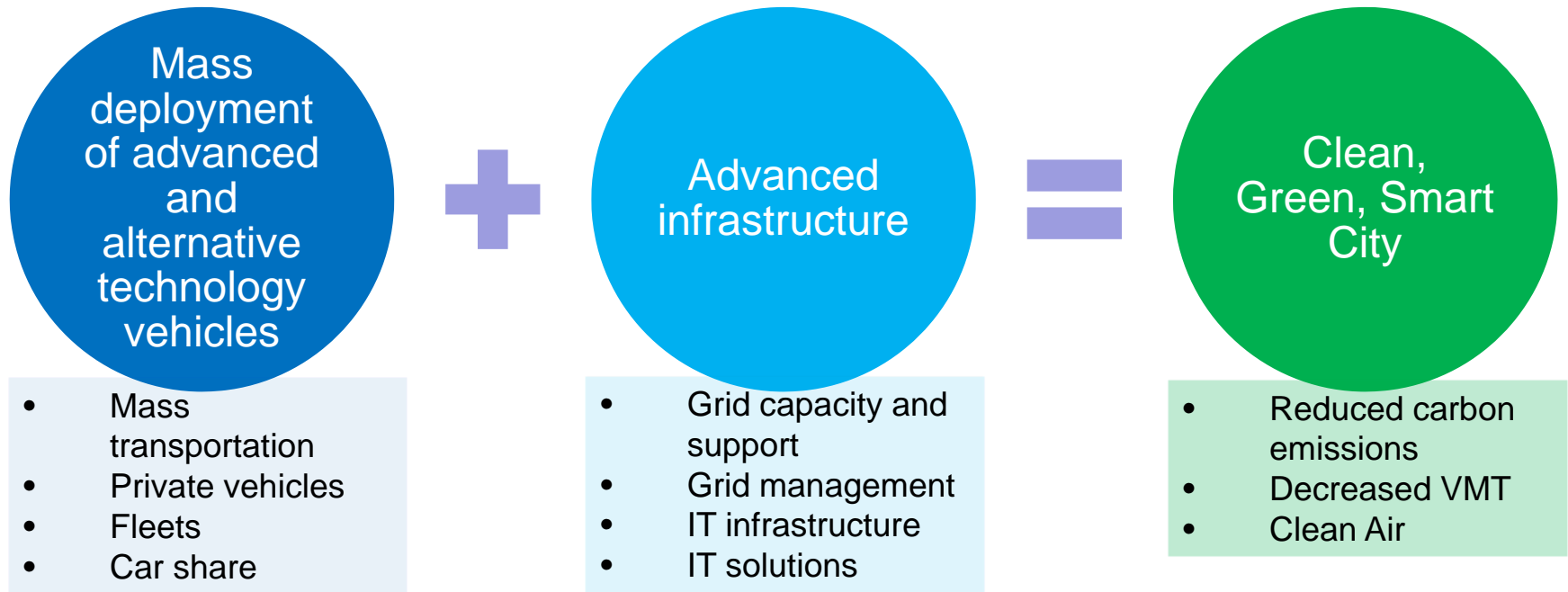




**David Berdish**  
**Sustainable Business Development**  
**October 23, 2009**

# Vital network of “Urban Mobility Hubs”



*There will be a convergence of technologies and industries  
Collaboration and leverage from manufactures, energy/utility  
companies, IT, and business will occur  
Transportation and utilities will become interdependent*



# What Partners Bring

## City Leaders

- Urban planning and accountability for infrastructure
- Funds for information technology, installation or acquisition of infrastructure necessary to directly support multi-modal transport and electric vehicles

## Ford

- Manufacturing capacity
- Hybrid, BEV expertise
- Credible leadership
- A great heritage
- Understanding of America's urban commuters
- Stakeholder engagement skills

## Utilities

- Diversified energy portfolio to strengthen energy security
- Infrastructure demonstration programs
- Stationary battery demonstration programs
- Innovative rate case structuring
- Commitment to install public and private charge points
- Standardized communication/billing
- Fleet procurement
- Distributed storage
- Renewable energy storage



# What Partners Bring

## Thought Leaders

- Academics and researchers subject matter expertise in “New Mobility”
- Ability to provide theoretical framework, facilitation and openness to new ideas for urban design

## Information Technology

- Location Detection and Information
- Real Time Traffic a Information
- RFID/Cell Phone enabled Entry/Exit/Identification
- Smart Signage/Kiosks
- Unified (one-mode) ticketing
- Location Based Advertising
- Data Centers and Server Farms
- Advanced vehicle-to-infrastructure communications and server software
- Integrated communication of vehicle to grid
- Linked vehicle battery storage capacity
- Software that will connect vehicles to smart charging and to transportation information
- Software to inform drivers (in real-time, hands-free displays)

## Others

- Transportation Modes:
  - Light Rail
  - Buses
  - Streetcars
  - Feeder vehicles
- New business models
  - Car Share
  - Grid management
- Green Fleet Buyers
  - Taxis
  - Military
  - Universities
  - Local companies looking to “green” their fleets
  - “Green” companies looking to increase their reputations

# Why Ford?



- Ford wants to understand America's urban commuters. We will collaborate internally and with utilities, municipalities, universities, commercial fleets, retail early adopters, and public and private companies to design integrated multi-modal systems, including electric vehicles
- Stakeholder engagement is a major part of our overall strategy
- We are the industry leaders in sustainability efforts (reporting, human rights)



CONCEPTUAL VIEW

## SOUTH KIRKLAND TRANSPORTATION HUB

**CASCADIA**  
Discovery Institute  
WWW.CASCADIAPROJECT.ORG

© 2008 J. Craig Thorpe Commissioned by Cascadia Center

SHOWING: - Swiss 2-car Diesel Multiple Unit (DMU) Train  
- Microsoft "Connector" Service  
- Sea-Tac Express Motor Coach  
- Advance Airport Check-In Service  
- Plug-in Hybrid Electric Vehicle Stalls

- Zipcar Parking  
- Adjustable solar panels (on south side of canopy)  
- Video Conferencing and Telework Center  
- Typical Retail Vendors



# Electrification Strategy

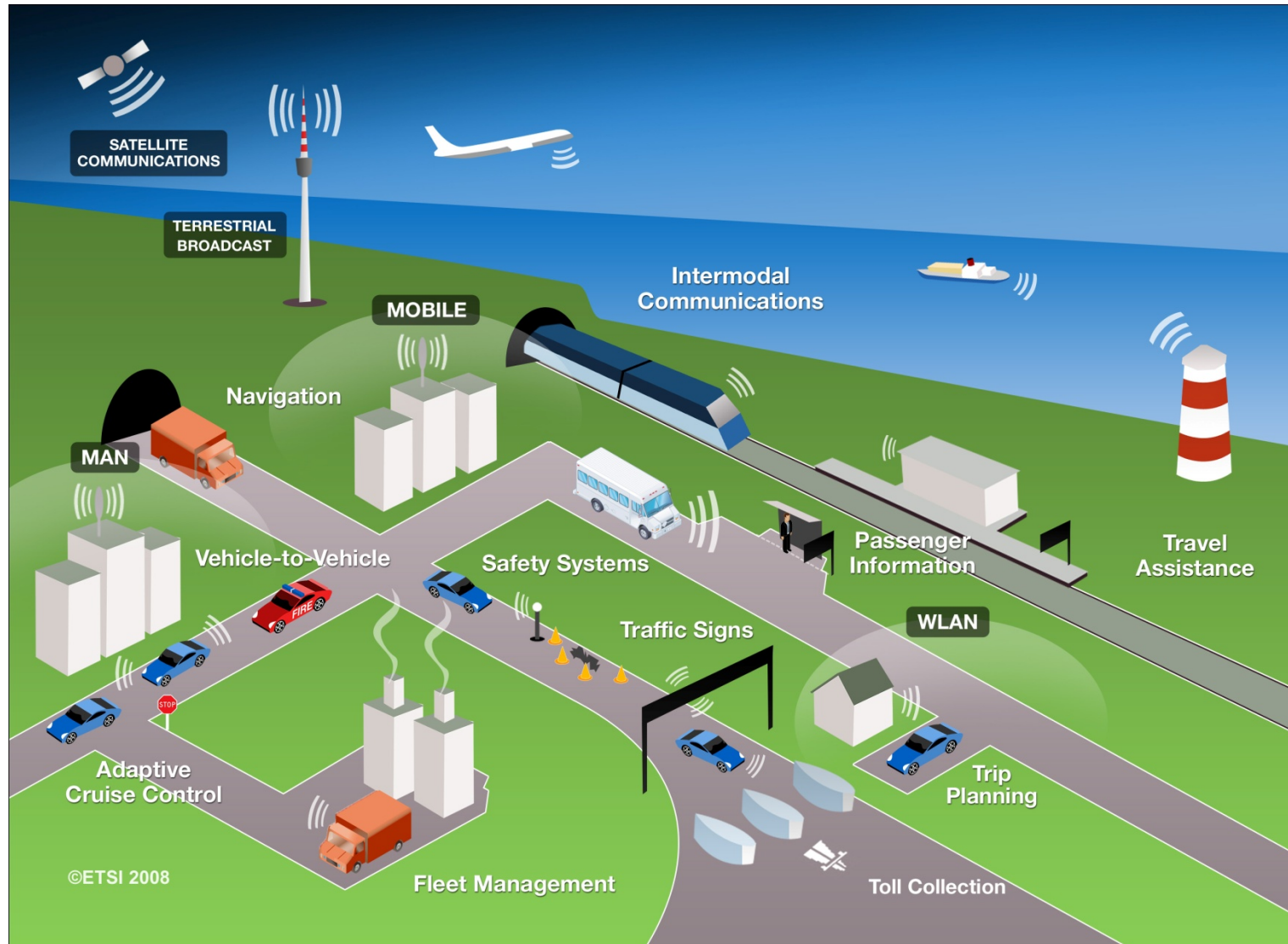
- Full Battery Electric Transit Connect Commercial Van in 2010
- Full Battery Electric Focus in 2011
- All New Hybrid Vehicles Including Plug-In Version in 2012

**Transit Connect BEV 2010**



**Focus BEV 2011**

# Communication Pathways



# Benefits



- A plan to address climate change and energy independence includes a comprehensive strategy to increase fuel economy and reduce emissions through the migration of advanced technology that is affordable and attainable in high volumes for all customers
- Maintain the environment by potential to significantly lower GHG emissions through alternative fueled vehicles and reduction of passenger car Vehicle Miles Travelled (VMT)

# Benefits



- Enhanced user mobility through the creation of more transportation options for travelers
- Improved existing transportation choices by enhancing points of modal connectivity
- Improved accessibility and transport services for economically, disadvantaged populations, non-drivers, senior citizens
- Increased total transit ridership
- Time saved from transit
- Reduced of noise
- Improved air quality

# Benefits



- Improved energy efficiency with use of alternative energy sources (solar power)
- Reduced water and oil run-off from parking lots into rivers and streams.
- Alternative fueled vehicles that reduce dependence on foreign oil:
  - Hybrid shuttle vans, battery electric utility vans
  - Hybrid crossover vehicles and hybrid sedans
  - Battery electric sedans
  - Bicycles and walking