Robotics and Digital Agriculture

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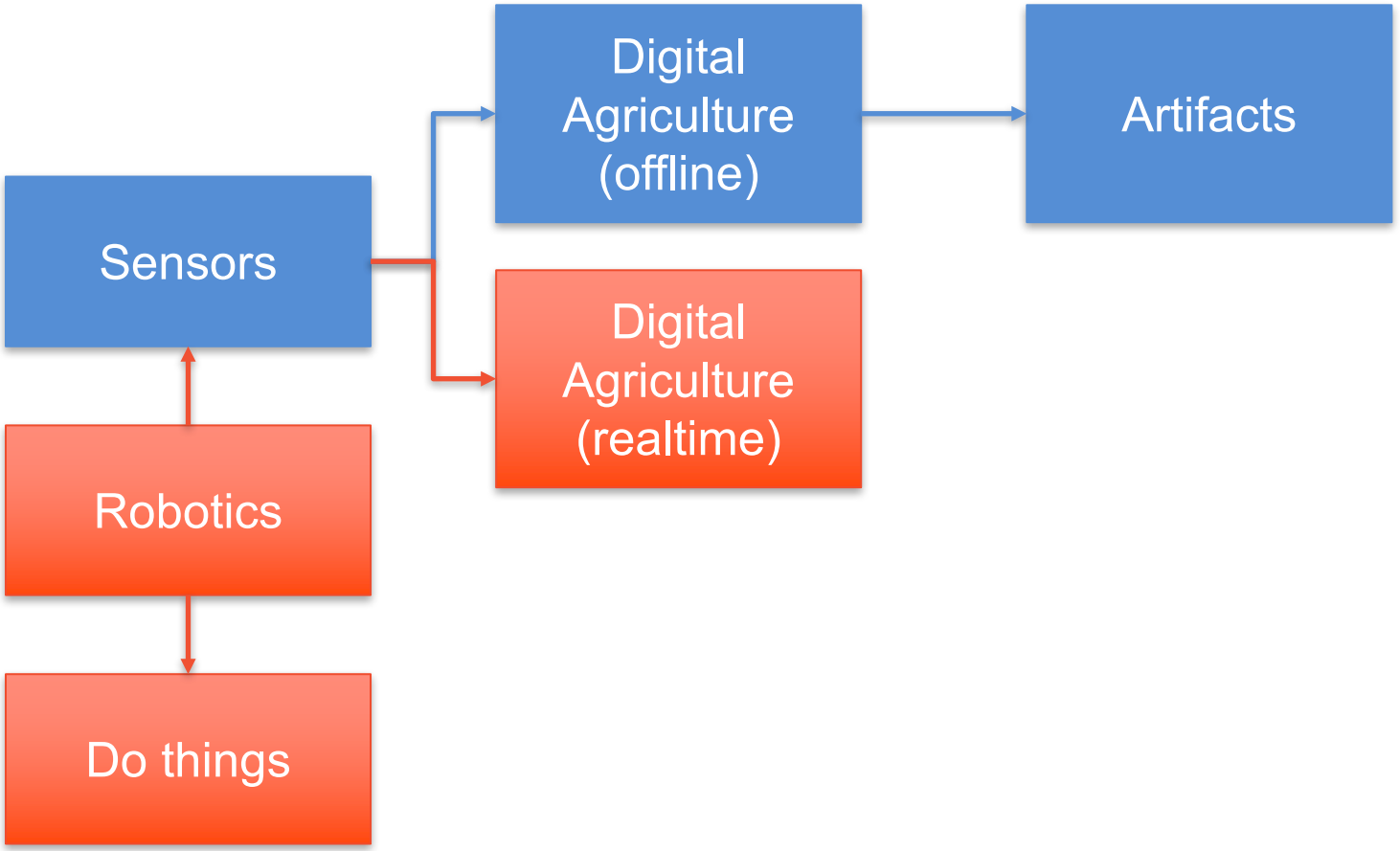
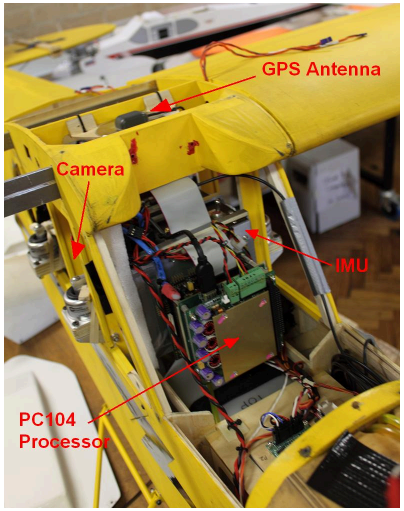
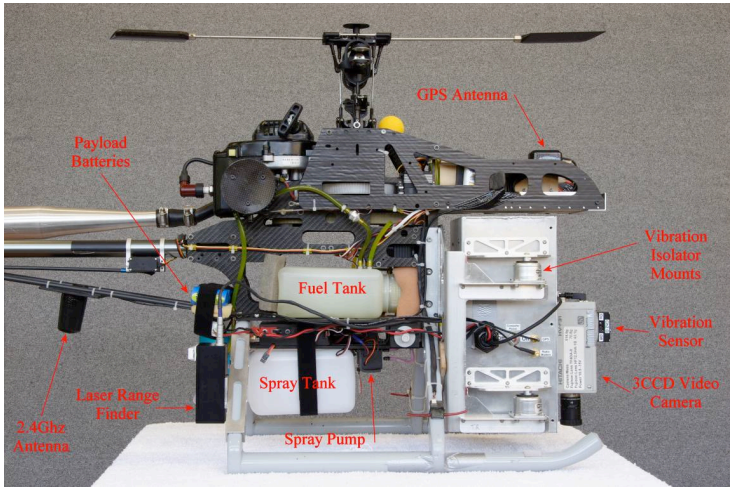
A very basic description…



2006: Large-Scale Autonomous Remote Surveillance





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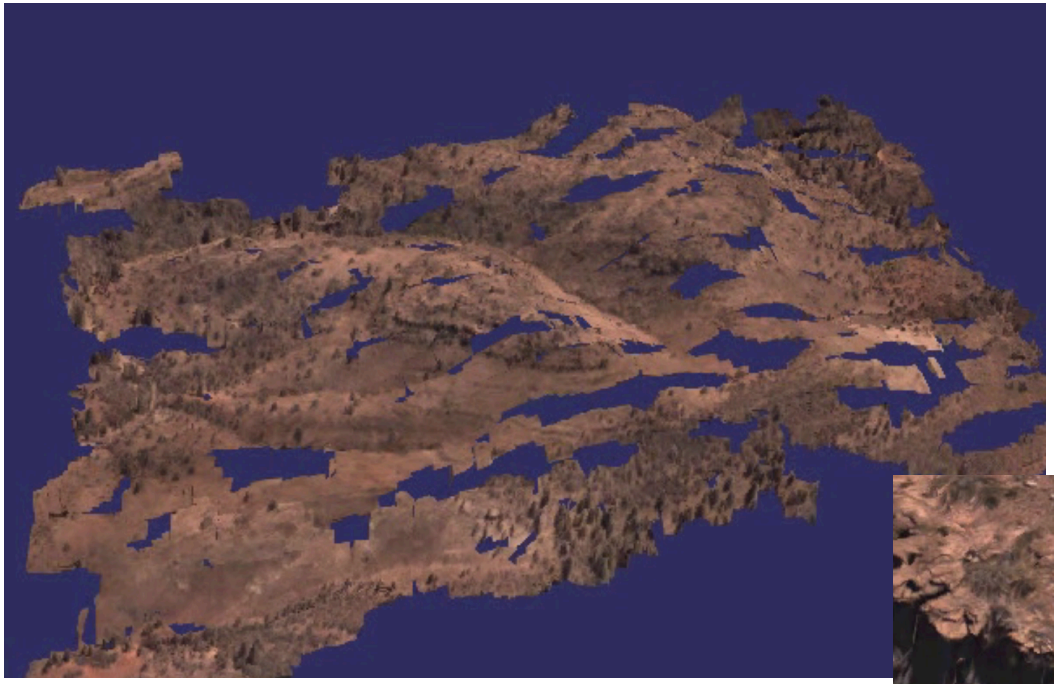
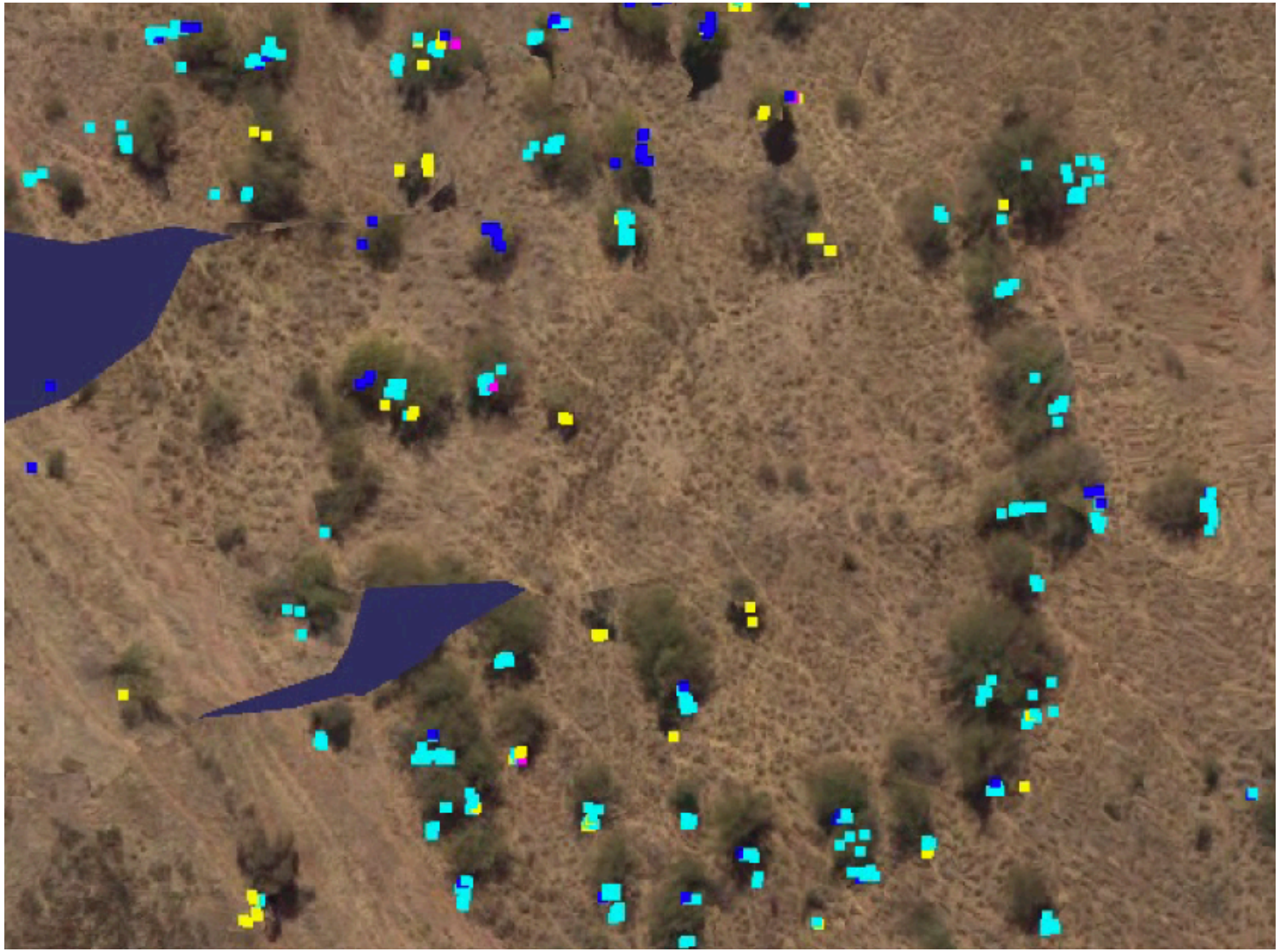
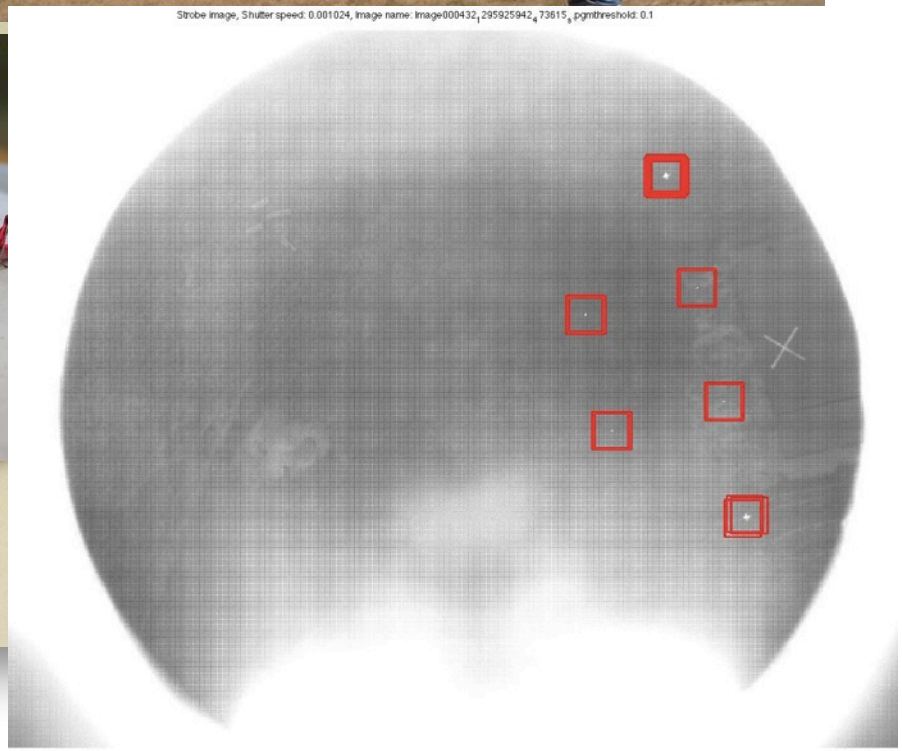
2008-2010: High Precision Data Fusion and Mapping



2008-2010: Automated Machine Learning Algorithms



2011: Precision Pest Tracking / Monitoring



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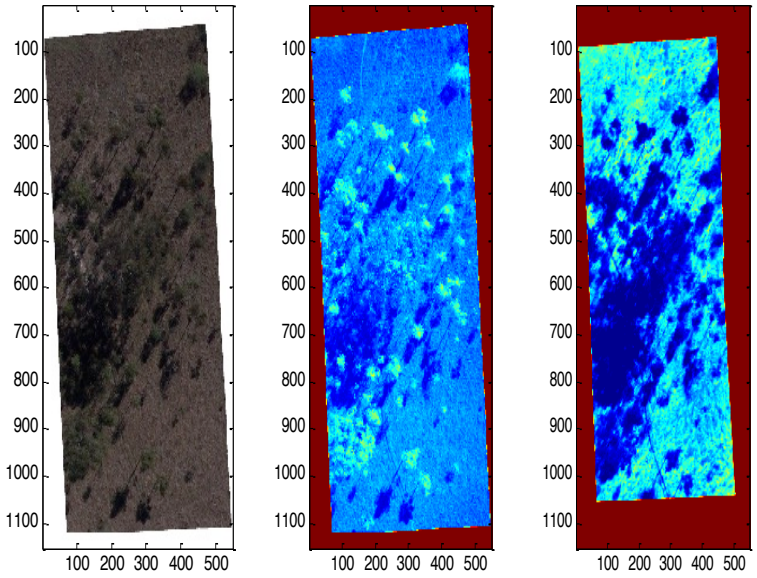
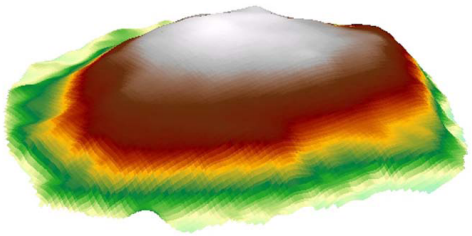
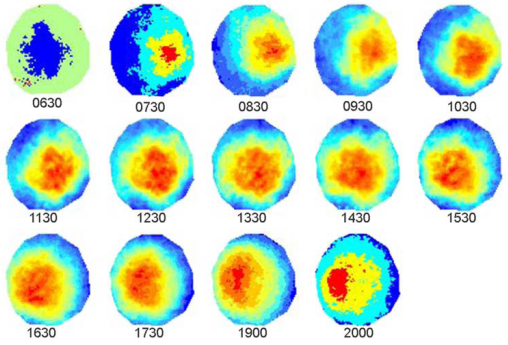
2015: Large-Scale Multi-Environment Mapping and Classification







Vogt et al, Dynamic Thermal Structure of Imported Fire Ant Mounds, Journal of Insect Science Vol.8

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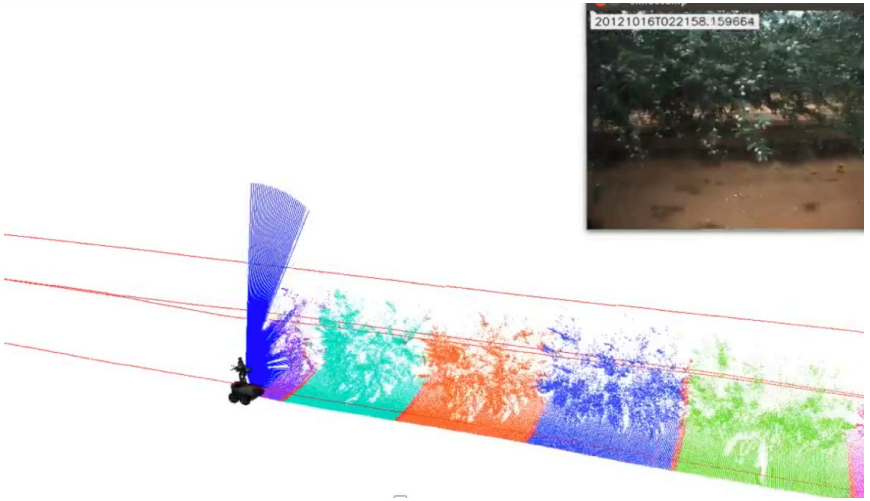
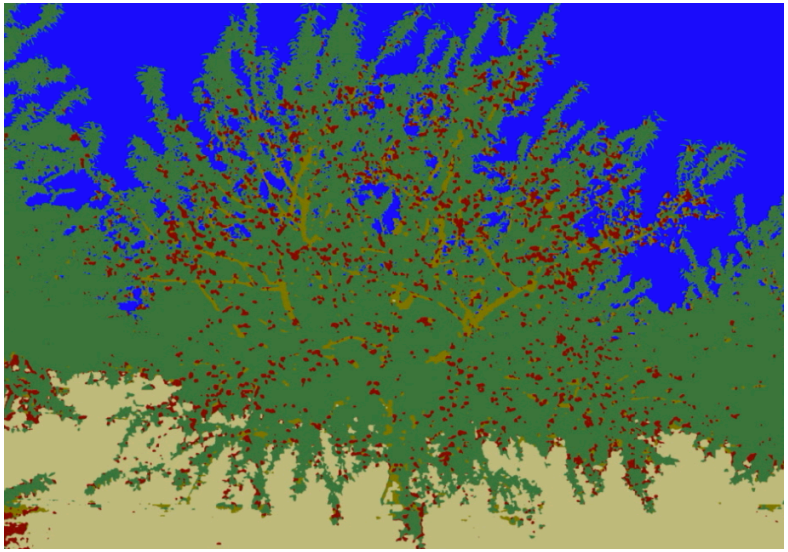
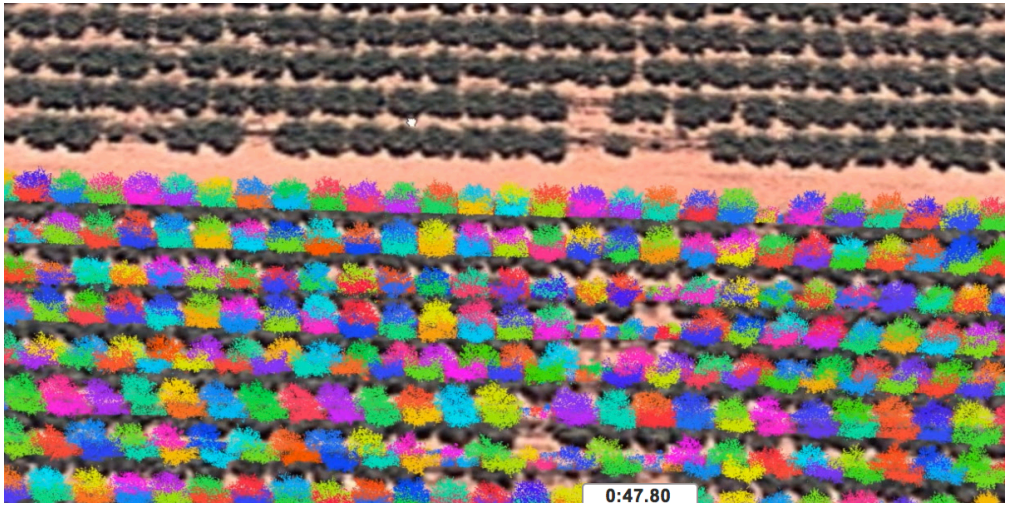
2015: Almond Trials







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2016: Multi spatial & temporal resolution

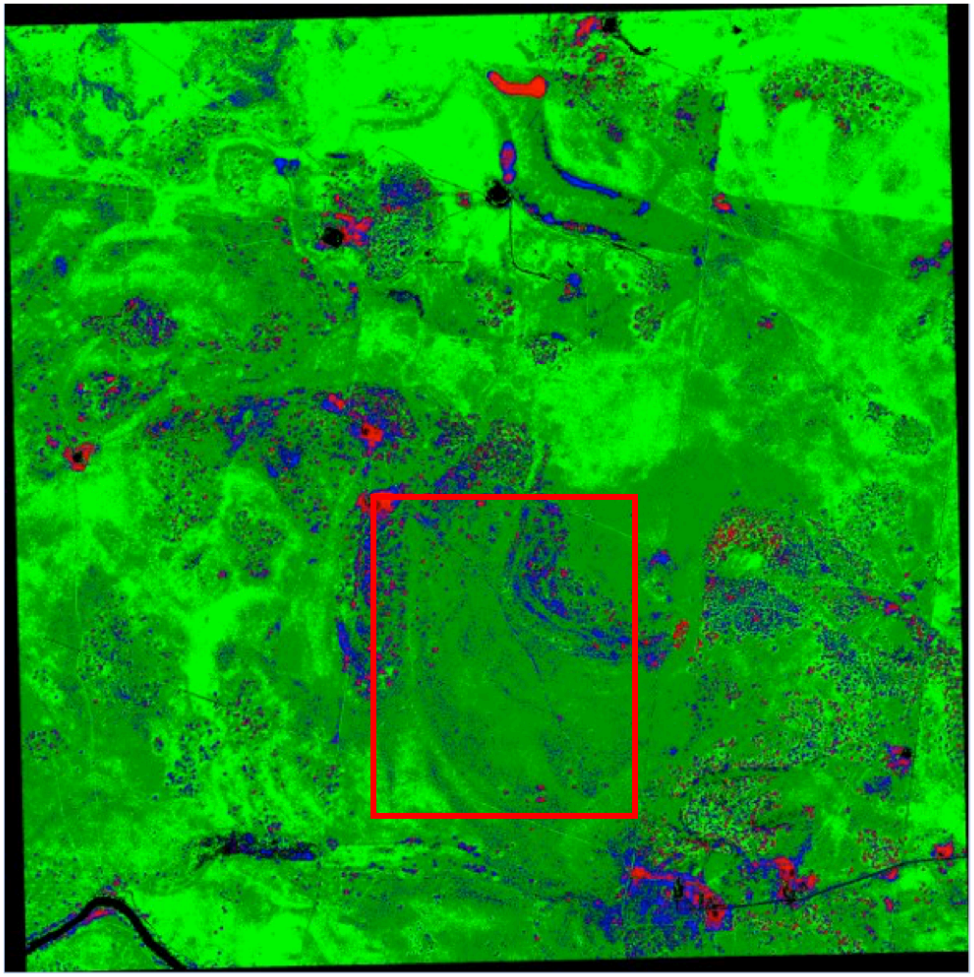

Figure 31: Results of the SAM classification of World View 2 data across the entire satellite data set. The classes are: soil (yellow), mimosa and boxthorn (blue), eucalypt (red) and other vegetation (green). The UAV survey area is outlined in red.

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2017: Vegetable Row Crops

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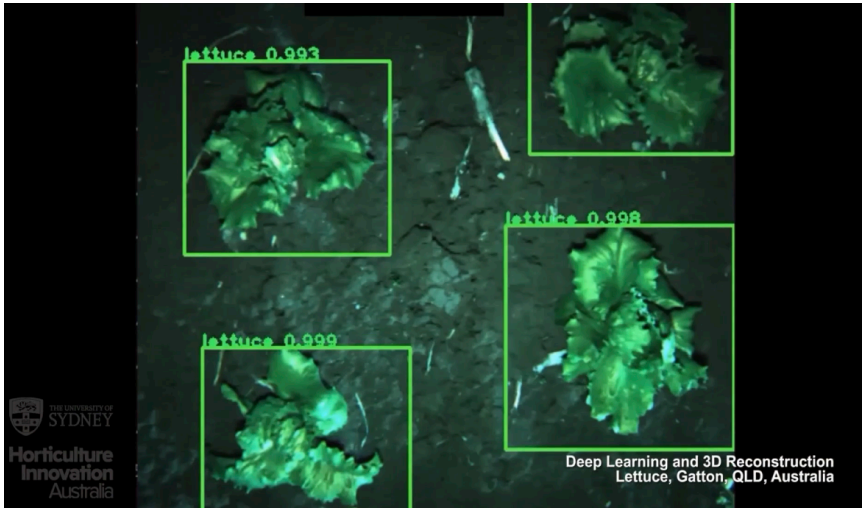

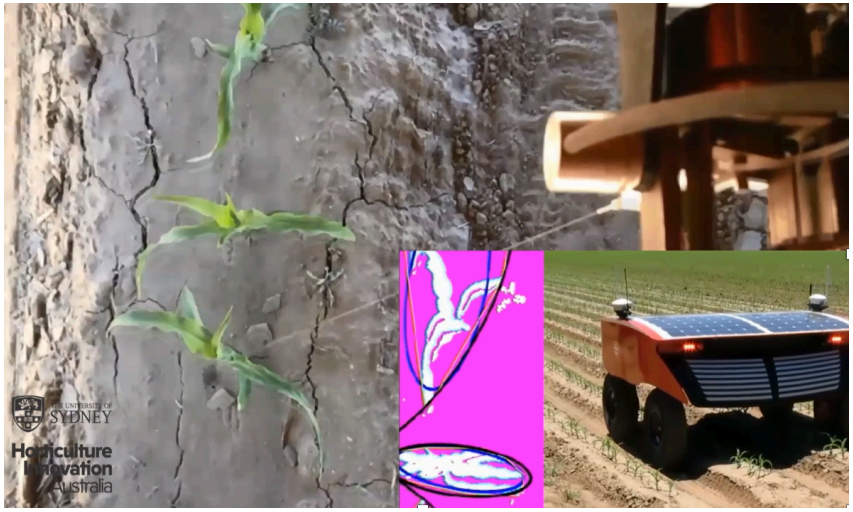

2017: Small Holder farm trial

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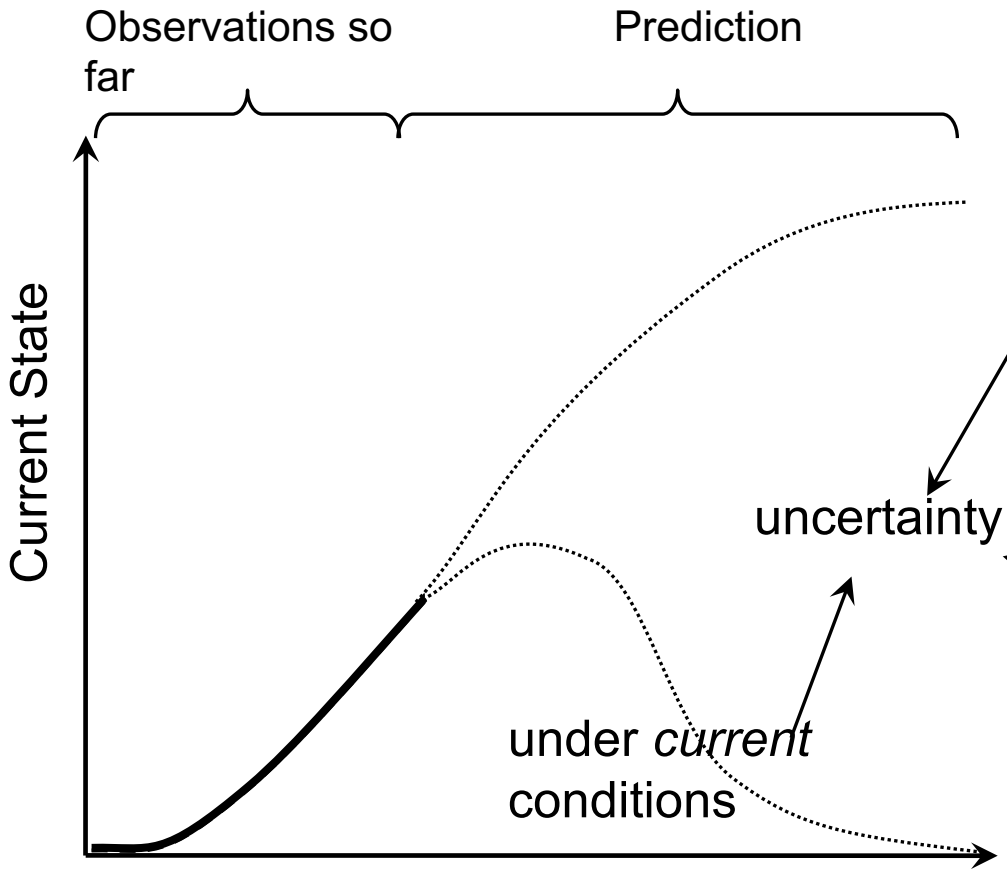
Future: Co-Learning: merging structured and unstructured data and decisions



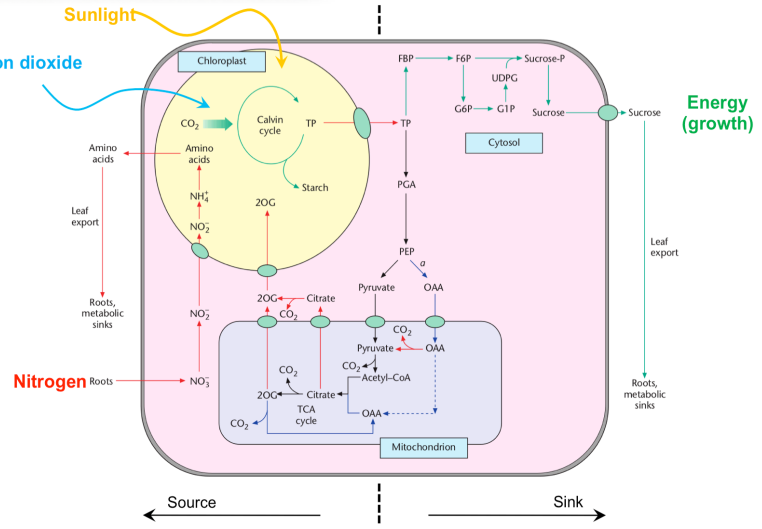


Image from: Foyer, Christine H., and Matthew J. Paul. "Source–sink relationships." eLS (2001).

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