



**Glastuinbouw Nederland**  
morgen groeit vandaag

**Webinar**  
High Tech en innovatieve technieken  
voor snelle scouting en diagnostiek

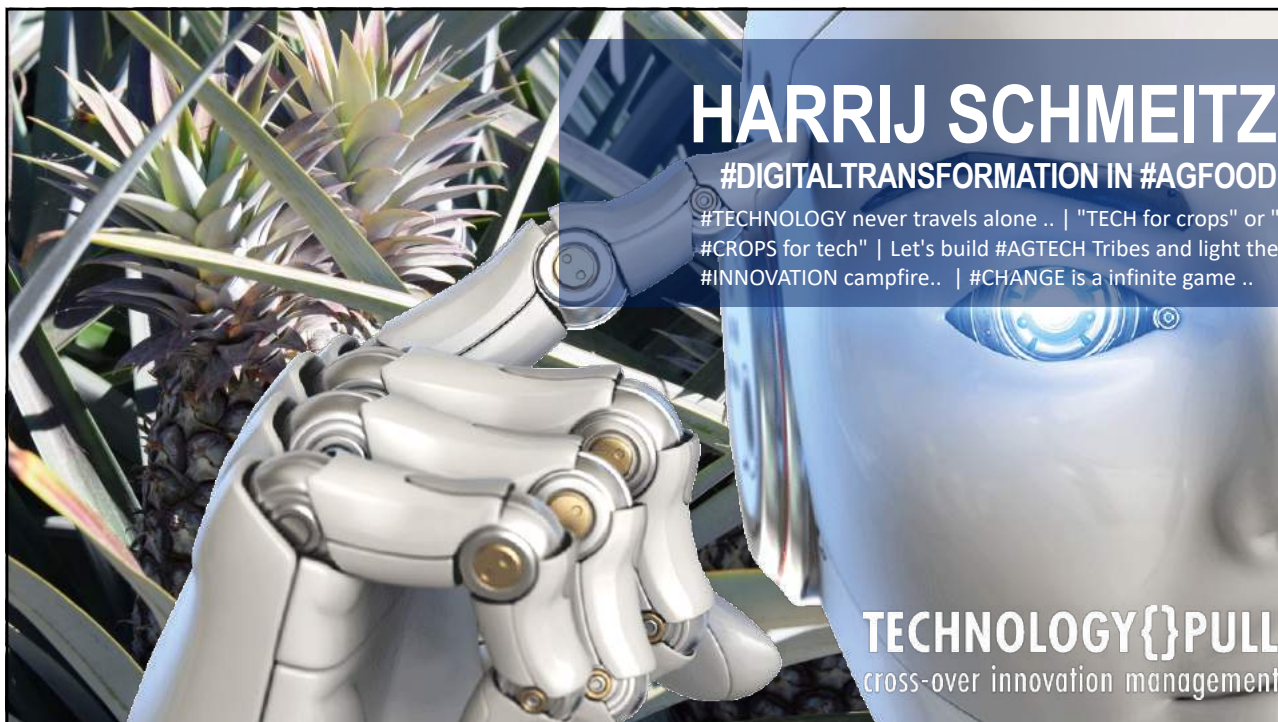
**INLEIDING  
CROPPROTECTION 4.0**

[www.TechnologyPull.NL](http://www.TechnologyPull.NL)  
@fichsc @foodtechtrends @horticult4.0

**TECHNOLOGY PULL**  
cross-over innovation management

Image: TECHNOLOGYPULL/SHUTTERSTOCK

1



**HARRIJ SCHMEITZ**  
#DIGITALTRANSFORMATION IN #AGFOOD  
#TECHNOLOGY never travels alone .. | "TECH for crops" or "  
#CROPS for tech" | Let's build #AGTECH Tribes and light the  
#INNOVATION campfire.. | #CHANGE is a infinite game ..

**TECHNOLOGY PULL**  
cross-over innovation management

2

# MY WORK..

## #DIGITALTRANSFORMATION IN #AGFOOD

### FRESH UPSTREAM

Standardizing Information Fresh Supply Chains  
PROGRAM MANAGEMENT

PARTNERS: EBL, FNLI, GSI, LTO Nederland, FrugiCom, Nevedi

### IMPACT 2025

CHAIRMEN & CO-ORGANIZER

### smart HORTICULTURE GLOBAL & ASIA

CHAIRMEN & CO-ORGANIZER

### PLATFORM FRUITVOORUIT.NL

PLATFORM COORDINATION

PARTNERS: nlo, FruitMasters, DIXEN, Vogelaar Vredenhof, LNF

### fruit tech campus INNOVATION HUB

DIRECTEUR INNOVATIE

PARTNERS: ONDERWIJS, BEDRIJFSLEVEN, GEMEENTE

### FruitMasters.NEXT

OUTSIDE > IN INNOVATIEMANAGER

PARTNER OF: GROW CAMPUS, DATA LAB

### GLAS4.0

PROGRAMM & INNOVATION MANAGEMENT

PARTNERS: Harvest House, ZON, door, DIXEN

**TECHNOLOGY PULL**  
cross-over innovation management

**INNOVATION | GO-TO MARKET  
MANAGEMENT & CONSULTANCY**

**TALKS ON  
#TECHNOVATION IN AGFOOD**

3



State of  
#HORTITECH

© 2020 TECHNOLOGY PULL

4

# DISRUPTION

Images: SMALLBIZTRENDS.COM

**#INNOVATION**      **#DISRUPTION**

THE SAME, LITTLE BIT BETTER → OTHER THINGS → DO THINGS, THAT MAKE THE CURRENT NOT NECESSARY

© DIGITAL TRANSFORMATION IN FRESH PRODUCE

5

Image: Star Trek

HOME | WORLD | [FDA Approves Bio-heart Science for Apple Watch](#)

### FDA Approves EKG Heart Monitor for Apple Watch

Image: ExtremTech

6



# State of #HORTITECH

- SINGLE PLANT
- SENSORS
- AUTONOMOUS GROWING
- DIGITAL SCOUTING
- CROP ROBOTS
- YIELD ROBOTS
- DRONES
- CONTROLLED
- PLATFORM THINKING
- TRANSPARENCY
- TECH AS A SERVICE
- SERVITIZATION
- GENERATION VOICE
- DATA SECURITY
- DATA QUALITY
- BURN RATE

Image: FilmMasters

7

# KEY TECHNOLOGIES

TECHNOLOGY PULL  
cross-over innovation management

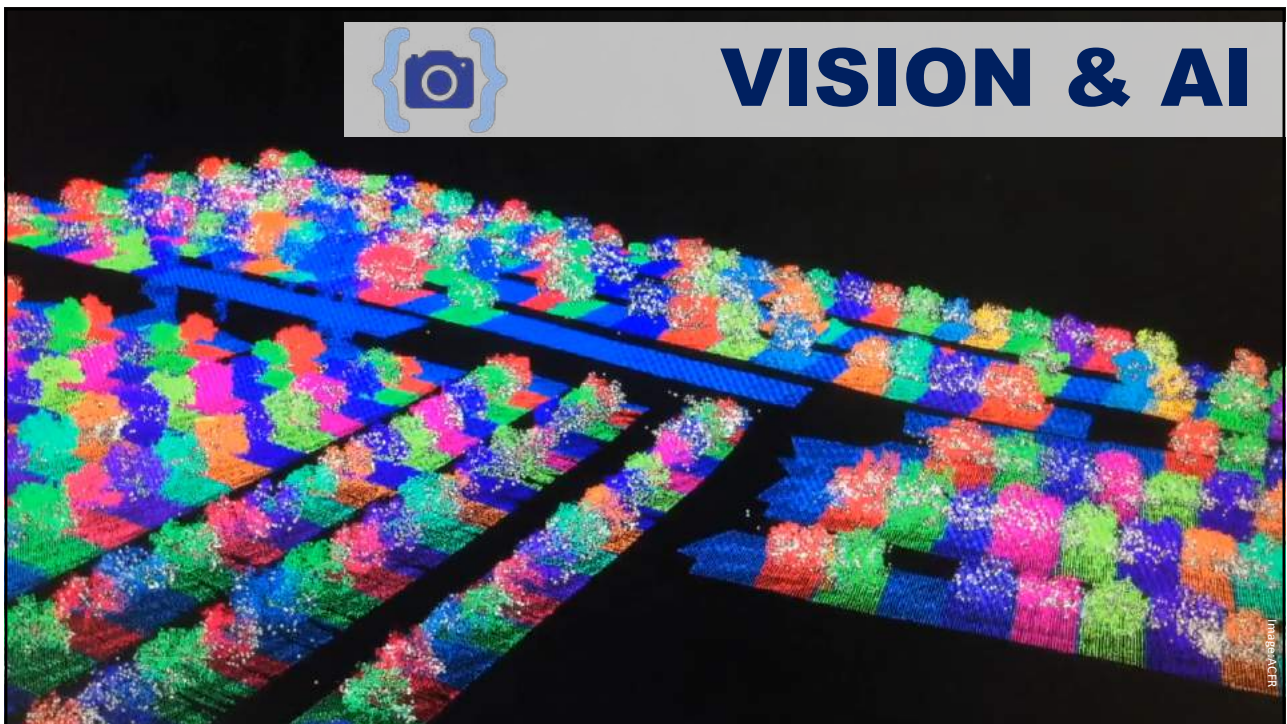
Image: TECHNOLOGYPULL/SHUTTERSTOCK

© 2020

8



9



10



THE UNIVERSITY OF SYDNEY




# ROBOTICS

Robotics Innovation Australia

## RIPPA Demonstrating Autonomous Crop Interaction

ACFR Ag Robotics Team

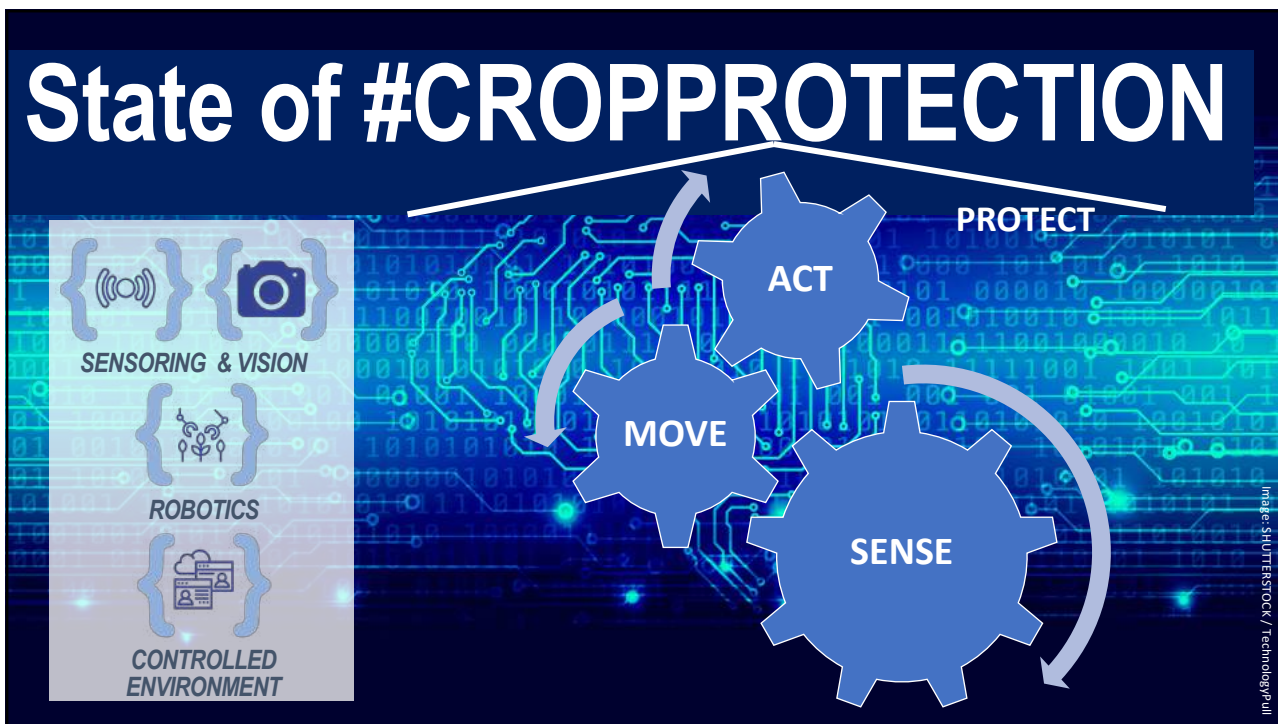
11



# DATA

```
10011001110000011010101  
01110001010100011110001  
0000111110101010101111  
11010011010101010111001  
00011010100001100011100  
10101010000111001101010
```

12



13



14



# SCOUTING APPS

Measurement	27-04	05-05	06-05	07-05	13-05
Acute	Low	Low	Low	Low	Low
Chronic	Low	Low	Low	Low	Low
Damage	Low	Low	Low	Low	Low
Control Number	3	3	3	3	3
Days since last visit	12	12	12	12	12
Line number	12	14	15	8	8
Macrofauna counts					
Beneficials	Low	Low	Low	Low	Low
U-Index	Low	Low	Low	Low	Low
Parameters	Low	Low	Low	Low	Low
Population Index	Low	Low	Low	Low	Low
Scale number	1	2	3	4	4
Scale	Low	Low	Low	Low	Low
Scale index	Low	Low	Low	Low	Low
Scale Number	1	2	3	4	4
Scale by colour	Low	Low	Low	Low	Low
White fly traps (T)	High	High	High	High	High

**biobest**  
SUSTAINABLE CROP MANAGEMENT

**Crop-Scanner**  
Snel en accuraat scouten,  
Optimaal advies!

Powered by  
**Agritask**

15

# SCANNING APPS

**KOPPERT**  
BIOLOGICAL SYSTEMS

16



**SENSOREN**

SCANIT

© TECHNOLOGY[PULL] - DIGITAL TRANSFORMATION IN FRESH PRODUCE

17

**GEARBOX**  
INNOVATION MAKERS

**CHECKPOINTS**

18



19



20





21



22





23



24





25



26

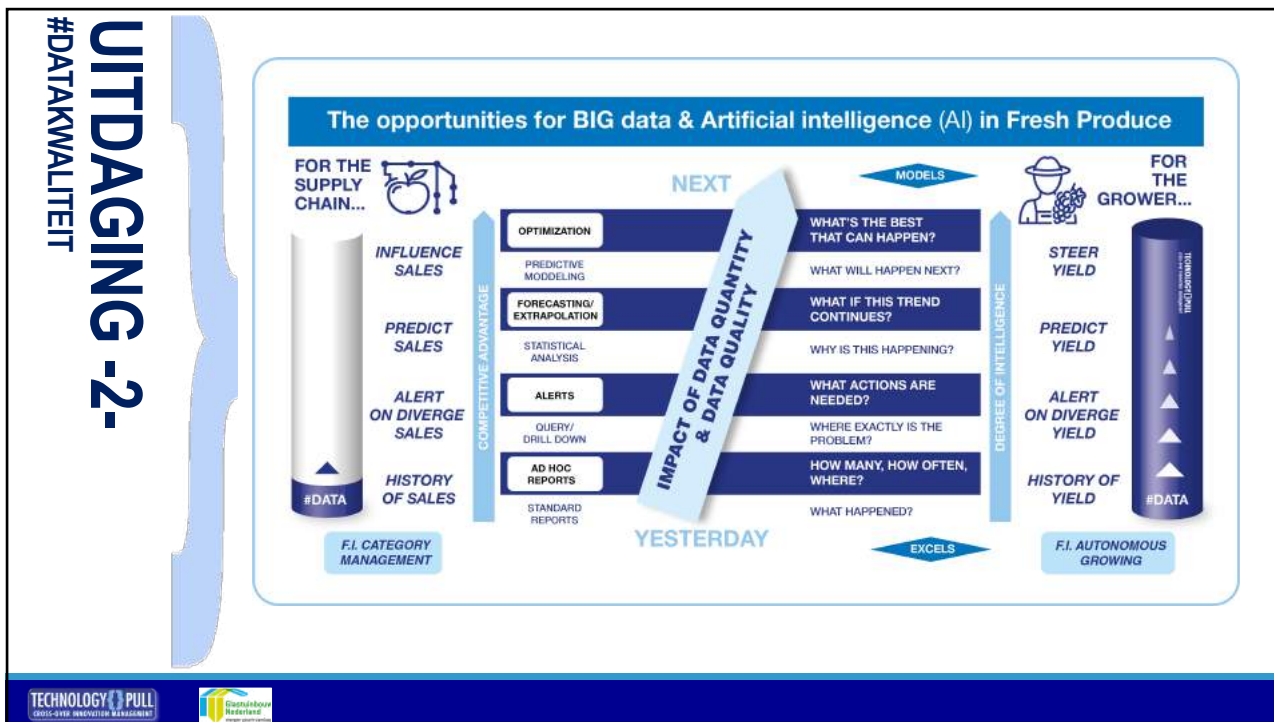


27

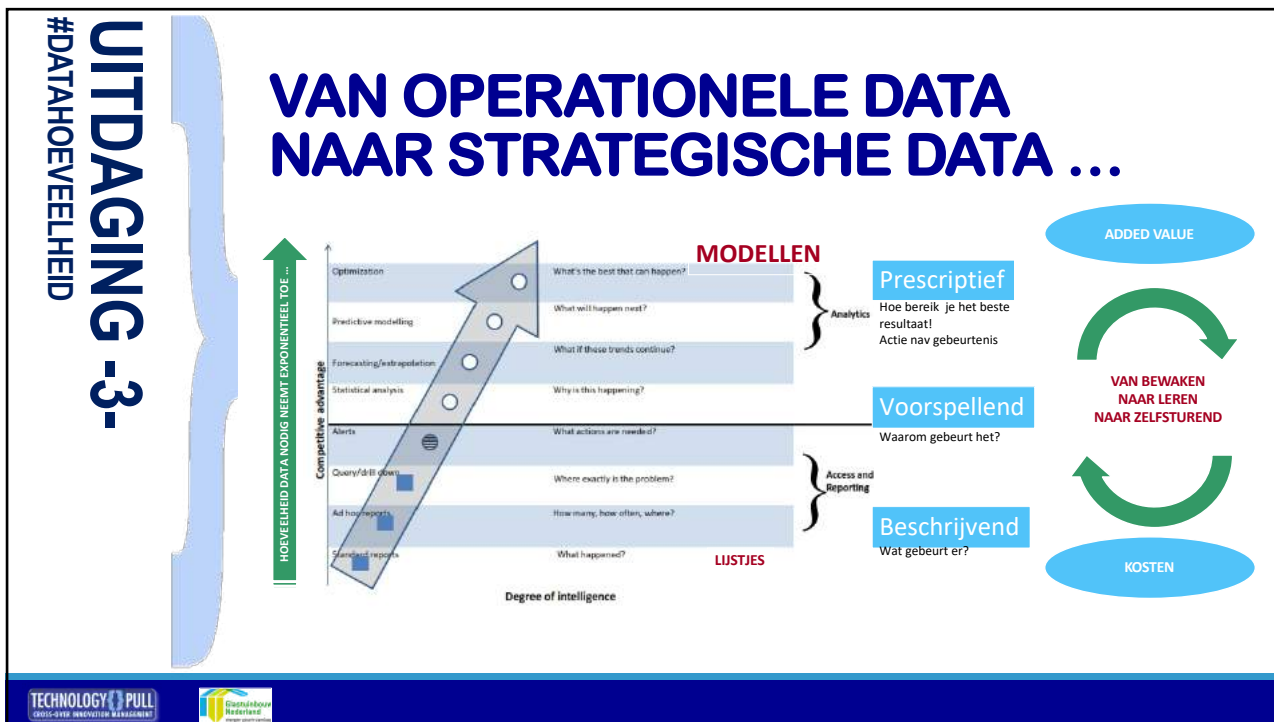


28





29



30

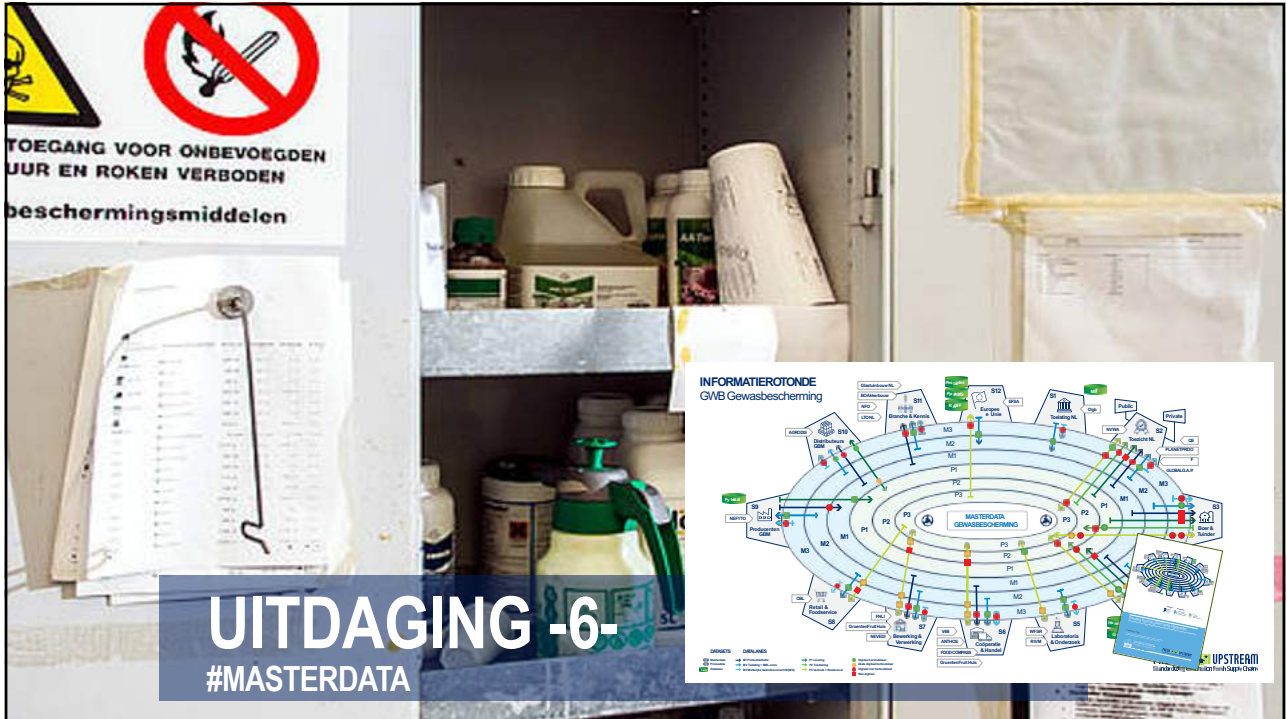


31



32





**UITDAGING -6-**  
#MASTERDATA

33



34

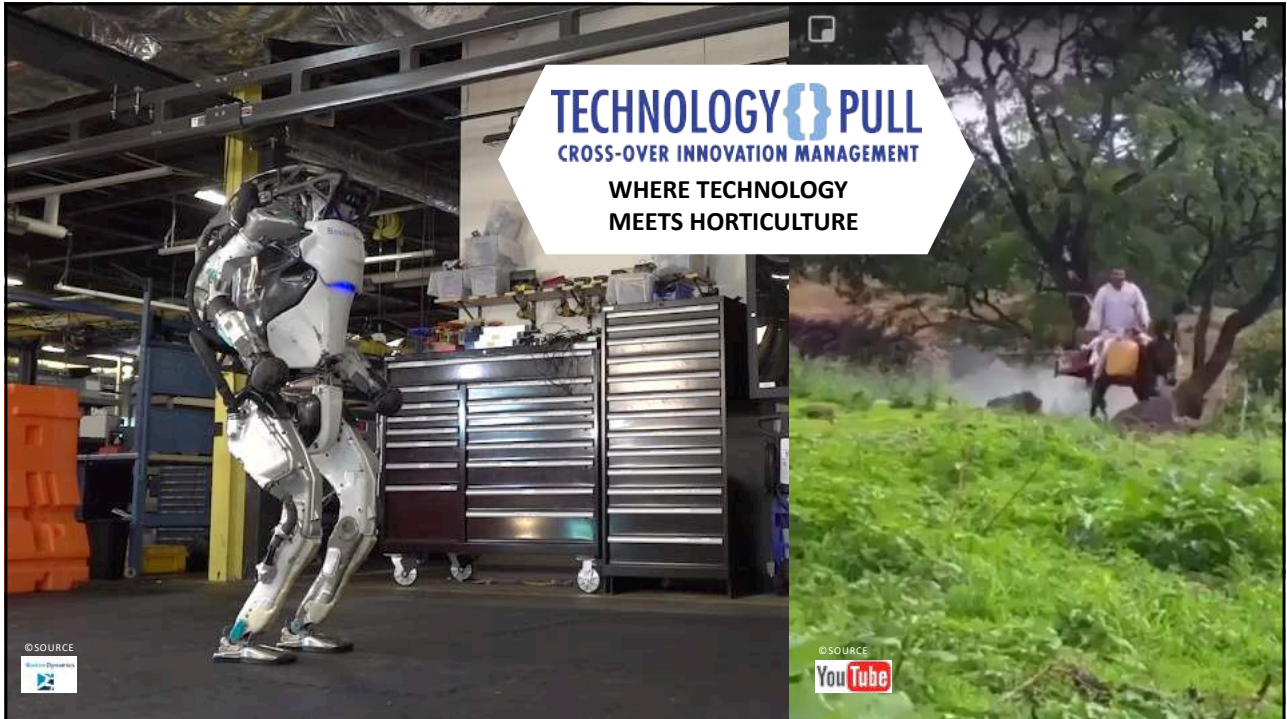


35



36





37

**MARKET-PULL  
TECHNOLOGY-INNOVATION**



**@FOODTECHTRENDS**  
Trends in AgFood & Technology.

**@HORTICULT4**  
Industry4.0 in Horticulture

**@SMART\_HORTI**  
Update of SMART-HORTICULTURE events

**@FICHSC**  
Market Developments in Agri-Tech



**TECHNOLOGY } PULL**  
cross-over innovation management

**HARRIJ SCHMEITZ**  
SCHMEITZ@TECHNOLOGYPULL.NL

[WWW.TECHNOLOGYPULL.COM](http://WWW.TECHNOLOGYPULL.COM)

38