

**FARMING REIMAGINED**



@SeeDotRun @TrentMeyerAg



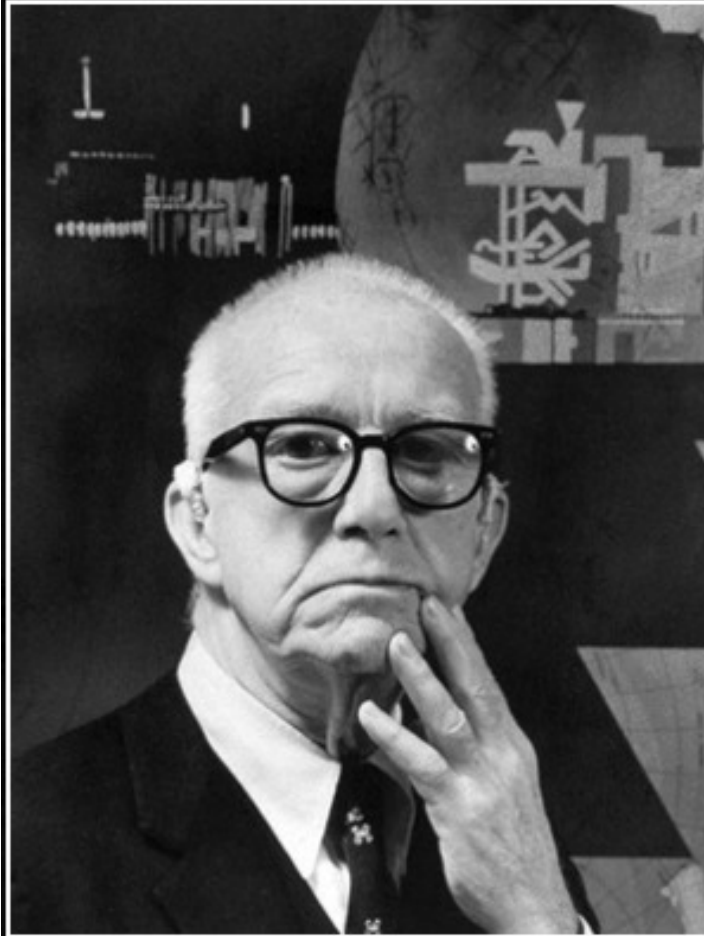
@seedotrunautonomous



SeeDotRun

[www.SeeDotRun.com](http://www.SeeDotRun.com)










You never change things by fighting  
the existing reality. To change  
something, build a new model that  
makes the existing model obsolete.

— *R. Buckminster Fuller* —

AZ QUOTES

DOT

# How has Broadacre Farming Changed?

- Large seeders 
- Auto-steer
- auto lift headland turns 
- auto zone specific seed and/or fertilizer rates & overlap control 
- auto meter rate calibration by load cell data 
- Smart fill, auto packing force 
- 600+ HP tractors
- Remote monitoring and support



# Is bigger really better??

- Compaction
- Fill times
- Wide turning radius
- Road transport, approaches
- Partial passes
- One issue = shut down all operations
- High value seeding systems with trade issues
- Highly paid farm labour essentially “sitting”
- Ballast (see compaction)
- Fill times





# Is bigger really better??

No driver



Next step?

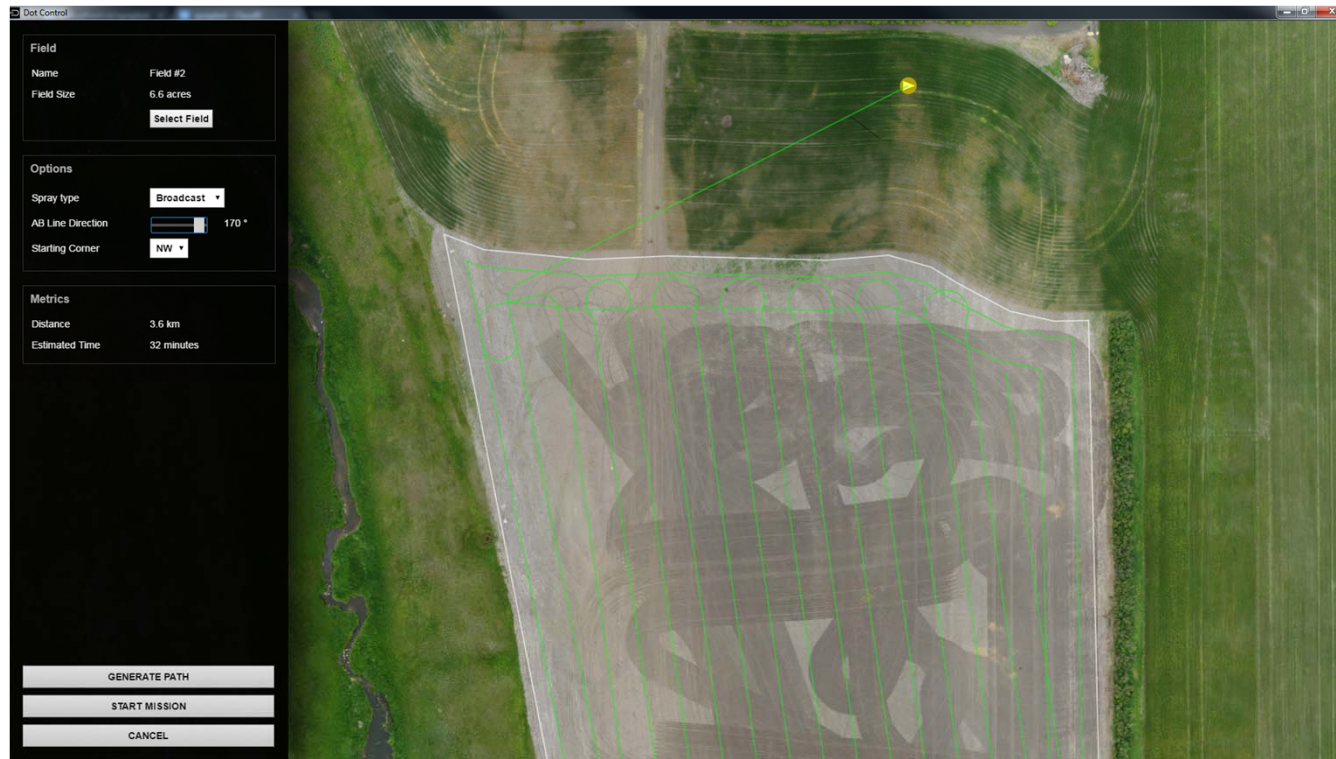


# Key objectives to reign in these inefficiencies

- Smaller, more nimble units
  - Get more acres out of irregularly shaped fields
  - Lower horse-power requirements per acre
  - Win-Win: lower investment, higher degree of functionality, lower trade losses
- Autonomous, remotely monitored
  - Lower labour costs
  - Shift of focus for owner/operators (business, agronomy, lifestyle)



# Does the Operator Need to Be in the Cab?

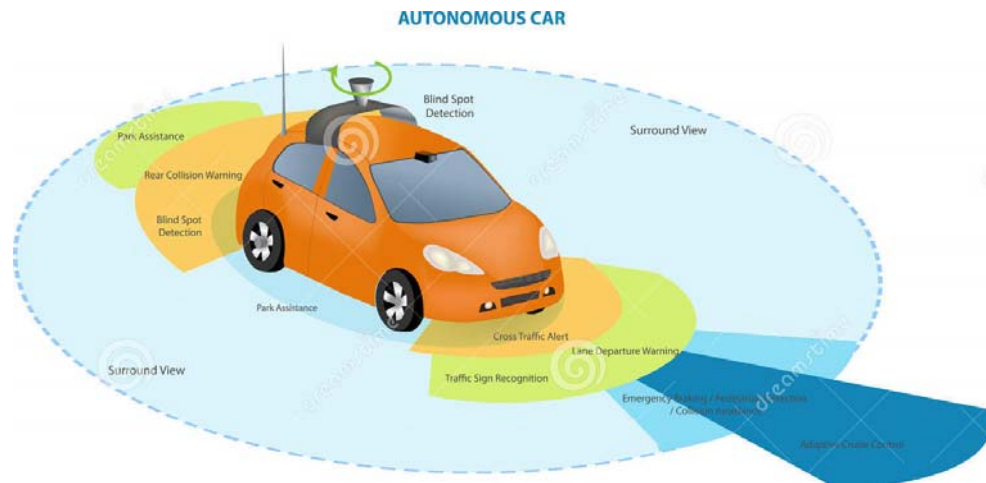


DOT



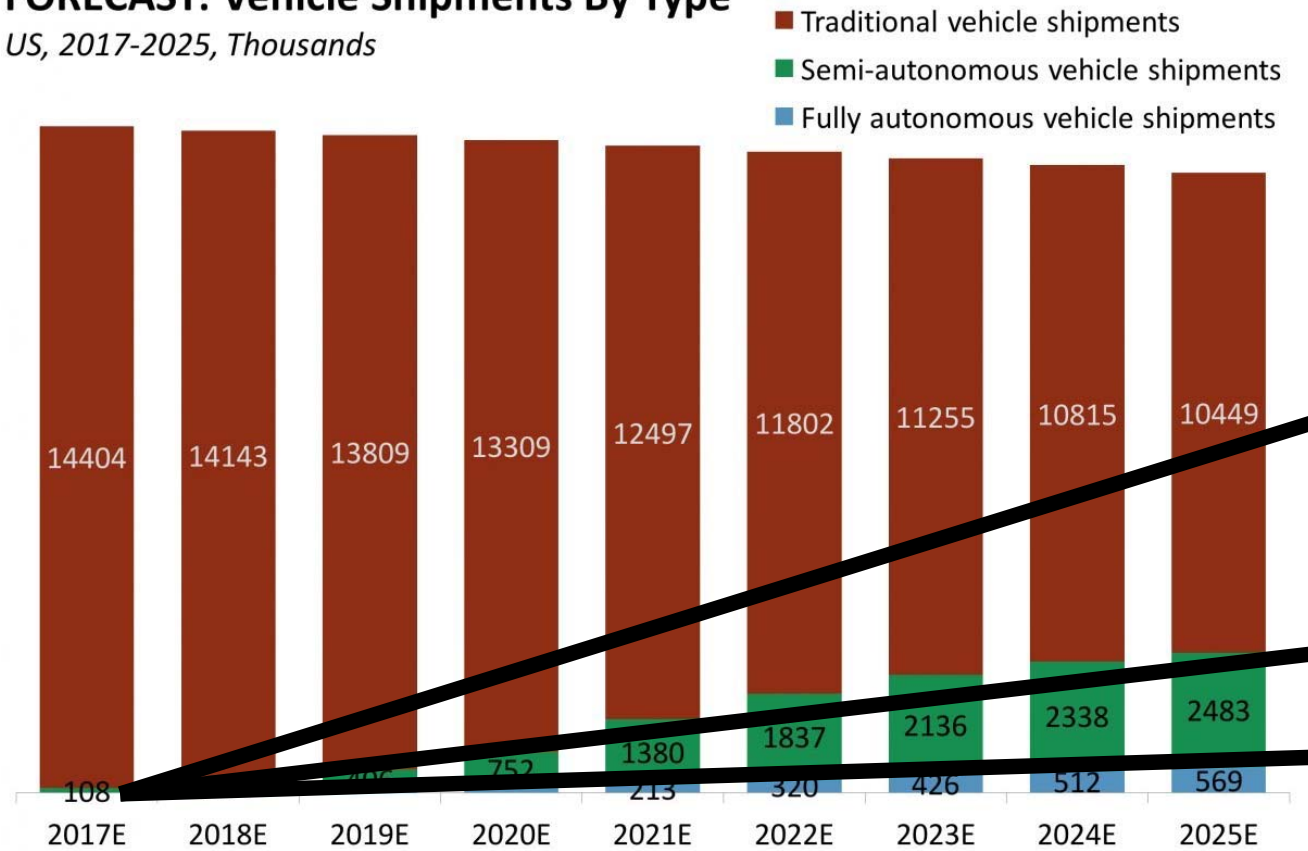
# Can we learn from Autonomous Cars?

- Machine Learning
- Artificial Intelligence
- 25K US cars 2018
- 100K US cars 2020
- Decreased costs



## FORECAST: Vehicle Shipments By Type

US, 2017-2025, Thousands



Source: BI Intelligence Estimates, 2017

Source: Business Insider Sept 2017

BI INTELLIGENCE



# How much safer is autonomous?

Implement in a field following a farmer-pre-approved path plan with no go zones, path specific steering, fully loaded with monitors and sensors, fast load trailers

VS....

An autonomous semi driving the Phoenix freeway... with humans operating other machines on the road.

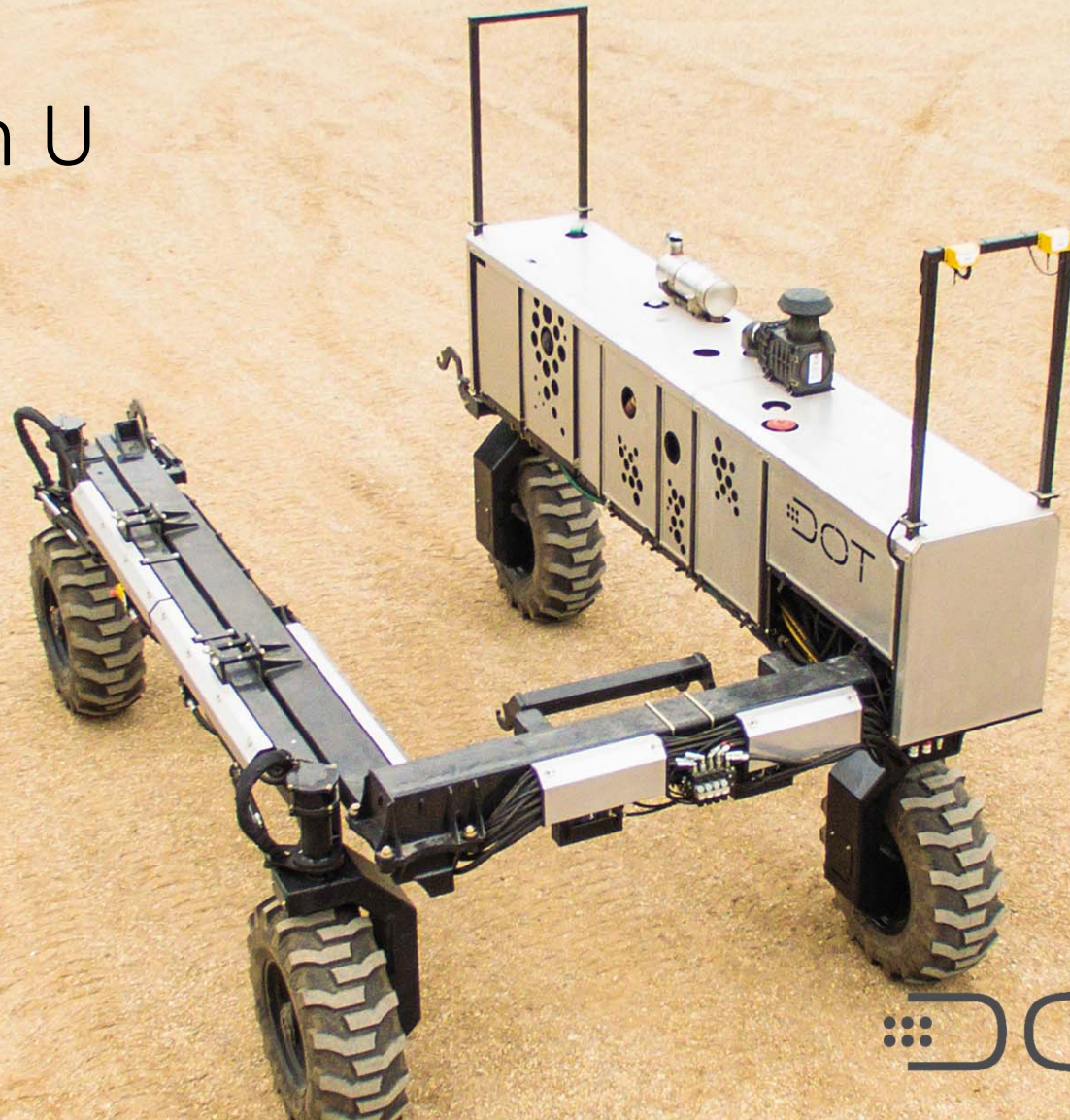


Why Norbert? Why SeedMaster roots?





# The Open U



 DOT



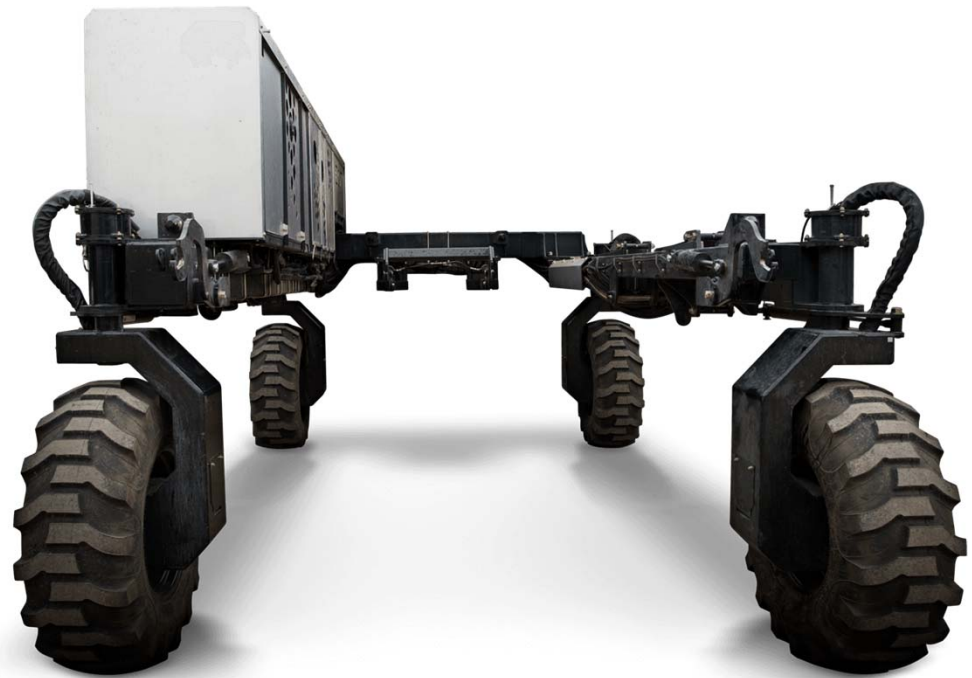
# Vision of the future – the Open U



DOT

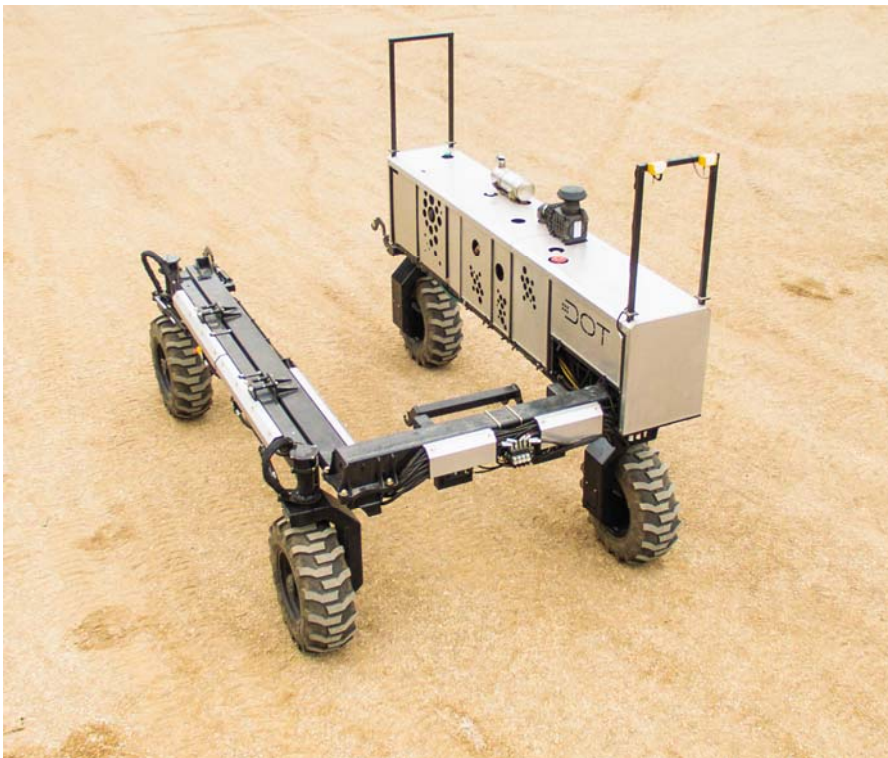
# Specification of DOT

- 12 ft. 4 in. (3.76 m) transport width
- 18 ft. 2 in. (5.53 m) working width
- 11 ft. 2 in. (3.4 m) height
- Dry weight 9,000 lbs. (4,082 kg)
- Engine specifications
  - Cummins QSB4.5 Tier4 Final  
4.5 L Turbo Charged Diesel  
174 HP @ 2,500 RPM 466 lb-ft  
@1,500 RPM
- Two tire options including 12 in.  
wide for in-crop, 21" for other  
activities



DOT

# What can DOT do?



DOT

# DOT Ready™ Implements

- DOT ready implement providers openly invited to collaborate
- Licensed for safety and compatibility
- Information transfer for compatibility of electronics, structural and hydraulics



# Manual Control Potential





# The Tesla Model?



# Regained Efficiency – Standardization

- Training is standardized
- Familiar and streamlined replacement parts
- Reimagined parts delivery and support
- Data collection more detailed and standardized for all equipment



## Easily scalable to farm size

- 1 = 1,500 to 3,000 acres
- 5 = 10,000 to 15,000 acres
- 10 = 25,000 to 30,000 acres
- Limited trade-in required moving forward
- More options for implements (smaller, more of them)



# Used Equipment Valuation

- Current inefficiencies
- Multi-Industry ready platform
- A farm NEVER grows out of a unit size, it only outgrows unit numbers



# General Economic Benefits

- Lower capital costs with power platform and implements
- Lower fuel usage
- Lower labour
- Higher levels of precision farming
- Better data collection – linking all operations
- More timely completion of jobs
- Longer safe operating hours





# Lifestyle Benefits?

- Accessibility
- Length of career
- Family
- Rural hi-tech jobs

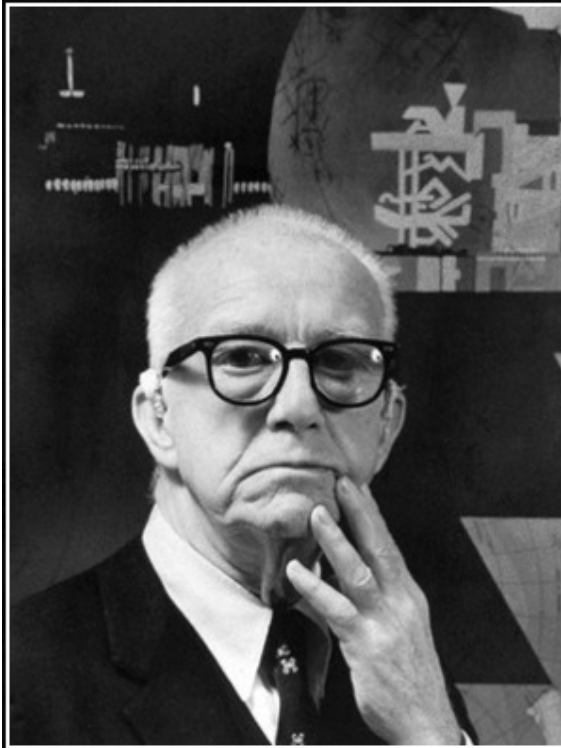
# Overcoming Resistance

“Tractors have no chance to compete with horses, unless they can raise a young tractor every second or third year”

Sask Farmer, Public Service Monthly, November 1923

Jim Hale Twitter (@farmerjim79)



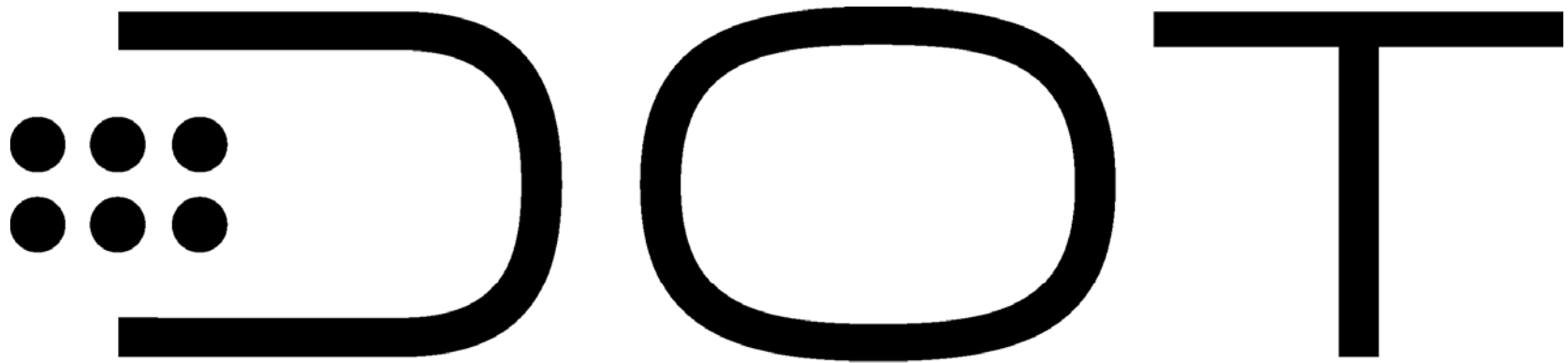


You never change things by fighting  
the existing reality. To change  
something, build a new model that  
makes the existing model obsolete.

— *R. Buckminster Fuller* —

AZ QUOTES

DOT



**FARMING REIMAGINED**



@SeeDotRun @TrentMeyerAg



@seedotrunautonomous



SeeDotRun

[www.SeeDotRun.com](http://www.SeeDotRun.com)