

Major Fest  
Fall 2024-2025  
Industrial Engineering

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# Eventually

- What would an IE do as a job in a manufacturing plant?
  - Production planning
  - Material and workforce requirements planning
  - Inventory management
  - Layout design
  - Enhance quality, reliability, productivity and cost-effectiveness
  - Reduce waste to a minimum
  - Or even management of the entire supply chain!



# Industrial Engineers are ...

- problem-solvers
- dealing with the **optimization of complex processes or systems**
- to eliminate waste of time, money, materials, man-hours, machine time, energy and other resources that do not generate value.

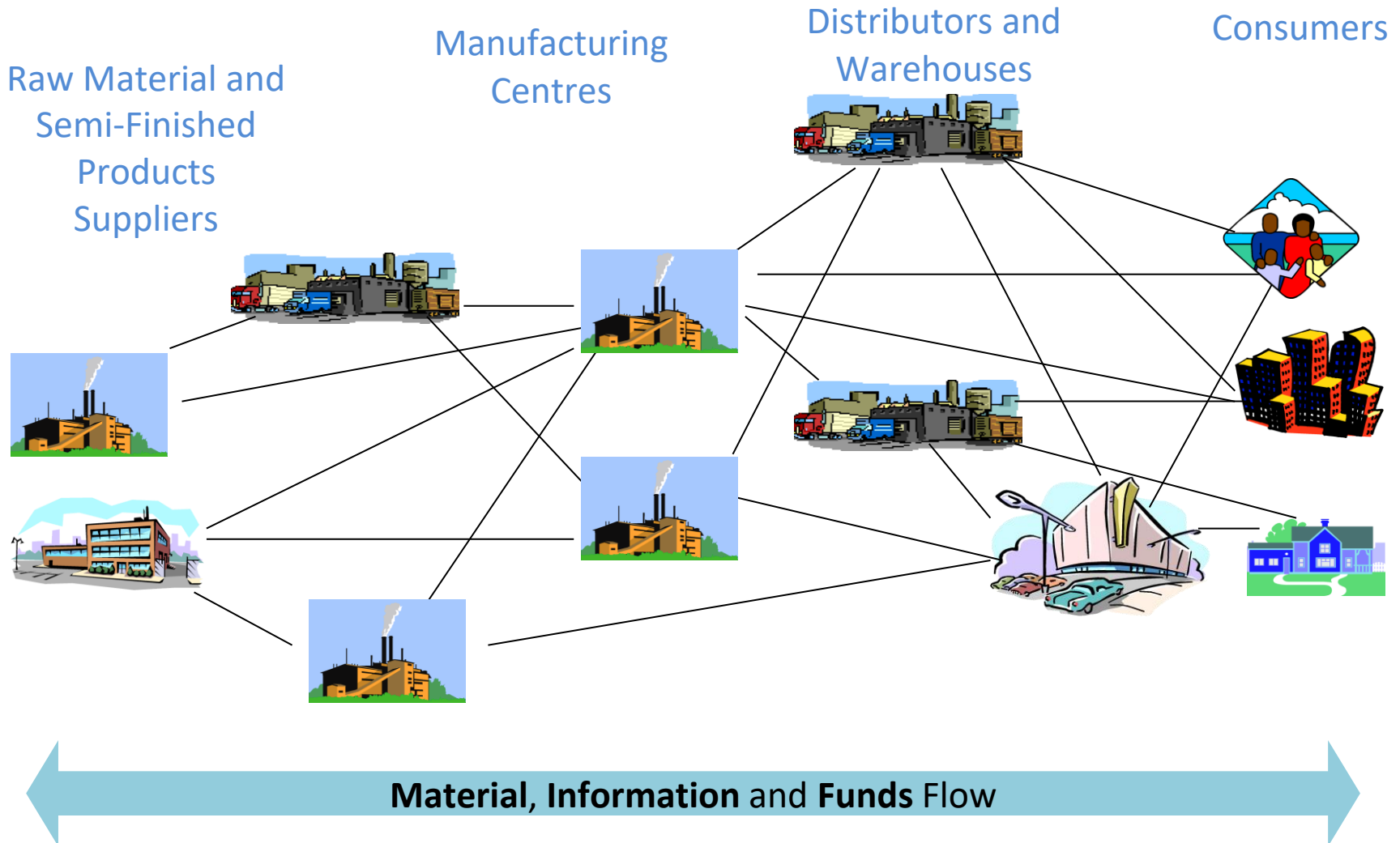
# Industrial Engineers Find a Better Way in any Industry/Service

- A better way to make a product faster and easier
- A safer way
- A less expensive way
- They examine and analyze to find better ways to solve the problem

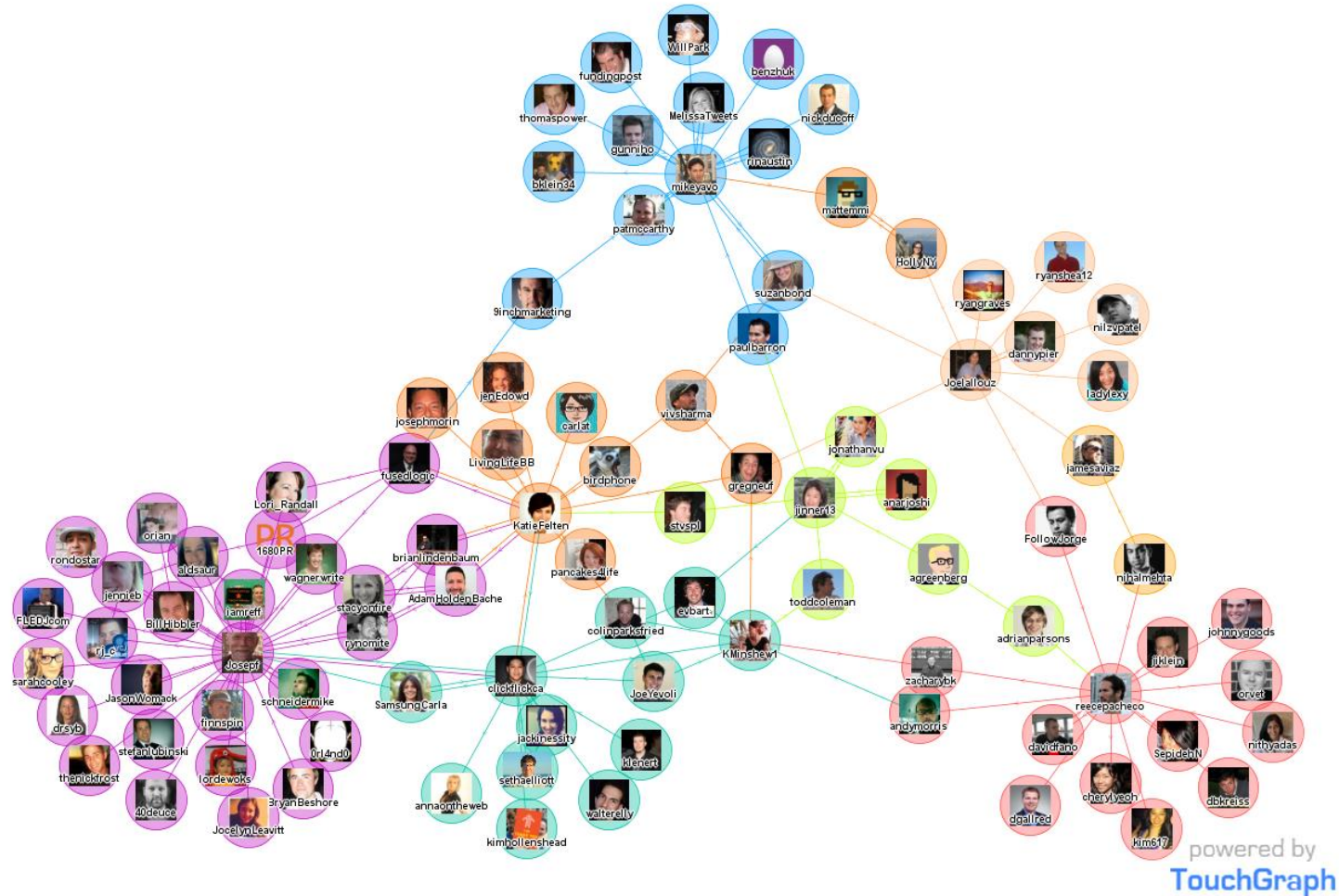
# Industrial Engineering



# A Supply Chain Example



# Optimization in machine learning - example





# IE CURRICULUM: Modeling and Methodologies

**MATH 201**  
Linear  
Algebra

**MATH 203**  
Introduction  
to  
Probability

**DSA 201**  
Introduction  
to  
Computing

**CS 201\***  
Introduction  
to  
Computing

**MATH 306**  
Statistical  
Modeling

**ENS 208:** Introduction to Industrial Engineering

**IE 311:** Operations Research 1 (Deterministic Models)

**IE 312:** Operations Research 2 (Deterministic Models)

**IE 305:** Simulation

**IE 313:** Operations Research 3 (Stochastic Models)

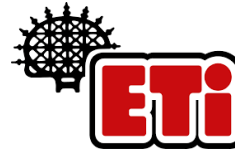
**IE 405:** Decision Analysis

\* For students admitted prior to the Fall 2024-2025 term, CS201 or DSA201 is required. If both courses are taken, "CS201" will count towards the "Core Elective" course requirements.

# Where are Sabancı IE graduates in business?



L'ORÉAL



Deloitte.

VESTEL



B/S/H/



AKBANK

# Where are Sabancı IE graduates in academy?



Yale

Carnegie  
Mellon  
University



BOSTON  
COLLEGE



ROYAL INSTITUTE  
OF TECHNOLOGY



Bilkent Üniversitesi



Bocconi  
Università Commerciale  
Luigi Bocconi



Sabancı  
Üniversitesi