

A People Centered, Future Focused Sensor & Broadband Mapping Campaign.

(Empowering Consumers to be their own data gathering mapping agents is our goal.)

Built by The People for The People.

(People in rural/Ag America have the most skin in the game when it comes to broadband access. They have been organizing local crowdsourced data gathering campaigns for many years in hopes of effecting change. They understand what is at stake and will give you the honest, granularly detailed data for the maps needed to build today's and tomorrow's broadband access infrastructure.)

Focused on the future where the new entrant, sensors (Precision Ag/IoT device deployment) will be the drivers of Broadband demand for tomorrow's Broadband Networks.

(Sensors are already the drivers of demand in the emerging "smart" 5G urban and suburban metropolitan areas where over half a trillion in private equity has already been invested.)

A campaign deploying standards, data transparency and interoperability.

(Current mapping initiatives such as NTIA's which focuses on a few states uses proprietary software with the data available only to certain state officials in that particular State, so the availability and use is locked into each state! Other mapping initiatives such as USDA FSA maps are analog and manually collected and processed while the FCC's census-based maps continue to be the focus of concern regarding their accuracy.)

A campaign led by current and hopeful customers of broadband armed with data gathered using agreed upon standardized methods and devices (for wireless/spectrum data/sensors) and testing sites (e.g., Mlab) for fixed wire or fixed wireless.

(Begin with pilot programs at the county level with a square mile or smaller focus for illustrating data to test out all components to ensure a "turn-key" operating kit is ready for deployment.)

Transparency of all data collected so that "challenges" (if any) will be relegated to the providers not the customers!

Transparency so everyone, FCC, NTIA, State Agencies, etc., can see and have access to all the data (it won't be behind a proprietary wall) so our data and methodology will always be subject to independent critiques important to insuring real-time improvements.

Anchored on an open source platform so that users can continue to improve the software ensuring tomorrows mapping methodology is better than today's.

Why are we advocating for such a simple solution to such a simple exercise?

- 1. We believe the people in rural/Ag America are engaged, enraged and knowledgeable.***

How do we know this? Because over and over again in House and Senate Committee testimony Members of Both Parties have brought their Mapping Horror Stories forward and these stories have been validated with witness testimony, expert commentary and public statements.

What has moved these elected officials of both parties to action? Their personal experiences struggling with limited or no broadband access. See, for example, Senate hearing remarks on May 13, 2020 by Senator Marsha Blackburn (R-Tenn.) and a May 20, 2020 interview by The Hill of Rep. Suzan DelBene (D-WA). Their constituents

know how critically important broadband access is to them personally and to their communities and know they are not getting service or getting the promised service no-matter what the “Map’s” say! Even Reps. Clyburn (D-SC) and McCarthy (R-CA) agree that in the time of Covid rural and urban citizens need more and better broadband to engage in re-opening the economy, accessing telemedicine, distance learning and remote working. Time to invest in smarter mapping is now – before a second wave of Covid and before the next crisis. It is a way to foster infrastructure investment which means new jobs and economic growth.

- 2. We know that advancements in technology makes it easier for consumers to be their own monitoring agent! Empowering the consumers in rural and Ag America is our goal.**
- 3. We believe a National Database comprised of transparent data captured using the same methodology and devices (standards) will not only benefit each rural/Ag citizen but provide a National validated Map that captures both the present and Future (sensors) of Broadband Delivery!**
- 4. The future looks very promising! Billions of deployed Sensors, the technology anchor of Precision Ag, can foster profitable broadband businesses in rural/Ag America where none has existed to this day! This will attract new broadband providers, and with competition comes better service and better prices!**
- 5. This time, as we introduce new customers and new sensor data streams to the e-commerce platform that is the modern Internet and World Wide Web we can put in place educational programs to get the privacy issues and data ownership right at the outset!**

What’s in it for the Rural/Ag community, for All of US and Mother Earth!

- 1. At long last and with thanks to People sourced Maps and the documented demands of deployed sensors; robust, reliable, broadband built for the future (symmetrical speeds of at least 50/50) will be the norm, not the exception, for everyone in rural/Ag America!**
- 2. New revenue streams that will pump money into Rural/Ag America or Silicon Valley depending on what we do now!**
(Precision Ag sensors and the data they generate have the potential of providing significant revenue streams for participants in the Ag business community. The challenge will be to educate this community on their rights regarding the value of their data, so it does not seamlessly become part of the data stream used by companies who already harvest consumer’s personal data.)
- 3. Precision Ag will be good for the Ag community, good for consumers and good for Mother Earth.**
(Precise applications of pesticides, nitrates/fertilizer, water, seeds, etc., will ensure cleaner streams and waterways while also conserving valuable natural resources and put money back into the farmer’s pocket. Precision Ag will financially benefit no-farming Ag businesses with, for example, sensors providing early

detection of diseases in Livestock from monitoring their manure. From terrestrial Ag businesses to fish/shrimp etc., farming sensors will ensure benefits to all stakeholder parties.)

What will this People Centered Data Collection and Mapping Campaign Do?

- 1. Pinpoint those with no broadband service**
- 2. Pinpoint those who have less than useless broadband service**
- 3. Pinpoint where there is wireless broadband service both licensed and unlicensed and where there is no service**
- 4. Identify the early adapters of Precision Ag**
- 5. Inventory deployed sensors, what networks they are using to communicate (LoRaWAN, Wi-Fi, etc.), and the volume of data they generate that would need broadband “back haul” to get to the cloud or “market” for use.**
- 6. Determine what the current and future broadbands needs are of rural/Ag America**
(Early indications support a robust symmetrically (up and down) broadband infrastructure built to support significant sensor data traffic from the farm/field to the cloud. One that will also support telemedicine, telework and remote education. FCC’s current definition of broadband is 25/3 or an asymmetrical network that might not be able to handle the back-haul data traffic demands of sensors, remote education, work, healthcare etc.)

How will this Campaign work?

- **If the FCC has no objections or indeed welcomed a grassroots data gathering campaign along the lines we have put forth in this document, we would work with the USDA to support a People Centered crowd-sourced effort centered on volunteers drawn from its constituency and, where appropriate, utilize its significant physical and networking assets that reach across rural/Ag America as well as those of its interlocking affiliated and independents organizations.**
 - **USDA’s 2,400+ Farm Services Agency offices located all across rural America and Rural Development state offices and General Field Representatives**
 - **Agriculture organizations that interact daily with rural residents, including the American Farm Bureau, American Soybeans, Wheat Growers, etc., and their equipment suppliers**
 - **Land Grant colleges and Extension Service**
 - **Rural youth organizations including Future Farmers of America, 4H-Clubs**
 - **Ag Census questions**
 - **Related critical and essential infrastructure**

First things First & “The ASK”

We need funding for several Beta tests to ensure “turn key” delivery of all components of this campaign; methodology (including training kits/videos), devices, software, etc.