
What **subsea internet cables** mean for **digital inclusion**

February 28, 2024



**Global Digital Inclusion
Partnership**

About us

About GDIP

The **Global Digital Inclusion Partnership** is a coalition of public, private, and civil society organizations

working to bring internet connectivity to the global majority and ensure everyone is meaningfully connected by 2030. GDIP advances digital opportunities to empower and support people's lives and agency, leading to inclusive digital societies.





Our name is our mission

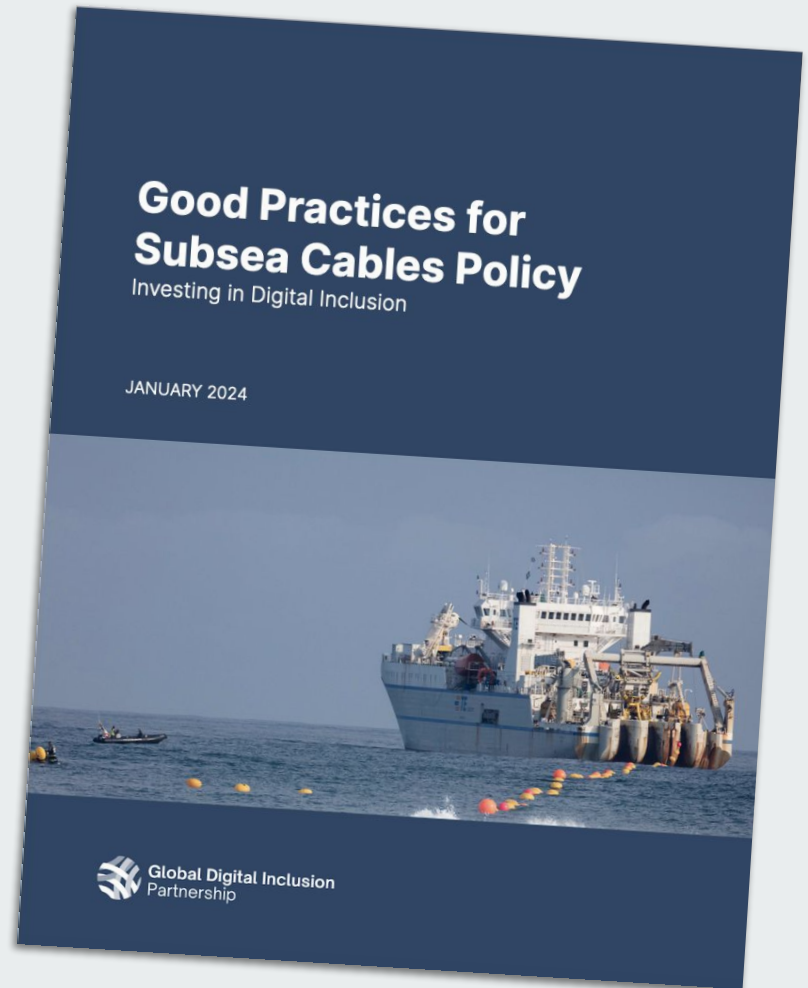
**Advance universal, meaningful access in
low- and middle-income countries to secure
digital inclusion for everyone by 2030.**

Our vision is to make affordable and
meaningful access a reality for all.



Our new research for policymakers in low- and middle-income countries

<https://gdip.ngo/subseagp>



Our theory of change





Our theory of change

New subsea cables

Build new connections within the Internet and expand broadband coverage to new areas



More digital transformation

With more people online, governments and businesses are able to do more online, leading to stronger digital economies and better public e-services.



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New international bandwidth

Increase the availability of infrastructure to carry more Internet traffic to more places to more users, increasing the Internet's ability to connect people.



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Our theory of change

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Build new connections within the Internet and expand broadband coverage to new areas

Lower prices, better connectivity

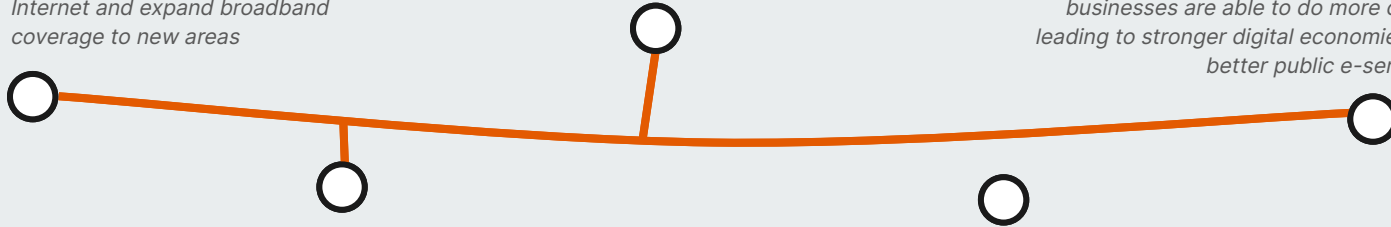
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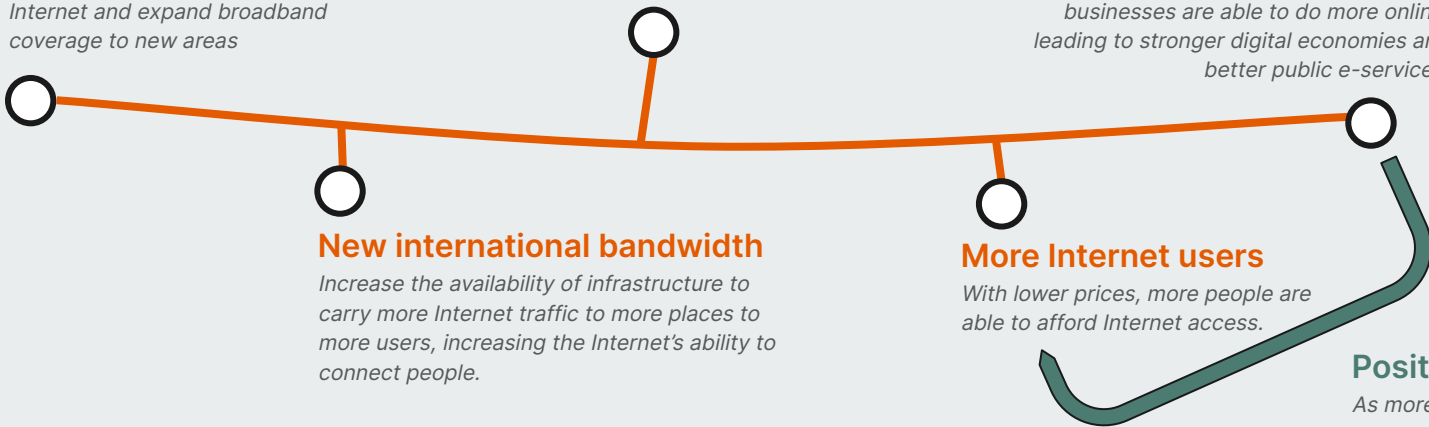
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Positive feedback loop

As more of the world moves online, more people see the value in connecting and using the Internet in everyday life.



Good practice case studies





UNITED STATES



EUROPEAN UNION



FRANCE



ITALY



COLOMBIA



CAPE VERDE



GHANA



SINGAPORE



TONGA



PERU



SOUTH AFRICA



AUSTRALIA

**CASE STUDY
LESSONS**

**COMPETITION
& INNOVATION**

**REGULATORY
CERTAINTY & EASE**

**INFRASTRUCTURE
& MAINTENANCE**



COLOMBIA



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& MAINTENANCE

SINGAPORE

Regulatory certainty, predictability, and efficiency with a nationally coordinated policy

Singapore has become a model when it comes to creating processes designed to attract investment, demonstrating regulatory ease, stability, and flexibility. Significantly, Singapore does not have any direct or indirect foreign equity limits for entities seeking telecommunications licenses, and also supports private use licensing exemptions (meant for entities not looking to run a telecoms business to serve other customers), making Singapore a very attractive place to invest in telecommunications. Moreover, Singapore has become a technology hub because it promotes open and cost-effective landing stations.

LOCALISING LESSONS: Where do subsea cables fit within the national strategy for international bandwidth and the digital economy?

COMPETITION
& INNOVATION

REGULATORY
CERTAINTY & EASE

INFRASTRUCTURE
& MAINTENANCE

TONGA

Diversity of landings can reduce vulnerability

Tonga's near-total digital isolation from the world in 2022 following a volcanic eruption demonstrates the unique vulnerability that small island states face for international connectivity. Given their comparative isolation and small market size, island states may struggle to obtain the redundancies in connectivity that reduce this vulnerability, but stress the importance of allowing for the diversity of landings that can reduce potential disruptions to service.

LOCALISING LESSONS: Are there unique geographical features that affect market conditions, domestically or internationally, that might affect subsea cables?

COMPETITION & INNOVATION

REGULATORY CERTAINTY & EASE

INFRASTRUCTURE & MAINTENANCE

CABO VERDE

Open access policy guided by ECOWAS supports competition and lower prices

In Cabo Verde, the regulator's implementation of pro-competition access policies helps drive down wholesale internet service prices in the country. The country adopted an ECOWAS decree that helped set the conditions for accessing landing stations on fair, competitive terms. This policy helped drive down wholesale prices to just one-eighth of what they were before the policy interventions.

LOCALISING LESSONS: What regulations apply to subsea cables and the availability of international bandwidth for domestic ISPs and other telecoms firms?

COMPETITION
& INNOVATION

REGULATORY
CERTAINTY & EASE

INFRASTRUCTURE
& MAINTENANCE

SOUTH AFRICA

Diversity of landings are key to secure redundancy during potential breaks

In 2020, South Africa faced breaks in two major subsea internet cables that run along the continent's western coast. This experience demonstrates the vulnerability of subsea cables and the benefits of redundancy within the network. Despite the line breakages, users were still able to access the internet — albeit at throttled or limited capacity — because of alternative routing of data through the network. This stresses the benefits of diversity of routing and diversity of landings for subsea systems, enabling international connectivity.

LOCALISING LESSONS: Do international landing(s) in your country pose a bottleneck in international connectivity?

COMPETITION
& INNOVATION

REGULATORY
CERTAINTY & EASE

INFRASTRUCTURE
& MAINTENANCE

FRANCE

Municipal authorities play a key role in supporting infrastructure deployment
Marseille's emergence as a European connectivity hub comes in no small part due to the proactive role of the Port of Marseille. The Port planned for new infrastructure and built out integrated pile bores protected from passing ships, manholes for easy maintenance access, and neutral landing infrastructure that encourages competition. This illustrates the positive role that municipal and national-level authorities can play in supporting infrastructure deployment and long-term, strategic planning. France also boasts a stable regulatory framework, a straightforward permitting process, and a friendly environmental approach.

LOCALISING LESSONS: How do policy and regulatory actors, including yourself, work at different levels of government, such as city, national, and international?

ITALY**COMPETITION
& INNOVATION****REGULATORY
CERTAINTY & EASE****INFRASTRUCTURE
& MAINTENANCE****Open access cable landing options support healthy competition**

Open access cable landing stations that provide cost-based open access to competing backhaul providers and cost-based interconnection are critical to a robust connectivity ecosystem, as they spur competition and consequently help bring down bandwidth costs. The Genoa Lagaccio Open Landing Station “provides open interconnection capabilities and gives cable projects access to the numerous backhaul options from Genoa into northern Italy and beyond,” and is a good example of this good practice in action.

LOCALISING LESSONS: What policy and economic factors determine access conditions for ISPs and telecoms providers, and how does that affect competition?

COMPETITION
& INNOVATION

REGULATORY
CERTAINTY & EASE

INFRASTRUCTURE
& MAINTENANCE

COLOMBIA

Cable protection zones offer effective infrastructure protection

Colombia's regulatory environment models an example found in a number of jurisdictions of cable protection zones (CPZs) that restrict certain activities, such as fishing or trawling, that may prove dangerous to the underlying cable infrastructure and confines this restriction to a certain geographic area. CPZs offer a high degree of protection against potential human-caused damages, but require development in consultation with other stakeholders, such as local fishers and port authorities, for effective and measured implementation.

LOCALISING LESSONS: Who are the various stakeholders involved in seabed stewardship, and what role do subsea cable providers play in that?

Lessons learnt



COMPETITION & INNOVATION

**Encourage open-access
cable landing stations.**

**Enforce against
monopolistic behavior.**

**Eliminate 'one-size-fits-all'
licensing arrangements.**

**Adapt to accommodate
new technologies.**

REGULATORY CERTAINTY & EASE

**Create and maintain a
stable cabling policy
framework.**

**Coordinate permitting, etc.,
at various levels of
government.**

**Allow private and foreign
investments.**

INFRASTRUCTURE & MAINTENANCE

**Engage a wide range of
stakeholders.**

**Allow diverse
routes/landings.**

**Streamline repair
processes.**

From cables to transformation

“ The policy decisions made today will influence the investment choices made tomorrow. These investment choices will, in turn, influence the availability of reliable and affordable broadband services around the world. Policymakers and regulators need to step up their leadership roles to eliminate investment barriers and guide market development that will enable digital inclusion at a global scale and will result in global economic growth and development.”

Thank you.

Sonia Jorge

Executive Director

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