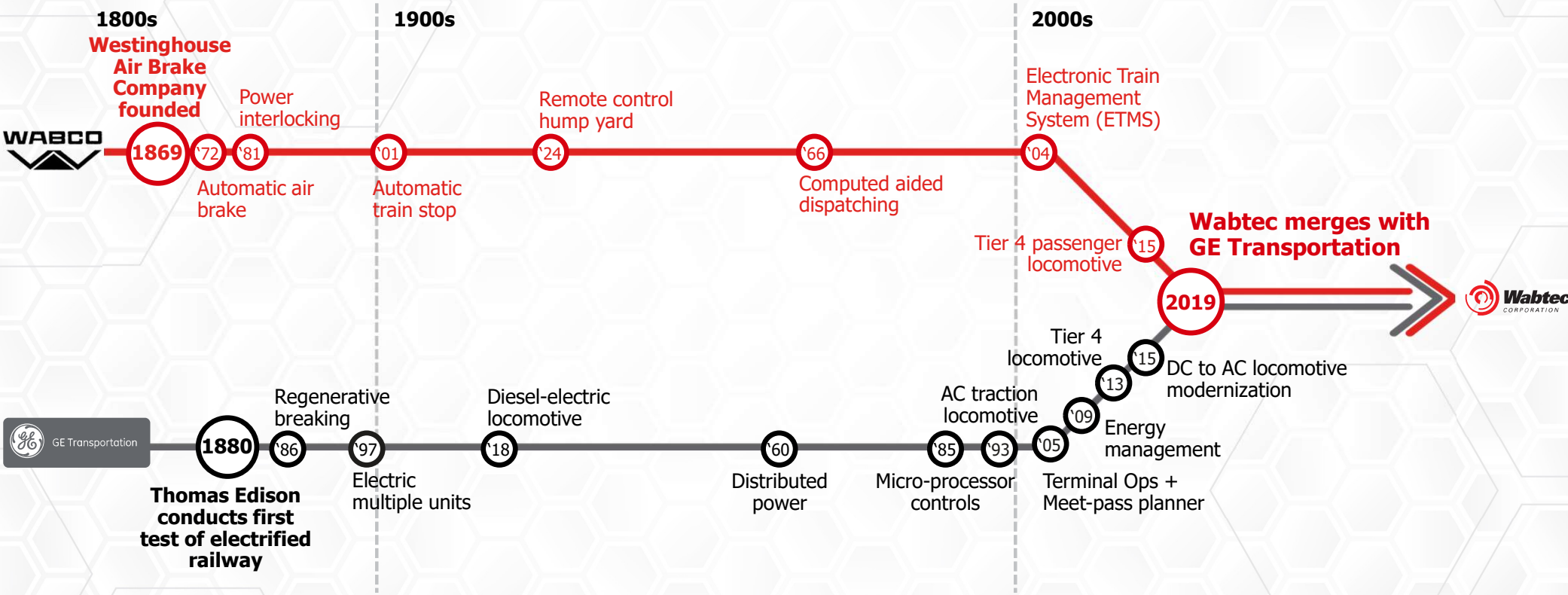
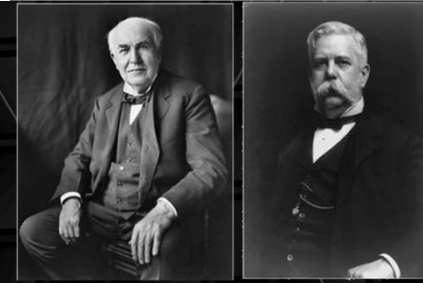




Gina Trombley – EVP and Chief Commercial Officer

Navigating Investment in Technology Through Uncertainty

150+ YEARS OF RAIL INNOVATION



**FROM THE LOCOMOTIVE, TO THE TRAIN, TO THE NETWORK...
OUR FUTURE IS INEXTRICABLY LINKED TO YOURS**

WABTEC

1929 – ELECTRIC LOCOMOTIVE ASSEMBLY IN ERIE

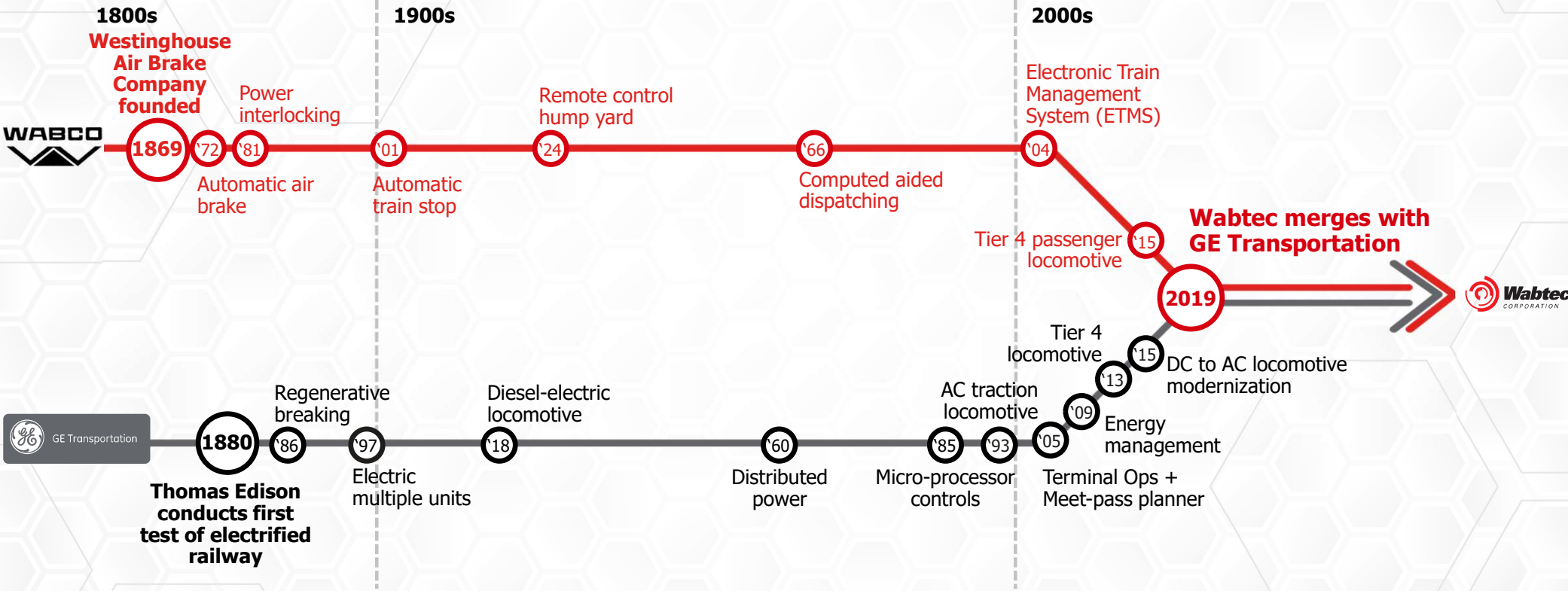
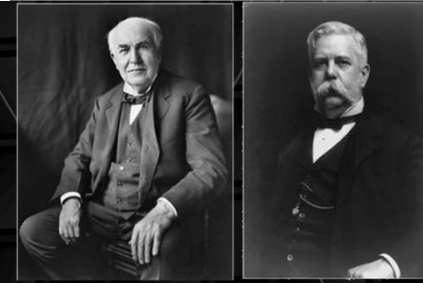


WABTEC

1928 – FIRST DIESEL ELECTRIC LOCOMOTIVE



155 YEARS OF RAIL INNOVATION



**FROM THE LOCOMOTIVE, TO THE TRAIN, TO THE NETWORK...
OUR FUTURE IS INEXTRICABLY LINKED TO YOURS**

WABTEC

ACCELERATE INNOVATION OF SCALABLE TECHNOLOGIES

~6%

target annual organic investment
in technology as % of sales



**ENHANCE EXISTING
PRODUCTS**



**INVENT, TEST AND SCALE
FUTURE TECHNOLOGIES**

MISSION

Unlock our customers'
potential by delivering
innovative and lasting
transportation solutions.



NAVIGATING UNCERTAINTY IN... EMISSIONS WHICH REGULATORY VISION WILL WIN?

Strict zero-emission cutoffs in California



THE WALL STREET JOURNAL.
California Wants to Ban Your Choo-Choo

In-Use Operational Requirements (2030+)



- Locomotives must be less than 23 years old
- 2030 and 2035 ZE operations are required for some locomotives
- Alternative Compliance Plan can be used instead
- 2027 and 2032 technology assessments



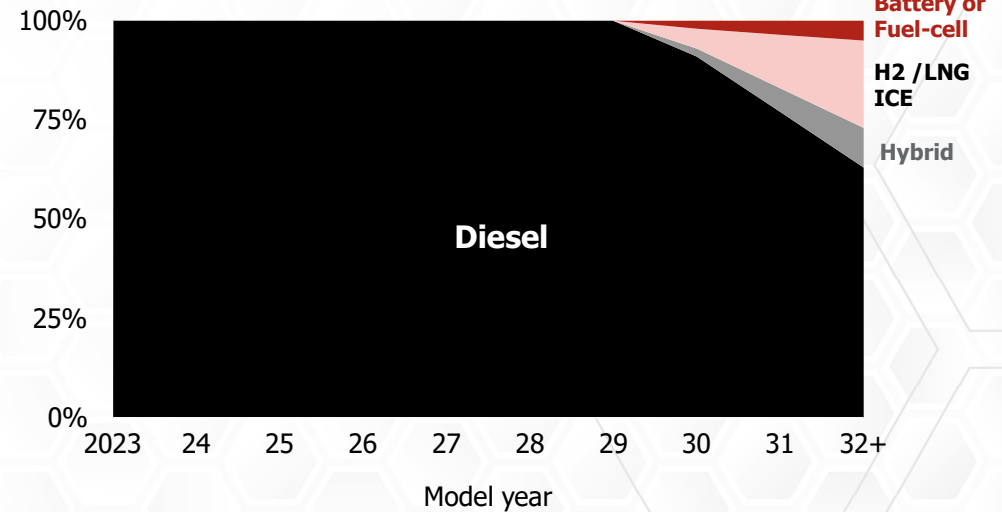
15

EPA pattern of gradual, flexible improvement

EPA approach to Class 8 regulation
Example compliant mix

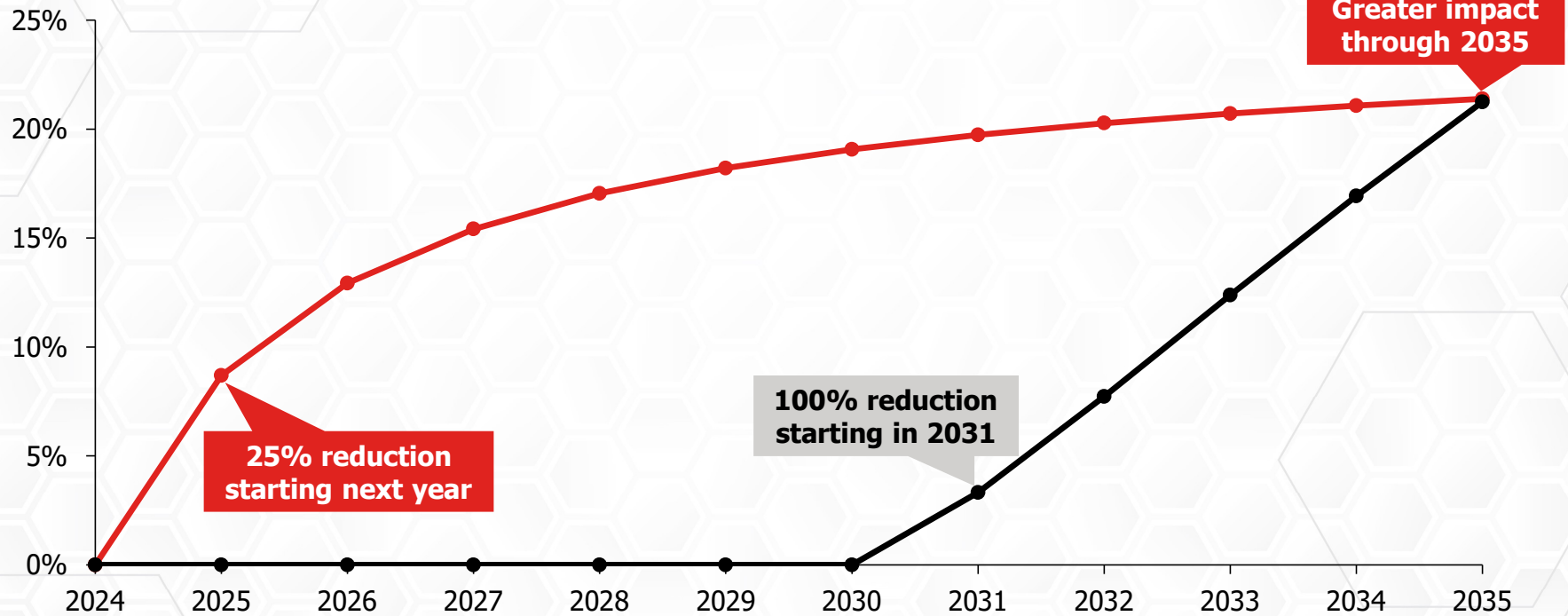


% of new trucks (from OEM)



NAVIGATING UNCERTAINTY IN... EMISSIONS AIMING FOR PRACTICAL, NOT PERFECT

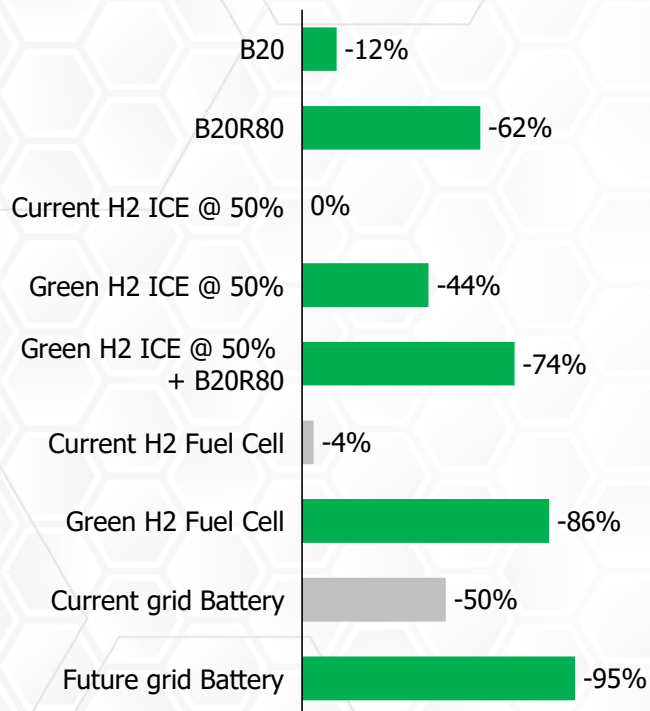
Cumulative carbon reduction (e.g., total warming avoided)



NAVIGATING UNCERTAINTY IN... EMISSIONS

FUEL FLEXIBILITY FOR CURRENT ENGINE TECHNOLOGY

Carbon reduction options *well to wheel*



Innovation in existing ICE engine population

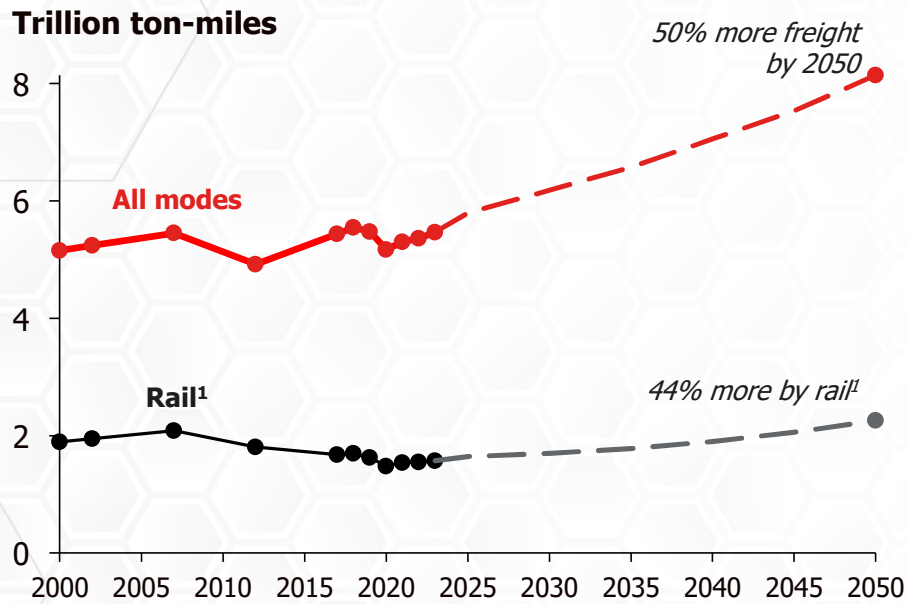


Alternative Fuels Options	7FDL(A)	EVO T3	EVO T4
LNG		✓	○
Bio Diesel	✓	✓	✓
Renewable Diesel	✓	✓	✓
Hydrogen (H ₂)		WIP	WIP
Ethanol (C ₂ H ₆ O)		○	○
Methanol (CH ₃ OH)		○	○
Ammonia (NH ₃)		○	○

NAVIGATING UNCERTAINTY IN... LABOR AVAILABILITY

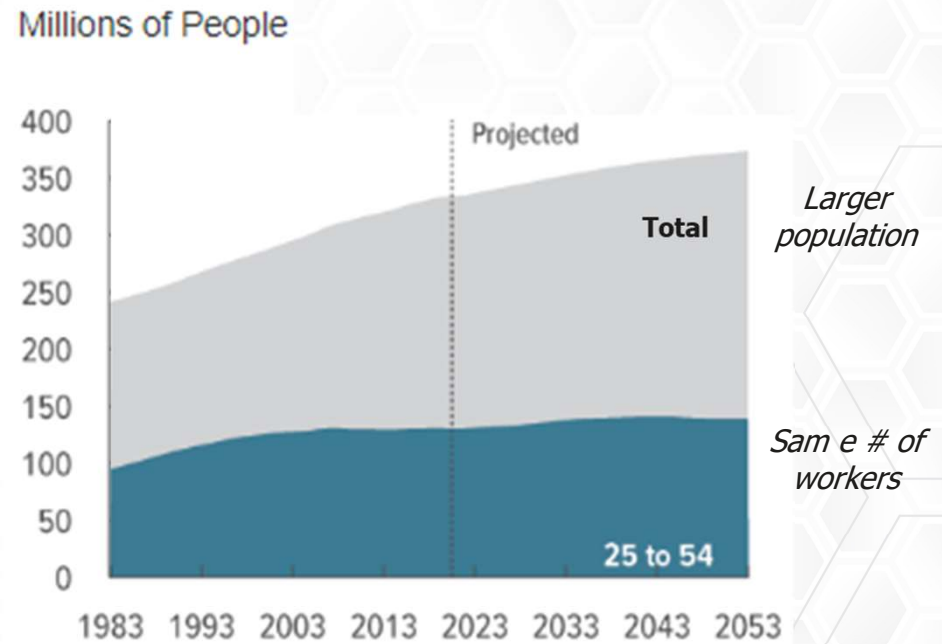
MORE FREIGHT TO MOVE – LESS PEOPLE TO MOVE IT

US projected freight demand



1 – Rail + Multiple modes & mail
Source: US DOT – Freight Analysis Framework

US population by age group



Source: US Congressional Budget Office, Jan '24 Demographic Projections

NAVIGATING UNCERTAINTY IN... LABOR AVAILABILITY KEEPING WORKERS SAFE AND ENHANCING PRODUCTIVITY



Expanded remote control reduces time road crews spend in terminal traffic



Inspection technologies to utilize labor resources as “fixers not finders”



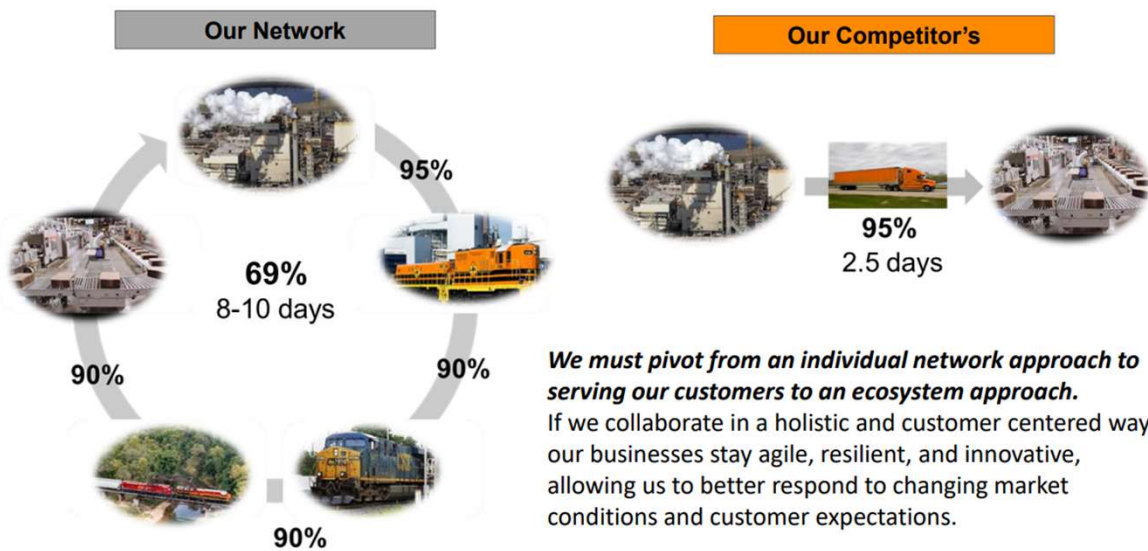
Robotic sled in yards, aiming to keep employees away from couplers and hoses

NAVIGATING UNCERTAINTY IN... THE NA RAIL ECOSYSTEM NEED TO WORK TOGETHER

Michael Miller – RailTrends 2023

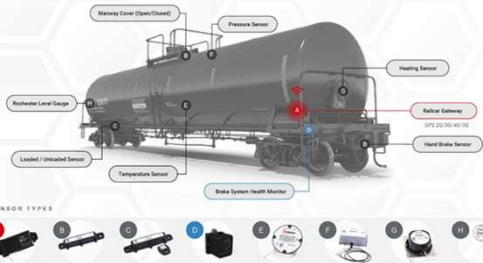
Joe Hinrichs – RailTrends 2023

Working together is the best way to accelerate growth

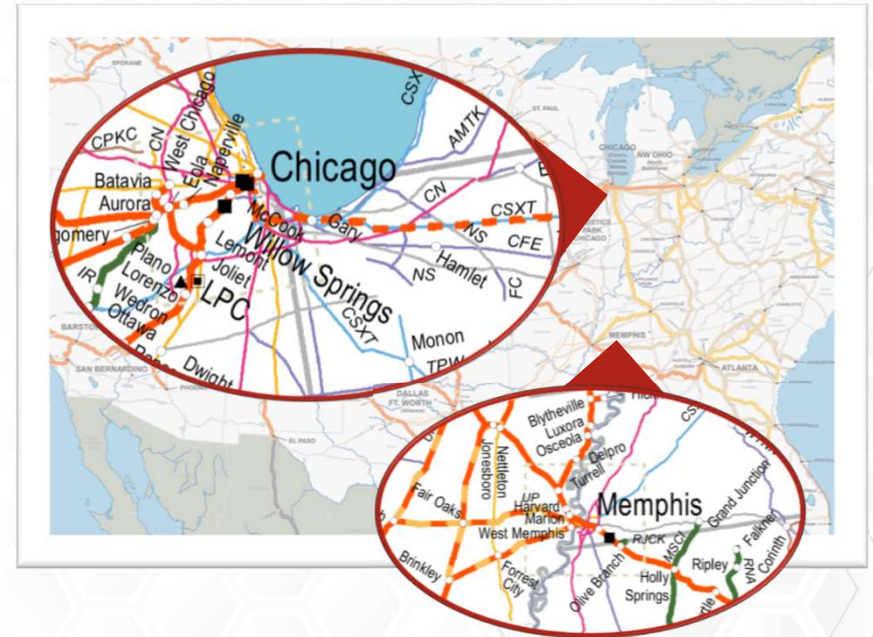


"I've been fascinated that oftentimes the railroads look at every single one of the other Class I's as competitors...Roughly half of our business touches another railroad. The customer experience is holistic, so from my perspective, we're all partners"

NAVIGATING UNCERTAINTY IN... THE NA RAIL ECOSYSTEM SOLUTIONS ACROSS THE NETWORK



Port Optimizer, Telematics, and Advance image processing all improve asset visibility across stakeholders



Next-gen Dispatch and Movement Planner for improved and predictable network fluidity ... on the seams?

NAVIGATING UNCERTAINTY IN... THE NA RAIL ECOSYSTEM CONCEPTS ON THE LOCOMOTIVE



Digital slug to equip older locomotives with evolving modern technology (i.e., PTC for mainline access)



Autonomous rail vehicle for more frequent and predictable first-last mile movements with no other asset changes



Teleoperations to remote in skilled engineers for the most critical moves

NAVIGATING UNCERTAINTY... TOGETHER

Successful Collaboration on Biofuel



Union Pacific

FDL R80/B20

FDL HPCR R100

- Captive service FDL field test began in May '22 and Feb '23 for FDLA in California
- Stationary testing with Canadian National



BNSF

EVO HPCR B20

EVO T4T B20

- Captive service field test began with R80/B20 in Aug '22 in California and switched to B20 in Jun '23



CSX

FDL HPCR B20

- Captive service field test began in Nov '22 in Florida



CPKC

FDL B20

- Captive service field test began in Jun '23 in Canadian coal loop



Telling our Story ... Together



To Win the Talent War



**INVESTING TOGETHER ...
FOR THE NEXT 150 YEARS**