

# AgriStack

A DPI for farmers and the  
agriculture ecosystem

January 2024



# AgriStack attempts to enable farmers to access and use digital services, primarily for credit, advisories, inputs, and market linkage



Farmers make informed decisions on the **type of crop** to grow, the **variety of seeds to buy**, **sowing time**, and best practices to **maximize the yield**.



Players in the **agriculture supply chain** plan their production and logistics based on precise and timely information.



**Precision agriculture** becomes a reality with access to the right information at the right time.



Farmers know whether to sell or store their produce. They are also aware of the right time, place, and price to sell.



Farmers get the benefits of innovative solutions and personalized services driven by **emerging technologies** with the protection of their privacy.



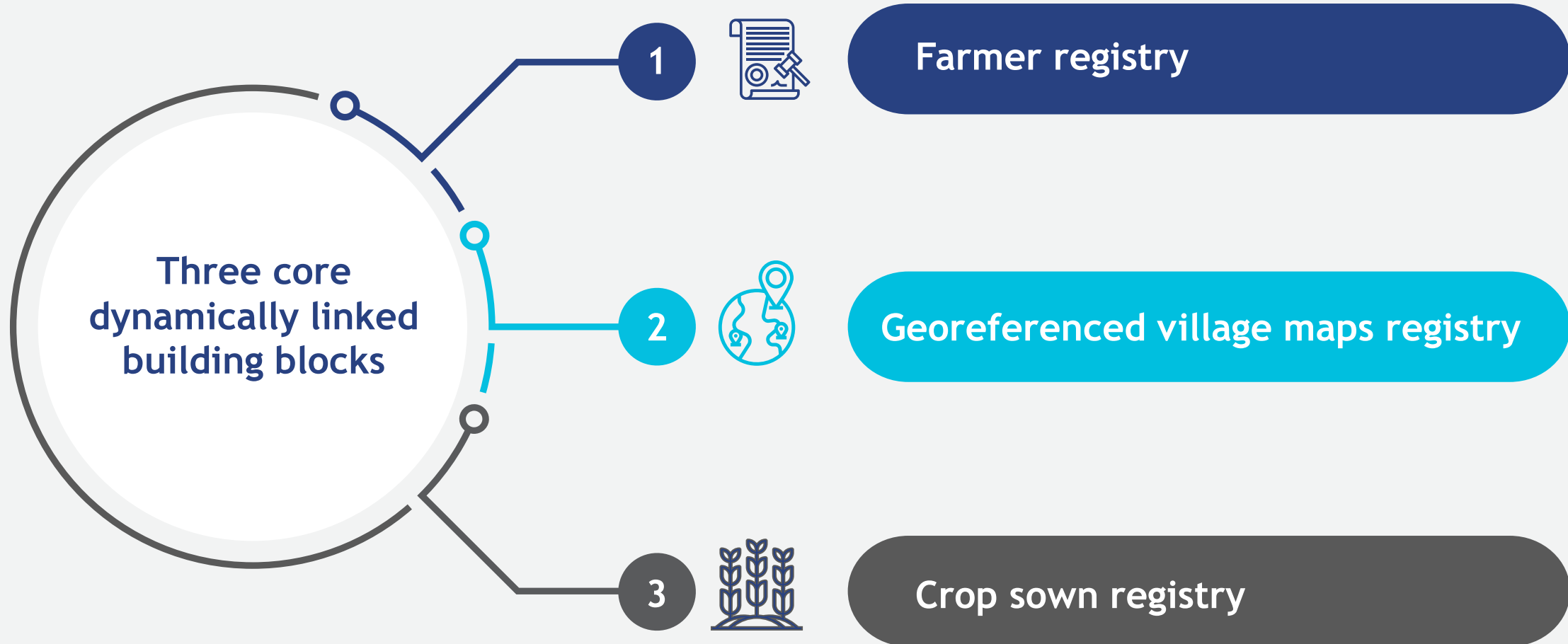
They receive access to **quality inputs** and **financial services**.

# AgriStack is being developed as a digital public infrastructure like Aadhaar



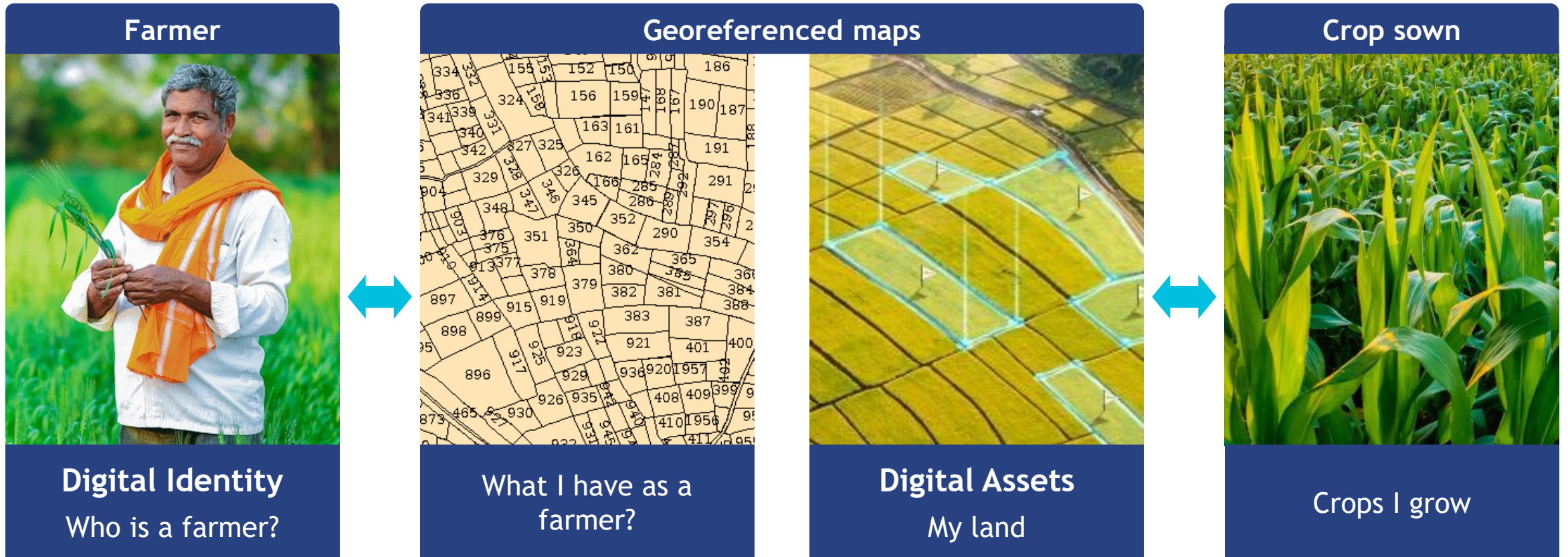
<b>Target</b>	Database of residents	Database of farmers
<b>Unique identifier</b>	Unique <i>Aadhaar</i> number for each resident	Unique farmer ID for each farmer
<b>Contains</b>	<ul style="list-style-type: none"> <li> Biometric information, such as fingerprints, iris scans, and facial photographs</li> <li> Demographic information, such as address, gender, date of birth</li> </ul>	<ul style="list-style-type: none"> <li> All agricultural land holdings of a farmer</li> <li> GPS coordinates for each of the farmer's landholding</li> <li> Crops grown on each plot</li> <li> Benefits the farmers avail</li> </ul>
<b>Data sharing standards</b>	<i>Aadhaar</i> APIs or services to share data with other parties	<ul style="list-style-type: none"> <li> Unified Farmer Service Interface (UFSI) (similar to UPI)</li> <li> API or service layer to provide data to others</li> </ul>
<b>Use</b>	Used by governments and other private service providers to ascertain residents' identities and provide various services	Used by governments and private service providers to ascertain farmers' identities and provide services across the agriculture lifecycle

# Three core registries exist as the foundational building block of the AgriStack: Farmer, land, and crop sown



Source: <https://agristack.gov.in/#/aboutUs>

# AgriStack will make the farmer data available to all stakeholders in real time—both government and private companies



## Digitally authenticable

Aadhaar and Farmer ID,  
State Farmer Registry, e-KYF

## Verifiable and non-repudiable

Electronic data and credentials,  
electronic signatures

Source: <https://x.com/rajeevchawlaias?s=11&t=KaSk9V6leAag56MAgoizIA>

# Supporting registries or master databases in AgriStack

## Core registries



Farmer registry



Geo-referenced village maps



Crop sown registry

## Supporting registries

Crop registry

Seed dealers

Seeds

Fertilizers

Fertilizer manufacturers

Fertilizer warehouses

Fertilizer wholesaler

Fertilizer retailers

Fertilizer importers

Pesticides

Pesticide manufacturers

Pesticide wholesalers

Pesticide dealers

Pesticide-testing laboratories

Pesticides importers

Central insecticide laboratories

Insecticide-testing laboratories

Krishi Vigyan Kendras (KVKs)

Non-Banking Financial Companies (NBFCs)

Banks

Common Service Centers (CSCs)

Farmer producer organizations (FPOs)

Farmer producer companies (FPCs)

Service providers (for inputs)

Enabling data standardization



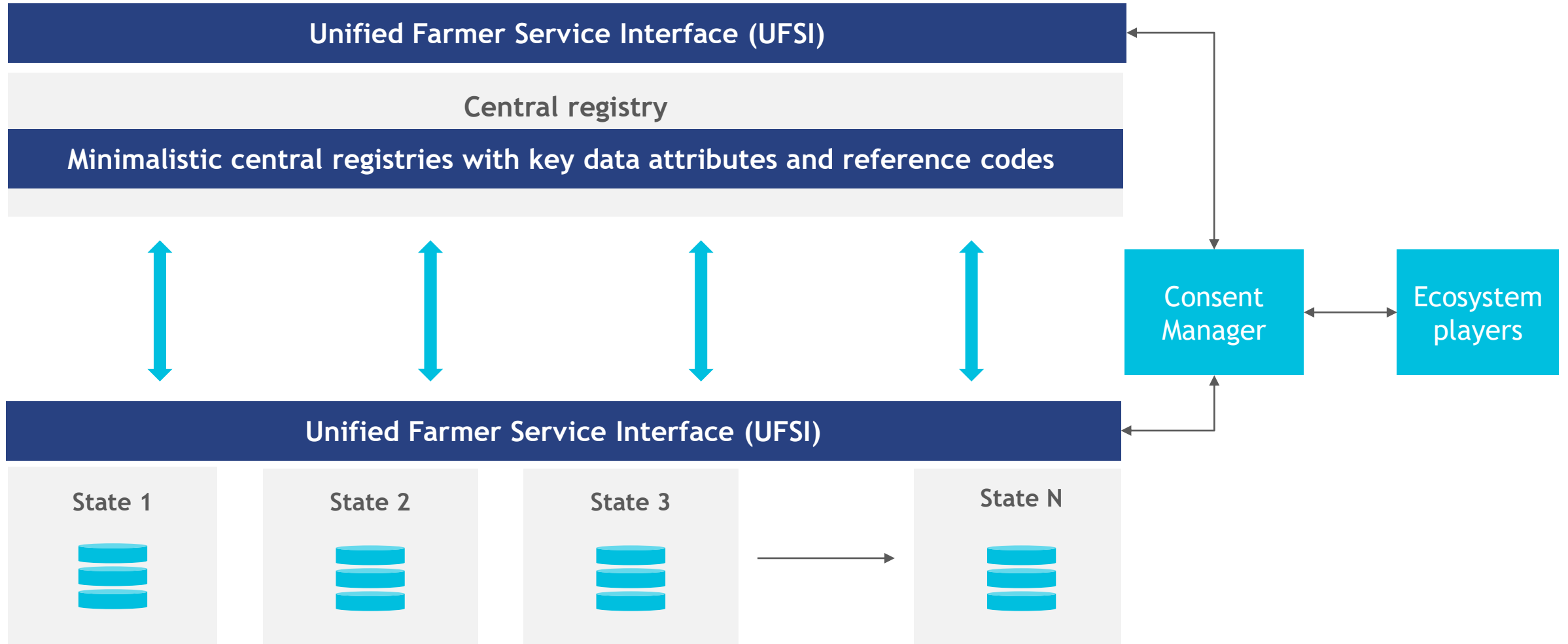
Catalyzing interoperability



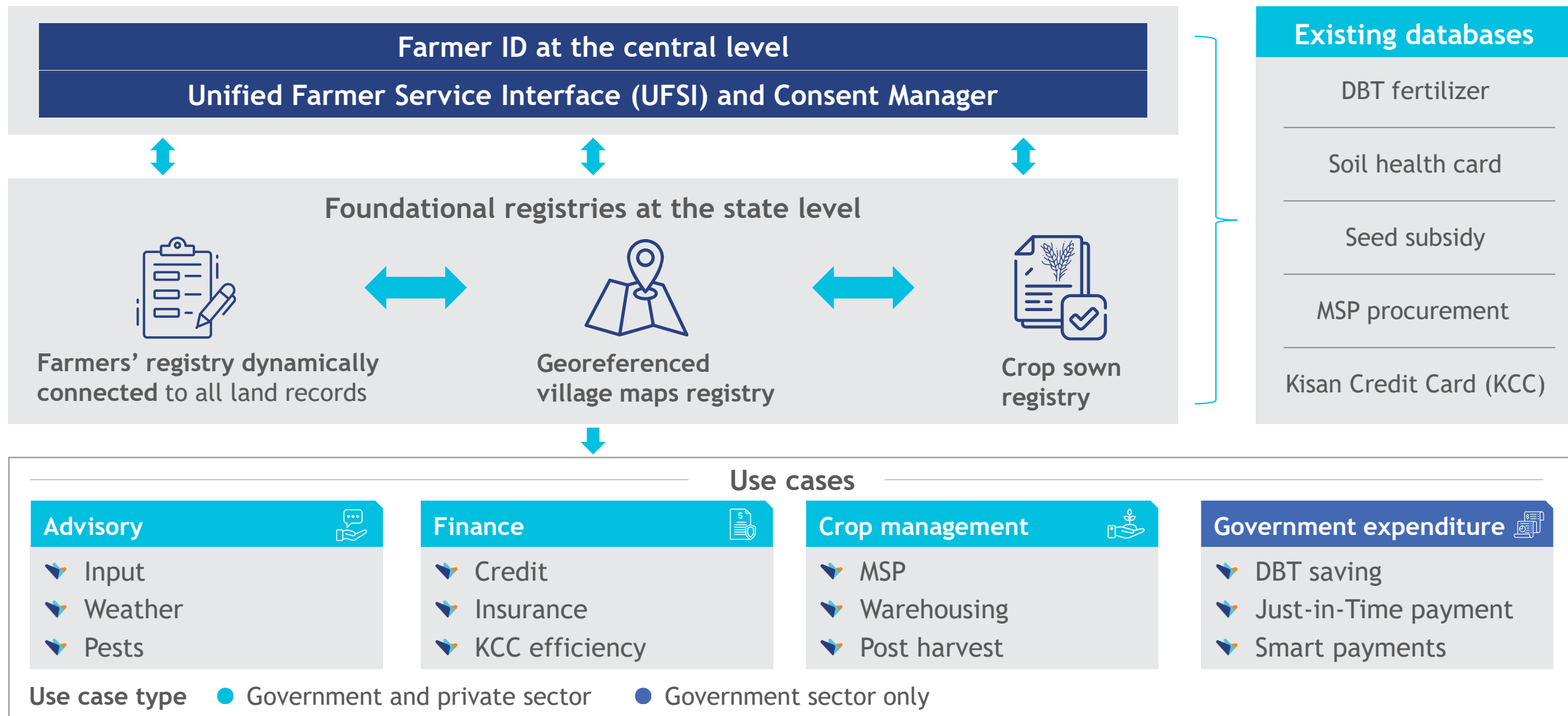
Accelerating ecosystems



# AgriStack is being built with the use of a federated architecture, given India's federal structure



# AgriStack will enable digital solutions across the agricultural value chain in conjunction with existing databases once it is created





# State digital farmer services platform



# The integrated digital farmer services (DFS) platform's goal is to enhance the livelihoods, incomes, economic empowerment, climate resilience, and gender equality for small scale producers (SSPs) and create system-level impact across Bihar

## Expected outcomes and impact



**Access and usage:** SSPs in Bihar will have holistic and demand-driven access to a range of use cases, which they will use. The use cases are related to agronomy, livestock, markets, finance, government schemes, and climate resilience.



**Incomes:** Reduced costs, enhanced productivity and value realization, and increased incomes for SSPs



**Women's economic empowerment:** Gender-intentional interventions to achieve women empowerment across production, resources, incomes, time, and leadership domains



**Resilience:** Reduced adverse impact of climate change and enhanced resilience of SSPs through mitigation and adaptation interventions

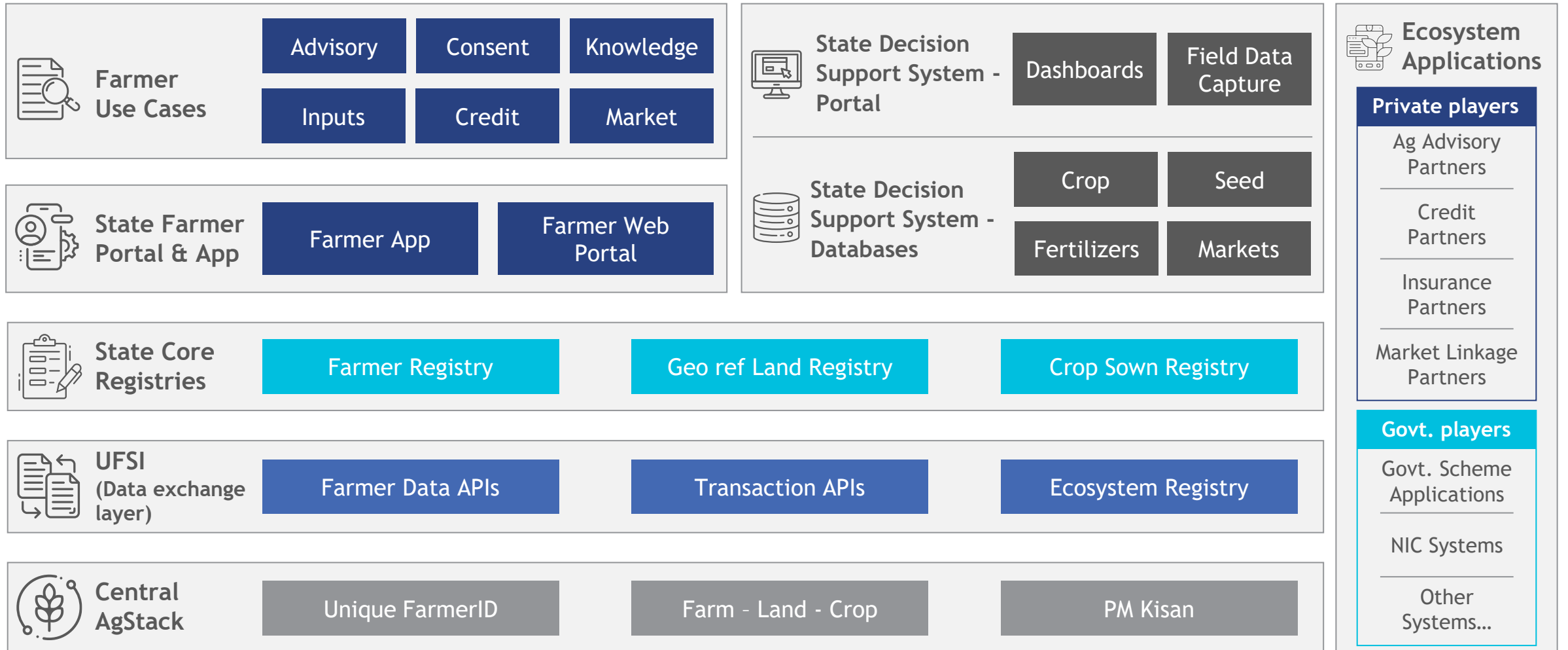


**Sustainability:** SSPs will regularly use and benefit from the platform services

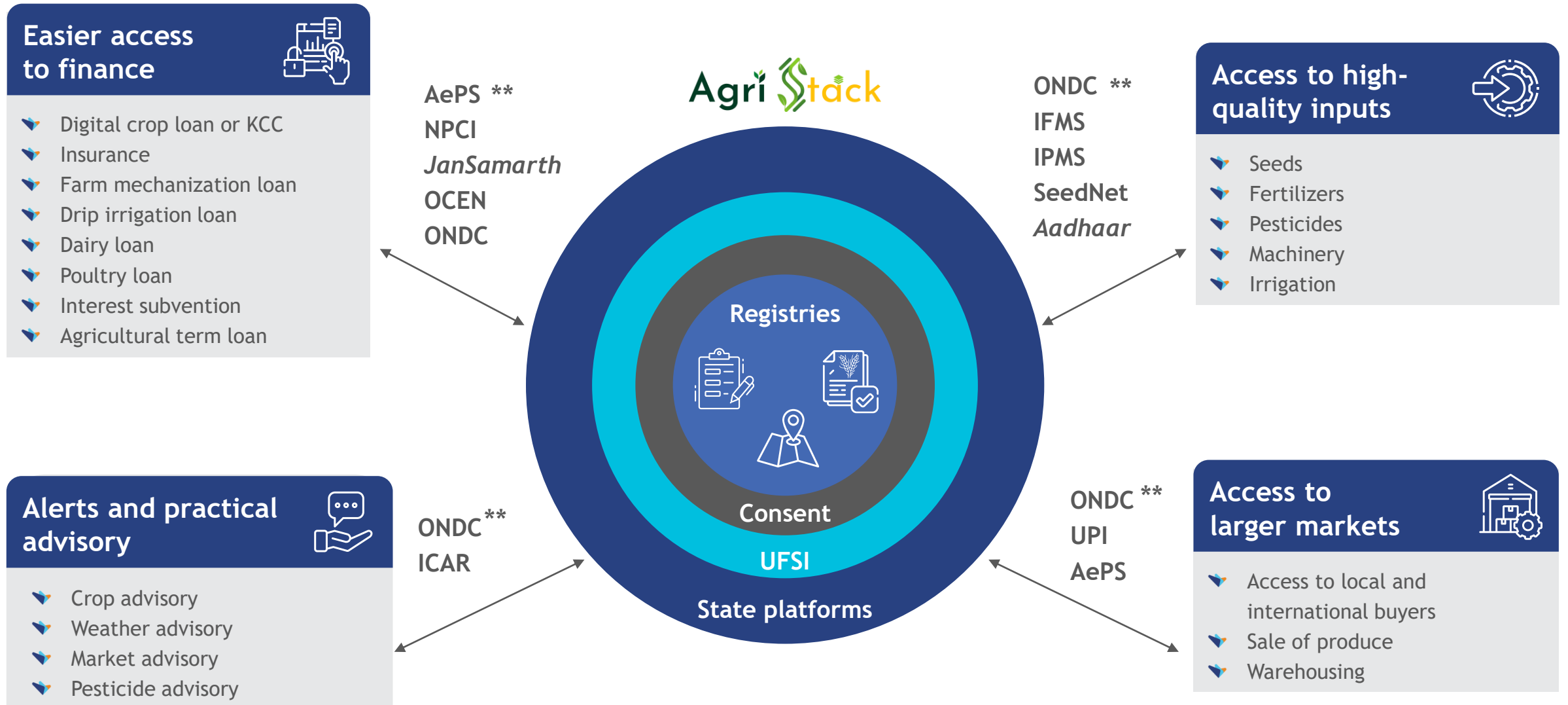


**System-level outcomes:** Convergence of government programs and federal AgriStack and standardization of data and consent protocols through an underlying system-driven approach

# AgriStack and State Digital Farmer Services Platform: Complementing each other



# Transformation of the agricultural ecosystem: Use cases



\*\*Indicative list of APIs or technologies to be used

# Sectors we work in

## Providing impact-oriented business consulting services



Banking, financial services, and insurance (BFSI)



Water, sanitation, and hygiene (WASH)



Government and regulators



Micro, small, and medium enterprise (MSME)



Social payments and refugees



Youth



Gender equality and social inclusion (GESI)



Education and skills



Digital and FinTech



Agriculture and food systems



Climate change and sustainability



Health and nutrition

# Multi-faceted expertise

## Advisory that helps you succeed in a rapidly evolving market



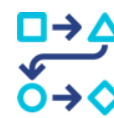
Policy and strategy



Products and channels



Research and analytics



Organizational transformation



Digital technology and channels



Catalytic finance



Design thinking and innovation



Marketing and communication



Training



Government and regulations and policy



Data Insight



Customer protection and engagement for responsible finance

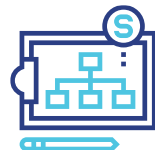
# MSC is recognized as the world's local expert in economic, social and financial inclusion



International financial, social and economic inclusion consulting firm with **25+** years of experience



**>300** staff in **10** offices around the world



Projects in **~68** developing countries

## Our impact so far

**>550**  
clients

**>1,400**  
publications

Assisted development of digital G2P services used by **>875 million** people

Implemented **>950 DFS** projects

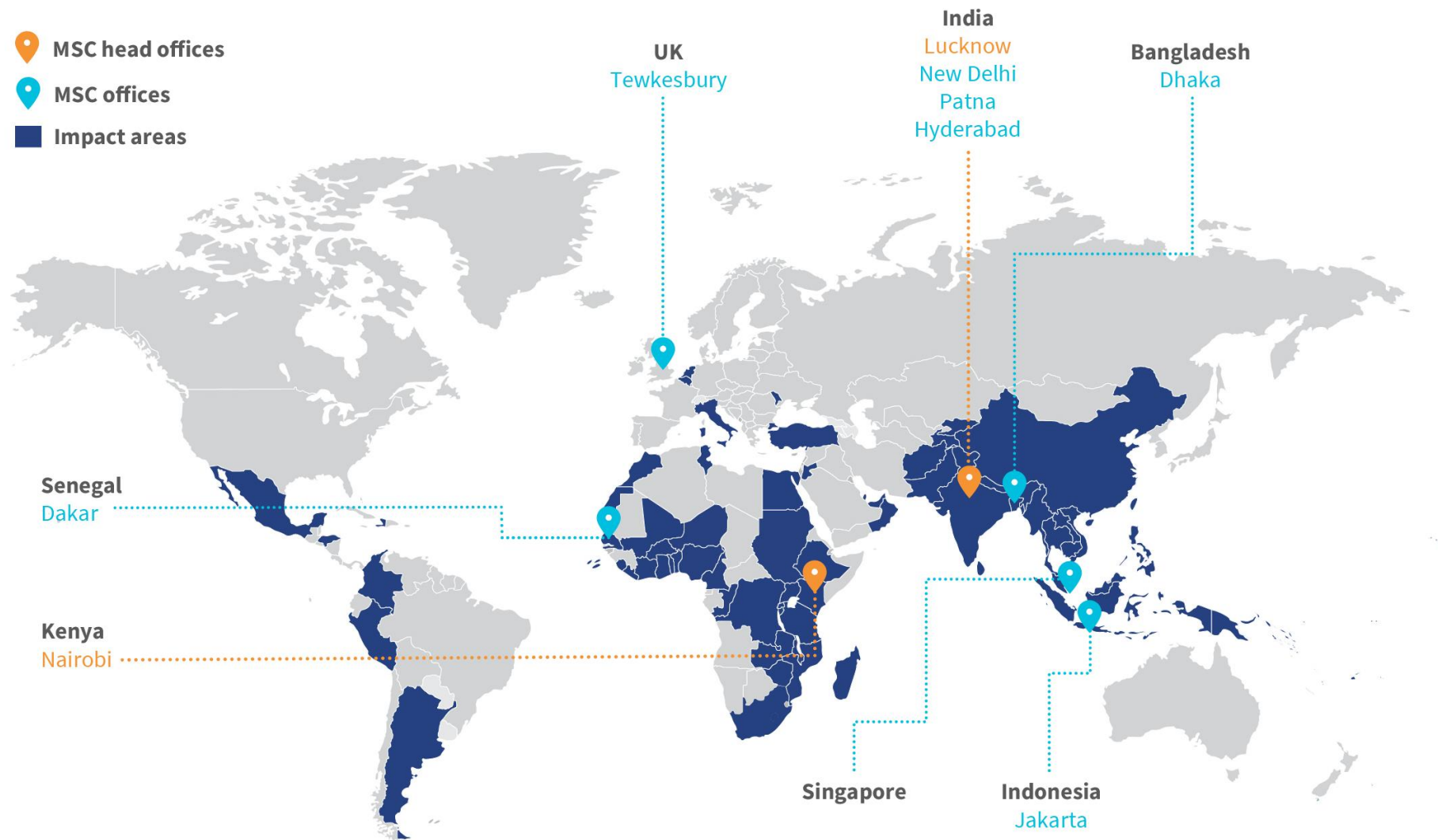
Developed **>300 FI** products and channels now used by **>1.7 billion** people

Trained **>11,100** leading FI specialists globally

## Some of our partners and clients



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-  MSC offices
-  Impact areas



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