

SWAT VEXA

IBM Impact Accelerator
with Texas A&M AgriLife Research



Sept 2025



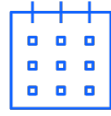
About the program

The **IBM Impact Accelerator** is a social innovation program that supports communities facing environmental and economic stress around the world, through technologies like AI and an ecosystem of experts.

Program differentiators



Global scale, local impact



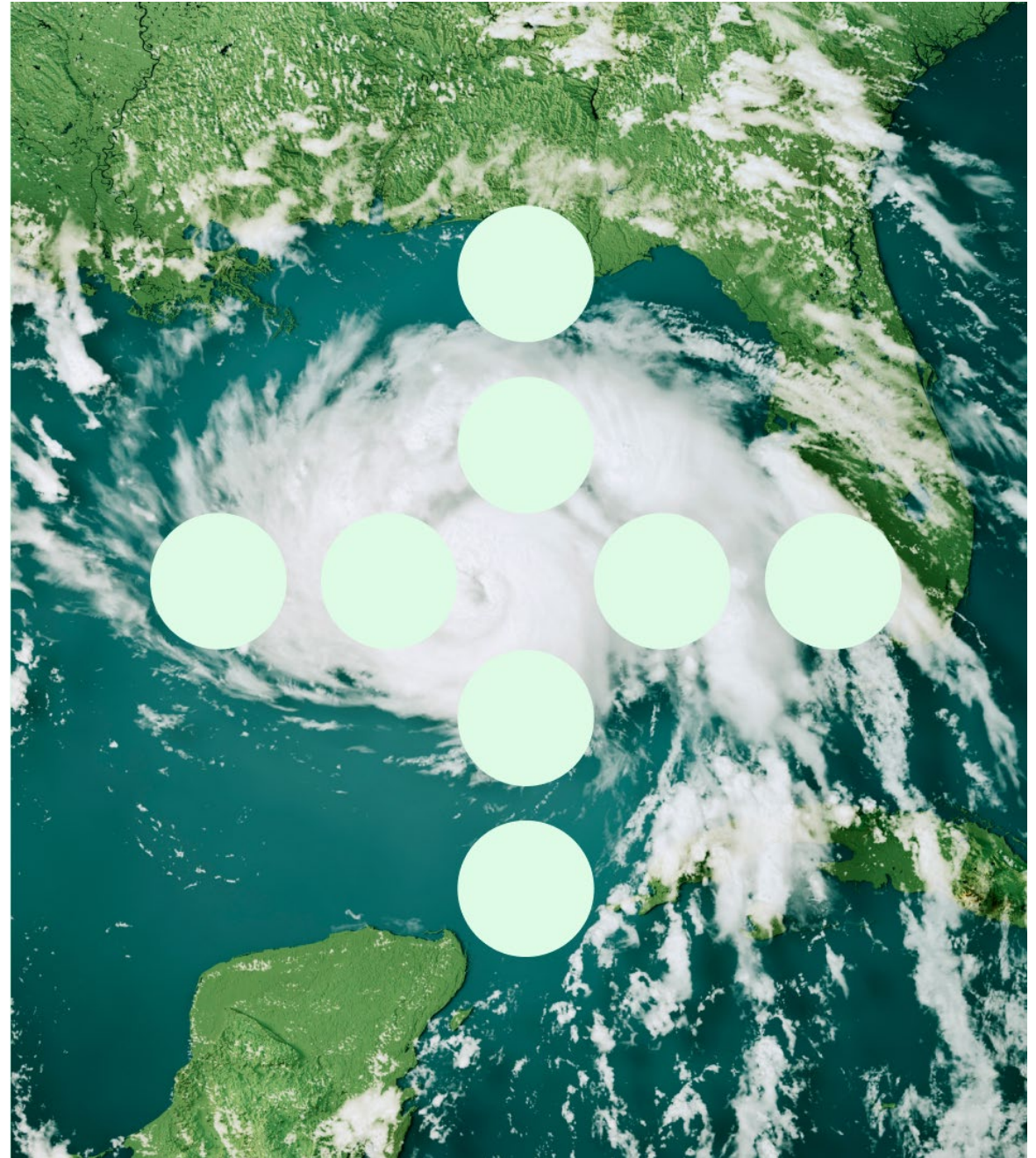
Two-year program duration



No cost to participants



Focus on vulnerable communities



Projects have access to IBM resources and expertise



IBM Infrastructure

IBM Cloud credits offered to each organization in the Accelerator; Services used include Cloud Pak for Data, Cloud Object Storage, and Cloud Code Engine.

IBM technologies aim to enable secure, scalable and resilient solutions that can be integrated with IBM watsonx.



IBM Software

IBM Environmental Intelligence deployed in most engagements; AI deployments with IBM watsonx AI and data platform and IBM Granite AI models.

Environmental forecasting, enhanced with AI. Foundation and large language models leveraged for discovery and advisory services.



IBM Consulting

IBM Consulting subject matter experts typically lead IBM Garage experiences kicking off each engagement and later provide project management and sustainability expertise.

Design thinking and agile methodologies enable technical roadmaps guiding solution design, and development.



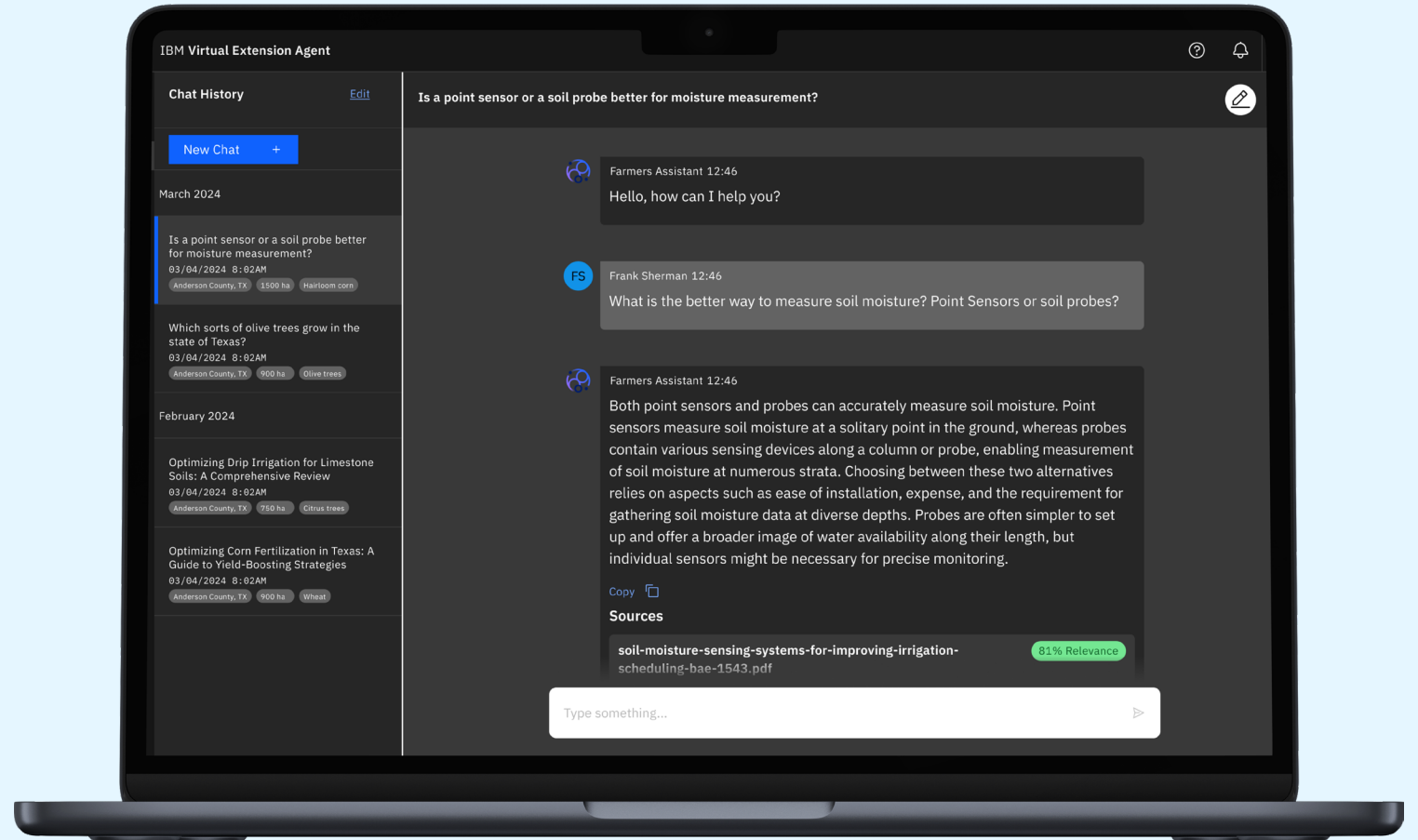
IBM Research

Where applicable, IBM Research will accelerate innovative solutions with strategic expertise that could include data science, modeling, and visualization skills that contribute to the broader research community through white papers, patents, and conferences.

SWAT VEXA

Virtual Extension Assistant

powered by **watsonx**



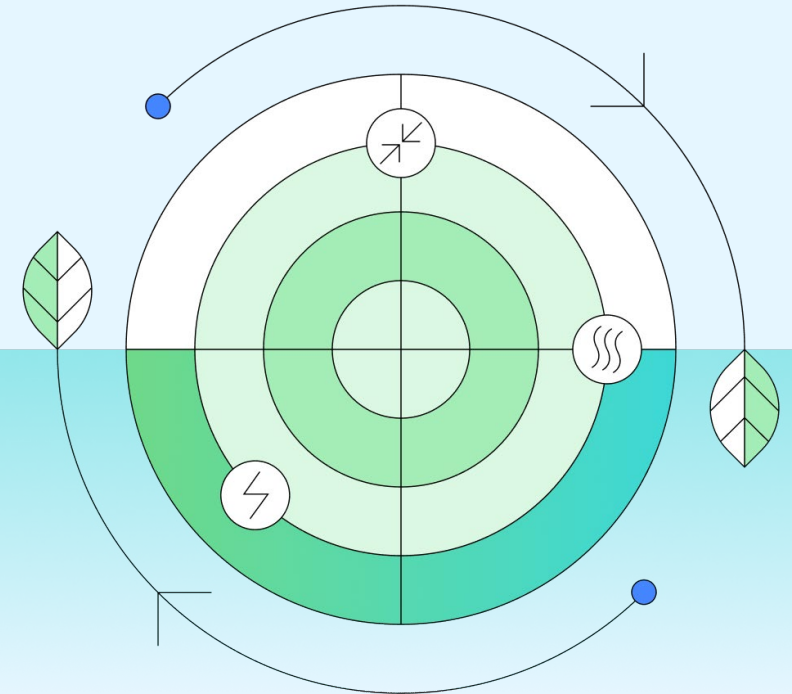
Business Value

Providing decision support to water and land managers, farmers, and policy makers

Our solution is designed to provide highly informed and personalized responses to SWAT user questions. Examples include requests for insights for assessing soil erosion, pollution control, and watershed management. By leveraging large language models, the solution interprets the immense knowledge base of SWAT documentation to provide highly personalized and relevant responses to queries using natural language.

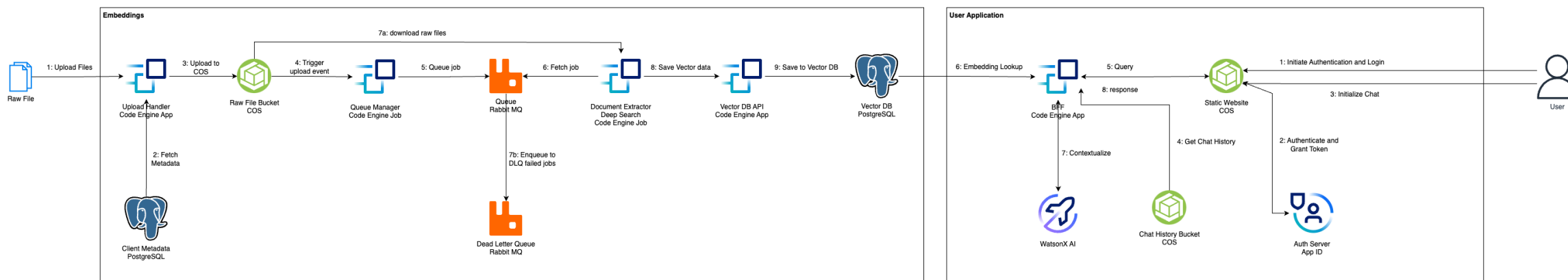
SWAT VEXA accelerates and expands the digital support apparatus, enabling access tens of thousands of documents related to hydrology, water quality and land use in seconds!

- [Explainable](#), provides source where answer was found
- [Transparent](#), response relevance percentage
- [Reusable](#), leveraged easily across domains
- Built on IBM Cloud, using IBM's Enterprise Gen AI Platform, watsonx



Technology

Hosted on IBM Cloud, the SWAT VEXA (Virtual Extension Assistant) leverages many of IBM's newest technologies, including watsonx for Generative AI, and DeepSearch for document ingestion and Retrieval Augmented Generation (RAG).



Source: IBM





SWAT VEXA Demo

www.swat-vexa.com

