Capability type	Core functions	Example platforms / Technologies
Data collection & management	Automated sensor-based data acquisition, LIMS management, metadata standardization	Traitmill, Openpheno
decision analysis support	Multi-trait prediction, genetic gain simulation, G×E modeling and strategy recommendations	EBS, CropGPT
User collaboration interface	Visual dashboards, real-time logs, role-based access control, cross-institutional project collaboration	Jinzhong cloud, PhenoApp