

6 GHz BAND

BENEFITS OF UNLICENSED REGIMES AND INTERNATIONAL BACKGROUND



 **DSA**
DYNAMIC • SPECTRUM ALLIANCE



MARTHA SUAREZ

DYNAMIC SPECTRUM ALLIANCE
PRESIDENT

TWITTER: @MarthaLSuarez

Martha.Suarez@dynamicsspectrumalliance.org



DYNAMIC SPECTRUM ALLIANCE

The [Dynamic Spectrum Alliance](http://www.dynamicspectrumalliance.org) (DSA) is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all.



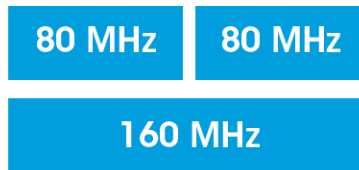
Wi-Fi 6: 6th generation of Wi-Fi (IEEE 802.11ax)



MORE,
CONTIGUOUS
SPECTRUM



GIGABIT
SPEEDS



WIDER
CHANNELS



EXTREMELY
LOW LATENCY



LESS
INTERFERENCE



HIGH
CAPACITY



Wi-Fi 6E: extends Wi-Fi 6 to the 6 GHz band



VERY LOW POWER (VLP)

- 160 MHz, 2 Gbps in phones
- Greenfield spectrum



LOW POWER INDOOR (LPI)

- Unmatched network capacity
- Sub ms latency



STANDARD POWER (SP)



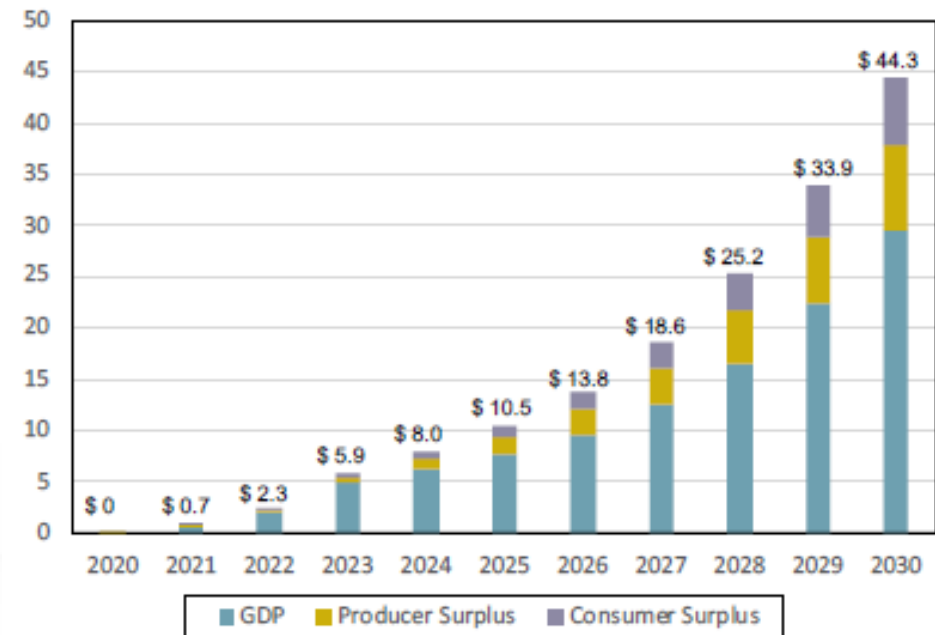
ASSESSING THE ECONOMIC VALUE OF UNLICENSED USE IN THE 6 GHz BAND

Studies about [Brazil](#), [Mexico](#), [Colombia](#) and [Peru](#) have been published. conducted by Telecom Advisory Services LLC.

In the case of Brazil, the cumulative economic value between 2020 and 2030 associated with allocating the 1200 MHz in the 6 GHz band amounts to US\$ 112.14 billion in GDP contribution, US\$ 30.03 billion in producer surplus to Brazilian enterprises, and US\$ 21.19 billion in consumer surplus to the Brazilian population.

To wait until 2024, would lead to the loss of this economic contribution and would have an opportunity cost of US\$ 16.94 billion.

Annual Economic Value

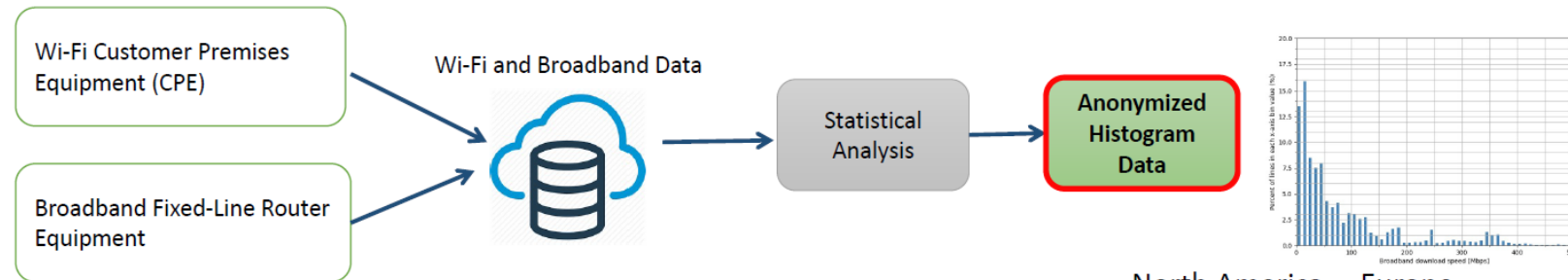


UNLICENSED ACCESS TO THE 6 GHz BAND

ASSIA Data Collection and Aggregation

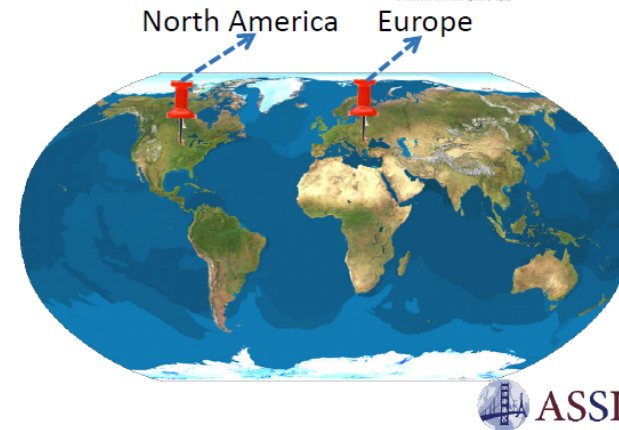
ASSIA Data Collection

- Performance metrics
- Diagnostic parameters
- Network status & test



- Millions of lines in North America and Europe
 - ~40 Global ISP's (most have >1M links)
 - ISP operational-expense reduction is main use

ISPs invest in Wi-Fi because their customers' QoE is significantly impacted. Consumers fault the ISP for poor Wi-Fi!

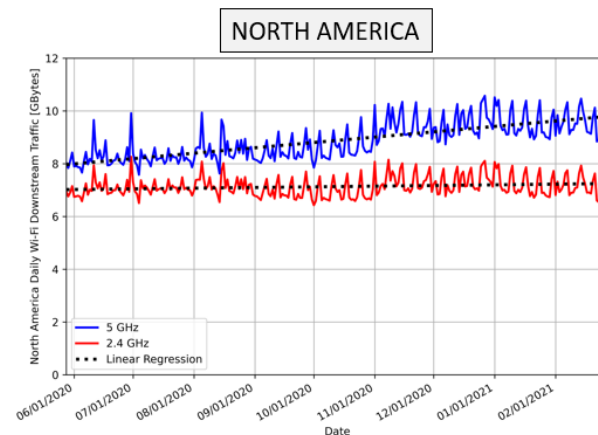


UNLICENSED ACCESS TO THE 6 GHz BAND

- 1200 MHz to attend growing demand for wireless capacity (seven 160 MHz channels).
- Long term vision, planning for Wi-Fi 7 (320 MHz bandwidth channels) and future spectrum requirements.

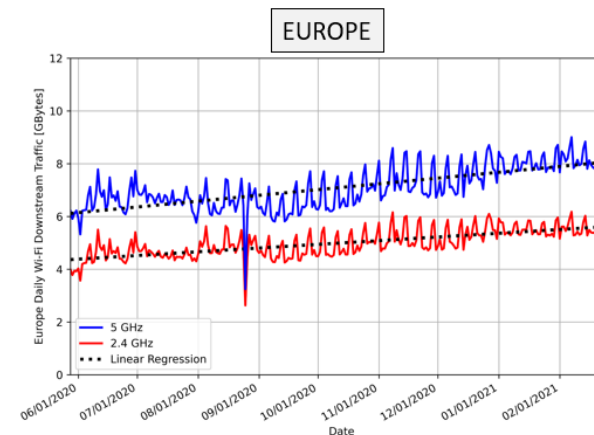
Wi-Fi Traffic

- Wi-Fi traffic **doubles every 3 years**.



2.4 GHz | 5 GHz
4 | 30 %

**Wi-Fi traffic is growing
in both 5 GHz and 2.4 GHz**



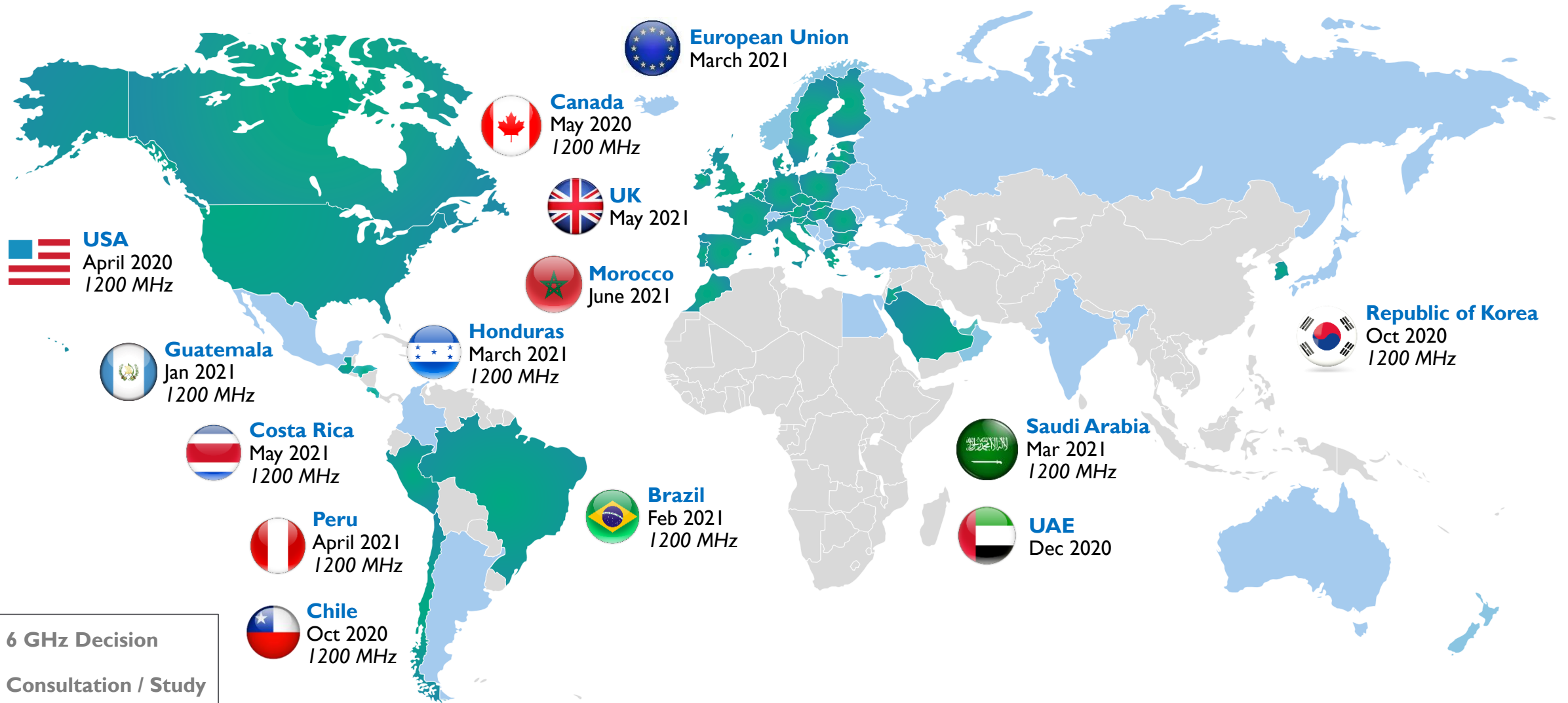
2.4 GHz | 5 GHz
42 | 42 %



More information at <http://dynamicspectrumalliance.org/resources/>



POWERFUL 6 GHz GLOBAL MOMENTUM



40 Countries
As of 26 May 2021

1.3B Citizens

16% World Population

UNLICENSED ACCESS TO THE 6 GHz BAND

1. 1200 MHz to attend growing demand for wireless capacity.
2. Long term vision, planning for Wi-Fi 7 and future spectrum requirements.
3. Meeting increased demand for Internet access considering the COVID-19 situation.
4. Economic benefits even if there are no licensing fees.
5. Global momentum to make the entire 6 GHz band available for unlicensed use.
6. Chipsets and equipment already available (>30 certified devices, 1200 MHz band).



UNLICENSED ACCESS TO THE 6 GHz BAND

7. Efficient use of the spectrum: Incumbent services can continue to thrive in the band and coexist with WAS/RLAN license exempt devices (such as Wi-Fi 6E).
8. The more unlicensed / licensed-exempt channels at a location spreads the RLAN's (and other devices) energy across more frequencies.
9. Enabling wireless innovation and new use cases for people and companies (ex. AR/VR, further automation, manufacturing, etc.).
10. RLANs can work with any backhaul – mobile network, cable, fiber, fixed wireless access, satellite, having all 1200 MHz available will support competition across platforms and providers.
11. Allowing different stakeholders to deploy gigabit class networks.
12. Immediately realizable benefits.



IT IS TIME FOR CARIBBEAN ADMINISTRATIONS TO CONSIDER UNLICENSED ACCESS TO THE 5925-7125 MHz FREQUENCY BAND



Q&A

A NEW SPECTRUM MINDSET





2021

GLOBAL SUMMIT

DSA

DYNAMIC • SPECTRUM ALLIANCE

[DSA Global Summit 2021](#)

[DSA Workshop about the 6 GHz band](#) – European Spectrum Conference