

Wingsure COFFEA aims to make every coffee farm more visible, measurable and verifiable

05 October 2026 | Interviews

Avi Basu, Founder & CEO of Wingsure says its technology can give growers and enterprises a common evidence base for production, sustainability, risk and financial decisions



AVI BASU
FOUNDER & CEO
WINGSURE.



Coffee's digital challenge is no longer simply a shortage of data. It is that valuable information remains scattered across farms, buyers, insurers, financiers and sustainability programmes, often collected repeatedly for different purposes. Wingsure COFFEA is seeking to address that gap by turning the smartphone into a field-level evidence tool and creating a continuously updated digital record of the farm. That proposition matters because a single verified observation could potentially inform several commercial decisions, rather than being collected afresh for every programme or institution. By combining computer vision, geospatial intelligence, multilingual voice and AI, Wingsure is also moving beyond the limits of remote monitoring, bringing together the broad view offered by satellites with the plant-level detail that can only be captured on the ground.

But technology alone will not determine whether the model succeeds. Its credibility will depend on the quality of the evidence, how rigorously it is validated, whether farmers understand and control how their information is used, and whether the resulting intelligence actually leads to better decisions. The real test, therefore, is not how sophisticated the technology stack looks, but whether businesses and farmers find it useful enough to adopt at scale. If Wingsure can make farm intelligence reusable, trusted and valuable across the agricultural value chain, COFFEA could help change the way coffee is sourced, financed, insured and traded. More importantly, it could shift the farm from being a periodically assessed point of origin to a continuously understood economic asset.

What specific decisions can growers, buyers, insurers and financiers make better or faster with Wingsure COFFEA?

The coffee industry already has tremendous expertise across growers, agronomists, cooperatives, buyers and sustainability teams. Wingsure COFFEA is designed to extend that expertise by making farm-level conditions more observable, measurable and verifiable — including questions that are difficult to answer consistently at scale today. For growers, that can mean understanding where crop stress or pest pressure is emerging, whether an intervention is actually working, when a plot may

need renovation, how maturity is progressing, or where limited resources should be deployed first. Guided capture, computer vision, geospatial intelligence, multilingual voice and AI effectively turn the smartphone into a field instrument, allowing Wingsure COFFEA to generate evidence and intelligence that would otherwise require repeated expert visits, manual assessment or may simply not be available.

For buyers and sourcing teams, that can mean better decisions on where production or supply risks are emerging, which farms or regions need intervention, how practices are changing, and whether sustainability requirements are actually being implemented.

For insurers, it can strengthen decisions around risk assessment, underwriting, where physical inspection is really needed, and whether damage or loss can be independently evidenced.

For financiers, a verified history of farm conditions, activities and production signals can provide new evidence for credit assessment, risk differentiation and deciding where agricultural finance can be deployed more confidently. The deeper value is that the same verified observation can support more than one decision. Evidence originating at the coffee tree or plot can become useful across sourcing, production, sustainability, risk, insurance and finance - and across thousands of farms can reveal patterns that are very difficult to see farm by farm.

For the grower, that means the farm record can become an asset rather than information repeatedly collected for separate purposes. Coffee is a crop with a long memory. Wingsure COFFEA gives that memory a digital counterpart - using deep technology to make visible, measurable and usable what has historically been difficult to see across the coffee landscape.

How does Wingsure COFFEA overcome fragmentation across sourcing, sustainability, production, finance and risk?

The fragmentation exists because the same farm is often assessed separately for different purposes—sustainability, sourcing, certification, production, risk or finance—with each assessment generating its own data, valid at a particular point in time. It is also fragmented because those questions are often answered through entirely different systems. An insurer may have its own field app for underwriting or claims. A buyer may use another platform for sourcing and traceability. Sustainability programs, agronomy teams, input providers and financial institutions may each use separate tools, while other information may still come through spreadsheets, field visits, manual surveys or sophisticated technologies such as satellite and remote sensing. Each system may be useful in its own right, but together they can create multiple disconnected views of the same farm.

Wingsure COFFEA approaches this differently. It empowers growers to capture evidence at the farm, verifies it at source, and builds a persistent farm record that can be updated over time. This becomes the foundation for a common intelligence layer that can support multiple use cases across the enterprise and the wider ecosystem.

The important difference is reuse. A field observation collected for one purpose can, subject to appropriate authorization, become relevant to another—for example, information about farming practices may support sustainability verification, sourcing decisions, production planning, risk assessment or financial services. This has a direct business benefit. For enterprises, it can reduce the cost and operational burden of repeated data collection, improve the timeliness and consistency of farm intelligence, and allow different teams to work from a common evidence base.

It also changes the role of the grower. Instead of repeatedly supplying similar information into separate systems, the farmer can build a verified record of the farm over time and, subject to appropriate controls, use that record across relationships with buyers, insurers, financiers and other service providers. That record can become an asset for the grower. Wingsure COFFEA does not require enterprises to replace their existing systems. Its intelligence and underlying evidence can be made available through APIs and data formats adapted to enterprise requirements, allowing it to complement existing sustainability, sourcing, traceability, risk and financial systems.

The result is a shift from multiple disconnected snapshots of the same farm toward a continuously updated, evidence-grounded farm intelligence layer. For the enterprise, that means one underlying view of farm reality across multiple functions. For the grower, it means answering once, building a record over time, and turning that record into an asset.

What critical on-ground signals are missed by conventional digital agriculture and remote sensing?

Remote sensing is extremely valuable for understanding what is happening across large areas, but there are many important things it cannot see clearly from above - especially on smallholder farms. These include what is happening at the level of an individual plant, the condition of leaves or fruits, specific farming practices, and what a farmer or field worker actually did in response to a problem.

In coffee, for example, guided smartphone capture can help observe cherry-bearing branches and identify signals such as cherry count, size, shape and colour details that are very difficult to understand accurately from satellite imagery alone. Wingsure COFFEA brings these sources together rather than treating them as alternatives. Satellite and geospatial data provide the wider picture, while on-ground evidence provides the close-up detail and context. That combination gives a much fuller understanding of the farm - not only what can be seen from the sky, but what is happening at plant level, what actions were taken, and how conditions are changing over time.

Which part of Wingsure COFFEA's technology stack has the biggest impact on data quality, and how is accuracy validated?

The biggest impact on data quality comes from controlling the quality of the evidence before AI interprets it. Wingsure COFFEA is designed so that the system does not simply accept any image or observation. The capture process can guide the user on what evidence is needed, how it should be collected and what context must accompany it. That reduces ambiguity at the source. From there, accuracy is validated according to the specific application. A yield-related model, for example, should be compared against actual field measurements, while a farming-practice or damage-assessment application may require expert review, independent field checks or other trusted reference data.

We therefore do not think of accuracy as one universal number. The relevant question is whether the output is accurate, consistent and traceable enough for the decision it is intended to support. Validation is also continuous. Exceptions and corrections can be recorded and audited, performance can be monitored across different geographies and field conditions, and that feedback can be used to improve the models over time. The principle is straightforward: AI is only as credible as the evidence beneath it. What matters is maintaining a traceable chain from the original observation to the intelligence used in the final decision.

How does Wingsure COFFEA ensure farmers benefit from the data they generate rather than simply becoming data providers ?

For Wingsure, this is fundamental. The farmer should not simply be the source of data for someone else's decision-making. The farmer must gain from the data they help create. That principle is built into Wingsure COFFEA. Observations and activities captured on the farm become part of a verified, persistent farm record that can grow in value over time. That record can help farmers demonstrate their practices and progress, reduce repeated data requests, and support access to services and opportunities such as advisory, incentives, insurance, credit and other products better suited to their needs.

But the larger distinction is one of trust. We do not believe the most scalable model is to continually extract data from farmers for separate programs. The platform has to be useful to the farmer at the source of the data. If farmers see value in participating, trust the system and are empowered by the record they are creating, they are far more likely to contribute information consistently and over time. That is important for the farmer, but it is also important for the enterprise. Better farmer participation creates richer, more continuous intelligence, which ultimately makes the platform more useful across sourcing, sustainability, production, risk and finance.

At a broader level, aggregated intelligence can also help organizations understand the needs of particular farmer communities and design more relevant products and programs for them. This is really part of Wingsure's reason for being. We want the farmer's data to become an asset for the farmer, not simply an input into someone else's system. And we believe that when farmers are empowered by the platform, rather than treated as passive data providers, both trust and scale follow.

How are data ownership, consent, privacy, access and control being handled ?

Our starting principle is that farmers should retain meaningful agency over information generated from their farms, with clarity around how it is used and shared. Rights relating to farm information, program data and derived intelligence are governed by the applicable agreements, permissions and intellectual-property framework. Wingsure COFFEA manages data access according to the purpose of each engagement, applicable permissions, program agreements and privacy requirements. Wingsure does not sell farmer data.

At the same time, appropriately governed data and derived intelligence can be used to improve services for farmers and participating organizations, while protecting individual farmer information and respecting contractual and intellectual-property rights. More broadly, we believe trust has to become part of the infrastructure of digital agriculture. Farmers need confidence that participating in a digital platform creates value for them, not simply for others. Our objective is to enable responsible, permissioned use of farm information while preserving farmer agency and allowing that information to create value across the agricultural ecosystem.

Which commercial use cases are expected to scale first—risk assessment, insurance, credit, sourcing, traceability or productivity ?

We see this scaling in stages, but the principle is the same across every use case: the farmer has to receive meaningful value, and the enterprise has to receive credible intelligence that improves a real decision. If either side is missing, it is difficult to scale sustainably. In coffee, we expect the earliest scale to come from sourcing, sustainability and traceability, where enterprises already have a strong need for reliable farm-level evidence on practices, production conditions and supply risk.

The next layer is productivity and production intelligence. Our yield capabilities are available for field deployment, and we are also evaluating in-season signals linked to coffee quality. This is where the value becomes very tangible for both sides - better decisions for growers and better visibility for enterprises. Risk and insurance then can very naturally build on the same evidence base, while credit and broader financial services are also significant opportunities as verified farm histories improve agricultural risk assessment. We also see strong potential in disaster response, supplier and grower engagement, and scaling agronomic or extension-type services across large farmer networks.

Government-led programs are another important opportunity. Agriculture is closely connected to public policy and farmer-support systems, and with the right guardrails around data, interoperability and farmer protection, technologies like Wingsure COFFEA can scale responsibly and reach farmers much more effectively.

The key differentiation is that these are not separate products built on separate datasets. One farm intelligence layer can start with a single high-value use case and expand over time across enterprise needs, farmer services and public programs.

Looking five years ahead, how could a continuously updated digital intelligence layer change how coffee is financed, insured, sourced and traded ?

Five years from now, we believe a continuously updated intelligence layer could help move the coffee industry from treating the farm as a periodically assessed unit to treating it as a continuously understood economic asset. A living intelligence layer could make the evolving condition, history and performance of a farm far more visible to the institutions that depend on it. That could enable more dynamic credit, more precise insurance, earlier risk detection, smarter sourcing and much more differentiated trading decisions based not only on where coffee comes from, but how it was produced, what risks it carries and what attributes can be verified.

Ultimately, farm intelligence could become an economic layer attached to the physical commodity—a trusted, continuously developing record that travels with the coffee and helps unlock new forms of value, capital and market access for growers. The bigger vision is a coffee ecosystem in which the farm is no longer an opaque point of origin, but a continuously understood and increasingly investable part of the value chain.

-- Suchetana Choudhury (suchetana.choudhuri@agrospectrumindia.com)