

Dynamic Spectrum Alliance



GSR-Bahrain
June 2, 2014

About the Alliance

- The Dynamic Spectrum Alliance is a global organization advocating for laws and regulations that will lead to more efficient and effective spectrum utilization.
- Our members are working to create innovative solutions that will increase the amount of available spectrum to the benefit of consumers and businesses alike.
- <http://www.dynamicspectrumalliance.org>

- Close the Digital Divide
 - Support technical, regulatory, and business model innovations that make wireless broadband access more affordable for people around the world
- Enabling the Internet of Things
 - Support spectrum policies that can enable the burgeoning Internet of Things
 - Increasing efficiency and improving quality of life
- Alleviating the “Spectrum Crunch”
 - Support changing regulatory policies that create artificial spectrum scarcity
 - Replace them with policies that will increase available bandwidth, reduce costs, and increase consumer choice

Current Members



ADAPTRUM

Aviacomm



CTVR / the telecommunications research centre



Google



INTERDIGITAL



MEDIATEK



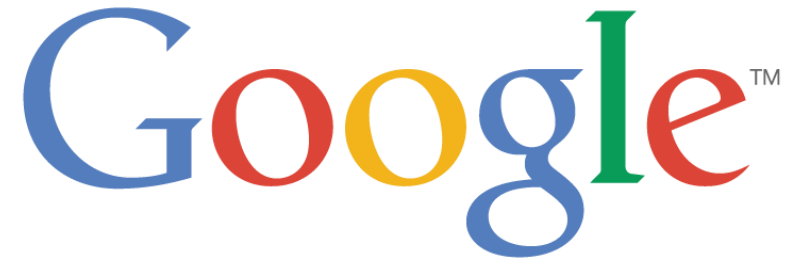
THE UNIVERSITY of York

Summit sponsors and hosts

Co-Host

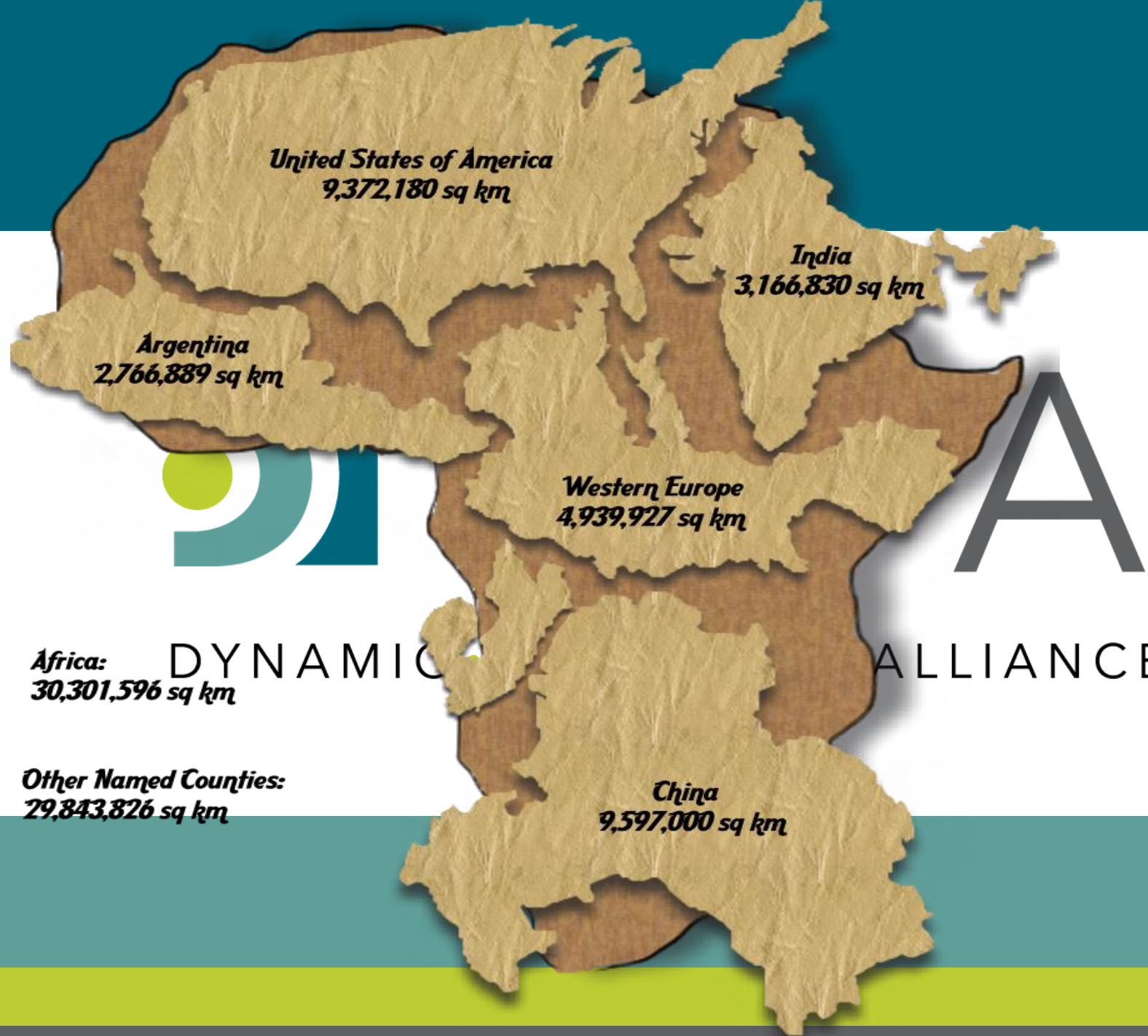


Sponsors



WiFi provided by





- TVWS Technology moving from prototypes to commercial stage
 - Evidence: Adaptrum & 6Harmonics on 2nd generation equipment
 - Aviacom radio is an ASIC
- Standards: WiFi (802.11af) is embracing TVWS
 - Evidence: MediaTek a Tier 1 World Leader has embraced 802.11af with end of year target

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Aviocomm TVWS Projects


NICT – TVWS Field Trials in Japan and Ofcom have plans to use
Aviocomm RFIC




- Qualified Aviocomm's ARF3010 TVWS transceiver
- Systems and Baseband supplied by leading companies

Japan(other) – TVWS projects using Aviocomm RFIC Transceiver

- a new TVWS application have been defined

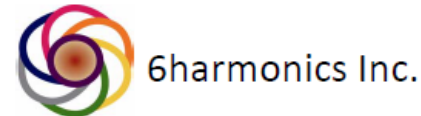
Microsoft – TVWS Field Trial with Ofcom in the UK uses Aviocomm RFIC
Transceiver  **Microsoft**

- System & Baseband supplied by 6Harmonics & MediaTek

Google – TVWS Field Trial with Ofcom in UK uses Aviocomm RFIC
Transceiver 

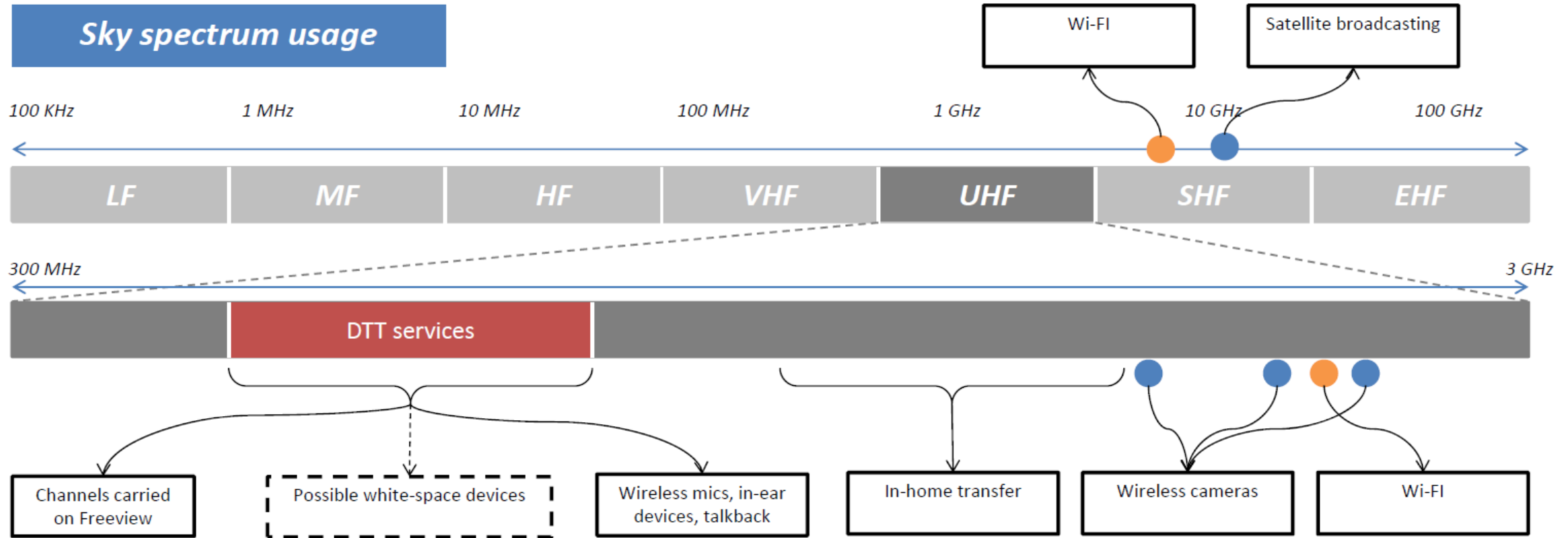
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Usage: Sky is a heavy spectrum user across a range of activities & frequencies

We use spectrum to create our content, deliver our services and connect our customers



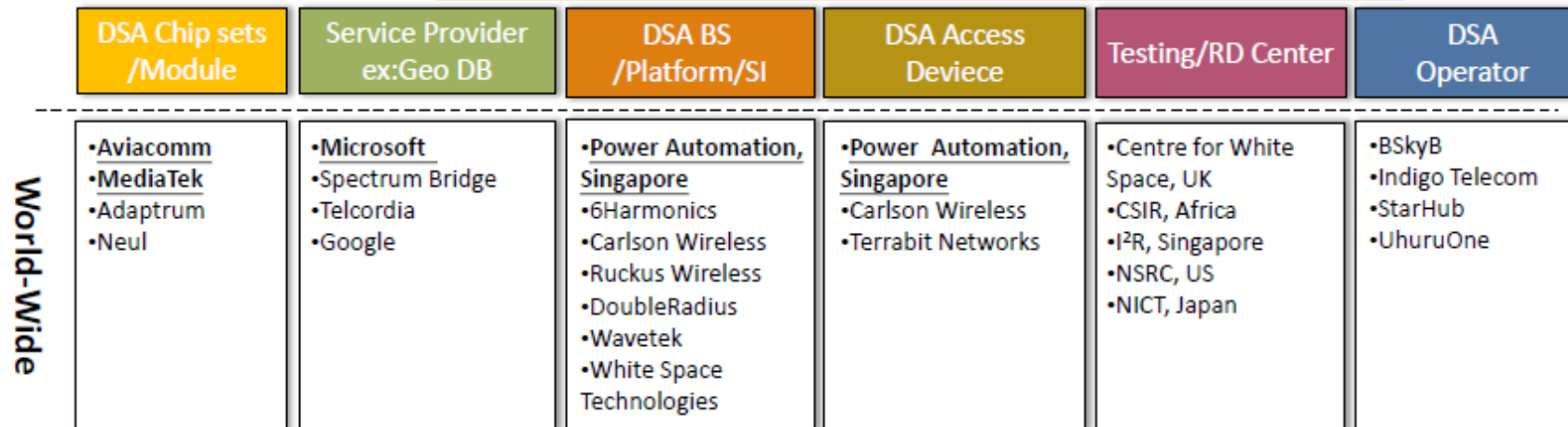
*Sky content is also delivered by third parties across their own distribution networks which may use spectrum (e.g. use of Sky Go via LTE on mobile)

From Policy/Regulations to Commercialisation of all Radio Technologies

- Regulations and policy have to be clear
- Standards need to be agreed upon – e.g. how to devices “talk” to databases; or WiFi extension
- Chipsets, base-stations and devices, etc. will need to be developed
- Radios developed in volume
- Then value chain must be populated by competing players
- Viable business models need to be developed
- Happy shareholders are sustained

DSA Value-Chain and Technology Requirements

- Regulators around the world are currently setting rules and requirements that will allow for mass-market access to white spaces.
- DSA is also a powerful next generation mobile communications technology.



- Assist Ofcom to complete the enabling TVWS regulations
- Showcase wireless and sensor technology expertise in Scotland



Image: CENSIS (Innovation Centre for Sensor and Imaging Systems)



Spirit of Marconi Ise Of Wight Lifeboat



What Regulators to do to get there

1. Attend DSA events
2. Learn more about Dynamic Spectrum Access – join or follow DSA
3. Regulatory: ITU WRC 2012 concluded that the current international regulatory framework can accommodate dynamic spectrum access without any changes – so in the hands of national regulators
 - Awareness
 - Proactivity on accessibility and affordability issues
 - Understand & weigh the arguments
 - Legislation and/or regulations in the hands of regulators
- Cf. Ethernet and WiFi took 10 years from policy to commercialisation

- **In the 2020s, Dynamic Spectrum Access should start being the norm, rather than the exception as is today**
- **Africa and Emerging Economies need Dynamic Spectrum Access .. And they can *confidently* lead a la M-Pesa, rather than just follow**
- **It is good for the Regulator/Government; for Network Economics, for Competition/Industry; for Entrepreneurs**
- **And even better, it can happen, it must happen – via collaboration**
- **And why DSA? An African Proverb tells us why: “If you want to go fast, go alone. If you want to go far, go together”**