

# **The Equiano Subsea Cable:** Extending International Connectivity between Portugal and Africa

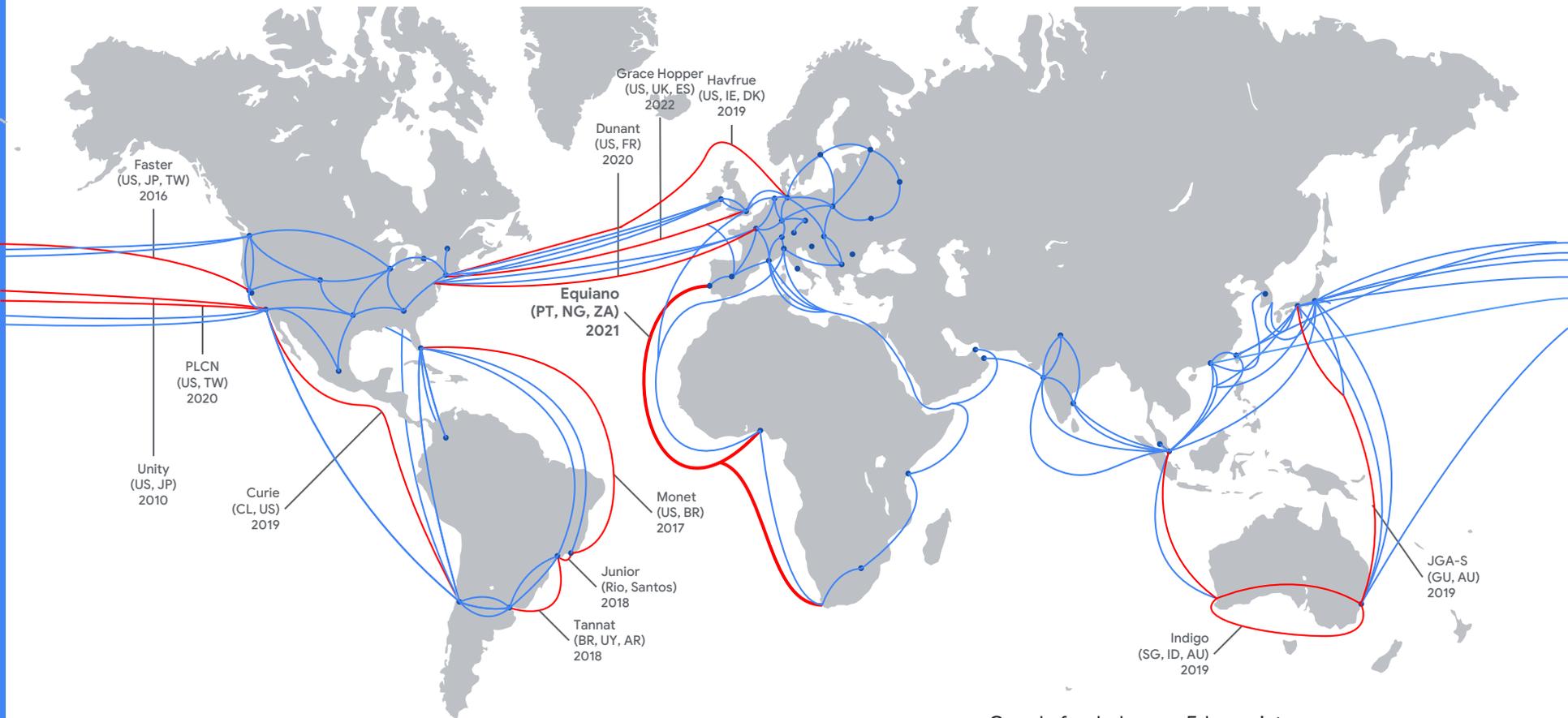
Conference on International Connectivity and the EU-Atlantic Data Gateway Platform

27 May 2021

# Agenda

- Overview: Google's global network infrastructure
- Equiano: investment and innovation
- Forecast: the economic impact of new subsea cables
- Q&A

# Google's Cloud global network spans 22 regions, 67 zones, and 140 PoPs



Google's network infrastructure

— Google funded cables

• Edge point of presence

— Network



Google

# Equiano provides 150 Tb/s add'l capacity between Europe and Africa

## Why:

- A steady **increase in internet traffic** between Europe and Africa requires additional capacity routes between the continents.
- Equiano improves the **resiliency** of Google's content and services between Europe and Africa.

## Where:

- Cable system will extend from **Portugal to South Africa**, with branches along the route connectivity to additional countries in Africa.

## When:

- The planned Ready For Service date for the initial configuration of Equiano is **2022 H2**.
- Additional branches will be constructed in future phases of the project.

## How:

- The Equiano cable is state-of-the-art infrastructure based on space-division multiplexing (SDM) technology.
- Incorporates optical switching at the fiber-pair level, rather than the traditional approach of wavelength-level switching.



# Copenhagen Economics Report: The Economic Impact of the Forthcoming Equiano Subsea Cable in Portugal

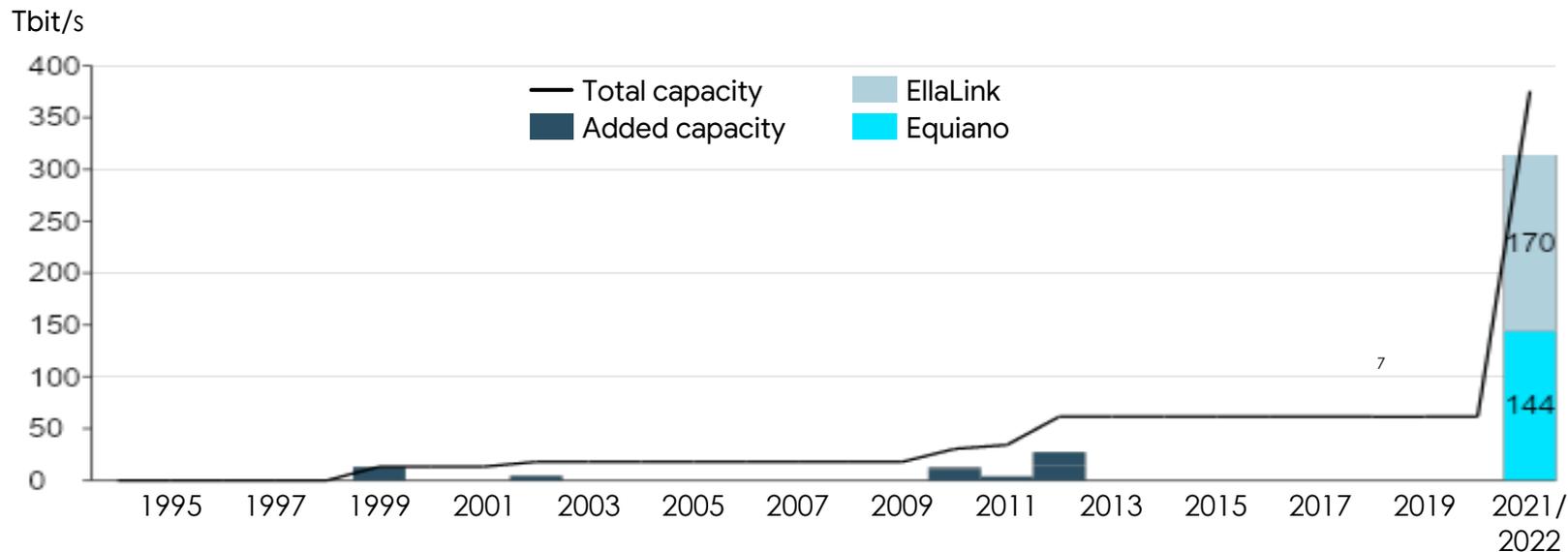
## Key Takeaways



*\*Google commissioned consultancy firm Copenhagen Economics in spring 2021 to conduct research on the economic impact of the Equiano subsea cable. While economic impacts from the cable are to be expected for all countries connected to the cable, this study focuses on the impact on the Portuguese economy.*

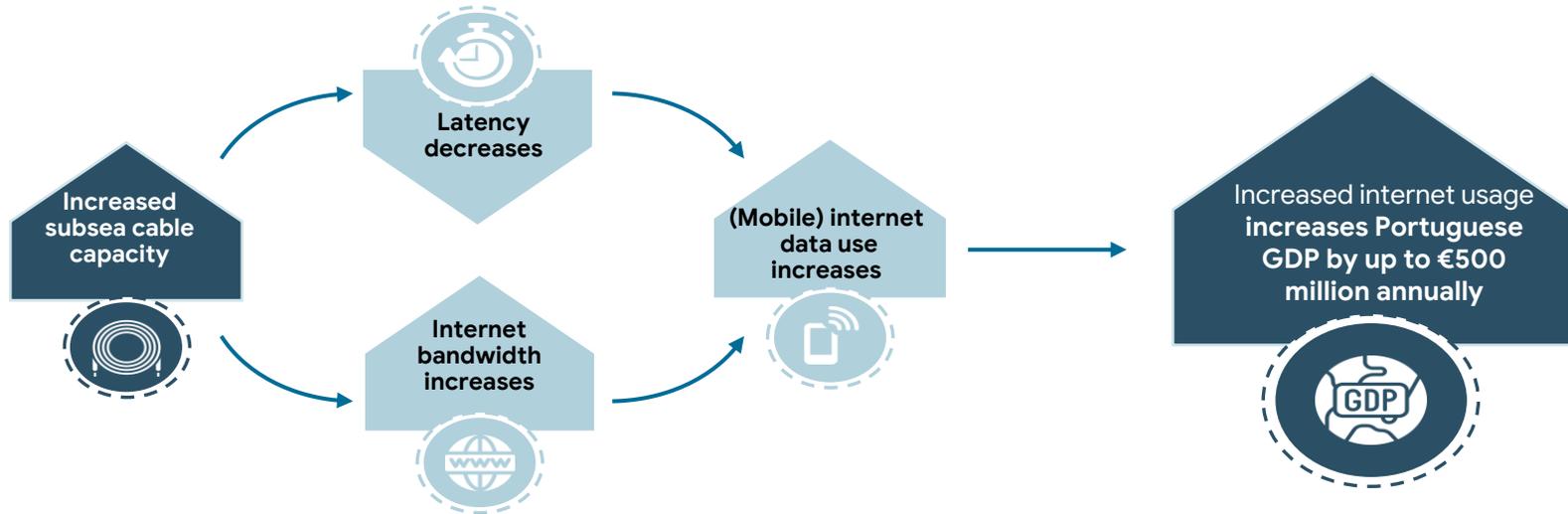
# New cables landing in Portugal (2021/2022) will result in a surge of subsea internet capacity

Total subsea internet capacity in Portugal and introduction of new capacity, 1994-2022



Note: \*Columbus II only lands on the Azores, not on Portugal mainland. Furthermore, Columbus II was planned to be taken out of service in 2019. Therefore, we do not include it in our estimation.  
Source: Copenhagen Economics based on Forum Analytics (2021): Submarine Cable Almanac, issue 37

# The forthcoming subsea cable connectivity can increase Portuguese GDP by up to €500 million per year



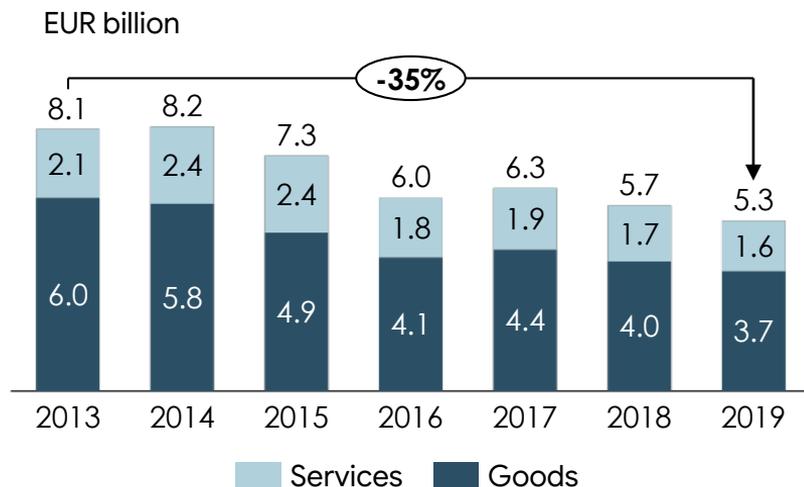
## The €500 million GDP increase in Portugal is:

- The *potential impact per year in Portugal* associated with improved digital infrastructure from the forthcoming subsea cables landing in Portugal in 2021/2022: EllaLink and Equiano.
- A **long-term and recurrent annual impact**, sustained as long as the infrastructure is in use.
- An **enabler for economic actors to reap the benefits** of the enhanced and more efficient connectivity. In doing so, economic actors can develop new business, make more efficient investments, and improve the terms of business and trade – all of which drive *productivity, economic opportunity, and growth*.

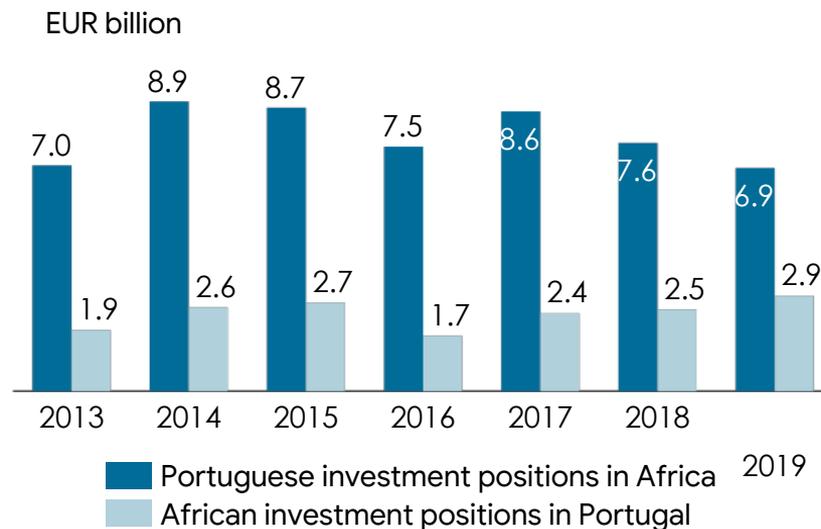


# Equiano brings new trade and growth opportunities for Portugal, against a backdrop of declining Portuguese exports and investments in Africa

Portuguese exports to African countries, 2013-2019



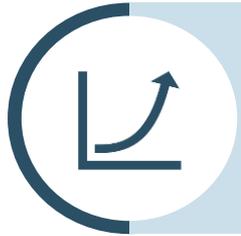
Portuguese - African countries mutual FDI positions, 2013-2019



# Benefits are only achieved with the right framework conditions in place



Subsea cables only deliver their fullest economic benefit to companies when framework conditions are conducive to trade and international value chains in industries subject to digital transformation.



A key factor to enable an efficient growth in *digital trade* is the exchange and free flow of data as required to underpin different companies' choices on how to organise the development and provision of their products and services.



Efficient, free flow of data is a key underpinning of the enhancement of digital trade between nations. Connectivity infrastructures, such as subsea cables, can only deliver their fullest economic benefit to companies when framework conditions are conducive to trade across digital.

Thank you / Obrigada!  
Questions?

\*To access the full report from Copenhagen Economics, visit  
<https://www.copenhageneconomics.com/publications/>

