

Partnerships for Innovation in Agriculture



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“Farmers are the most innovative
people on the planet”

Source: WA Tree Fruit Research Commission Board member

Agricultural Technology for Tree Fruit

Plant
physiology

Breeding

Pathology

Data
science

Engineering

Economics

Psychology

Entomology



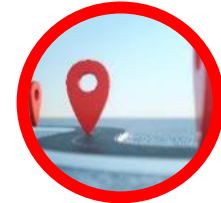
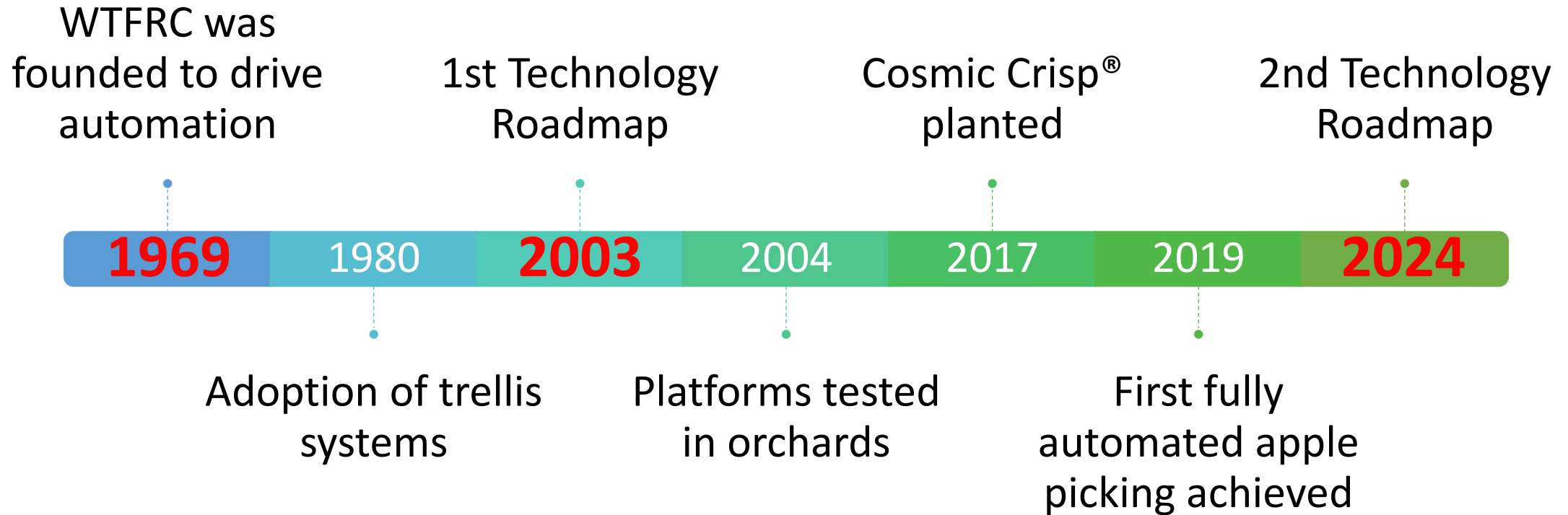
Key:

A Farm is first and
foremost a business

Examples of Barriers to Technology Adoption in Tree Fruit

- 1. Lack of commercially available options**
- 2. Lack of complementary technologies**
- 3. Lack of skill and confidence with complex data and decision-making**
- 4. Lack of proof points for ROI and risk analysis**
- 5. Application constraints of existing technologies**
- 6. Value proposition**

History of Automation in Washington



WTFRC Technology Roadmap



- Research, development, and extension activities: 2024-26
- Three high priority areas selected/three different timelines to impact:
 - Irrigation (near-term)
 - Crop Load Management (mid-term)
 - Harvest Labor (long-term)
- Within each priority area
 - existing technology landscape is described
 - 13 strategies and 48 example activities identified for focus and action
 - prioritized across the roadmap (i.e., overall priorities)



Strategy

Build + maintain vibrant
public-private partnerships

- Worldwide
- Scientists
- Private sector
- Actively involved diverse industry members

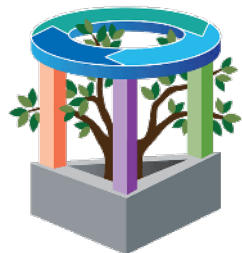
Vibrant public-private partnerships

LOCAL

- The Smart Orchard
- The Technology Roadmap

NATIONAL

- AgAID Institute



AgAID

AI Institute for Transforming
Workforce & Decision Support

GLOBAL

- Orchard of the Future Collaboration
 - <https://www.orchardofthefuture.org/>



smart farming with innovative technology

- Global Harvest Automation Initiative





Automated Ag

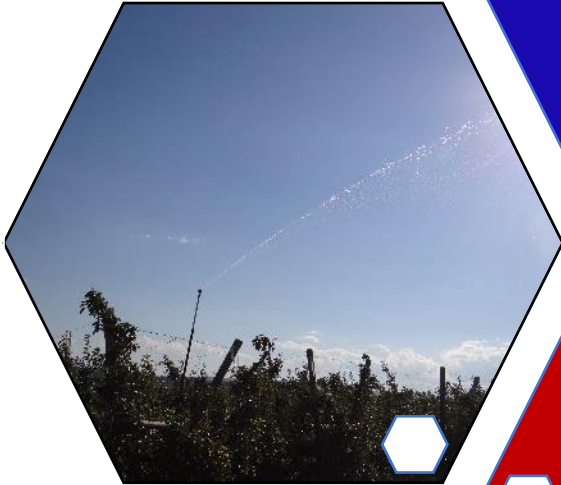




AgriDynamics Robotics Corp.





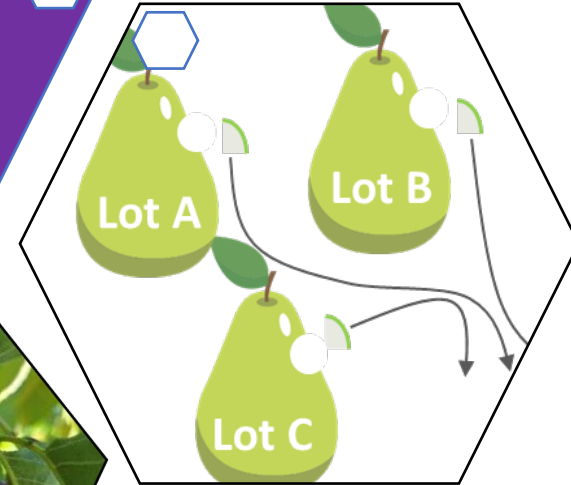


The
Smart
Orchard



Drone in
a box

Insect
models



LCA



A photograph of a tree with green leaves and dark purple fruit, likely a plum or cherry, against a clear blue sky. The text is overlaid on the image.

“Vision systems are
foundational technologies.”

Source: WA Tree Fruit Research Commission Board member

Areas of Opportunity (Examples)

Story Telling

Broad
collaboration

Engage young
people

Relationships

Co-opetition

Cross-
commodity

Travel

Land grant
universities



Don't create a
solution looking
for a problem.





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