

Smart Initiatives and ITS: Potential Impacts on Firm Site Selection

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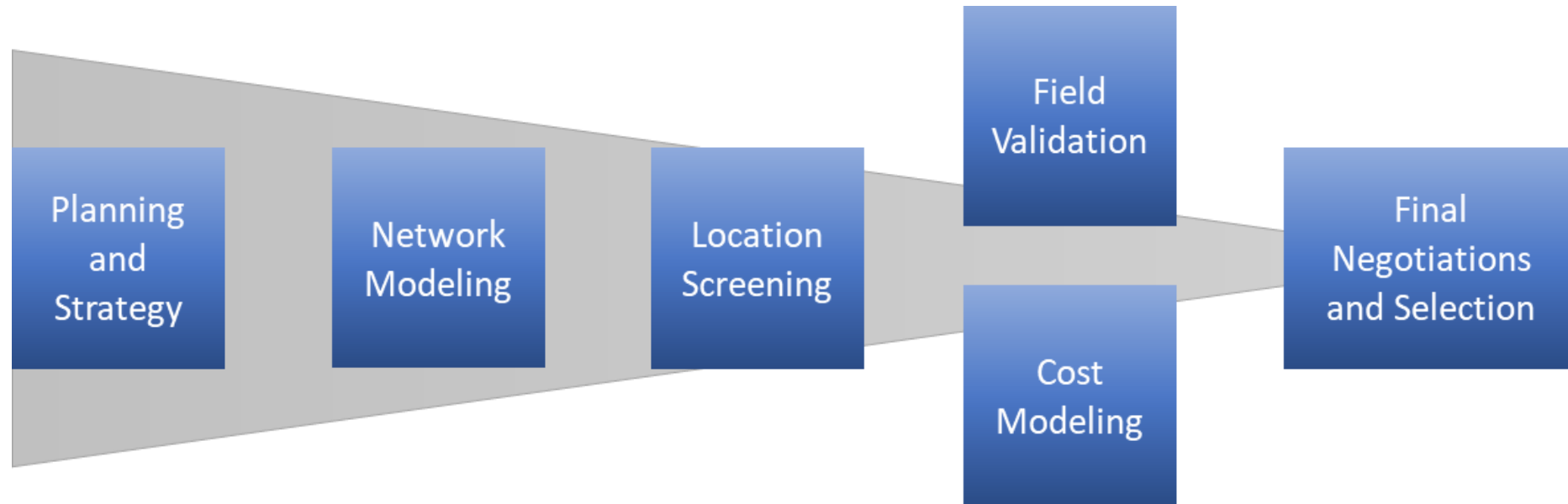
EDR Group, an EBP Company

TRB Annual Meeting

Washington, DC

January 13, 2019

Steps in Generalized Site Selection Process



Source: The Role of Transportation Investment in Private Firm Site Selection Decisions: A Primer for Transportation Planners and Decision-makers (2018), https://www.fhwa.dot.gov/planning/economic_development/site_selection/

Different Industries Care About Different Things



Chip Fabrication Plant

Interstate Highway Access

International Air Cargo

Reliable Water Source

Labor Access



E-Commerce Fulfillment Center

Shovel-ready Land

Reliable Highways

Labor Access



Intermodal Rail Facility

Minimal Disruption Risk

Reliable Transport Infrastructure

How Does Smart Mobility and ITS Technology Affect Site Selection Calculus?

Big Data
Networks

- System reliability
- Accessibility

ITS

- System reliability
- Accessibility

Autonomous
Vehicles

- Land development
- Business cost

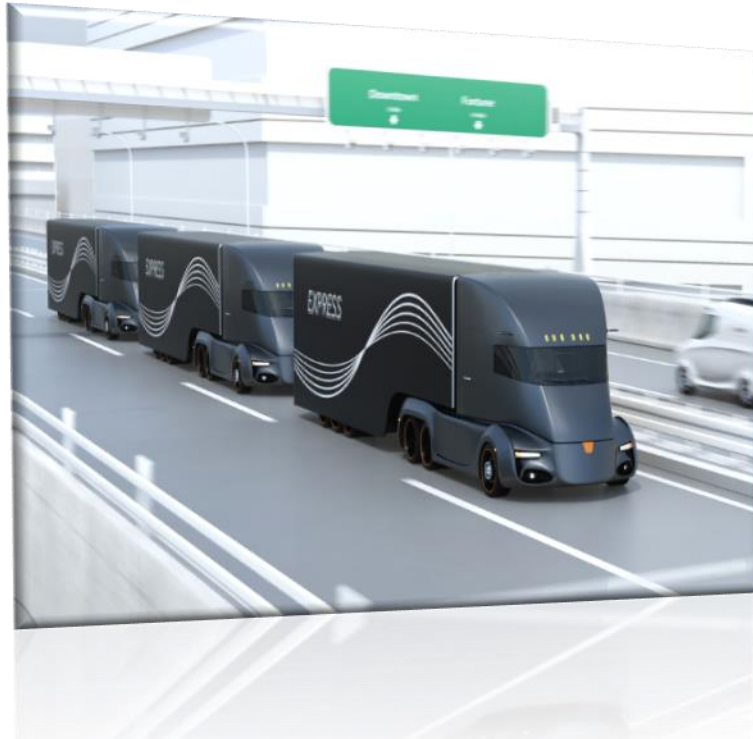
Examples of Smart Technology Impacts on Site Selection Calculus



Supply Chain



Local Delivery



Why it matters

- “Same-day” deliveries - longer distance + lower cost
- Shift locations for warehouses + truck facilities

Connected & Autonomous Trucks

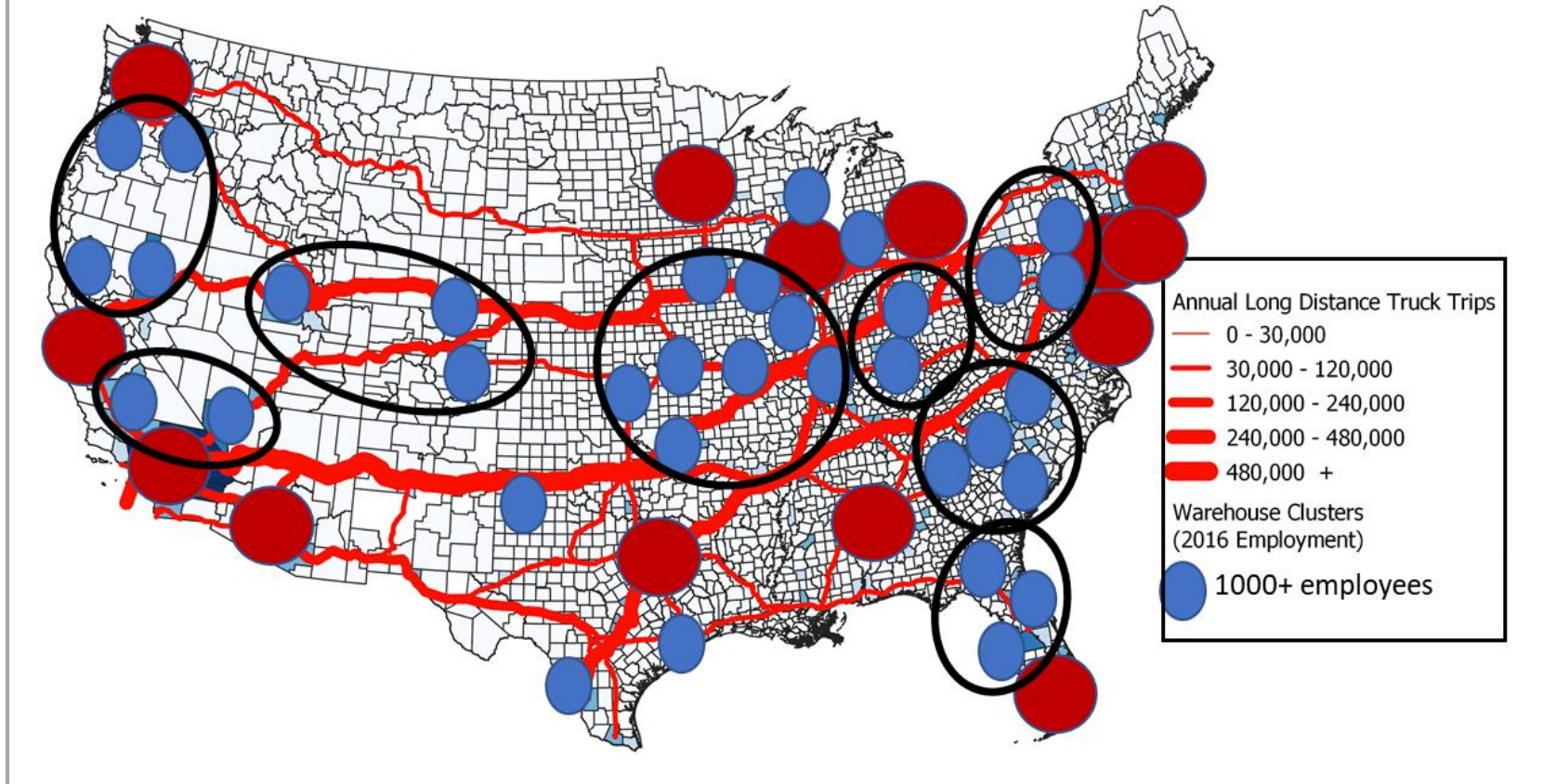
Anticipated changes

- Driverless trucks eliminate
 - driver cost
 - driver/operator time limits
 - driver breaks
- Connected 3-truck platoons enable
 - operating cost savings
 - safety + emissions improvement

Warehousing Centers along long distance truck routes

Red = Largest Metro Areas

Blue = Regional Distribution Centers



CAVs Enable Longer Distance Deliveries

Most affected industries:

- Electronics
- Pharmaceuticals
- Instruments
- Machinery

Predictive future analytics courtesy of **TREDPLAN**



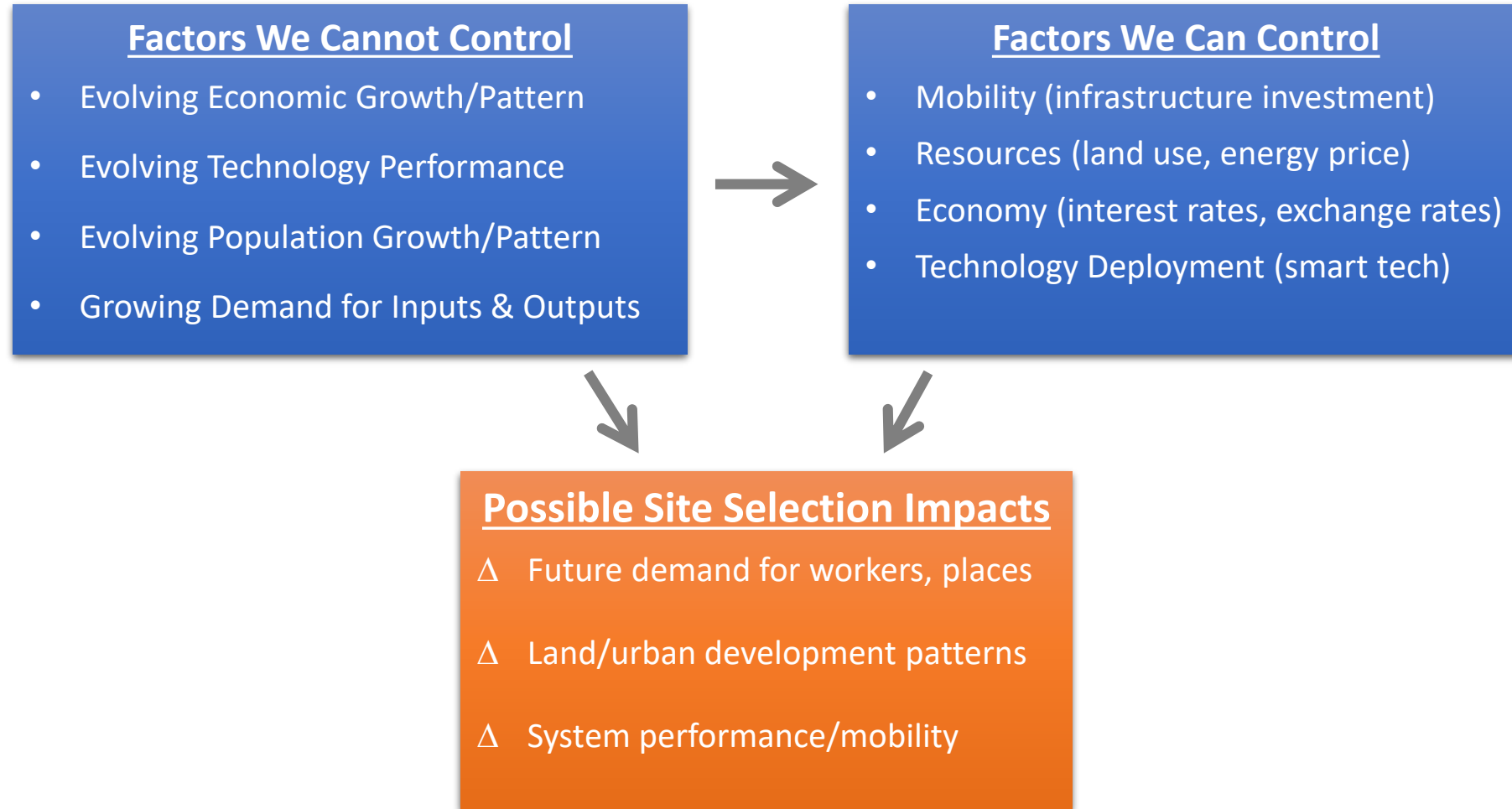
Anticipated changes

- Explosive growth in same-day deliveries
 - 24/7 delivery movements
 - Brick & mortar storefronts in dual roles
 - Use of autonomous vehicles for “last 50-foot” movements/deliveries
 - Rise of Urban Warehouses and Micro-fulfillment facilities

Why it matters

- Growth in short-distance movements in congested urban areas
- Need for smart infrastructure to facilitate efficiency, safety, livability

Why It Matters for Site Selection



Thank You

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