



Alternative Fuels For Diesel Engines

An Operator's Perspective

Steve Tainton
Head of Sustainability, Wincanton

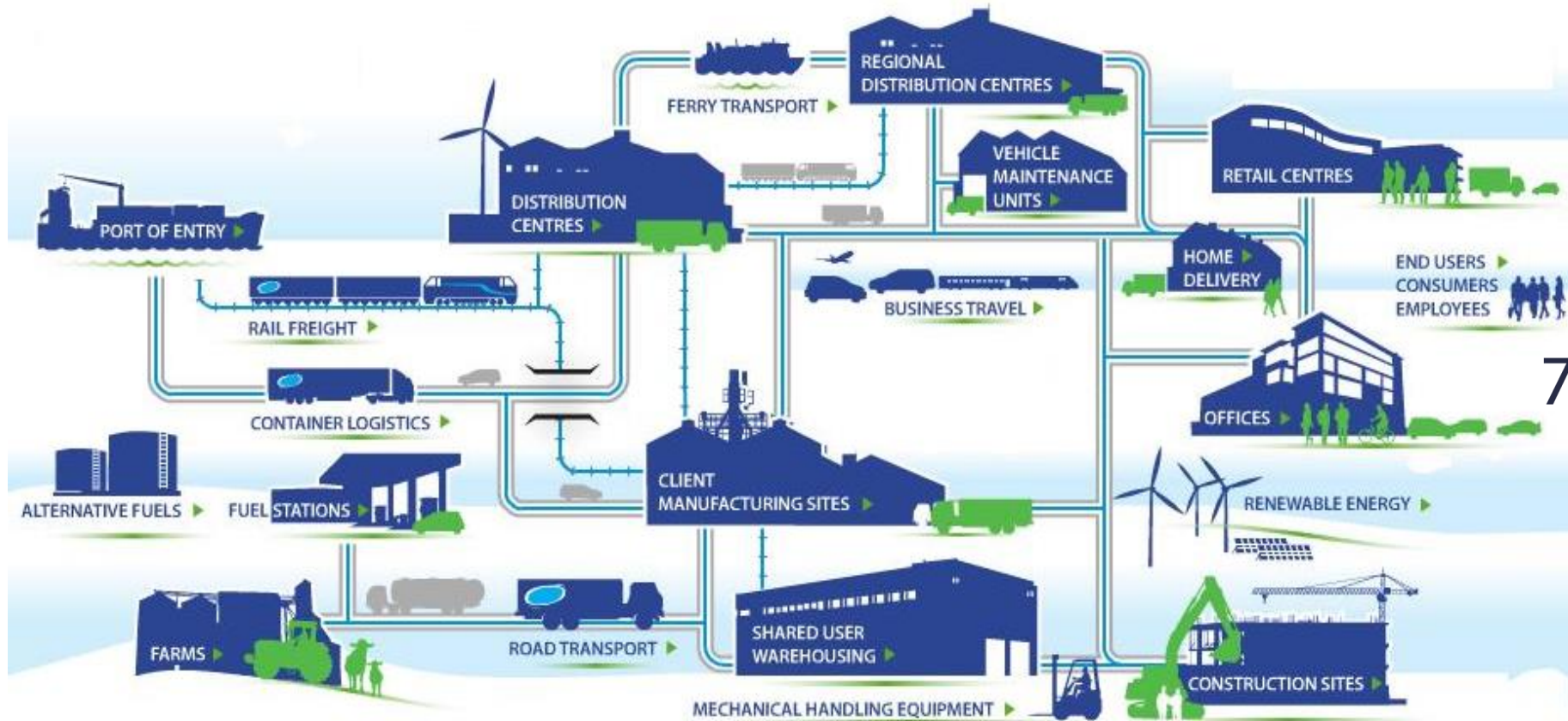
June 2019

Wincanton as an operator




17,700


3,600




7.6m sqft

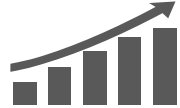

200+

1. Network Design & Operation - Fullest vehicles over fewest, best miles
2. Vehicle & Driver Fuel Efficiency - Best vehicle with trained, committed driver
3. *Renewable and Alternative fuels - Lowest environmental impact fuel*

What's the Sustainability Landscape?



Stakeholder Trends



Public concern re Environmental impacts

- “Extinction Rebellion”, School strikes, Greta Thunberg
- Blue Planet
- Colleagues and Communities expect responsible action

Customer priorities

- Sustainability, health and CSR propositions
- Reporting on impacts
- Ethical supply chain

Government responses

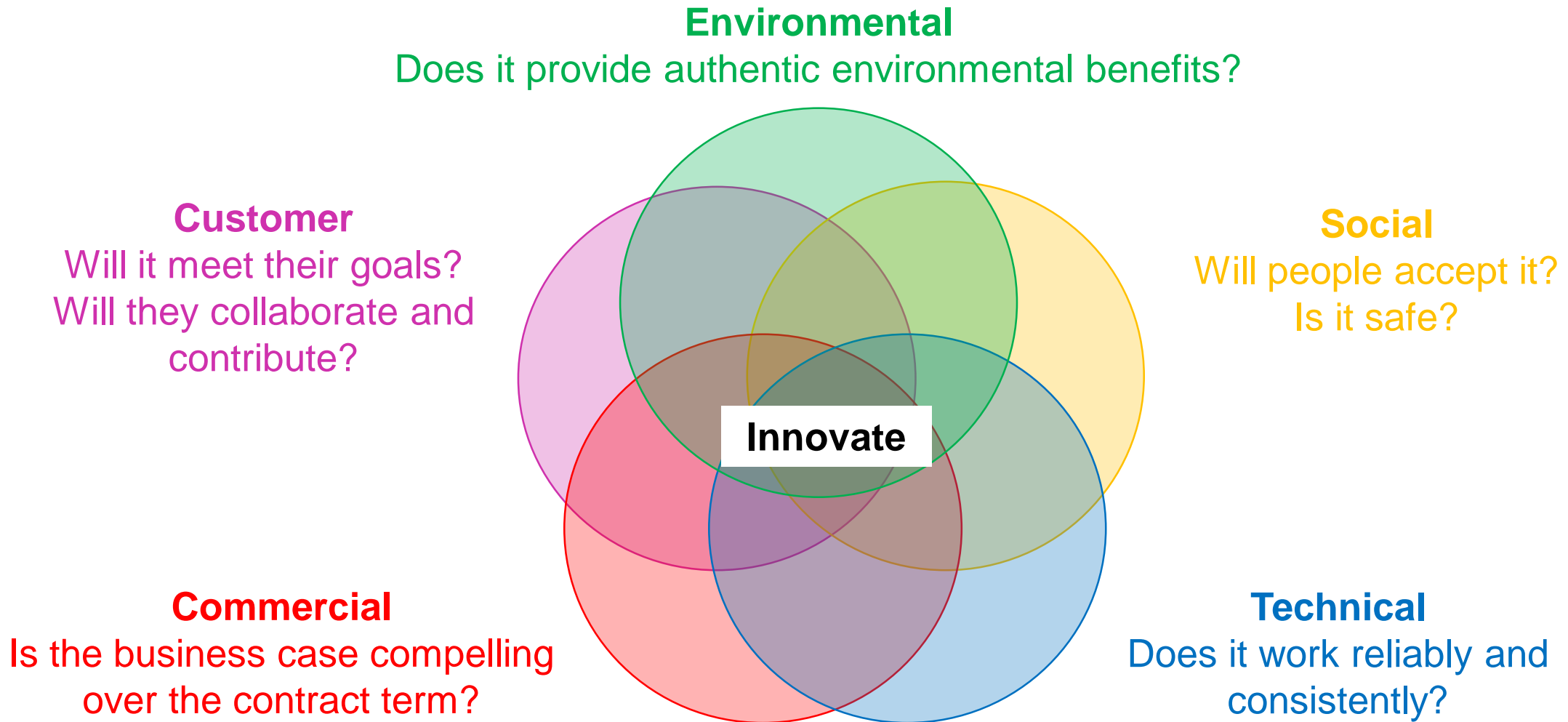
- Freight targets
- Infrastructure support (new charging and fuel networks)
- New reporting rules

Investor priorities

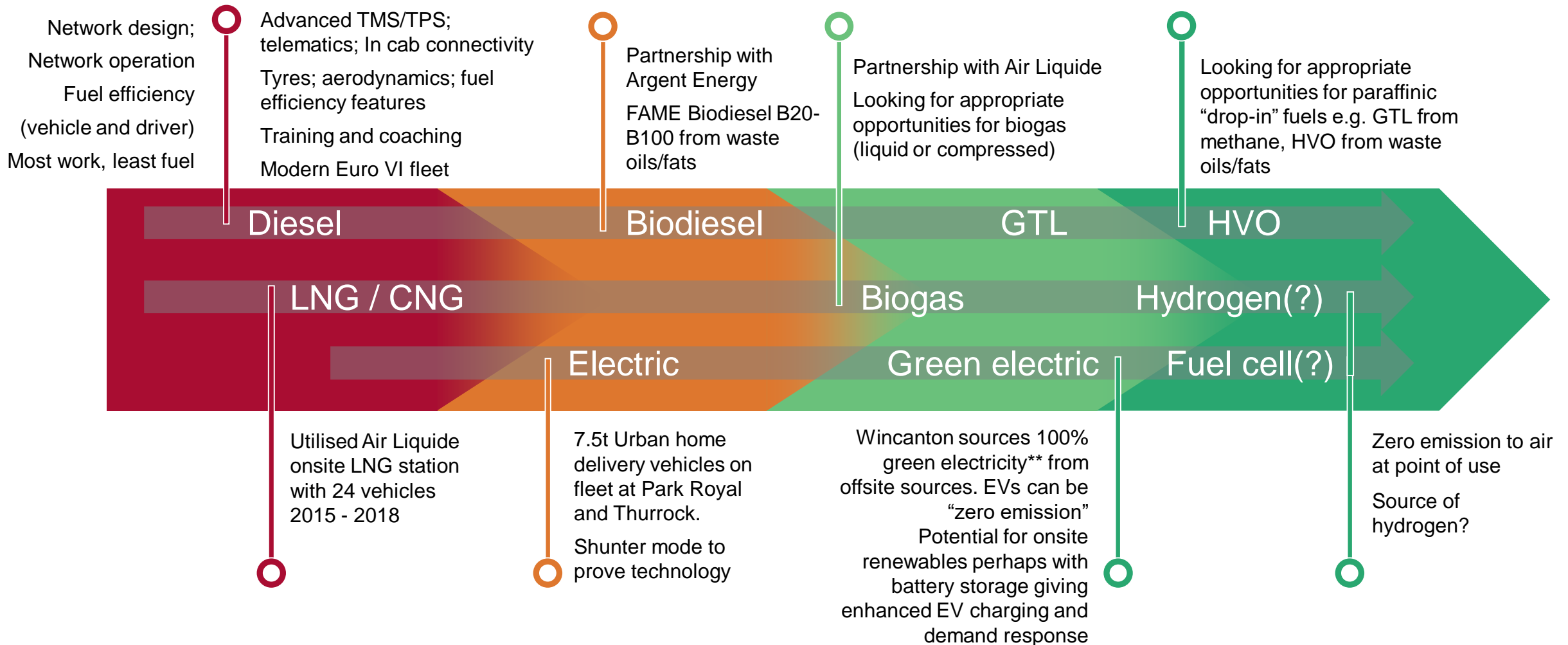
- Environmental, Social, Governance (ESG) Transparency
- Targets & assurance
- Authenticity !!



3PL Sustainable Innovation Challenges



Our fuel challenges at a glance



** Our electricity supply meets GHG protocol scope 2 "market based" definition

Real Example – Which Fuel to recommend ?



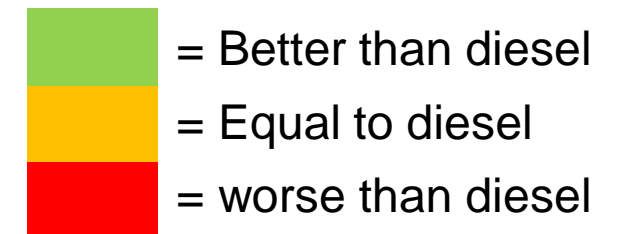
Alternative Fuel	Lower carbon	Better air quality	Custom Vehicle	Vehicle cost	Fuel cost	Feasible usage model	Refuelling infrastructure
HVO*							
GTL**							
Biogas***							
Electric							

What recommendation would you give the customer?

* HVO - Hydrotreated Vegetable Oil

** GTL - Gas to Liquid

*** Biogas – non-fossil methane from anaerobic digestion, etc



Our recommendation for this customer was ...



Use paraffinic diesel blend (HVO and GTL)

- Up to 80% reduction in carbon emissions
- Better air quality profile – “Euro VI plus”
- No significant change to driver training
- EN15940 fuels usable in latest Euro VI engines
- True drop-in fuel - diesel is an easy contingency plan
- Lower wear/maintenance on vehicles, DPF, etc
- Lower pollution risk, safer in the event of spills
- Excellent storage and temperature characteristics
- 8-15% price premium !! (depending on blend)

