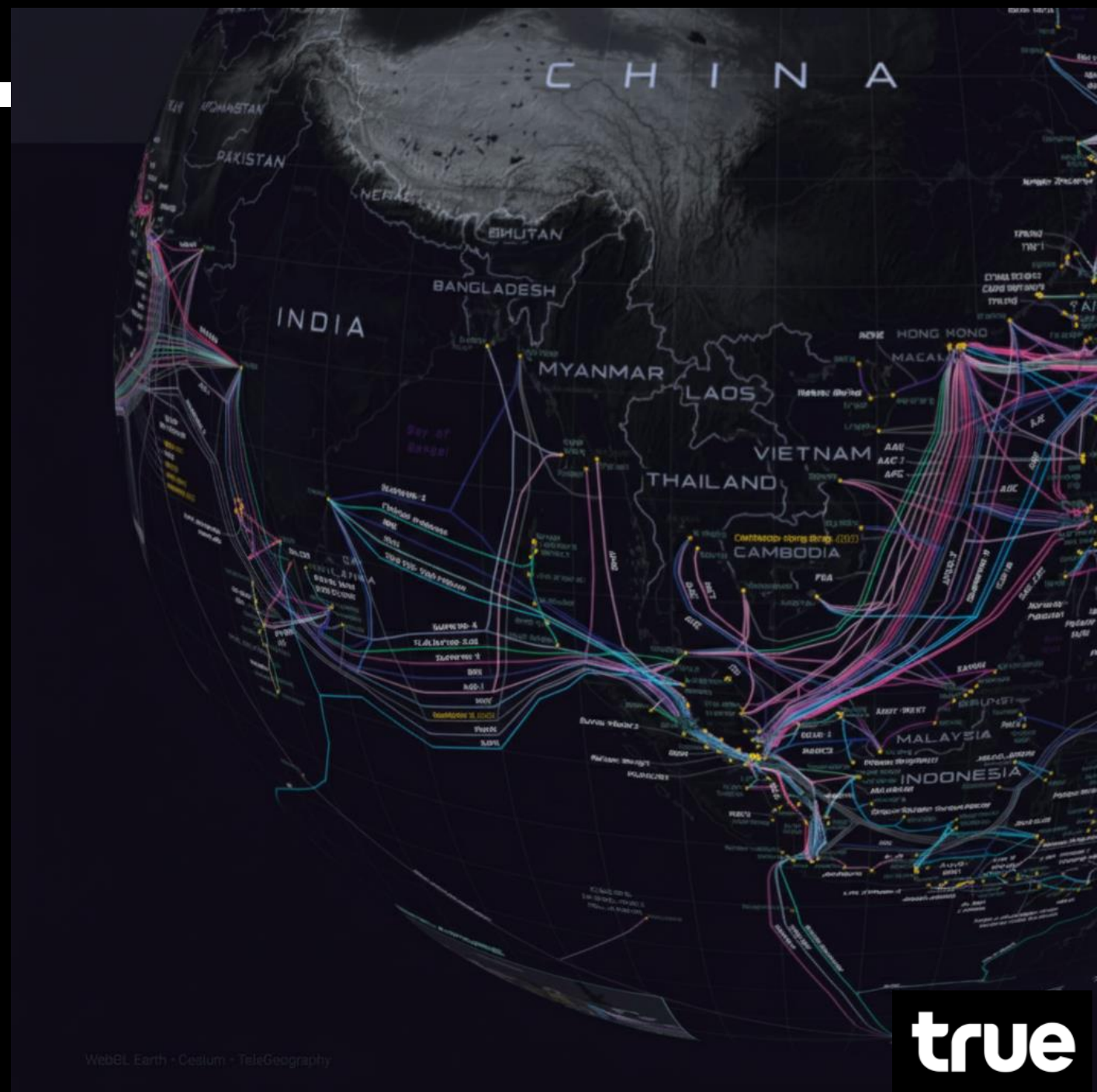


THE INVISIBLE HIGHWAY

Why Control of Data Routes
Shapes Telecom's Future

Wachira Parathum, TRUE Corporation

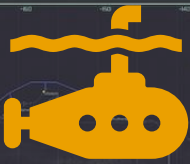


WebGL Earth - Cesium - TeleGeography

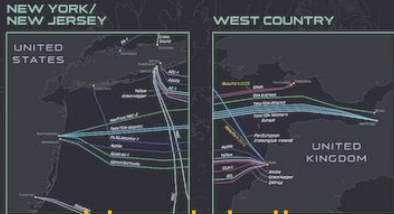
The Invisible Network

Source : <https://www.youtube.com/watch?v=llAJI-qG2k&t=17s>

true



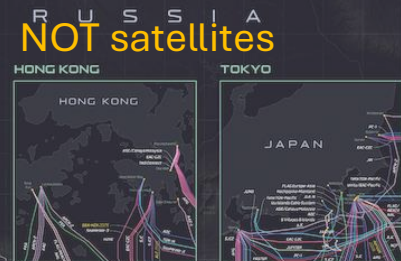
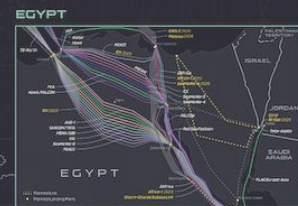
599 submarine cables globally
 1.6M km of fiber-optic strands



45+ submarine cables
 by Google & Meta



99% of all international
 core data flows through cables,
 NOT satellites



The Invisible Network in 2025: Majority of Data Flows Here, Not Through Satellites

The Invisible Network: Two Decades of Unseen Acceleration

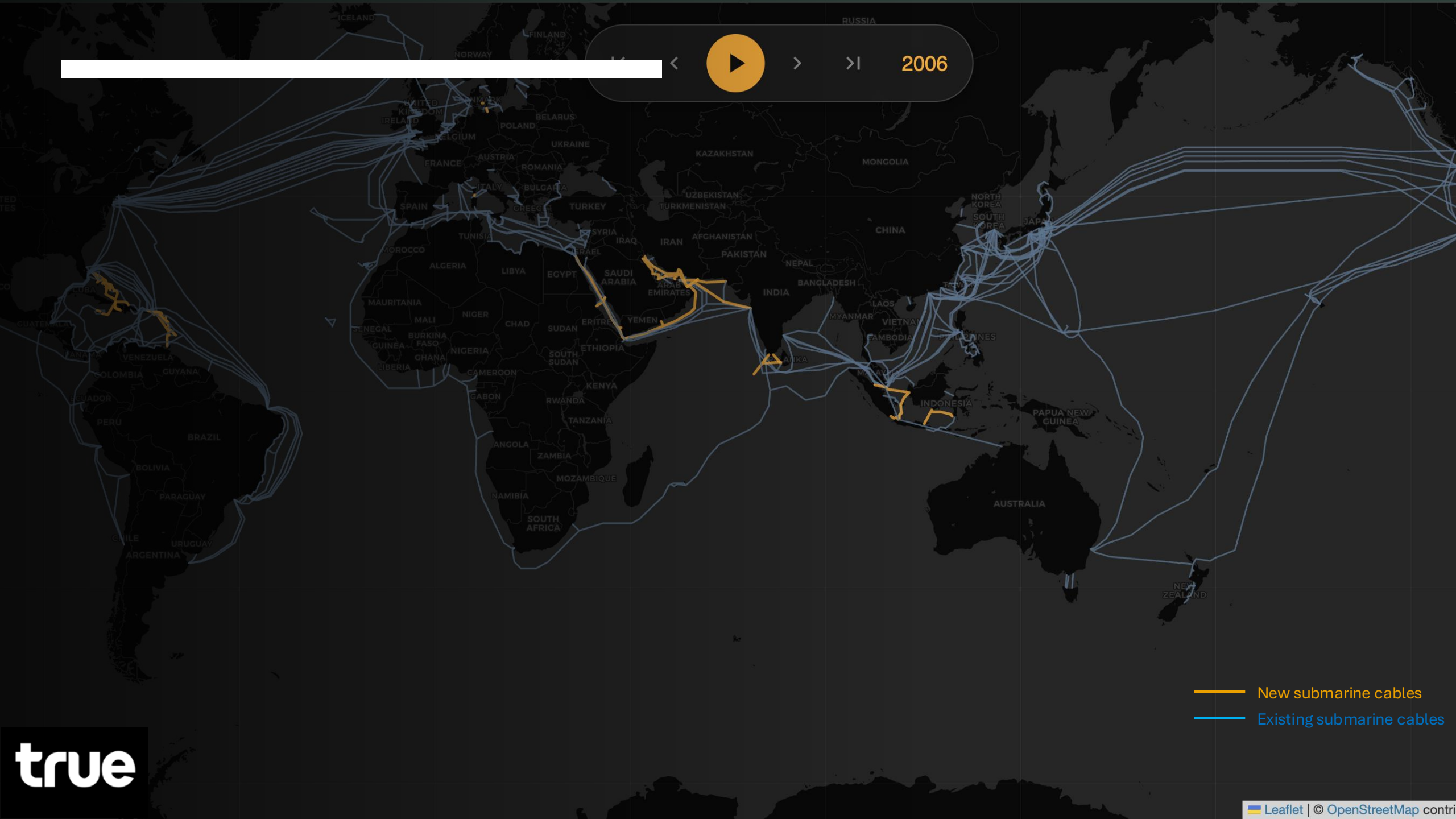
Navigation controls: back, play, forward, and a year indicator showing 2005.

- New submarine cables
- Existing submarine cables



Source : <https://kmcd.dev/posts/internet-map-2025>

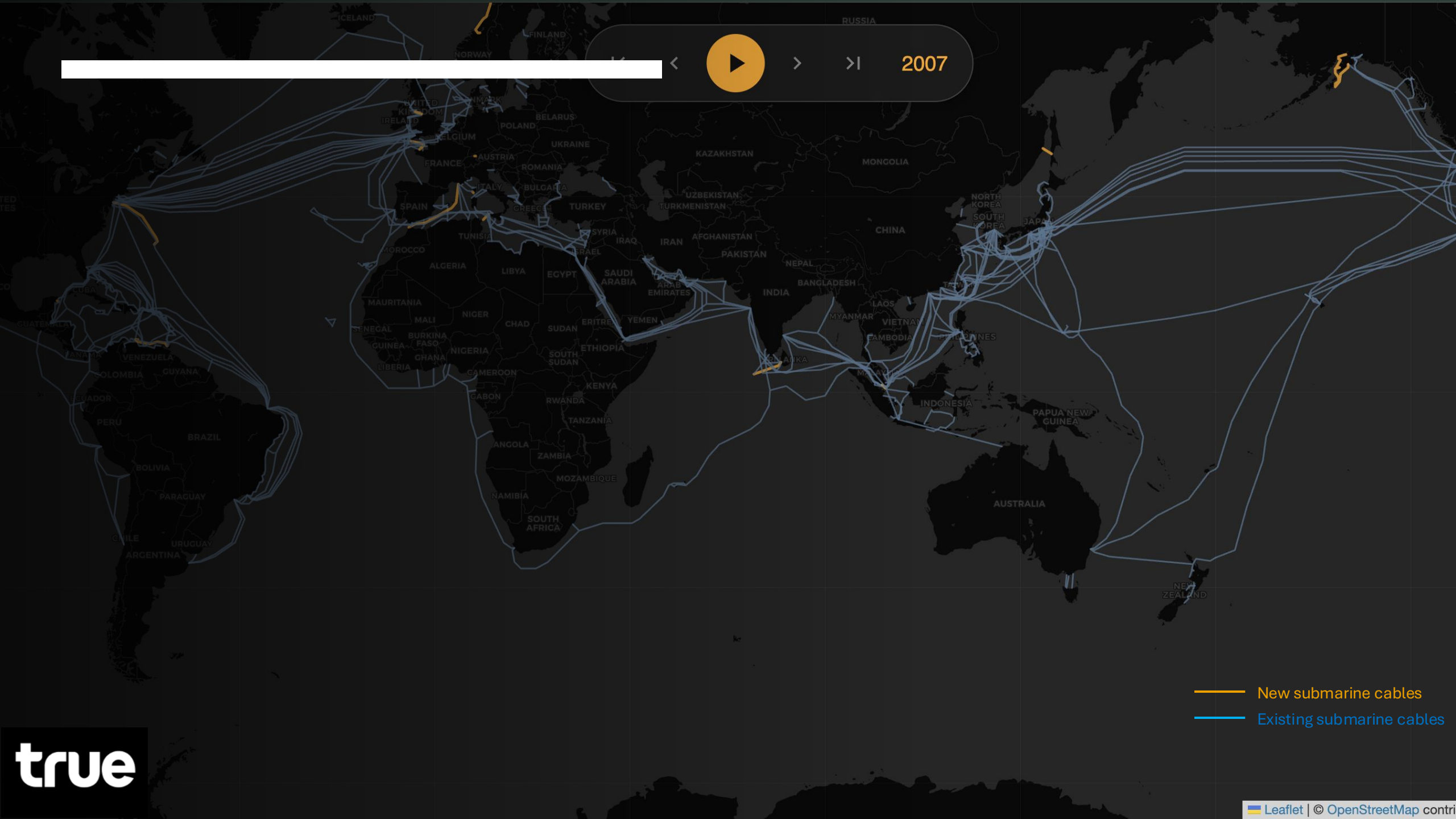
Navigation controls including a play button, left and right arrows, and the year 2006.



- New submarine cables
- Existing submarine cables


true

Navigation controls including a play button, left and right arrows, and the year 2007.





— New submarine cables
— Existing submarine cables

true

<  > >| 2008



-  New submarine cables
-  Existing submarine cables

true

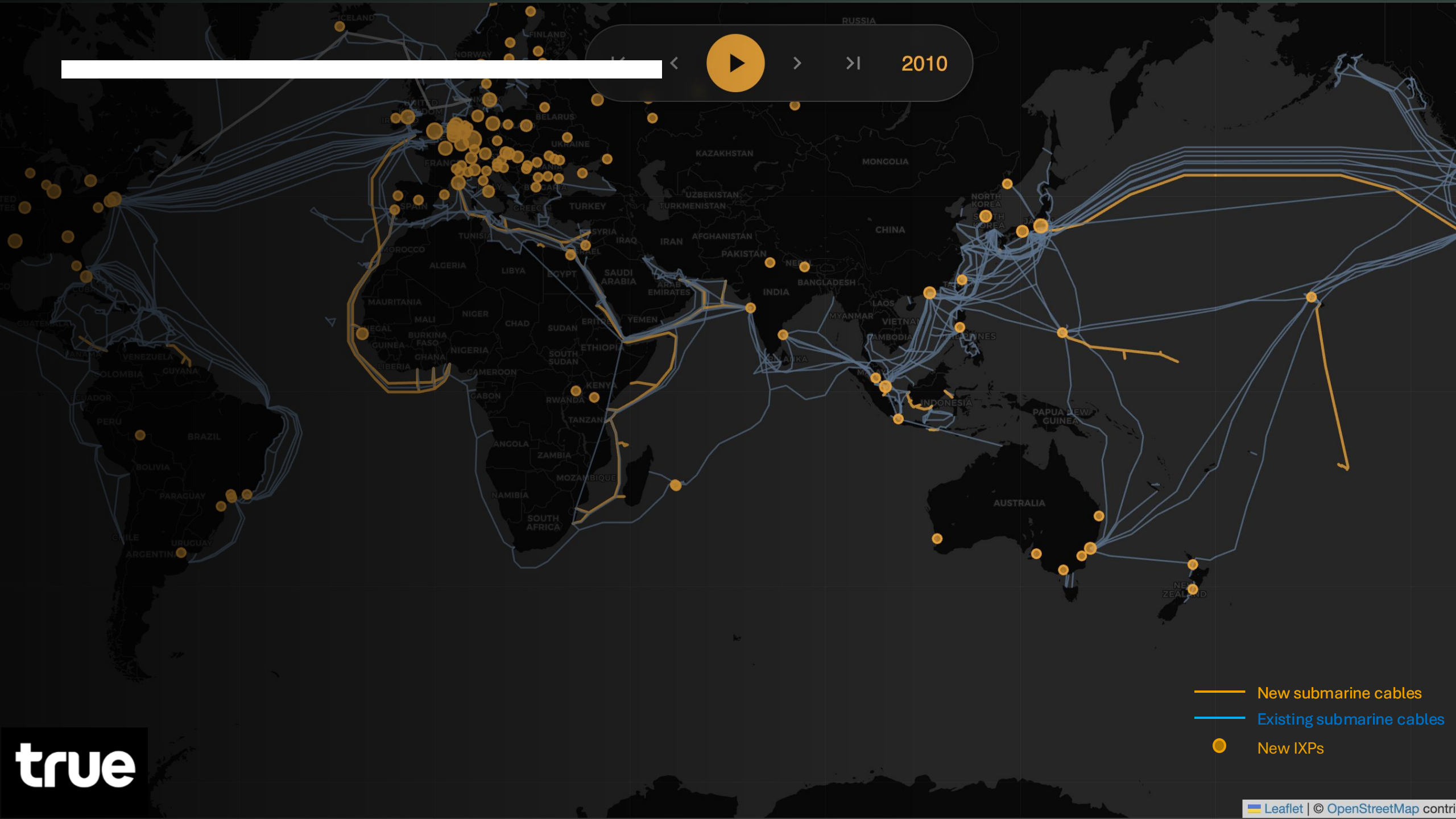
Navigation controls including a play button, left and right arrows, and the year 2009.



— New submarine cables
— Existing submarine cables

true

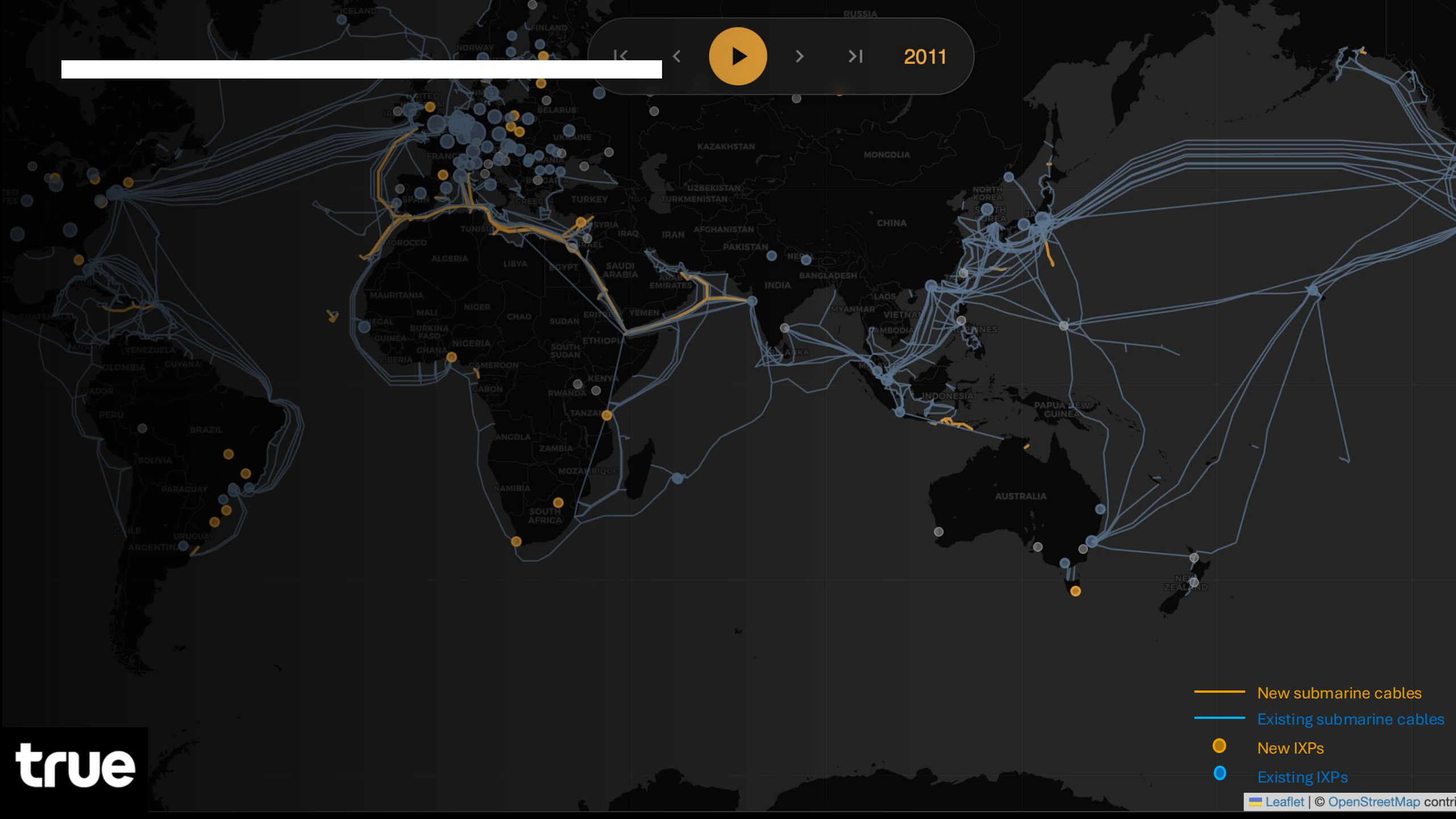
Navigation controls including a play button, left and right arrows, and a year indicator set to 2010.


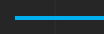




- New submarine cables
- Existing submarine cables
- New IXPs

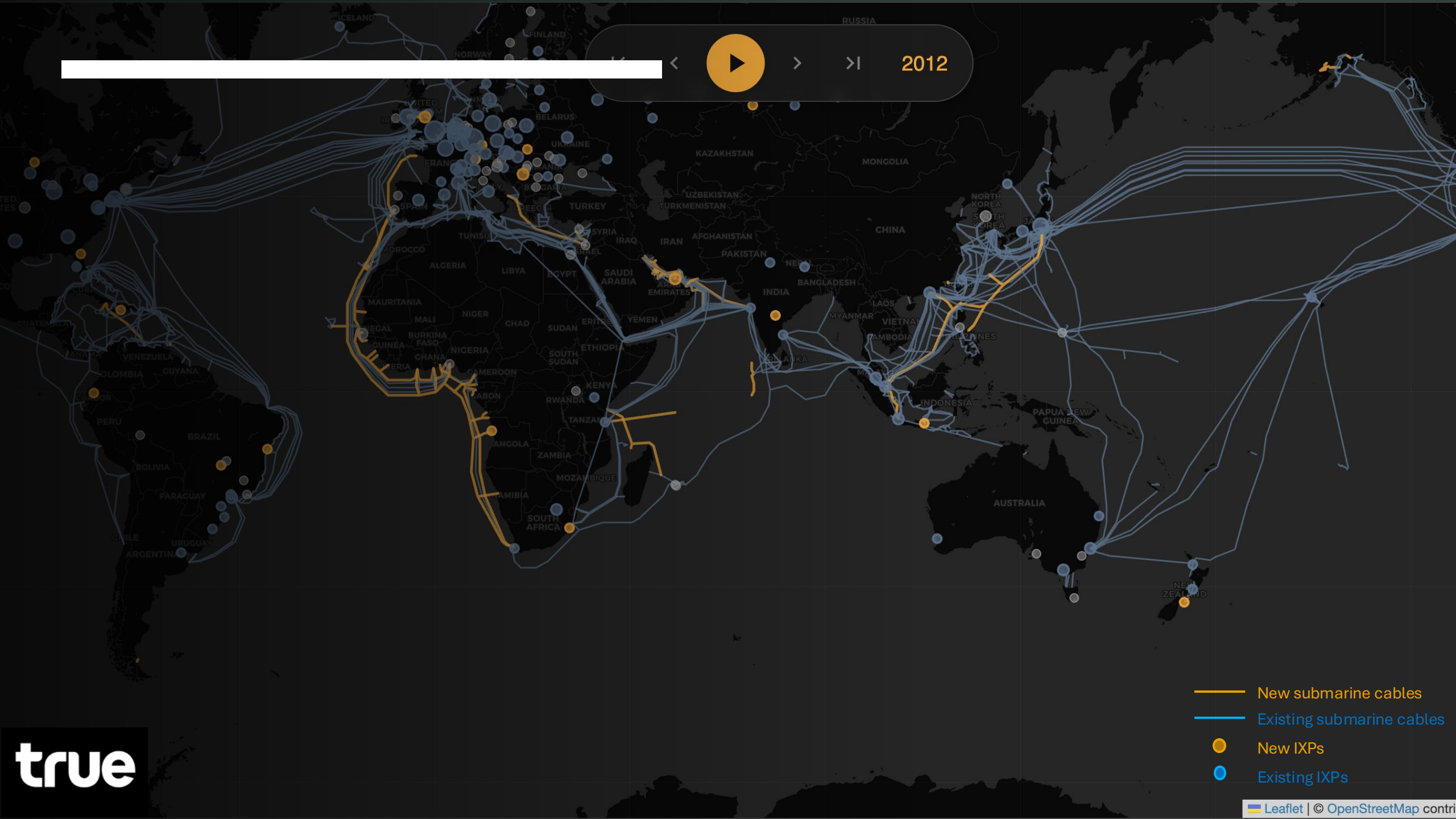
true

2011



-  New submarine cables
-  Existing submarine cables
-  New IXPs
-  Existing IXPs

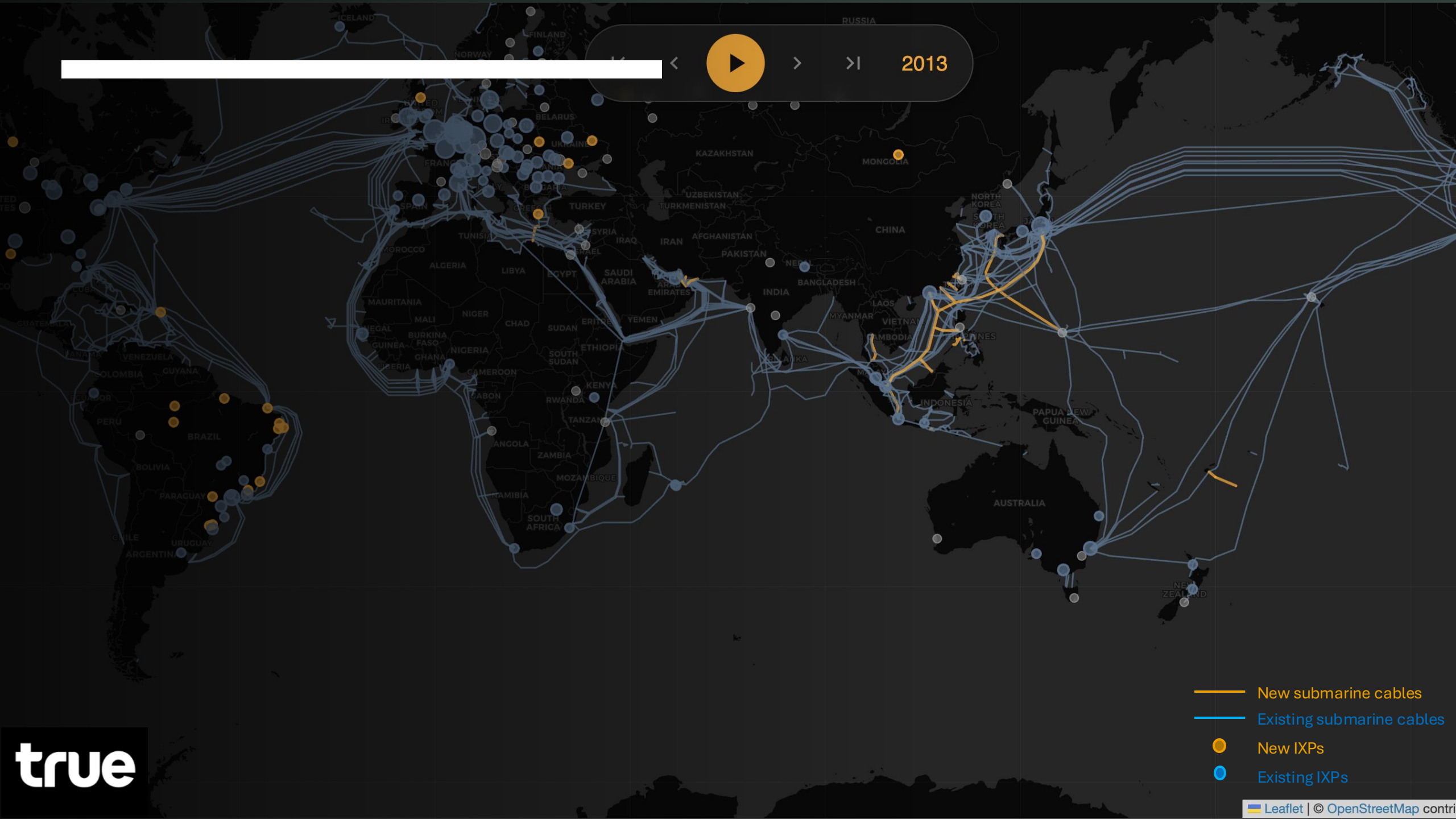
Navigation controls including a play button, left and right arrows, and the year 2012.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

true

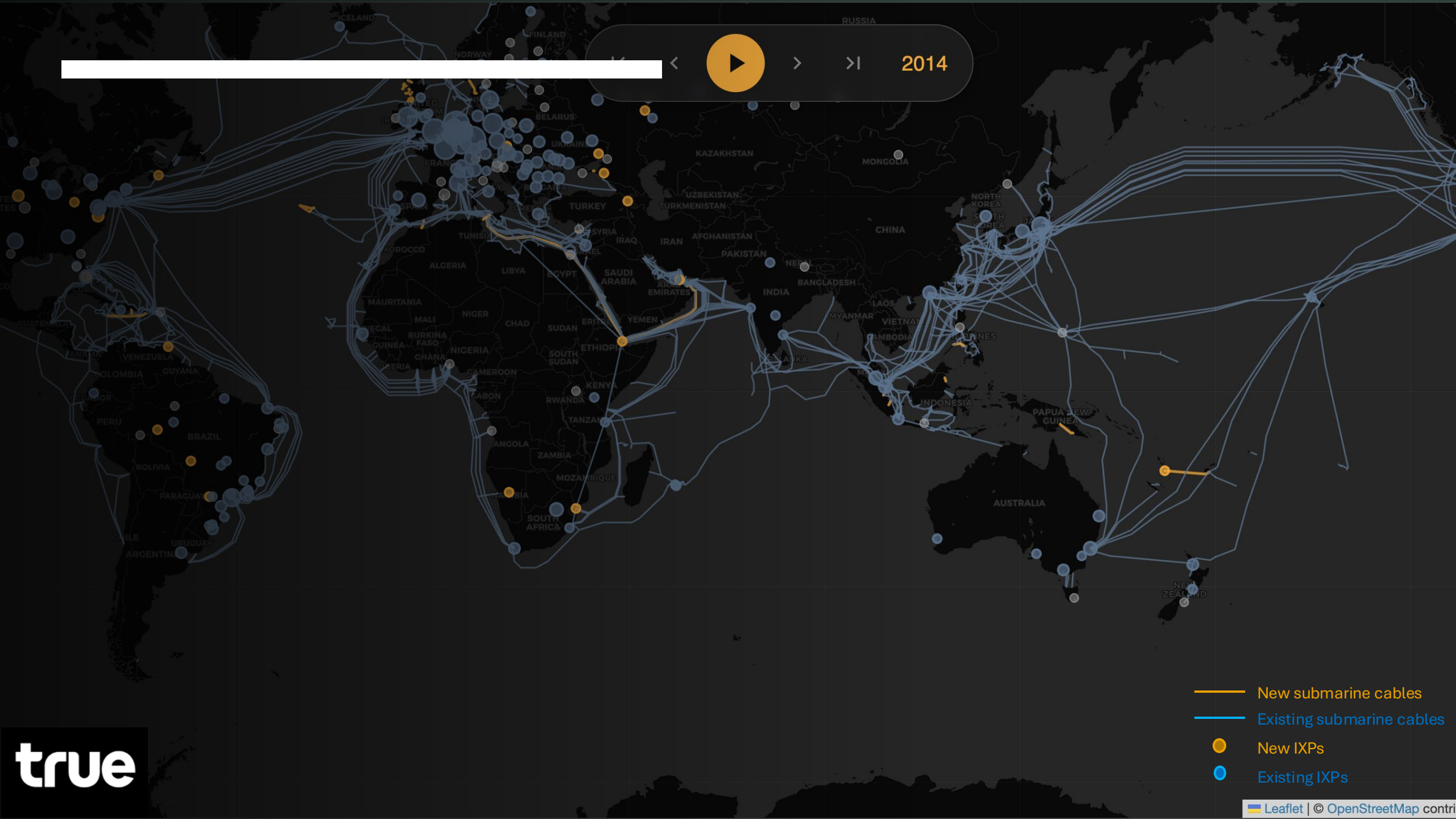
Navigation controls including a play button, left and right arrows, and the year 2013.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

true

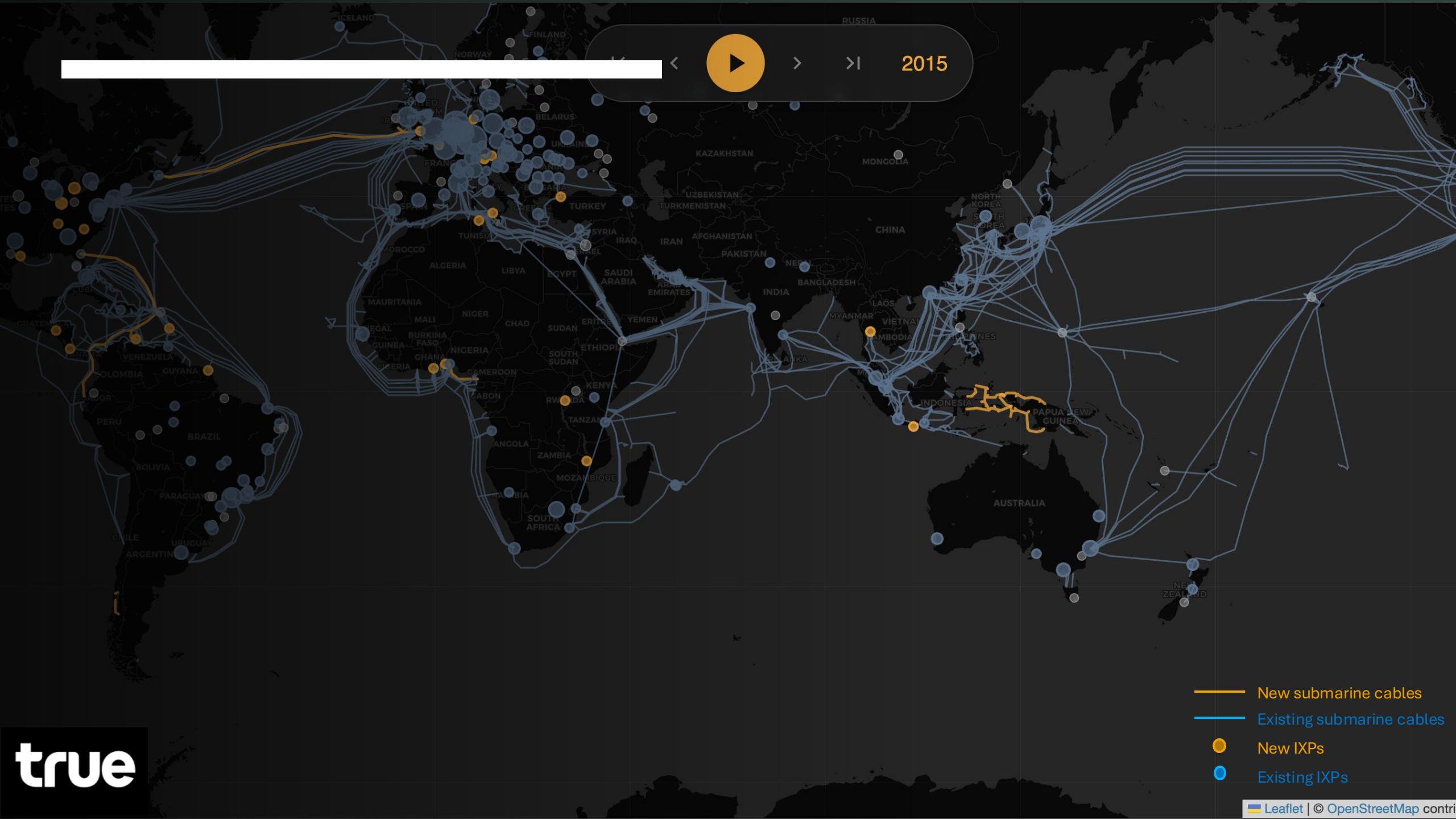
Navigation controls including a play button, left and right arrows, and the year 2014.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

true

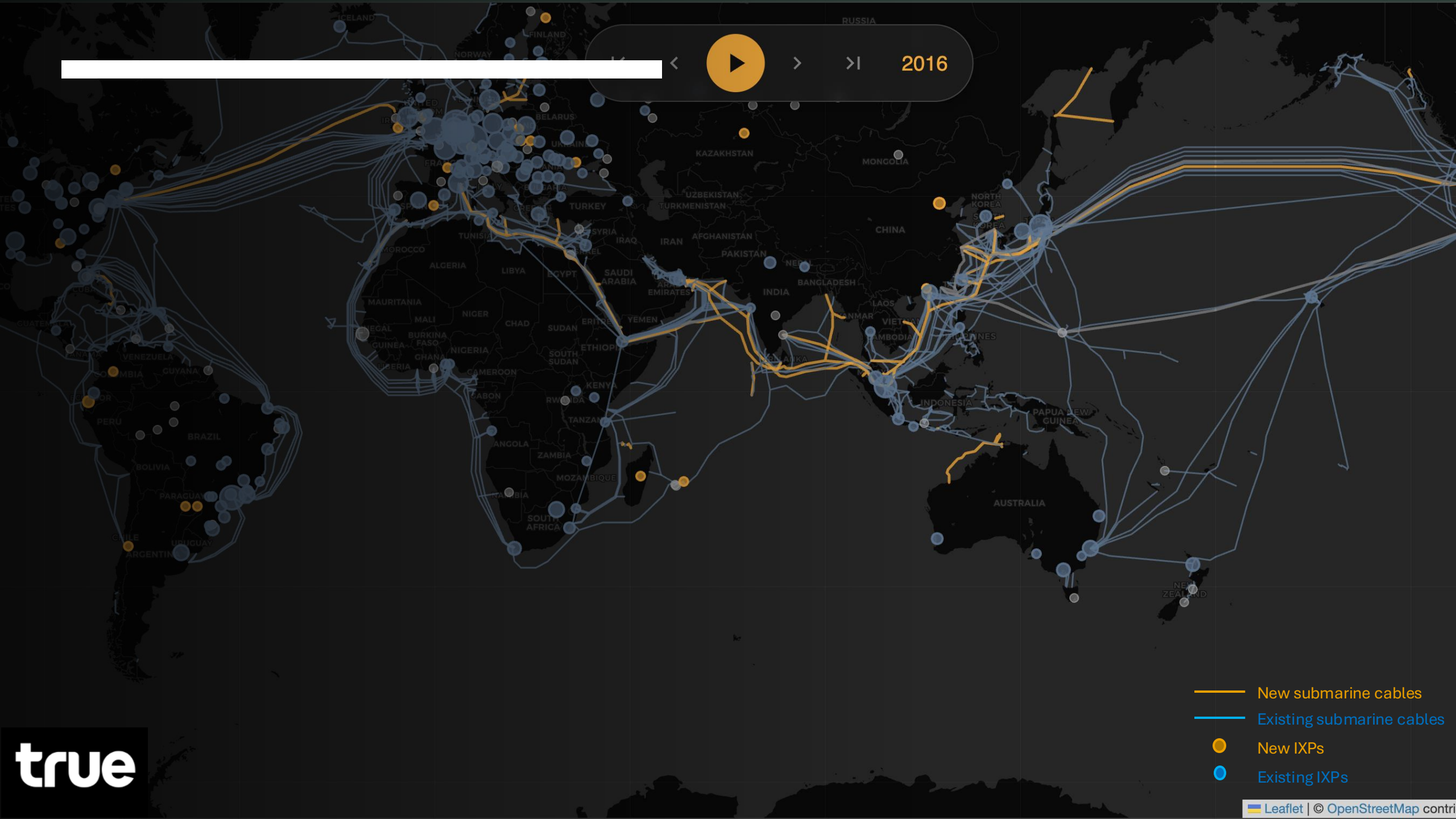
Navigation controls including a play button, left and right arrows, and the year 2015.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs



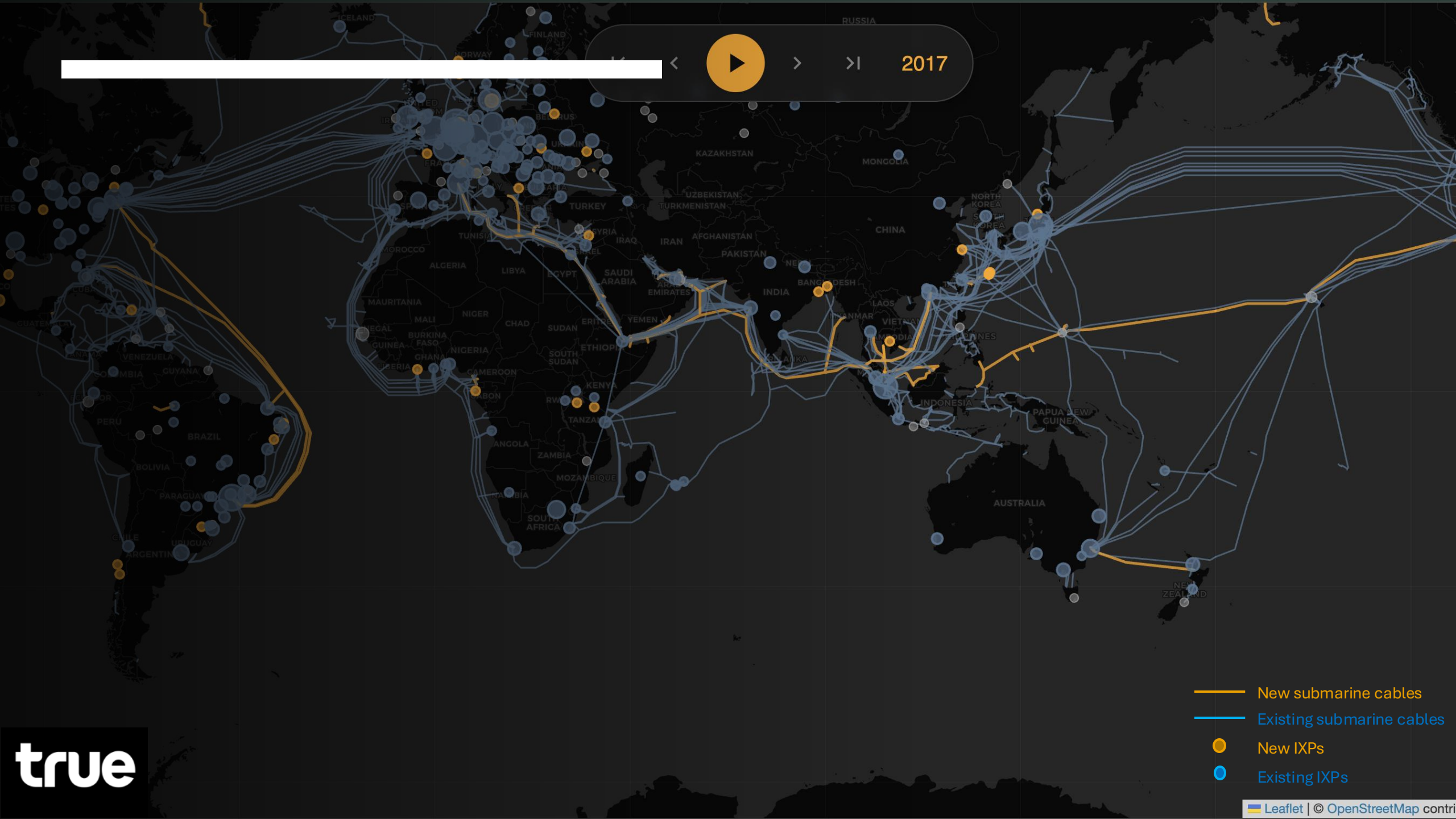
Navigation controls including a play button, left and right arrows, and the year 2016.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

true

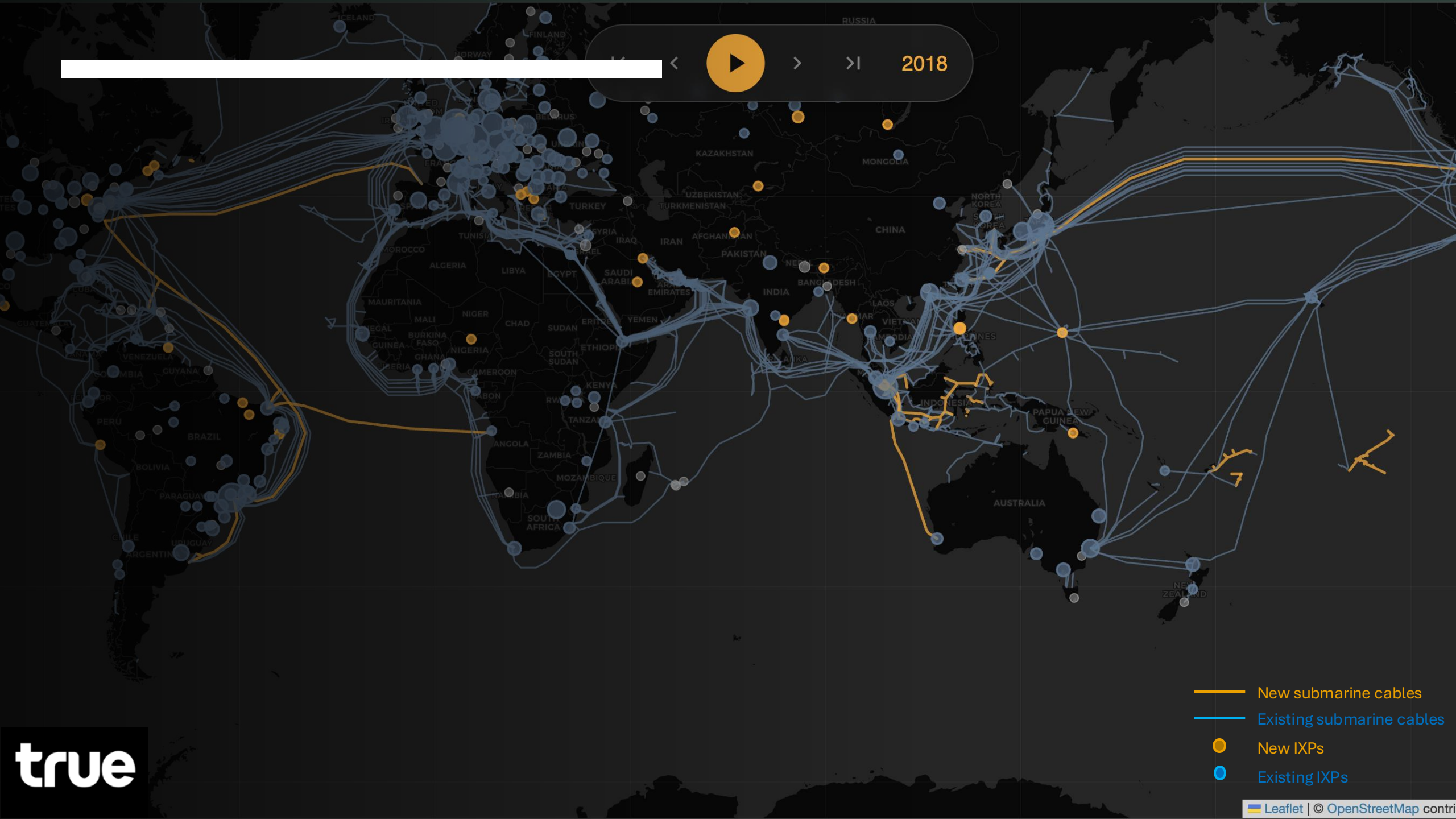
Navigation controls including a play button, left and right arrows, and the year 2017.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

true

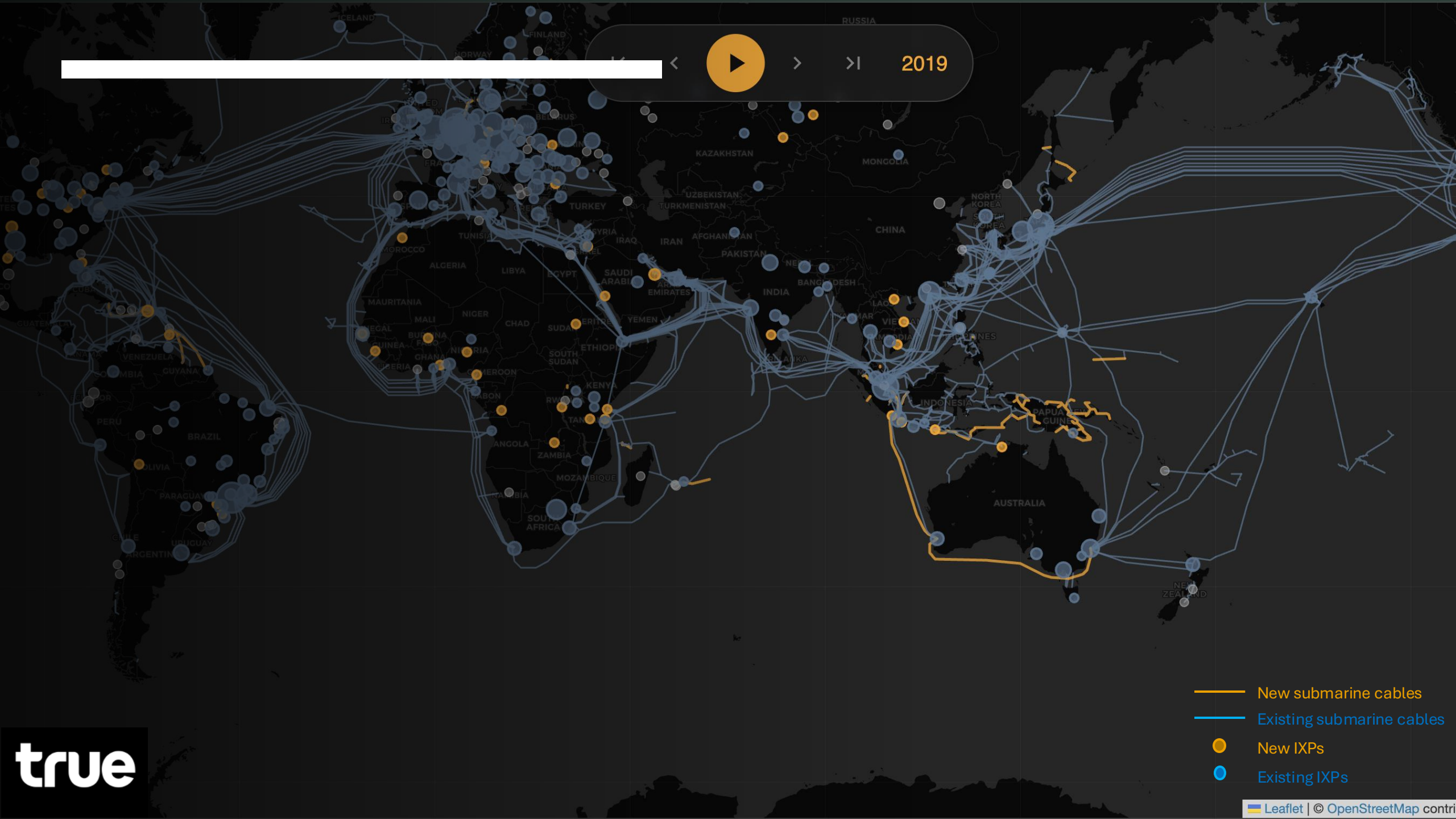
Navigation controls including a play button, left and right arrows, and the year 2018.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs



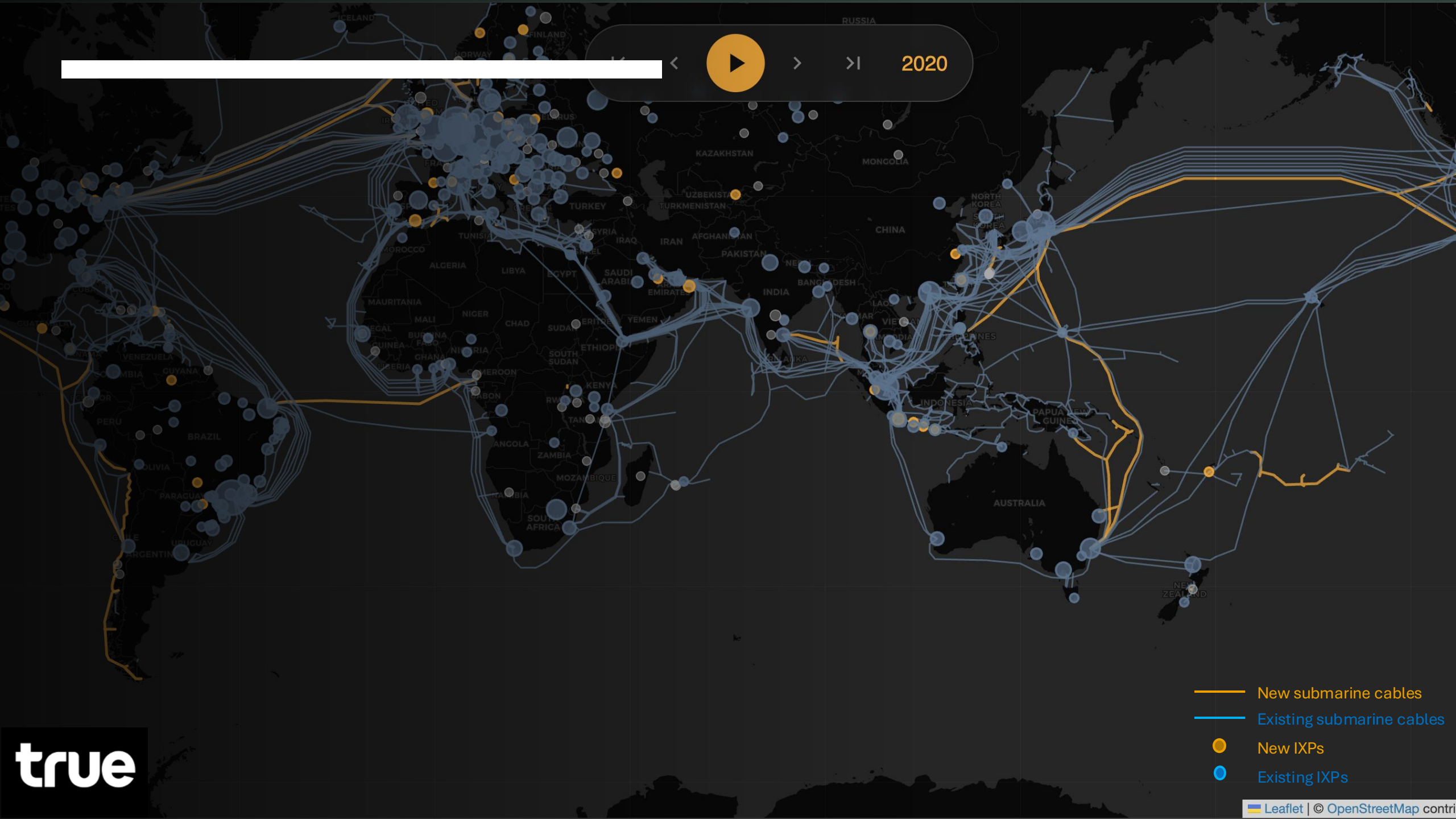
Navigation controls including a play button, left and right arrows, and the year 2019.



- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs

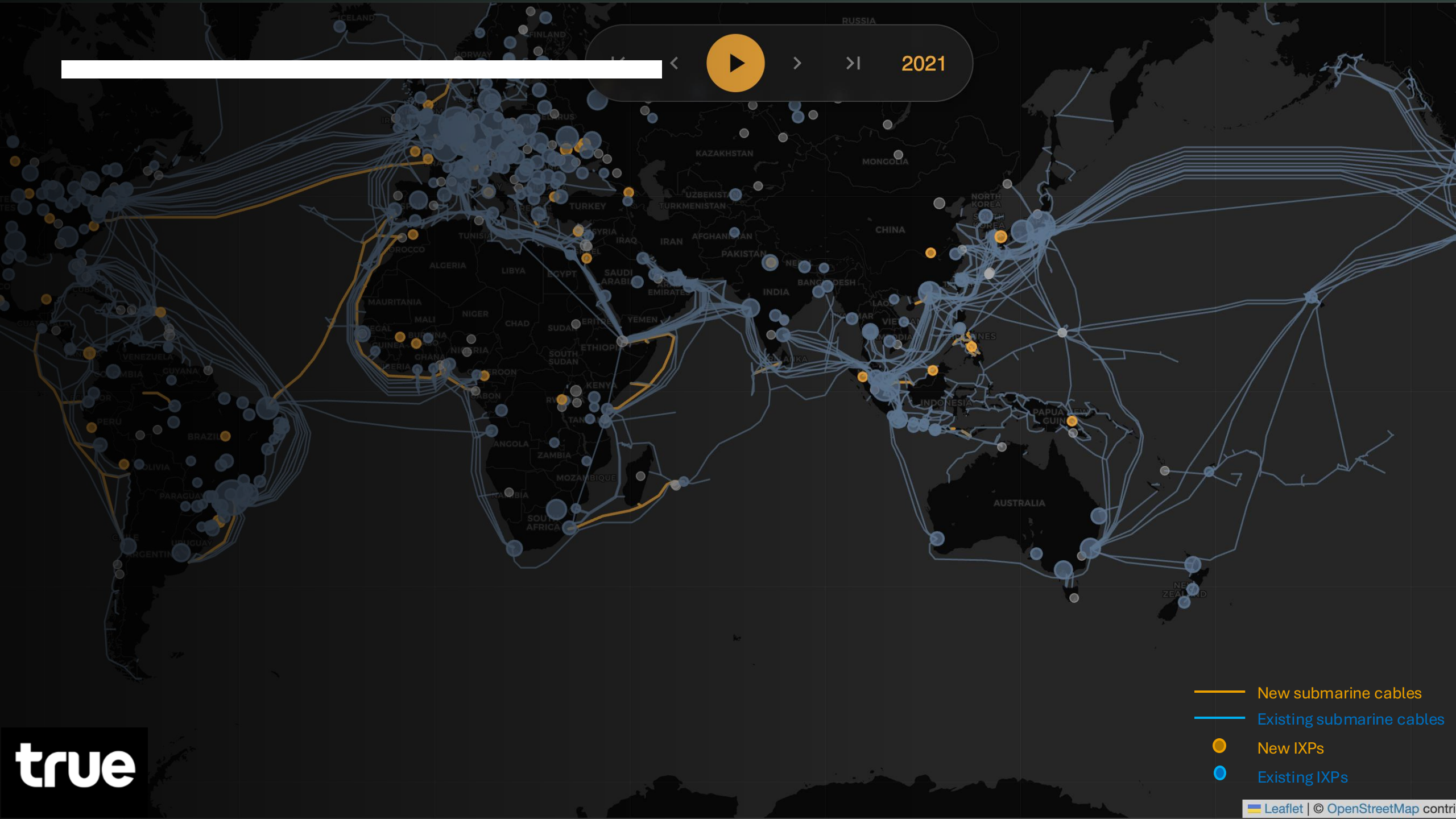
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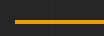
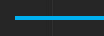


Navigation controls including a play button, left and right arrows, and the year 2020.



true

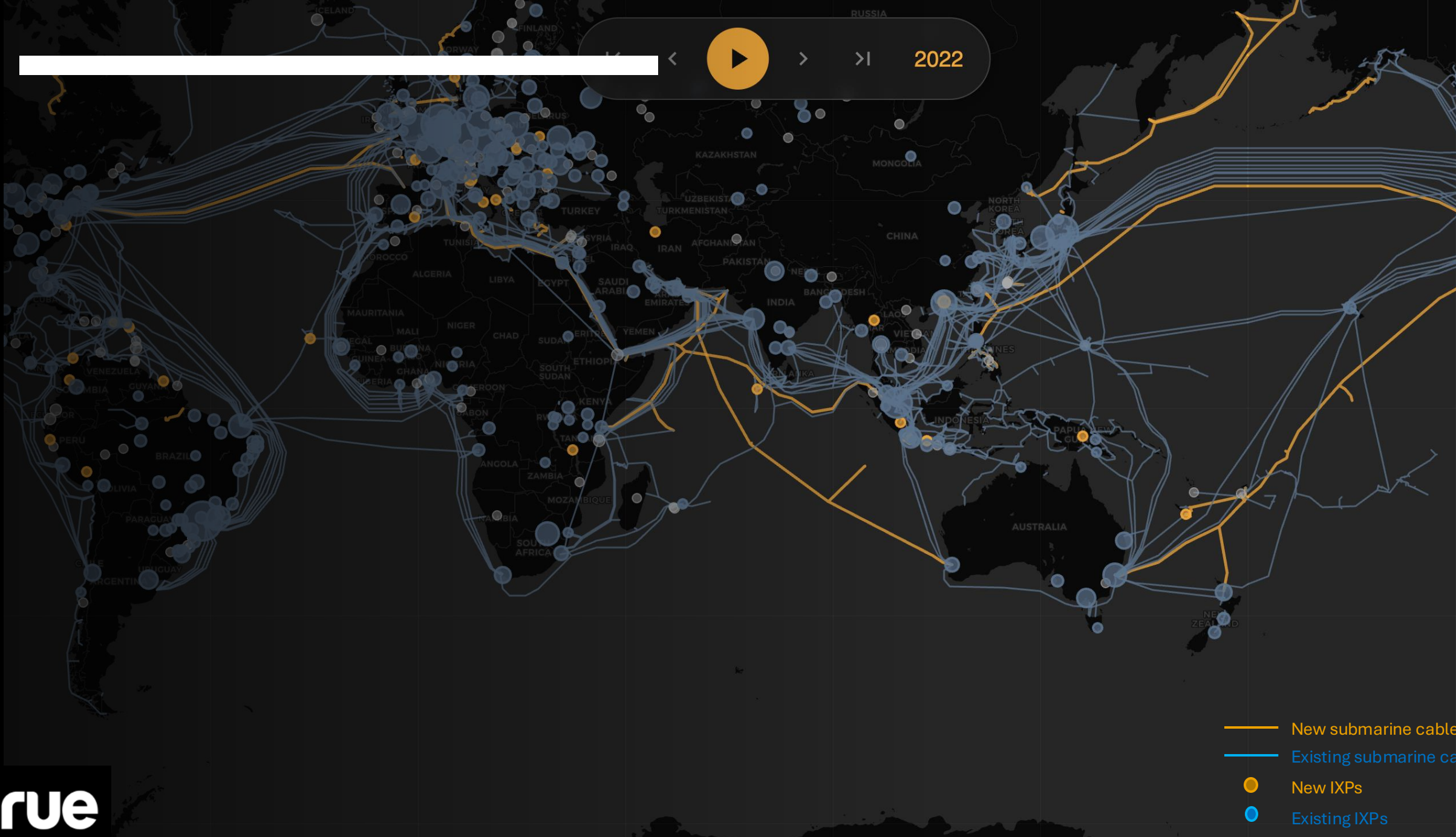
Navigation controls including a play button, left and right arrows, and the year 2021.



-  New submarine cables
-  Existing submarine cables
-  New IXPs
-  Existing IXPs

true

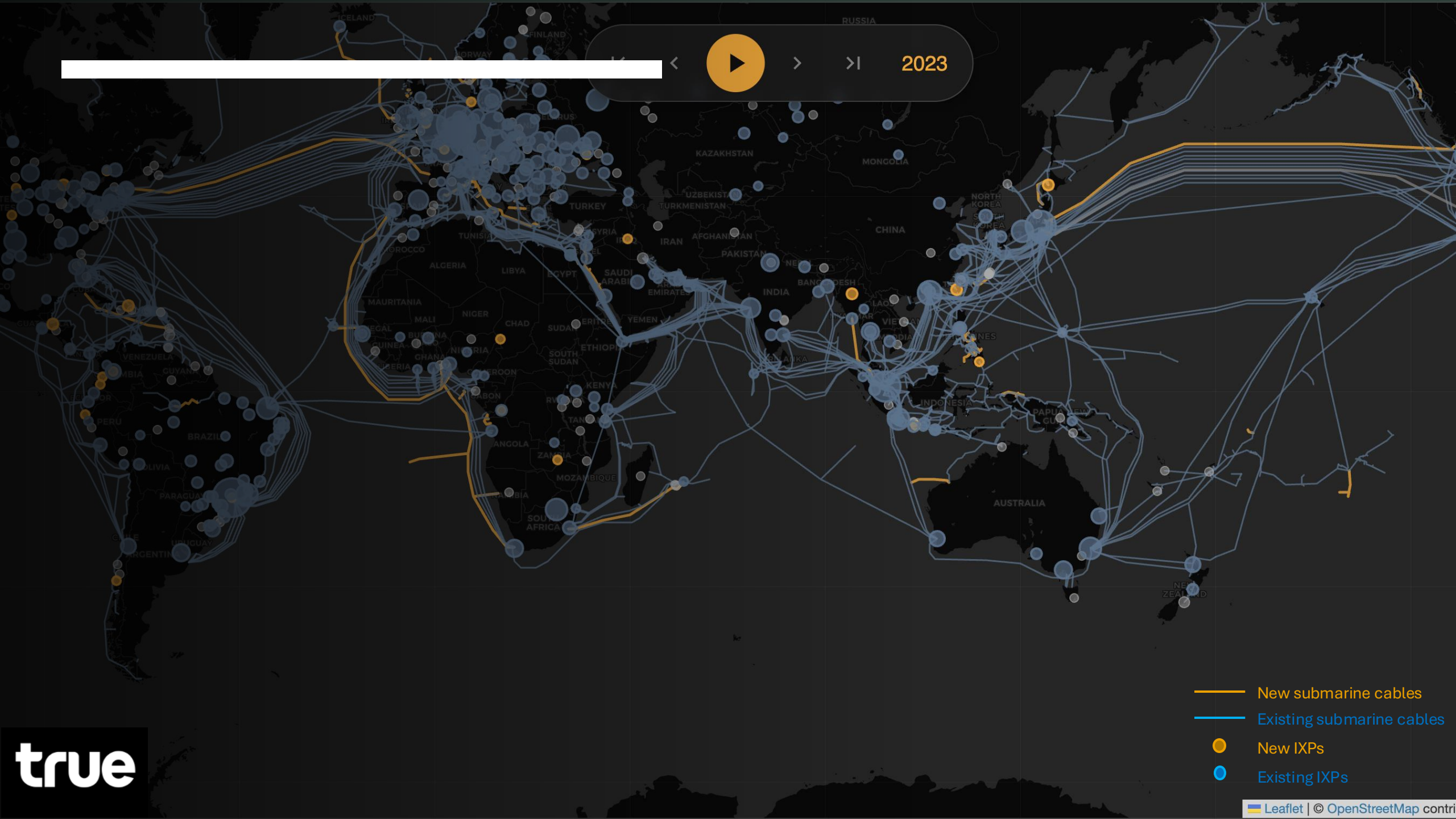
Navigation controls including a play button, left and right arrows, and the year 2022.

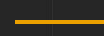
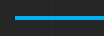




- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs


true

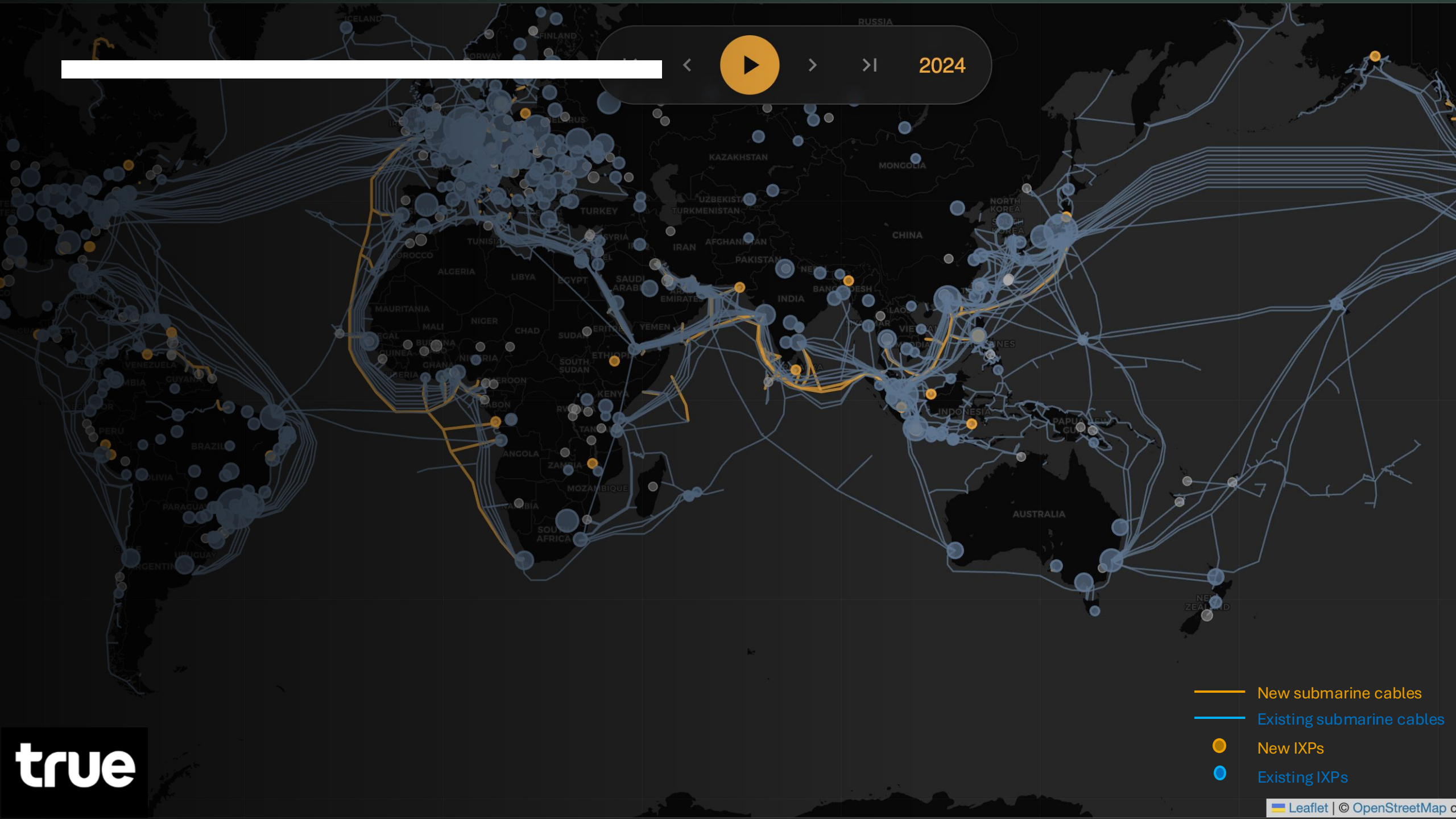
Navigation controls including a play button, left and right arrows, and the year 2023.







-  New submarine cables
-  Existing submarine cables
-  New IXPs
-  Existing IXPs

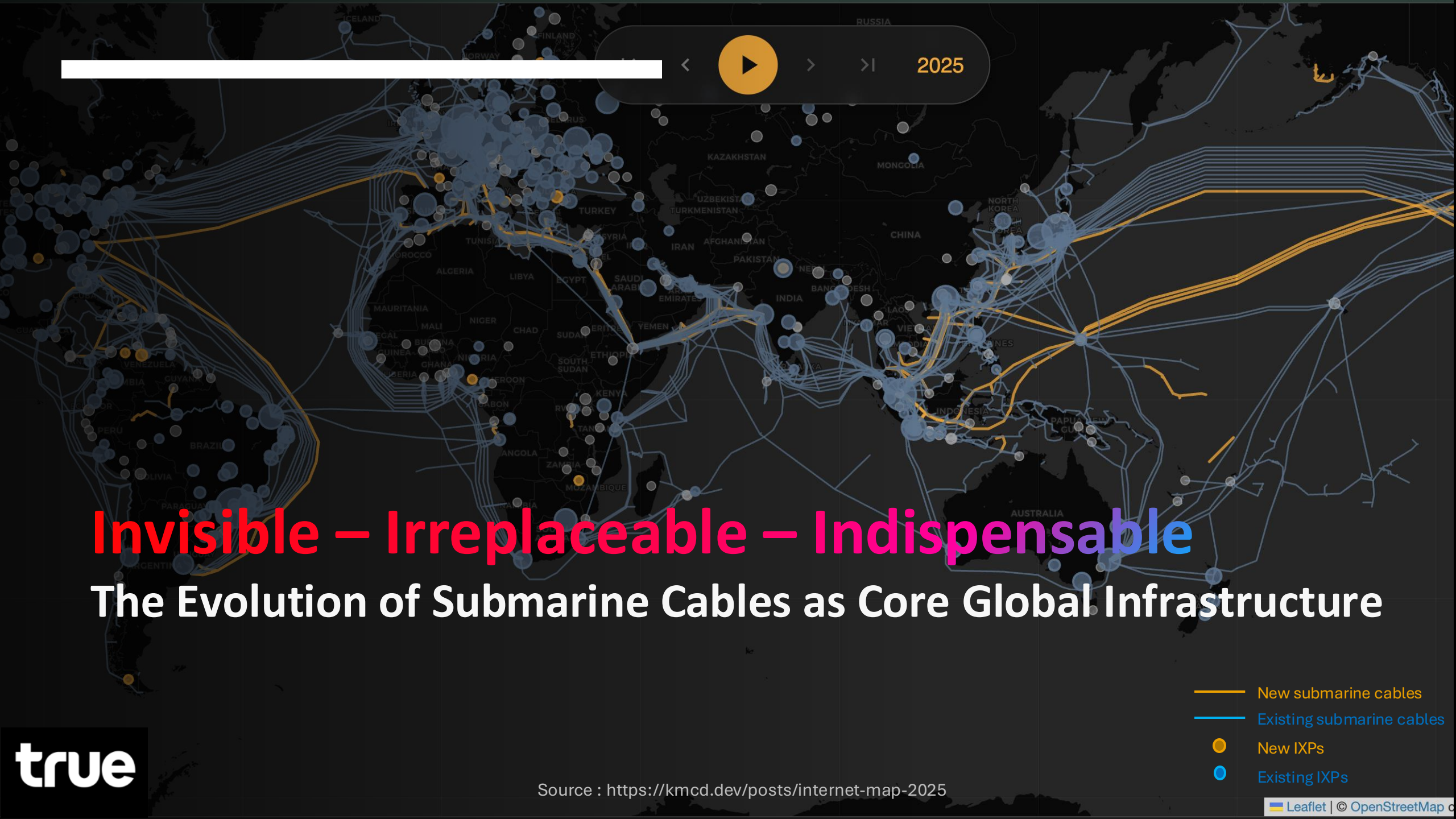
true

<  > >| 2024



-  New submarine cables
-  Existing submarine cables
-  New IXPs
-  Existing IXPs





Invisible – Irreplaceable – Indispensable

The Evolution of Submarine Cables as Core Global Infrastructure

- New submarine cables
- Existing submarine cables
- New IXPs
- Existing IXPs



Source : <https://kmcd.dev/posts/internet-map-2025>

The Perfect Storm: AI, 5G, and Cloud Creating Bandwidth Hunger Like Never Before



AI REVOLUTION

Data centers need **100X**
more capacity than 2020



5G DEPLOYMENT

Ultra-low latency
requirements demand cable
redundancy



CLOUD EXPANSION

AWS, Azure, Google
urgently scaling APAC data
centers

\$13B APAC Investment 2025-27 Targets Underserved Thai Routes for AI/Cloud

The Power Shift: How Google, Meta, and Amazon Sidestepped Traditional Telecoms

After **2012**, dominance shift from buying capacity to building own capacity

Hyperscalers now own **40%** of submarine cables (up from 5% in 2015)

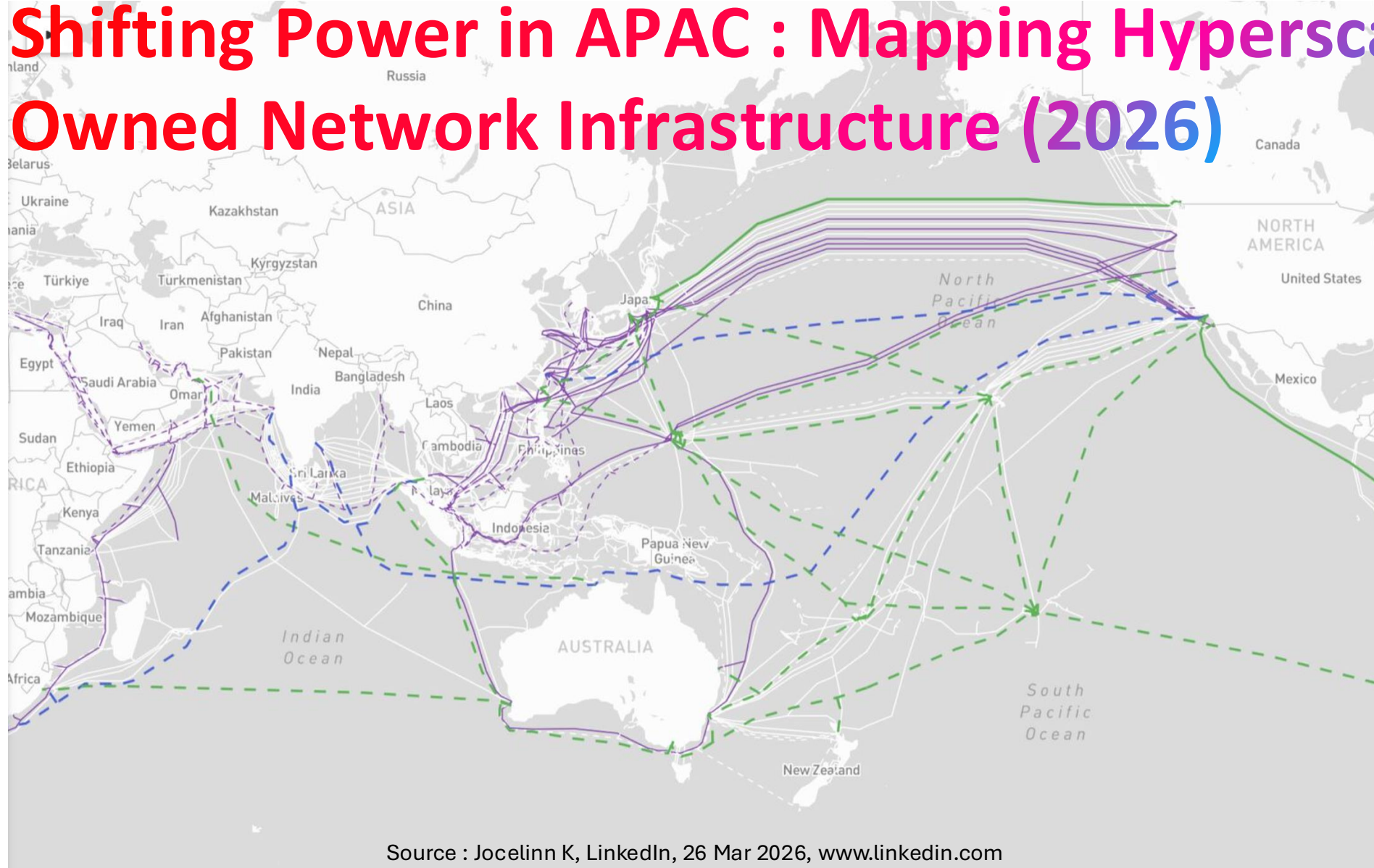
Meta Candle: 570Tbps capacity; **140x** larger than typical 2015 cables

Google, Meta, Amazon building routes directly to **APAC** data centers

They **BYPASS** traditional telecom operators or exclusive partnership

They **NEED** landing rights, relationships, regulatory access; we have these

Shifting Power in APAC : Mapping Hyperscaler- Owned Network Infrastructure (2026)



Active Focus

- Microsoft
- Google
- Amazon Web Services
- Meta

Line Styles:

- Sole Ownership
- Shared / Consortium
- Unrelated Networks
- Planned

Source : Jocelinn K, LinkedIn, 26 Mar 2026, www.linkedin.com

Asia-Pacific: The Digital Goldmine (And Why Everyone's Fighting for It)

01

4B+

internet users in
APAC
(58% of global
total)

02

400M+

users in SEA,
exceeds North
America (300M)

03

100M+

new users annually
in India
(fastest growth
globally)

04

\$13B

in new submarine
cable investment
planned 2025-
2027

Thailand's Submarine Cable Landscape

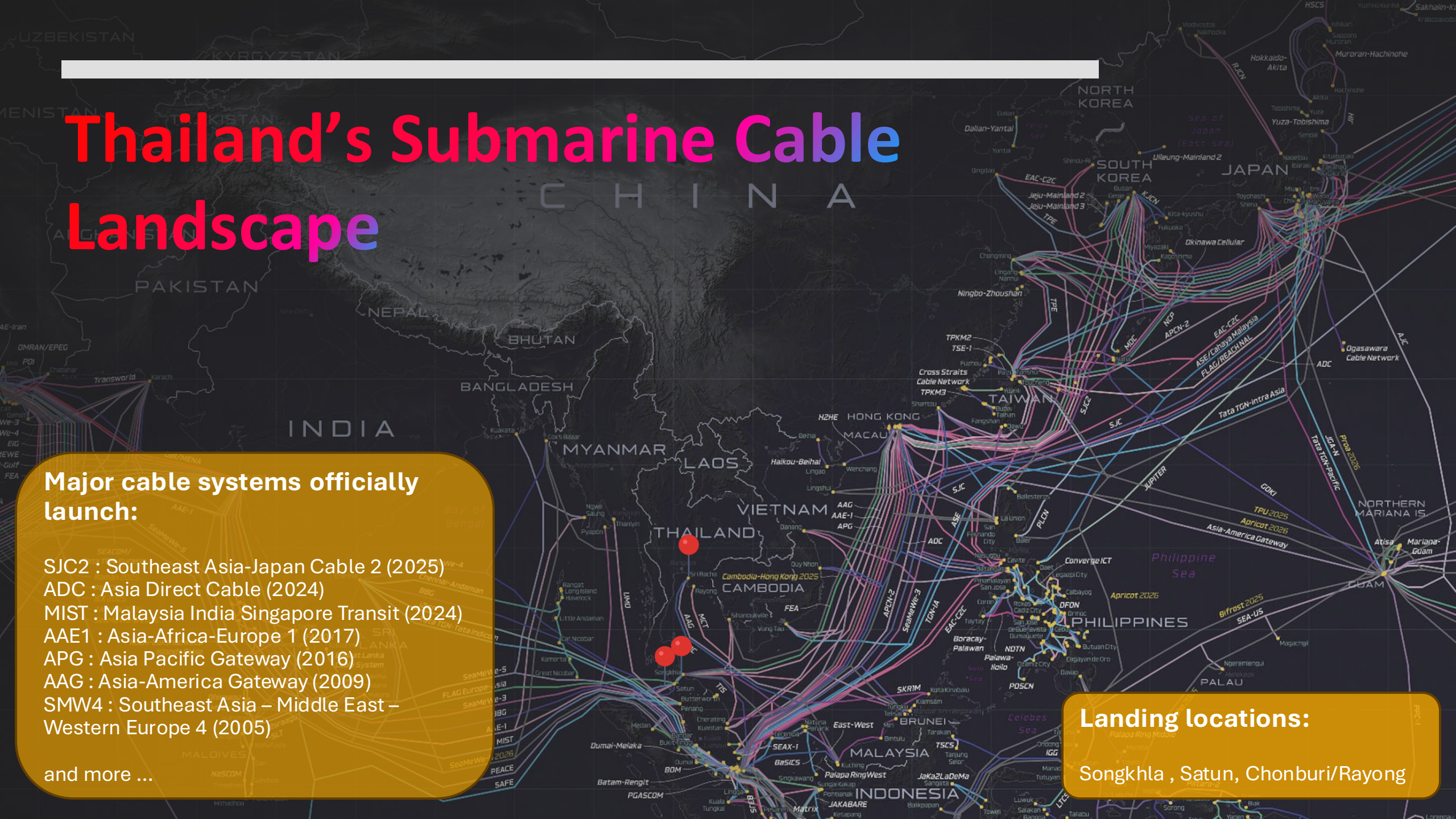
Major cable systems officially launch:

- SJC2 : Southeast Asia-Japan Cable 2 (2025)
- ADC : Asia Direct Cable (2024)
- MIST : Malaysia India Singapore Transit (2024)
- AAE1 : Asia-Africa-Europe 1 (2017)
- APG : Asia Pacific Gateway (2016)
- AAG : Asia-America Gateway (2009)
- SMW4 : Southeast Asia – Middle East – Western Europe 4 (2005)

and more ...

Landing locations:

Songkhla , Satun, Chonburi/Rayong



Thailand's Advantage: Why Hyperscalers Need Your Landing Rights (And Geography)

10+ submarine cables already landing in Thailand (Songkhla, Satun, Chonburi, Rayong)

Geographic hub:
India-ASEAN-East Asia traffic must route through Thailand

Non-aligned position: Both US and China need Thai cooperation

Hyperscalers **CANNOT** bypass Thai landing rights; geography is destiny

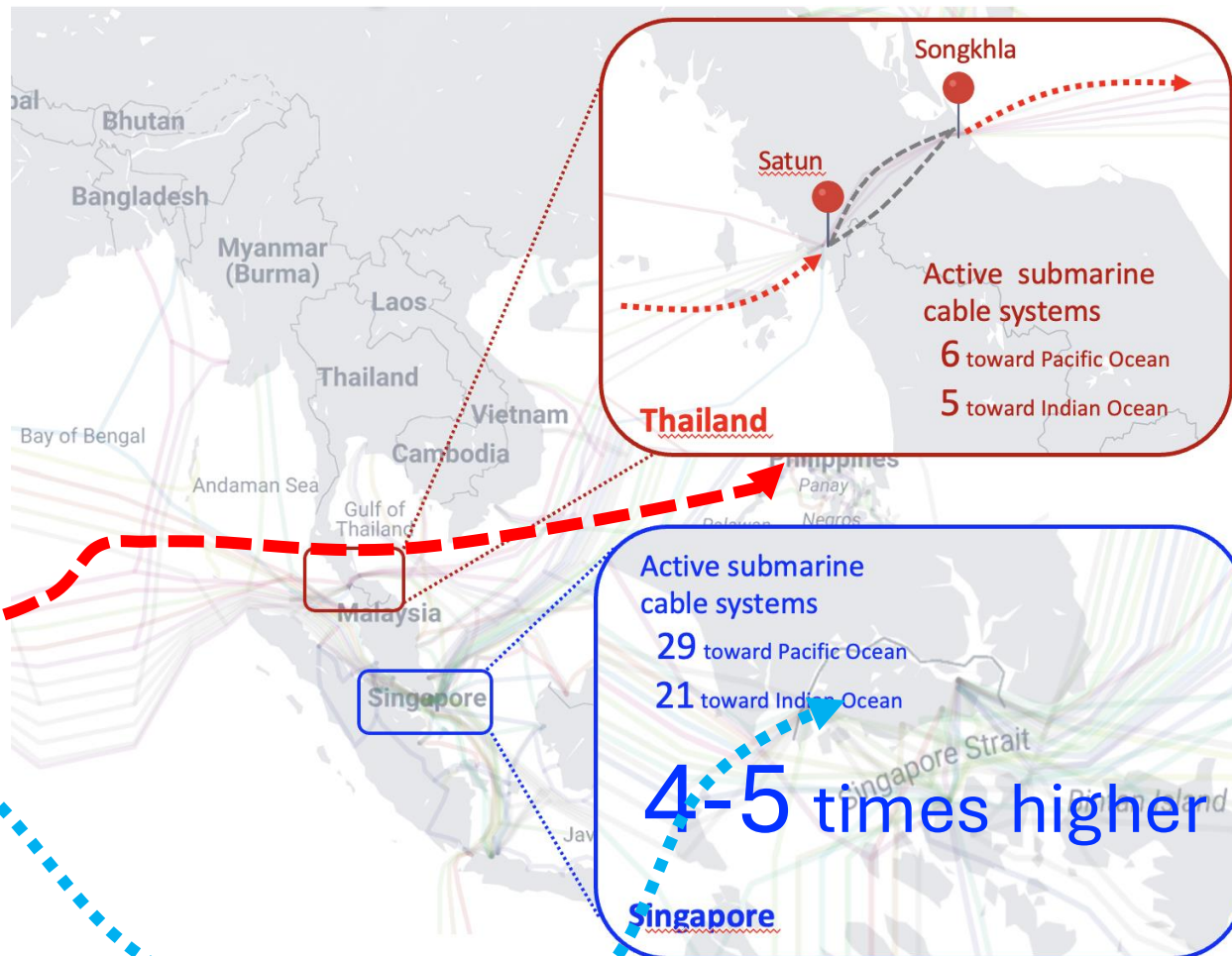
Geography + Neutrality = Architect, Not Corridor

Thailand's Future ASEAN Digital Hub

ประเทศไทย

Paracel Islands

ทะเลจีนใต้



Our Challenges Ahead



Regulatory consideration
to facilitate new projects



Physical security to
avoid cable damage



Cable maintenance
in territorial water



BETTER ∞ **TOGETHER**

Telecom's been visible - towers, fiber routes, switching centers are what we've managed and controlled.

Power's moved underwater - 99% of global data now flows through an invisible highway we didn't build.

Control determines destiny - whoever manages these submarine cable routes shapes the future of connectivity.

Thailand's choice is now - we have the geography; what we do next decides if we're a corridor or the architect.

true