Rhetorical Question

Did you get to where you are by accepting the status quo?
USGA Challenge Statement

Rand Jerris, Ph.D.
USGA

5th Golf Innovation Symposium
GOLFER EXPERIENCE

Trends in Golf Maintenance

Faster greens  Thick, uniform rough  Lower fairway heights
GOLFER EXPERIENCE

Trends in Golf Maintenance

Faster greens
Longer rounds
Higher scores

Thick, uniform rough
Lost golf balls
Longer rounds

Lower fairway heights
Difficult to elevate the ball
The yips
Trends in Golf Course Design

- Bunkers
- Increasing length
- Larger footprints
Trends in Golf Course Design

- Bunkers: Higher scores, Longer rounds
- Increasing length: Higher scores, Longer rounds
- Larger footprints: Longer rounds
The Net Result

➢ Longer rounds
➢ Lost golf balls
➢ The yips
➢ Higher scores
➢ Less fun

Does this sound like a sustainable game?
What gets measured, gets managed.

If you can’t measure it, you can’t improve it.

– Peter Drucker
Voice of the Customer: 2015

Thinking about the typical experience on the golf course you play most often, how satisfied are you with the overall experience?

69%
(Top-three box score)

Source: USGA Programmatic Tracker, Sports and Leisure Research Group, 2015
Voice of the Customer: Benchmarks

Highest Ranked of 48 Industries:
Full-Service Restaurants and Televisions 82%

Lowest Ranked of 48 Industries:
Airlines 69%

Source: American Customer Satisfaction Index, 2015
Golf’s Ecosystem

GOLFERS

GOLF COURSES
Pebble Beach, 1977
Pebble Beach, 2014
Trends in Golf Maintenance

Faster greens
Thick, uniform rough
Lower fairway heights
Trends in Golf Maintenance

**Faster greens**
- Significantly more labor
- Significantly more chemicals
- More energy

**Thick, uniform rough**
- Significantly more labor
- Significantly more chemicals
- More energy

**Lower fairway heights**
- More labor
- More chemicals
- More energy
Trends in Golf Course Design

**Bunkers**
- Increasing length
- Larger footprints
**Trends in Golf Course Design**

**Bunkers**
- Significantly more labor
- Significantly higher costs

**Increasing length**
- Significantly more water
- Significantly more labor
- Significantly more nutrients

**Larger footprints**
- More water
- More labor
- More nutrients
- More land
Cost Escalation

➢ Water: 11.4% annualized
➢ Nutrients: 10.4% annualized
➢ Energy: 3.7% annualized
➢ Chemicals: 2.2% annualized
➢ Equipment: (-4.9%) annualized
➢ Labor: GCSAA reported 7% jump from 2014 to 2015 after nearly 10 years of incremental growth

Sources: Golf Course Industry Magazine, January 2015; GCSAA Environmental Profile Series, 2016
Macro Trends

Margins = Cash Flow = Cap Ex
The Holy Grail?

Innovative mitigation strategies that optimize resource consumption, while at the same time improve the playing experience for golfers.
THE OPPORTUNITY

Challenge Statement

We will improve golfer satisfaction by 20% while reducing critical resource consumption by 25%
It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.

— Charles Darwin
Thank you!

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