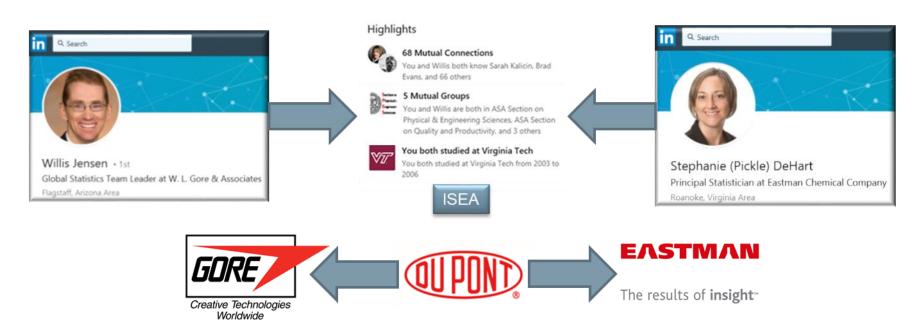


Discussion of Willis
Jensen's Statistical
Engineering Case Study:
Using Networks to Help Determine
Associate Contribution at Gore

Stephanie P. DeHart October 2, 2018

#### Were networks used to pick discussants?



Ranking via Pairwise Comparisons



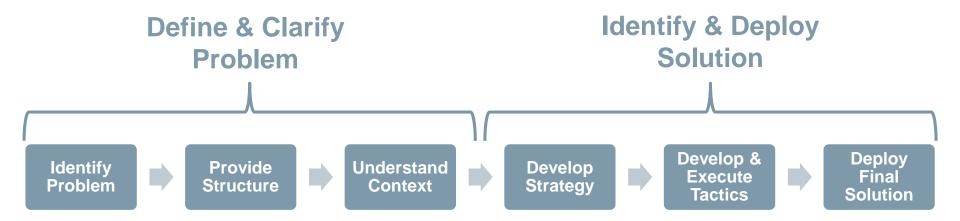
# This case study is well aligned with the statistical engineering definition

The discipline of statistical engineering is the study of

- the systematic integration of statistical concepts, methods, and tools,
- often with other relevant disciplines,
- to solve important problems
- sustainably.



# This case study followed the framework for tackling statistical engineering projects



#### Steps to define & clarify problem

#### **Identify Problem**

 Concern with current process (e.g., cumbersome, time intensive, not based on sufficient input)

### Provide Structure

- Need efficient & accurate way to assess associates using input from diverse peers
- Metrics: time, confidence in inputs & ranking

### **Understand Context**

- Gore culture
- Lattice-based organization
- Compensation based on Contribution = Impact x Effectiveness



#### Steps to identify & deploy solution

#### Develop Strategy

- Phases: Idea →
   Prototype →
   Project
- Large, diverse project team with Champion from HR
- Tasks assigned to sub teams
- Multi-step process to get ranks
- Change Management

### Develop & Execute Tactics



- Self-defined network
- Algorithm for optimal pair set
- Web tool for head-to-head comparisons
- Data Analysis: SAS Proc HPMixed to get rank order

## **Deploy Final Solution**

- Change
   Management:
   Extensive & varied
   communications
- Core team identified as process owners to sustain the gains



#### Without statistical engineering

This problem may have never been addressed

A suboptimal solution may have been identified

The solution may not have been adopted (or sustained)

# Additional opportunities for the use of statistical engineering core competencies

Could the tactical flow unit operations have been utilized in the problem clarification, solution development, or scale-up?



Could specific metrics have been defined to clearly determine if the new process worked?



#### Questions for Willis & the group

Do you think it is easier or harder to use the statistical engineering framework and core competencies at an organization such as Gore?

What is the ideal organization for statistical engineering?

