

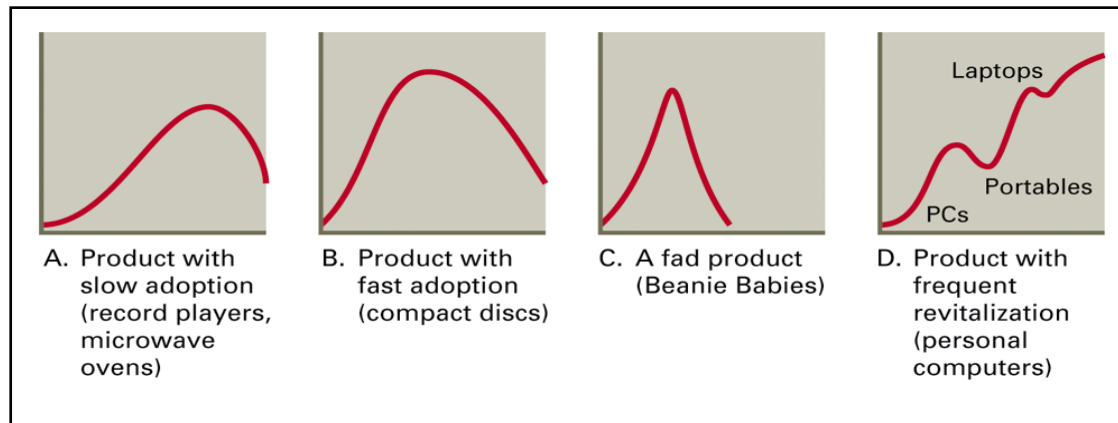
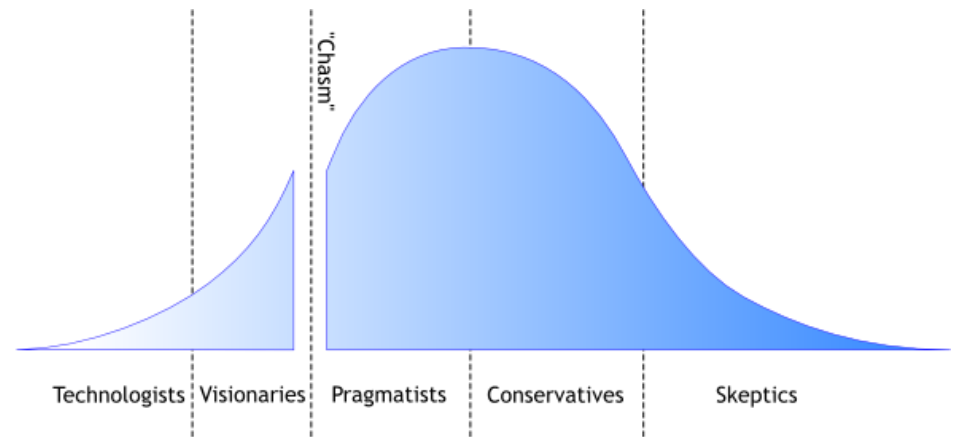
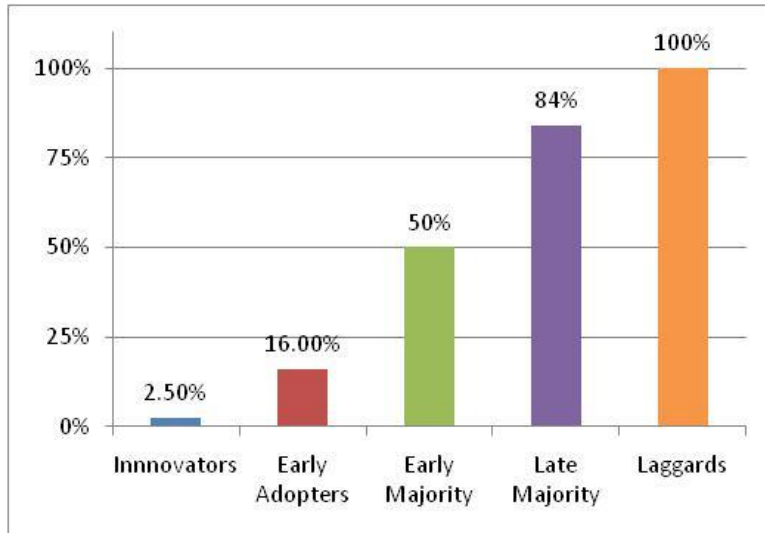
Accelerating the Adoption of Freight Efficiency

**Mike Roeth, Executive Director –
North American Council for
Freight Efficiency**

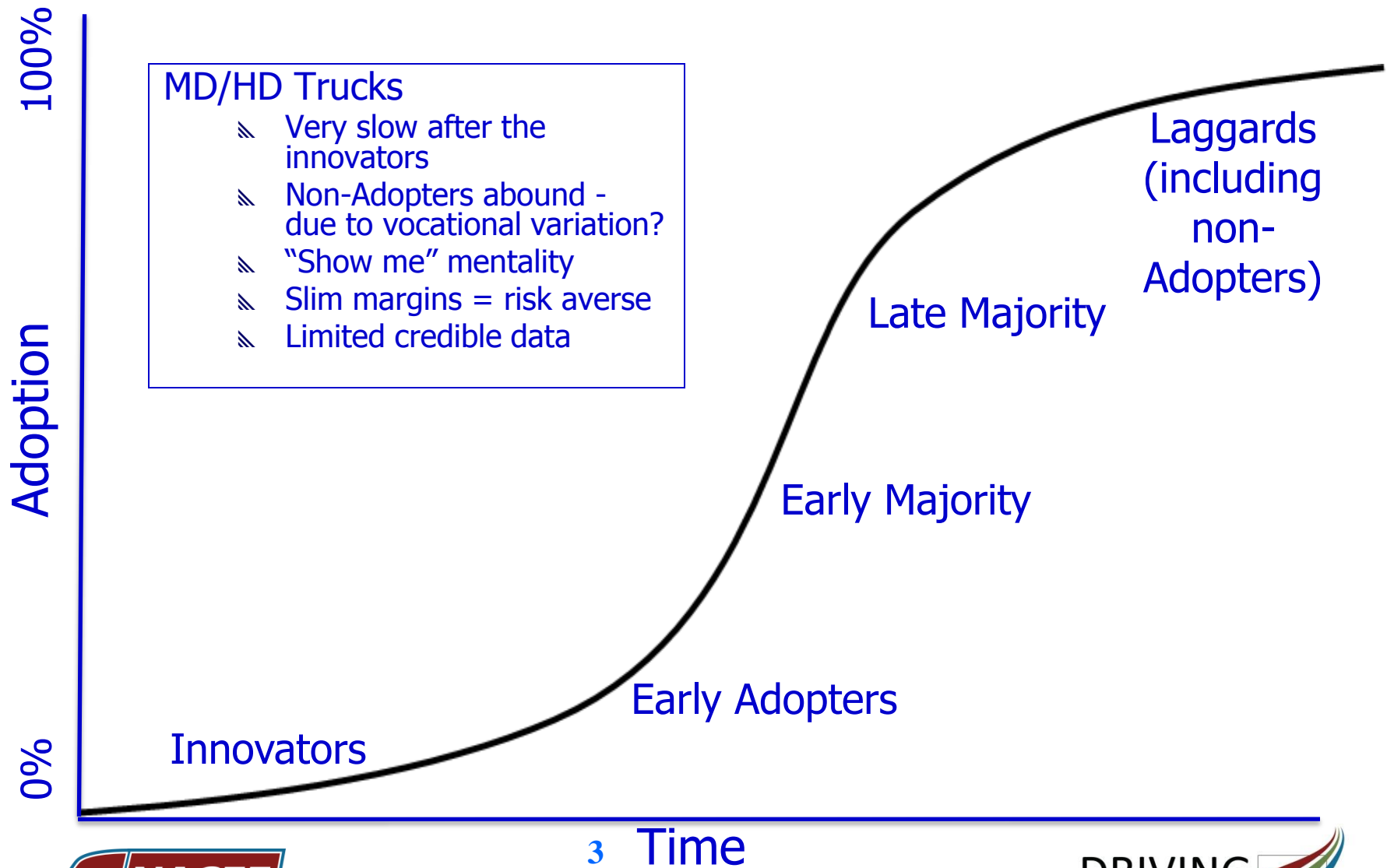
February 2011



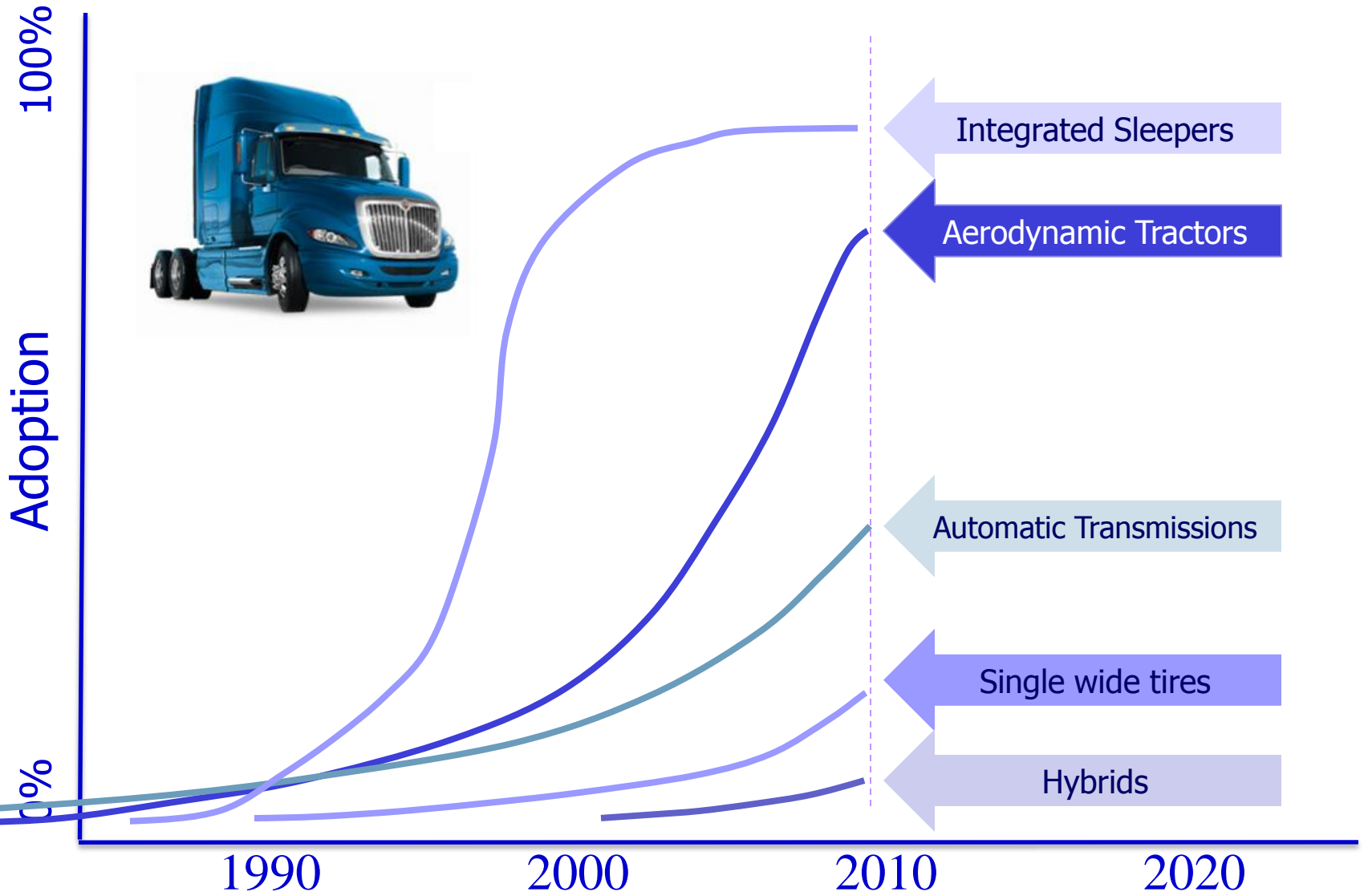
Typical Product Adoption Curves



Typical Industry Adoption Curve



Truck Features – A few examples



What do Studies Reveal?

MIT Sloan School of Mgmt,
HD Freight Efficiency
Analysis May '09

Large, professionally managed fleets use tools such as SmartWay to learn and select new technologies.

Professional fleet managers need to be convinced one at a time due to their individual unique needs.

But many small fleets & owner operators though, have not purchased or are very slow to, due to risk aversion.

Center for Transportation
Iowa St. USDOT (MTC 2006-04) Nov '09

Surveyed fleets – What is the current & future state of adoption of fuel efficiency technologies?

Only 164/24,000 returned!

Results indicate a relatively low rate of adoption of existing technologies, systems and policies.

Suggests there remains a significant opportunity in CI8.



Characteristics affecting Adoption

Encourage	Discourage
<ol style="list-style-type: none">1. Relative advantage2. Compatibility with past usage3. Simplicity of use4. Observability5. Trialability6. Divisibility	<ol style="list-style-type: none">1. Value barrier2. Usage barrier3. Complexity4. Risk barrier

Source: Bloomsburg University of Pennsylvania

“US heavy vehicle fuel consumption will increase 25 percent between 2010 & 2020”

- Energy Information Administration (EIA) Annual Energy Outlook (AEO) 2010

“Energy efficiency and renewable energy research, development, and deployment activities help the Nation meet its economic, energy security, and environmental challenges, concurrently.”

- Patrick Davis, DOE on advancing Presidential Priorities at 21CTP

On fuel prices - “We’re all fearful of another [fuel] price surge after the way we were slapped around a couple of years ago. You have to be more conscious and attentive.”

- Robert Ragan, senior vice president Melton Truck Lines, Tulsa, Okla



How do we improve the adoption of fuel saving technologies and practices?

How might we foster faster development cycles?

How can we shorten the adoption cycles?

How might we better predict the rates of adoption of new features?

Who can help?

CALSTART HTUF, EPA SmartWay, North American Council for Freight Efficiency are a few.

What will be the impact of upcoming MD & HD green house gas emission and fuel efficiency regulations?



Regulations generally require quick Adoption



Take Action – Get Ready

Progress development and commercialization

Expect regulations driving 20% fuel economy improvements for line haul applications by 2014

Intensely understand customer's needs and deliver value in the products with credible data.

Decisions with data – search out credible information and apply it to each special duty cycle.

Act! Continuously.

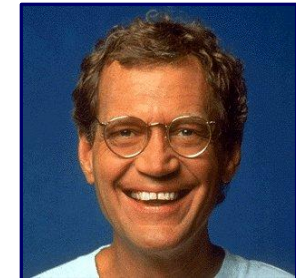


Take Action – Get Ready

"It isn't sufficient just to want - you've got to ask yourself what you are going to do to get the things you want." - Franklin D. Roosevelt



"Next in importance to having a good aim is to recognize when to pull the trigger." – David Letterman



"The world is more malleable than you think and it's waiting for you to hammer it into shape" - Bono



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Thank You!

Mike Roeth, mike.roeth@nacfe.org

Executive Director – North American Council
for Freight Efficiency

