

Santos Lab Environmental Platform: integrating information for the sustainable use of landscapes and ecosystem services

- **Santos Lab Environmental Platform** is a digital tool for technical land management that includes sustainability modules with real-time notifications.
- Through this tool, it is possible to build networks of interaction between different actors, in addition to operationalizing methodologies for the mapping and quantification of ecosystem services that can be commercialized (e.g. carbon storage and water provision).
- The development of the **Santos Lab Platform** has the participation of several national and international institutions, including public and private sector, science and financial agents (Figure 1).

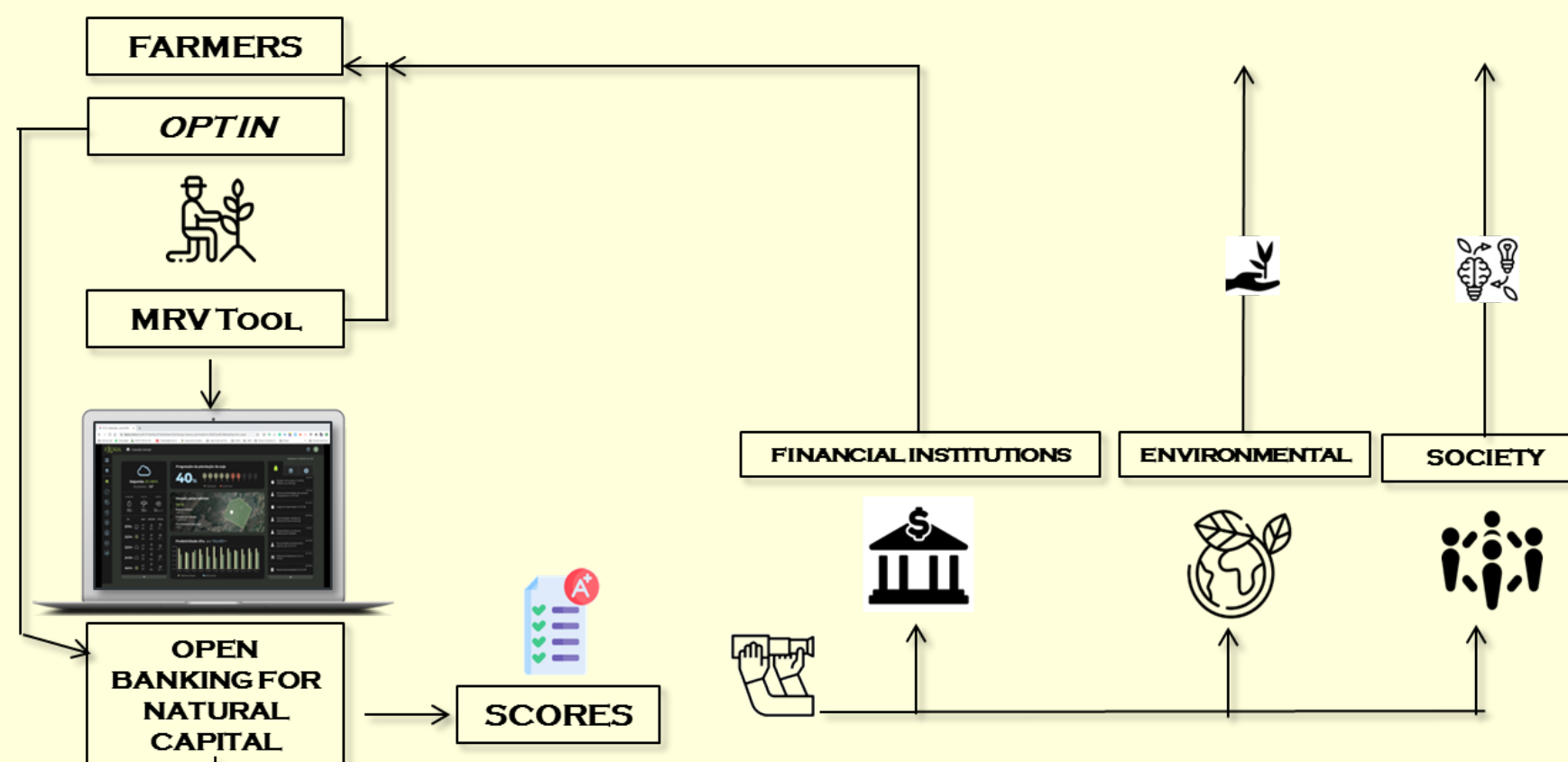


Figure 1: Model of integration and sharing of economic, agronomic, climatic and ecological information for the chain of actors. Partnerships with these actors and the free use of the platform guarantee transparency and legitimacy. The scores indicate the degree of commitment of the rural property to the standards and parameters evaluated in each area. MRV = Monitoring, Report and Verification.

- The Platform provides information from different sources (climate, vegetative indexes, ecosystem services, biodiversity) that can be combined to understand the demands for changes in land use and the ecosystemic vocation of a cultivated area.
- The Platform has been initially focused on Brazil but might be expanded to other regions according to new demands and partnerships. Brazil is a global priority for sustainable use of natural resources as it is one of the largest food producers in the world, as well as one of the topmost countries in terms of biodiversity and freshwater and carbon stocks.
- **Santos Lab Environmental Platform** will be published in full in 2021 and will have free access interfaces.

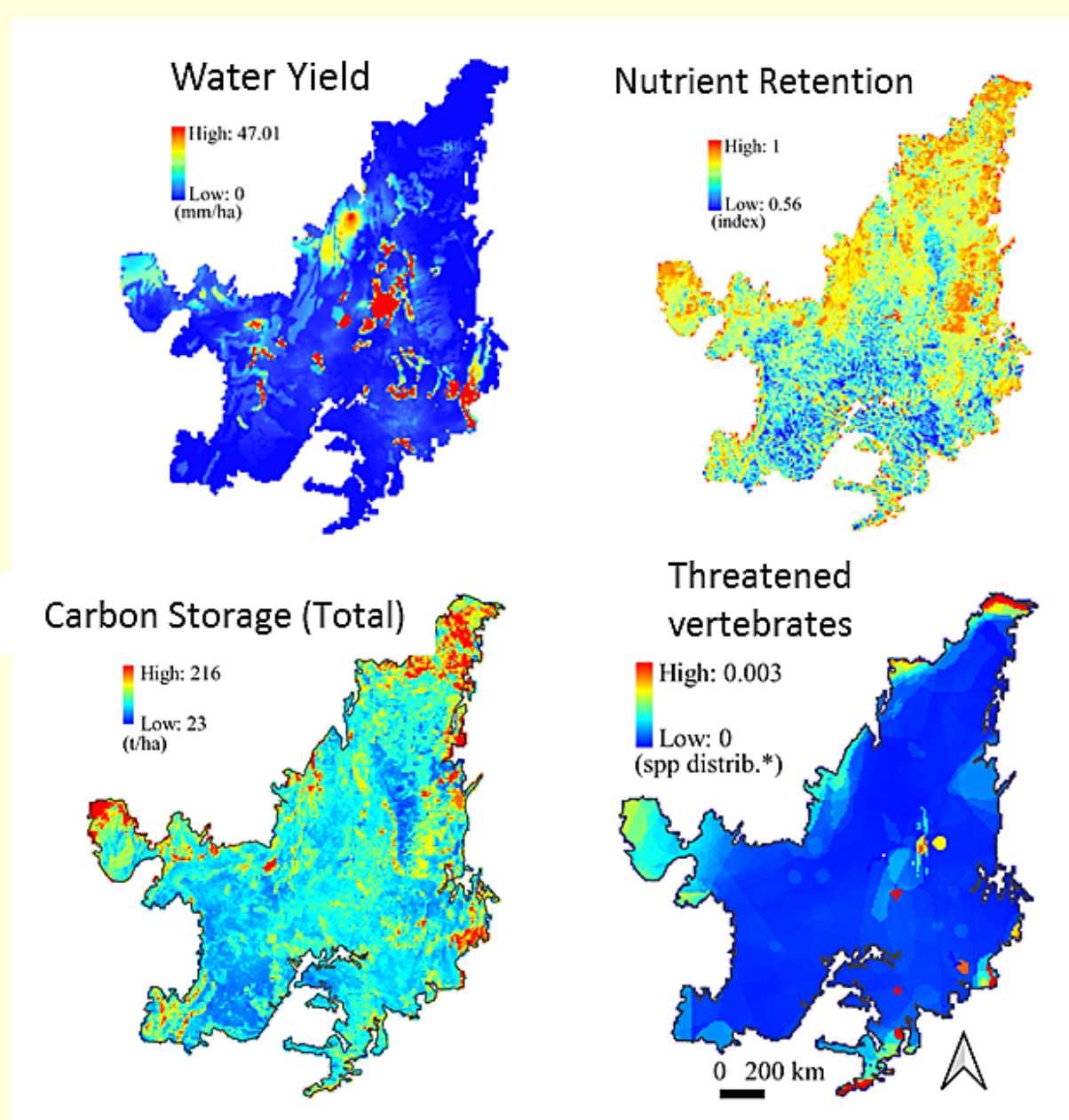


Figure 2: Examples of ecosystem services and biodiversity maps used in the Platform. The maps showed here are from the Cerrado biome (Brazil).

- The Platform collects, analyzes and monitors environmental data, including ecosystem services and biodiversity, in order to map potential conservation and restoration areas (Figure 2).

The information produced by the Platform allows rural properties:

- compliance with legislation;
- resilience in production;
- intelligent use of landscape potentials;
- carbon balance;
- alternatives for reducing carbon emissions;
- carbon trading;
- protection of water and pollination services;
- conservation of threatened species;
- sustainable consumption and production.