country	Year Live/Planned
Starlink	USA (SpaceX)	2019 (live)
OneWeb	UK	2021 (live)
Project Kuiper	USA (Amazon)	2026 (planned)
AST SpaceMobile	USA	2024 (planned)
Telesat Lightspeed	Canada	2025 (planned)



## The boundary between terrestrial and non terrestrial networks is dissolving: Direct-to-Smartphone connectivity is the next wave of convergence

- LEO satellites offer low-latency, high-speed connectivity
- Satellite communications are becoming more mainstream
- Direct to device is not new – Iridium
- Latest generation of technologies allow mobile phones to connect directly to satellites





# Direct-to-Smartphone connectivity from LEO is starting to mature with major potential for remote locations

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# Three Emerging Business Models for LEO Satellite Direct-to-Mobile Services

## Direct Integration with Mobile Operators

- Satellite companies partner directly with Mobile Operators to extend mobile coverage
- E.g: AST SpaceMobile, Lynk Global
- Uses standard mobile phones (no hardware change), roaming-style user experience
- **Mobile Operators provides billing, SIM, and customer interface**

## Satellite Connectivity Providers Direct Supply

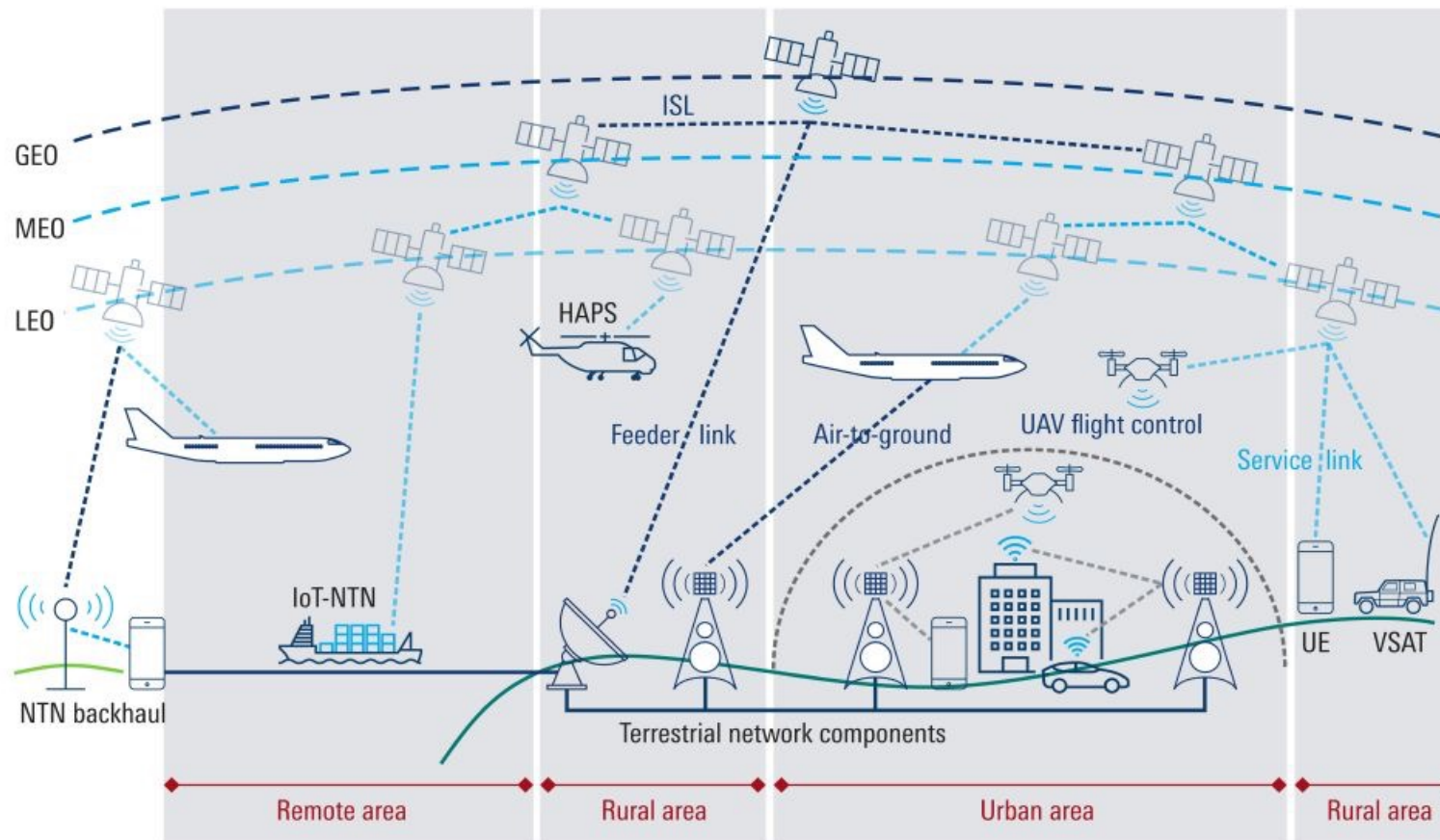
- Satellite companies offer services directly to consumers, often via apps or subscriptions
- E.g: Starlink (potential future play), potential Amazon Kuiper applications
- May require user sign-up, app, or hardware tweaks
- **Independent from Mobile Operators**

## Hybrid Network Infrastructure Providers

- LEO satellite operators act as wholesale infrastructure providers
- E.g. Telesat Lightspeed, Inmarsat (with future hybrid offerings)
- **Mobile Operators or enterprises buy capacity**
- Enables mobile backhaul, emergency response, rural coverage



# Satellites are playing an addressing more requirements in the telecommunication ecosystem



Source: Rohde & Schwarz



# Examples of what may specifically benefit the Falkland Islands

## Many aspects of Falkland Islands life will all exploit the new digital world to improve the lives of residents

By 2030, the Falkland Islands are set to undergo a remarkable transformation in telecommunications and digital applications.

- This change will be driven by advancements in connectivity , government initiatives, and global technological trends.
- Despite the unique challenges posed by the islands' remote location, investments and technological breakthroughs will enable residents to enjoy a deeply connected and digitally empowered society and should aspire to keep pace with global technology developments.

High-speed broadband **and fibre network** expansion are expected to deliver gigabit-speed internet across much of the population, moving away from reliance on ageing copper networks.

- The expansion of **4G/5G mobile networks**, combined with Low Earth Orbit (**LEO**) **satellite** services can revolutionise mobile, IoT, and broadband connectivity, ensuring stable and high-speed internet even in remote areas.
- Various forms of AI, edge computing, digital twins, and similar emerging technologies will play a crucial role in enhancing connectivity and digital applications.



# How Digital Education can help the Falkland Islands

## Expanding Access to Learning

- Students in remote areas can access quality education in online classrooms without leaving their community.
- Online access to A-levels and University from the UK, reducing the need for 16-year-olds to leave ; students' educational choices at year 11 point won't be compromised by choosing to stay
- E-learning platforms connect Falkland students to international courses and degrees.
- Adults can upskill or retrain through flexible, digital programs.

## Strengthening the Economy

- Skilled Workforce: Digital education builds capacity in tech, healthcare, business, and other high-demand sectors.
- Local Innovation: A more educated population drives entrepreneurship and local solutions.
- Attracting Talent: A modern education system makes the Falklands more appealing for families and professionals.

## Supporting Teachers and Schools

- Digital Resources: Teachers gain access to interactive tools, global content, and professional development.
- Blended Learning: Combines the best of in-person and digital teaching to enhance student engagement.

Digital education equips the Falkland Islands with the skills, knowledge, and innovation needed for a resilient, future-ready economy.





# How Digital Health can help the Falkland islands

## Improving Healthcare Access

- Remote consultations reduce the need for travel, especially for residents in outlying areas.
- Digital Health Records - Centralized patient data allows faster, safer, and more coordinated care.
- Remote Monitoring - Chronic conditions can be tracked from home, improving outcomes and reducing hospital visits.

## Supporting the Local Economy

- Lower Healthcare Costs: Digital solutions reduce pressure on physical infrastructure and staffing.
- Healthier Workforce: Better access to care means fewer sick days and higher productivity.
- Job Creation: Demand for tech support, digital training, and data management creates new local roles.

## Enhancing Public Health

- Faster Response to Outbreaks: Real-time data helps monitor and manage public health risks.
- Health Education: Apps and online platforms can promote wellness and preventive care across the population.

Digital health empowers the Falkland Islands to deliver world-class care, strengthen its workforce, and improve quality of life — all without needing to expand physical infrastructure



# How Digital Government Can Help the Falkland Islands

## Strengthening the Economy

- Online tax filing, business registration, and licensing make it easier to start and grow local businesses.
- A transparent, efficient digital government builds investor confidence and attracts investment
- Data-driven decision-making improves public spending and infrastructure planning .

## Empowering Residents

- 24/7 Access to Services: Islanders can access healthcare, education, and social services remotely – critical for rural and remote areas.
- Civic Participation: Digital platforms allow residents to give feedback, vote, and engage in decision-making.
- Job Opportunities: Government digitization creates demand for IT skills and digital literacy training.

## Enhancing Efficiency & Transparency

- Reduced Bureaucracy: Faster processing of documents and applications saves time for citizens and businesses.
- Improved Accountability: Digital records and open data increase trust in public institutions.

**A digital government is essential for making the Falklands more connected, efficient, and easy to work with and support the residents of the Falkland Islands.**





# How Digital Fishing Can Help the Falkland Islands

## Boosting the Economy

- Increased Efficiency: Digital tools (e.g., GPS tracking, smart nets, automated sorting) help maximize catches sustainably.
- Better Management: Real-time data allows for better stock management
- Higher Exports: Improved traceability and quality assurance open access to high-value international markets.
- Attracting Investment: Tech-driven fisheries attract funding and partnerships in sustainable seafood.

## Supporting Local Communities

- More Jobs: Tech requires skilled workers — creating roles in IT, data analysis, maintenance, and training.
- Youth Engagement: Modernising fishing can make the industry more appealing.

## Environmental Protection

- Sustainable Practices: Digital monitoring helps avoid overfishing and protects marine ecosystems.
- Regulation Compliance: Easier enforcement of quotas and catch zones supports long-term viability.

Digital fishing is not just a tech upgrade — it's an investment in the Falklands' economic resilience, community well-being, and environmental future.





# Q&A

# Thank You

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