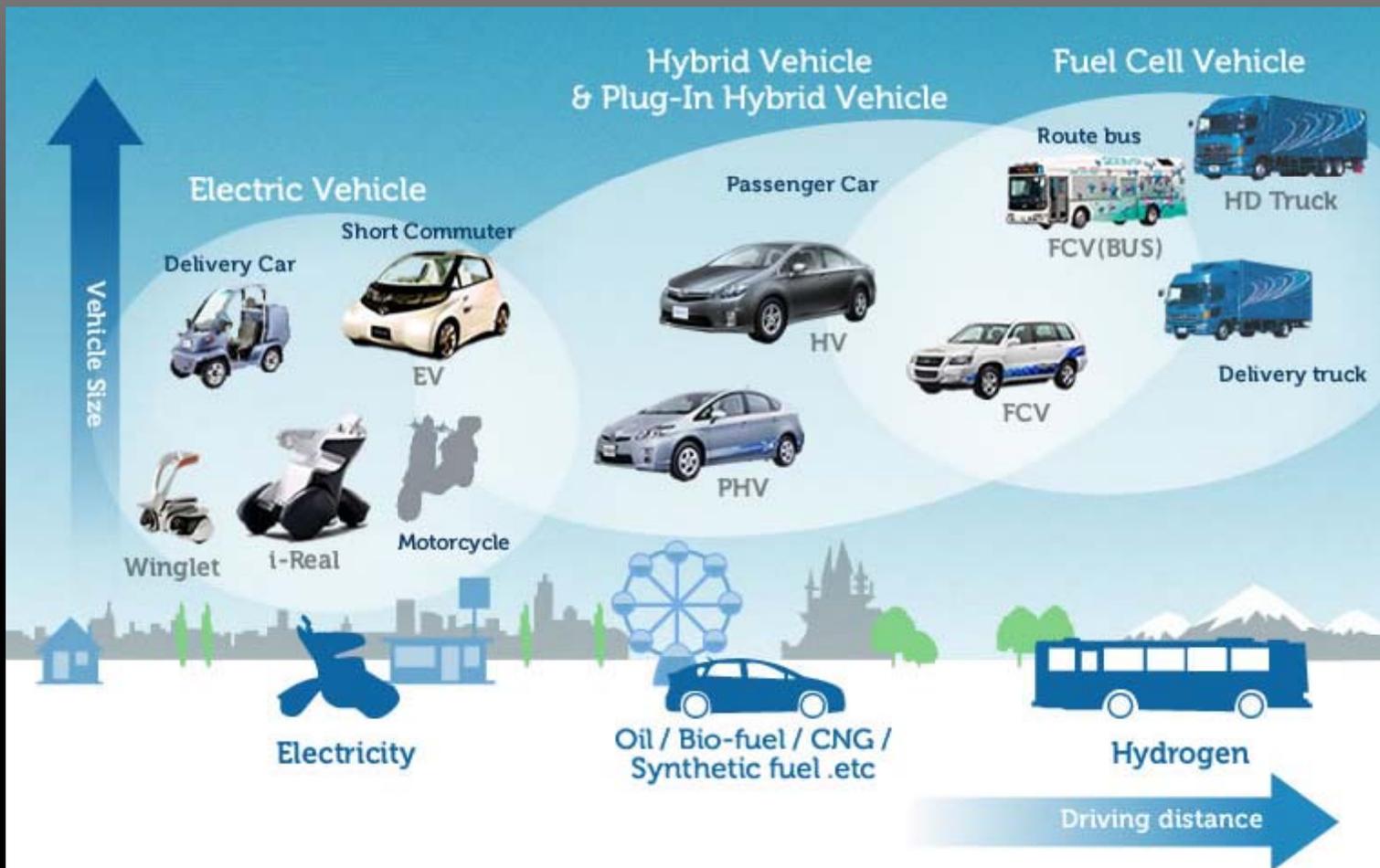


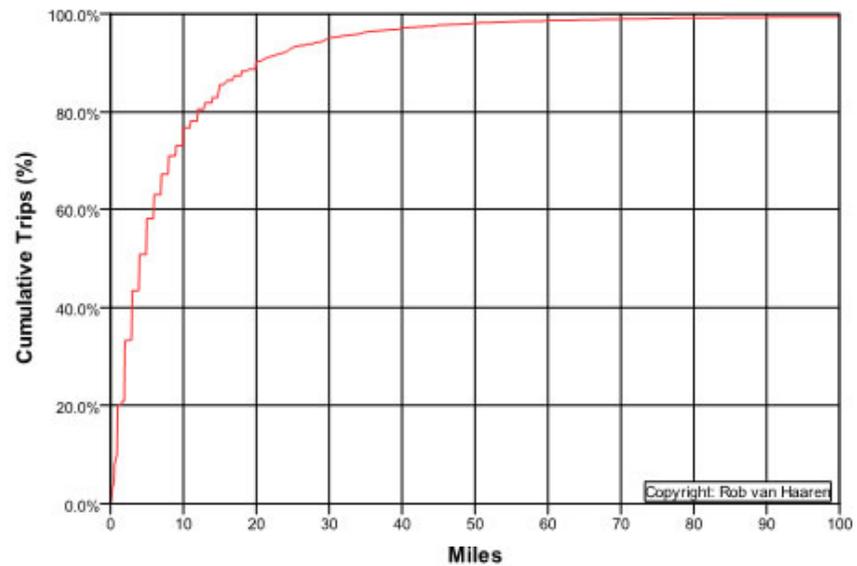
Toyota & Fuel Cells

Logan Grizzel

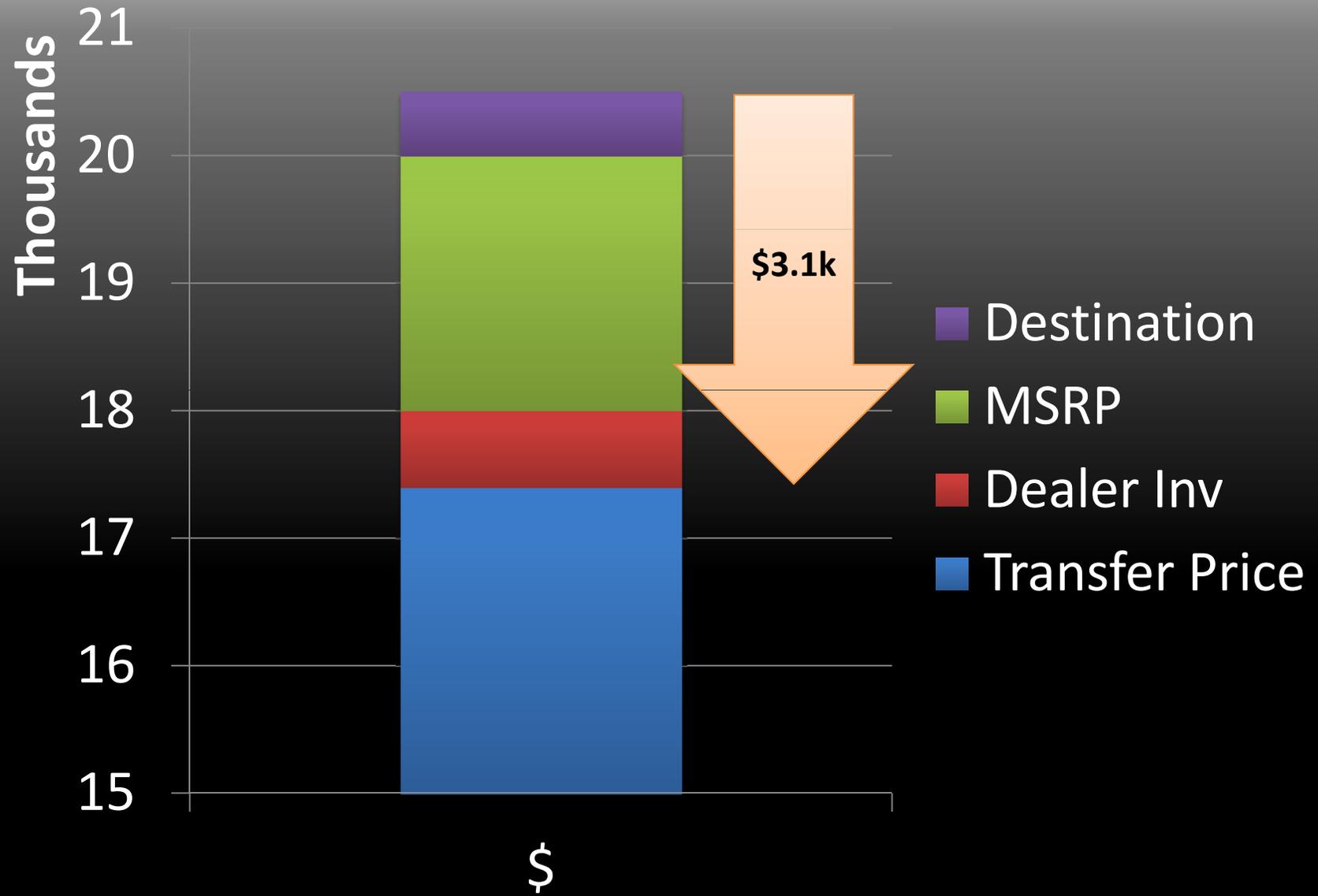
TMS Advanced Technologies Group

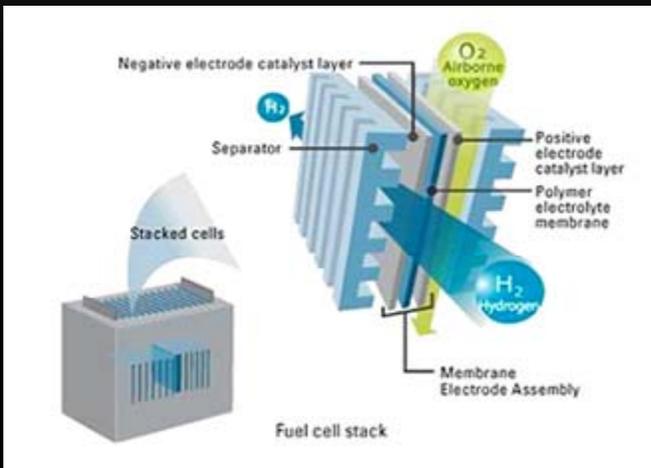


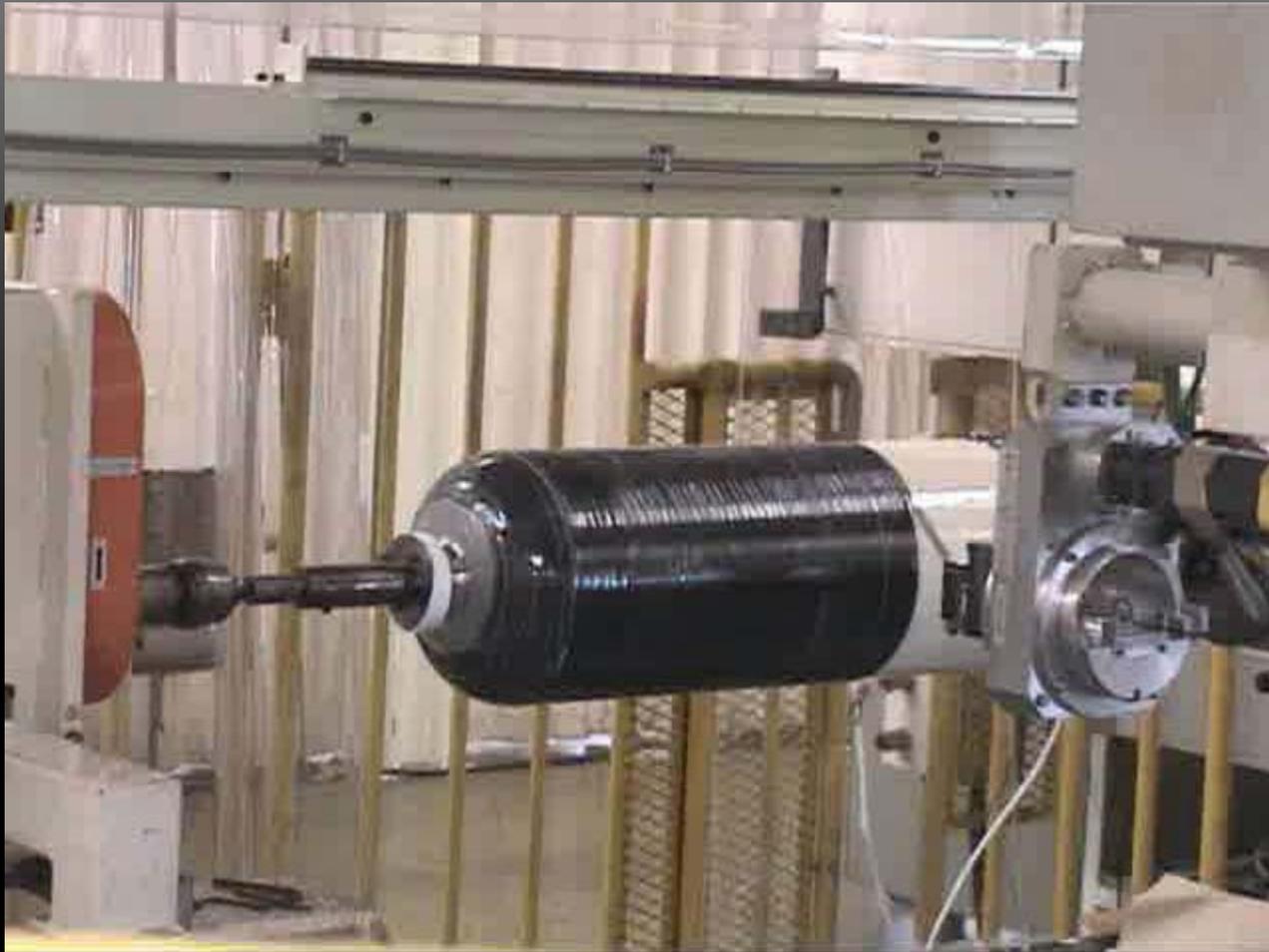
Car Trip Distance Distribution (n = 748,918)



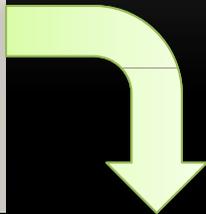
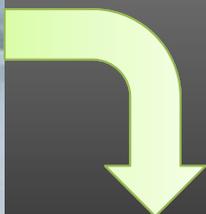
75%

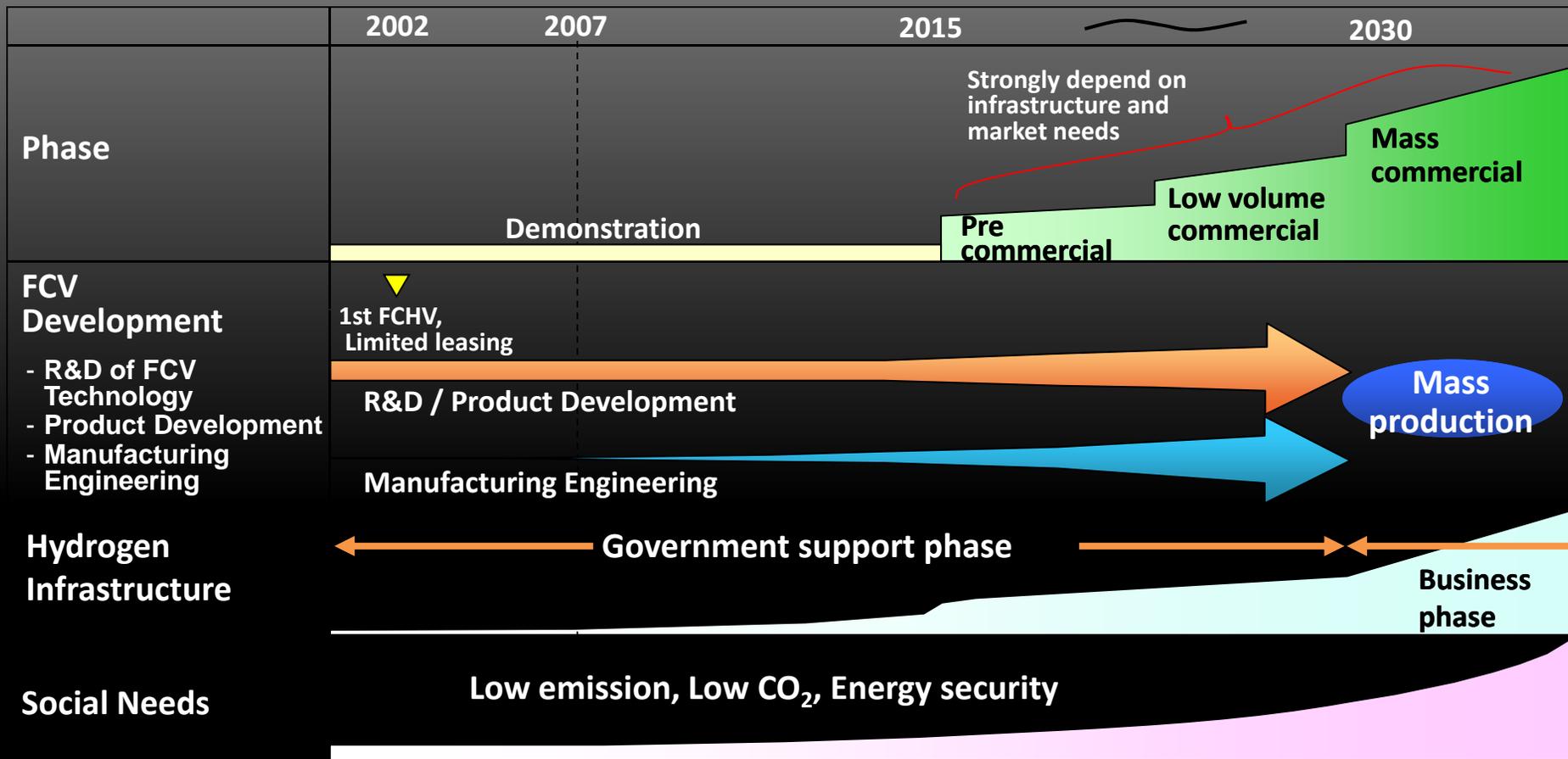












Technology Benefits	Recent Achievements	Near Term Focus Areas
<input checked="" type="checkbox"/> Domestic Feedstock <input checked="" type="checkbox"/> Large Scale Production <input checked="" type="checkbox"/> Low GHG Emissions	<input checked="" type="checkbox"/> Distribution <input checked="" type="checkbox"/> Dispensing	<input type="checkbox"/> Fuel Cost <input type="checkbox"/> Fueling Network <input type="checkbox"/> On-site Compression <input type="checkbox"/> On-site Storage
<input type="checkbox"/> Better than conventional <input type="checkbox"/> Parity with conventional <input type="checkbox"/> Not yet at parity with conventional		

Table 15-9. Hydrogen Fueling Infrastructure Readiness Summary

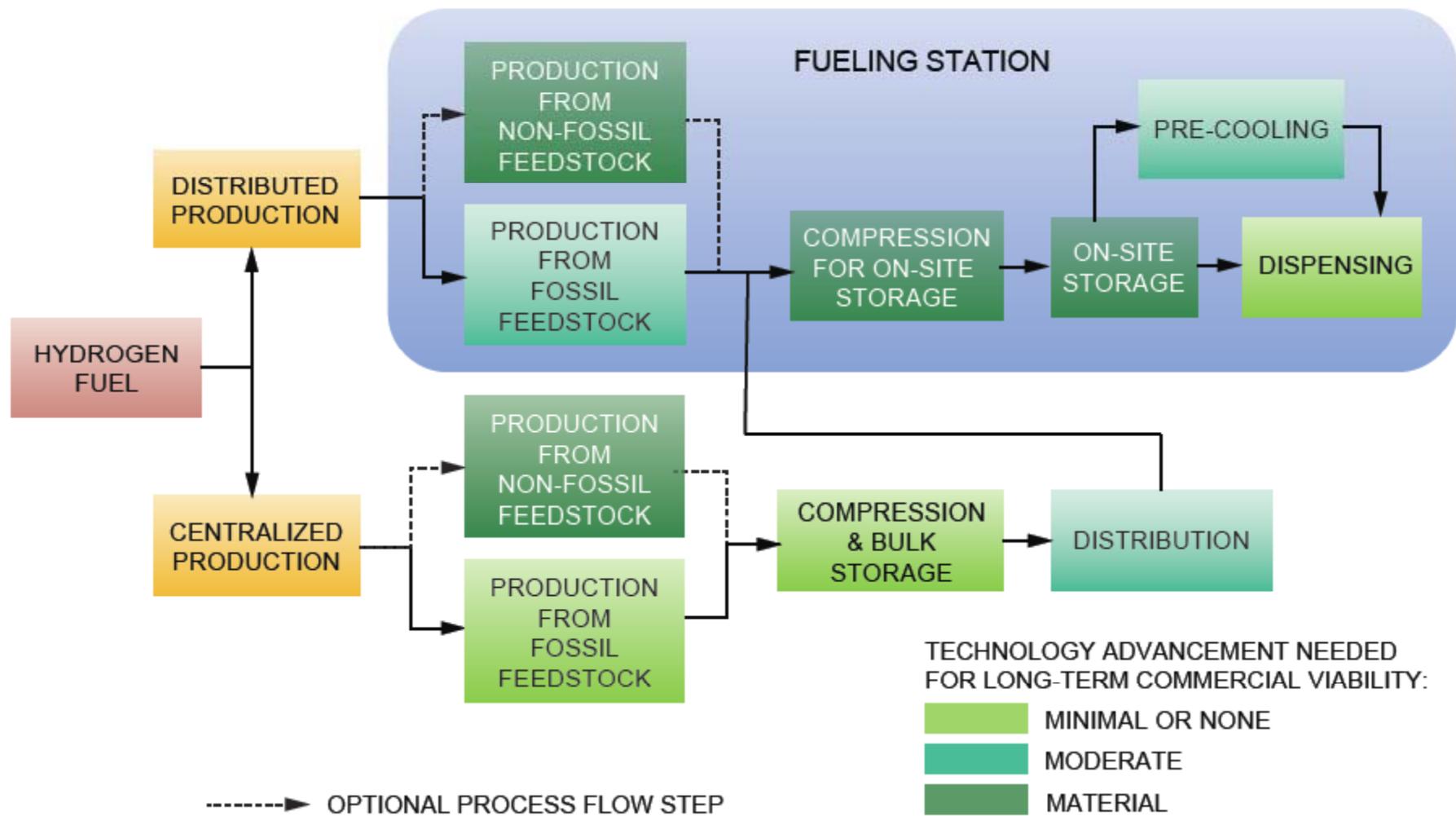


Figure 15-13. Centralized & Distributed Hydrogen Fuel Approaches

Technology Benefits	Recent Achievements	Near Term Focus Areas
<input checked="" type="checkbox"/> Vehicle Efficiency <input checked="" type="checkbox"/> Zero Tailpipe Emissions <input checked="" type="checkbox"/> Low Noise <input checked="" type="checkbox"/> Low Vibration	<input checked="" type="checkbox"/> Acceleration (Stack Power) <input checked="" type="checkbox"/> Refueling Time <input checked="" type="checkbox"/> Interior Space <input checked="" type="checkbox"/> Sustained High Power <input checked="" type="checkbox"/> Freeze start <input checked="" type="checkbox"/> Driving Range	<input type="checkbox"/> Durability & Degradation <input type="checkbox"/> Cost
<input type="checkbox"/> Better than conventional <input type="checkbox"/> Parity with conventional <input type="checkbox"/> Not yet at parity with conventional		

Table 15-4. Summary of FCEV Status



5 years





VS.



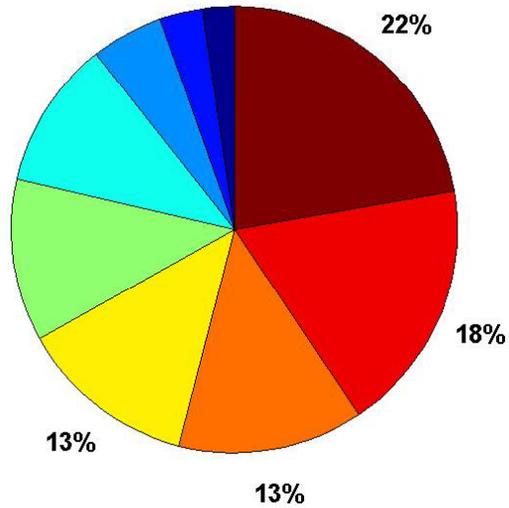




\$10,000

Hydrogen Fueling Station Maintenance

By Number of Events
Total Number of Events = 2491



By Labor Hours
Total Hours = 11430

