

# thyssenkrupp Elevator – Fleet program

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Chattanooga  
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engineering.tomorrow.together.



thyssenkrupp

# thyssenkrupp Elevator Americas Business Unit

## Diversified Business Groups

the largest producer of elevators in North America

Globally 43€ billion revenue, 158,000 employees

main plant in **Middleton, Tennessee, US**

(other plants are located in Toronto, Canada, and Porto Alegre, Brazil)



					
<b>Components Technology</b>	<b>Elevator Technology</b>	<b>Industrial Solutions</b>	<b>Materials Services</b>	<b>Steel Americas</b>	<b>Steel Europe</b>
Sales (€ mill) <b>6,172</b>	Sales (€ mill) <b>6,416</b>	Sales (€ mill) <b>6,271</b>	Sales (€ mill) <b>13,660</b>	Sales (€ mill) <b>2,060</b>	Sales (€ mill) <b>8,857</b>
Employees <b>28,941</b>	Employees <b>50,282</b>	Employees <b>18,546</b>	Employees <b>30,289</b>	Employees <b>3,466</b>	Employees <b>26,231</b>

\* Continuing operations (after reclassification of Steel Americas)  
 \*\* Adjusted before consolidation



# thyssenkrupp Elevator

Our business

## Elevators



- Traction elevators
- Hydraulic elevators
- Freight elevators

### Innovations

- MULTI
- TWIN
- High speed double deckers

## Escalators/ moving walks



- Escalators and Moving walks for all applications

### Innovations

- ACCEL
- iwalk
- Mobile escalators

## Baseline 2012

### New construction

- 10,000 units annually
- 150+ branches

### Service

- 230,000 units serviced annually
- Multiple visits per unit annually

Baseline	2012
Petrol (gal.)	3,891,323
Diesel (gal.)	488,758
Miles	65,179,081
Vehicles	3111
Efficiency (mpg)	15.0



# thyssenkrupp Elevator

## Fleet efficiency

### Baseline 2012

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Vehicles	3111
Efficiency (mpg)	15.0

### Today 2015

#### New construction

- 11,000 units annually
- 150+ branches

#### Service

- 233,000 units serviced annually
- Multiple visits per unit annually

Today	2015
Petrol (gal.)	3,845,488
Diesel (gal.)	379,390
Miles	68,068,690
Vehicles	3207
Efficiency (mpg)	16.1

### Tomorrow 2020

#### New construction

- 11,500 units annually
- 150+ branches

#### Service

- 235,000 units serviced annually
- Multiple visits per unit annually

Baseline	2020
Petrol (gal.)	3,375,152
Diesel (gal.)	379,390
Miles	68,000,000
Vehicles	3300
Efficiency (mpg)	18.1



# Middleton, TN factory – Achieved LEED Gold in 2015

year built: 1969, Size: 800,000sq.f.t



## Our first goal: reduce fuel consumption



Migrate to smaller more fuel efficient vehicles. Current status: 550 4-cylinder vehicles on the road; by 2015 we increased to 1,300 and our V8 vehicle use have decline from 2150



# Our second goal: identify the best alternative fuel for our company



# Alternative fuel - Propane

## Fleet efficiency

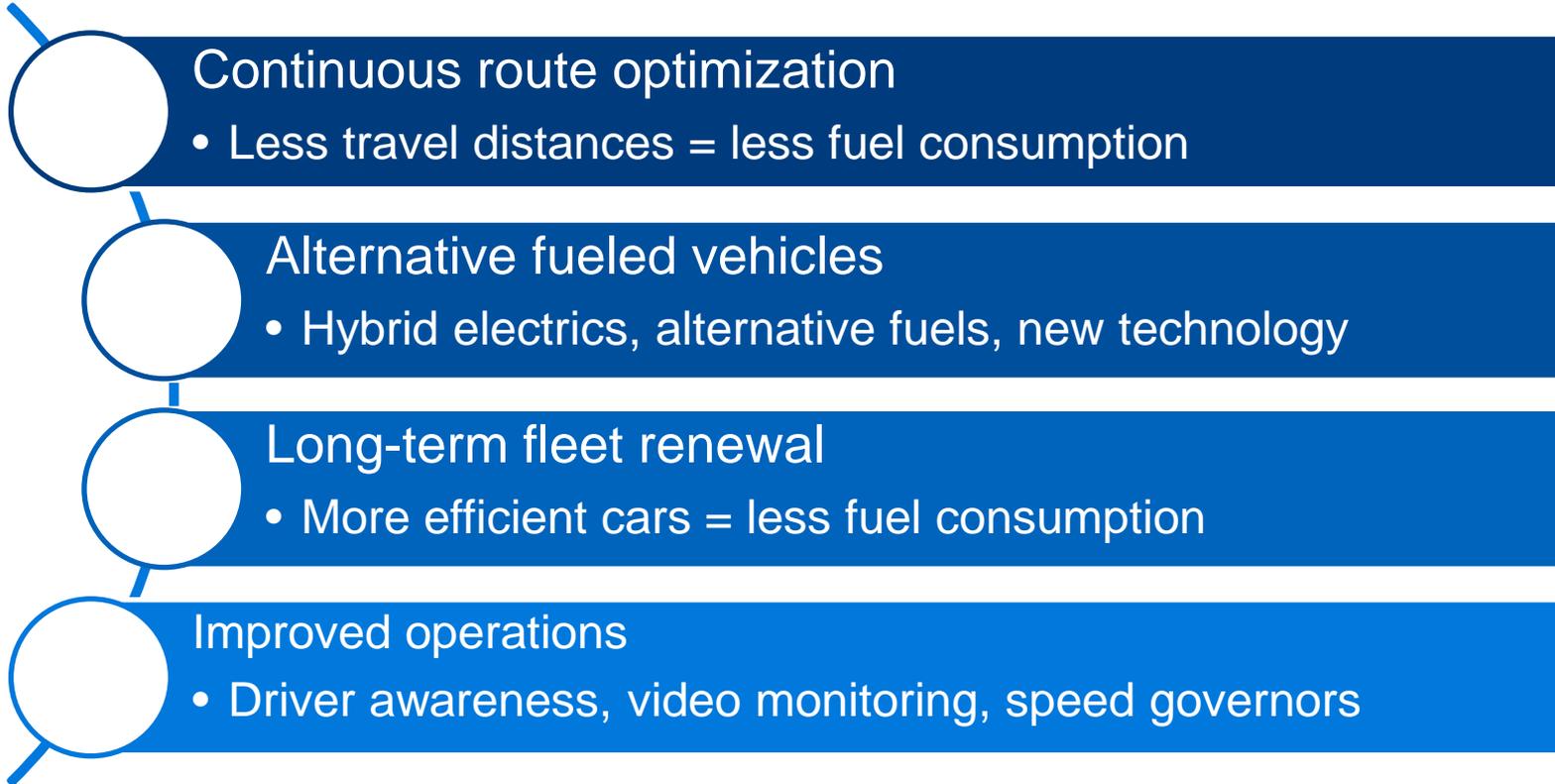


- Dual fueled system
  - Primary – propane
  - Secondary – petrol
- Range – 800+ miles
- Starts on petrol, automatically switches to propane when engine is warm,
- Automatically switches to petrol if propane tank runs empty.

Our vehicles go home with our drivers each night – this means we need local propane fuel infrastructure



# Our tactical path forward



# Backup



# Phoenix Propane Fueling Infrastructure

