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# Agenda

- Review of PLAN Washington
  - Process
  - Goals & Strategies
- Advanced Transportation technologies:
  - *Reducing Congestion in the Next 5 Years*
- Public-Private Partnerships
- Q&A

# About

- Our founding
- Discovery of best practices
- Establishing the PLAN Washinton framework
- Process of research and gathering inputs v1 & v2
- Developing strategies and partnerships
- Advocacy

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# The Framework

<b>CHALLENGE GOAL</b>	<b>NO LESS THAN A-</b> Condition of Roads, Bridges, Rail, and Transit	<b>UNDER 20 MINUTES</b> Average Commute Time	<b>6 MILLION TEUS</b> Container Volume for Seattle-Tacoma Alliance Ports
<b>CURRENT RANK</b>	<b>C- (bridges), C- (rail), D+ (roads), &amp; D+ (transit)</b>	<b>39th best</b> (25.4 minutes)	<b>3.5 million</b> TEUs
<b>SOURCE</b>	<i>American Society of Civil Engineers</i>	<i>U.S. Census Bureau</i>	<i>American Association of Port Authorities</i>

Washington Business Alliance & Transportation:  
**Advanced Transportation Technologies:**  
*Reducing Congestion in the Next Five Years*



Washington State Transportation Commission

May 18, 2016

Steve Marshall, Executive Director

Center for Advanced Transportation & Energy Solutions

# The Future of Transportation

- Vehicles will be *oil free*, *interconnected*, and ultimately *self-driving*
- ACES (Automated, Connected, Electric, Shared)
- Public transportation will be redefined

# Factors That Will Accelerate ACES

- Moore's Law is in the "Second Half of the Chess Board"
- Major Automakers are in Full Competitive Mode
- The Tort Liability System will Demand Collision Avoidance Systems

# The Second Machine Age

by Erik Brynjolfsson and Andrew McAfee

“ Constant doubling, reflecting exponential growth, is deceptive because it is initially unremarkable.

As we move into the second half of the chessboard, exponential growth confounds our intuition and expectations.

It accelerates far past linear growth, yielding Everest-sized piles of rice and computers that can accomplish previously impossible tasks. ”

# Electric and Autonomous



# Horizontal Elevators





**50**  
miles

The bus's maximum distance on a full charge, enough for a typical downtown business or tourist loop

The bus can carry up to 80 passengers; a battery pack is built into the vehicle's underbody

**10**  
minutes

Time it takes to fully charge a vehicle via a station that connects to the bus's roof at one of its regular stops





# Reducing Peak Congestion: Integrating Transportation Technologies into Policy

- Bring the Commute Trip Reduction Act up to date to encourage flexible vanpools, carpools, and company transit
- Create a system of connected, high-tech mobility hubs, financed in part with private sector investments and connected with Apps
- Consider VMT for trucks during commute peaks; use the revenue to finish 167 and 509
- Establish a series of federally funded demonstration/pilot projects for self-driving shuttles and taxi, working with Uber, Lyft, GM, Google, Tesla, BMW and others.

# Washington Business Alliance & Transportation: **Public-Private Partnerships**



Washington State Transportation Commission

May 18, 2016

Bruce Agnew, Director

Cascadia/PNWER Transportation Group



# PNWER Innovative Finance Initiative

Bruce Agnew, Cascadia  
Sen. Chuck Winder Idaho (co-chair)

- **Traditional infrastructure has been challenged in recent years, encouraging states/provinces to find innovative strategies to fund projects. Partnering with private funding sources has found success in Canada, but is not yet as widespread in the United States.**
- **PNWER shares best practices for public-private infrastructure financing and the public benefits of utilizing new models of infrastructure finance. Series of webinars with U.S. and Canadian and U.S. public and private leaders – pnwer.org.**
- Commission Director Reema Griffith will be addressing innovative finance and public private partnerships in Washington state at PNWER Calgary Summit – Transportation Group (live audio link to legislators in NW states)

# What is a P-3?

- A **public-private partnership (P3)** is a legal contract between government officials and private companies to design, build, operate, maintain, and finance needed public infrastructure.
- Models range from design-build agreements to a mostly privately-run but publicly- owned, design-build-finance-operate-maintain contract.
- Carefully crafted, P3's allow the public sector to shift project risks from taxpayers to private investors while protecting taxpayer interests.
- Innovation approach: private company managers responsible for maintaining facility for decades, *innovate to reduce long-term costs*. (Life Cycle)
- Better quality construction, lower maintenance costs, and long-range financial planning allow public-private partnerships to bring certainty and value to the public. (Value for Money).

# What a P3 is not!

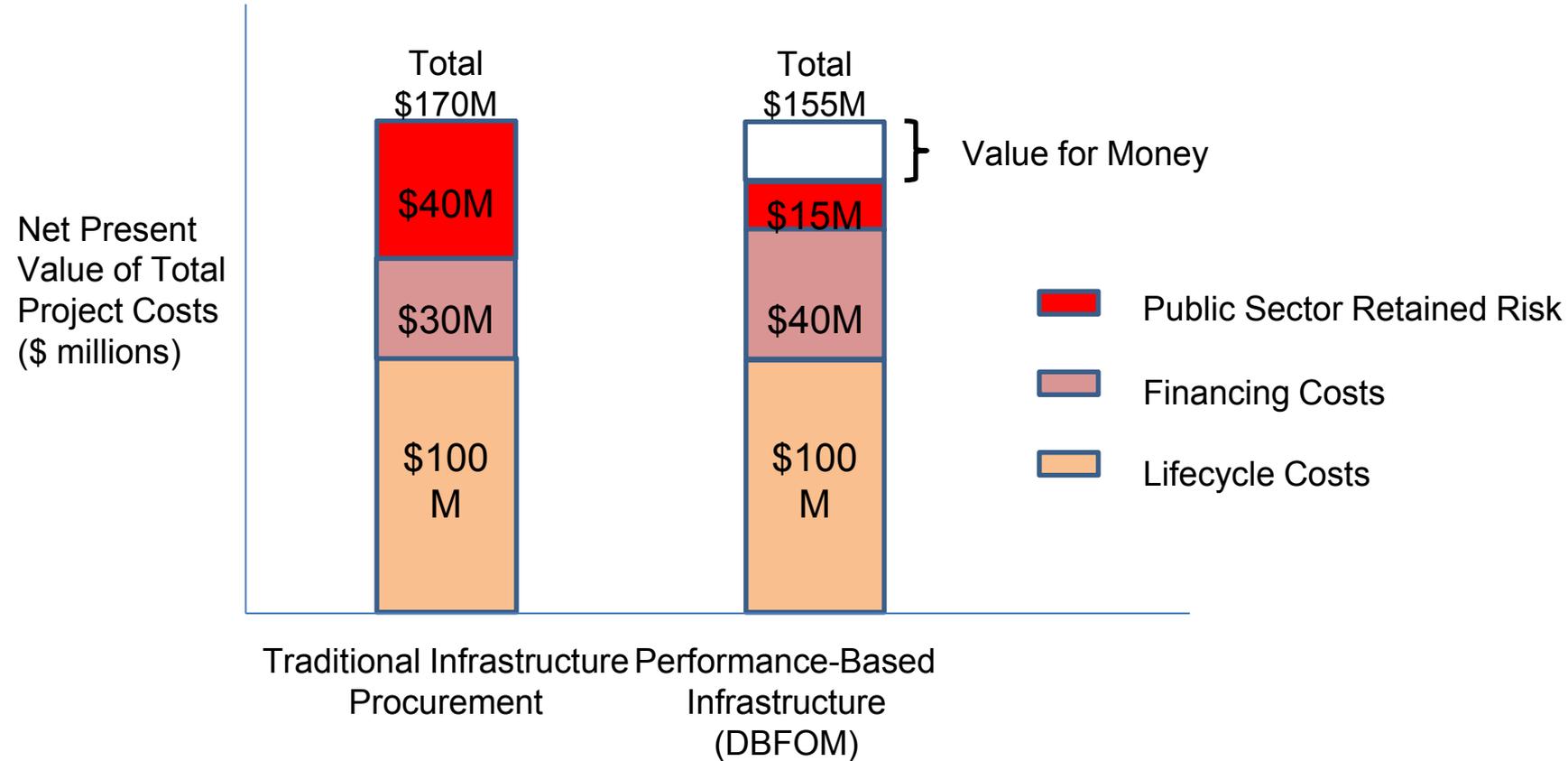
- There is no “free” money
- It is not a pure abdication of ownership rights and responsibilities
- Poorly constructed P3 contracts can, and have, result in severe financial (and operational) consequences

# West Coast Infrastructure Exchange

- Featured in our PNWER Innovative Finance Webinars
- Launched in the Pacific Coast Collaborative Governor/ BC Premier Initiative – WSDOT on Board
- **Independent** 501(c)(3) non-profit ~~at Oregon Treasurer~~
- Formed by Oregon, Washington, California (Advised by British Columbia)
- A publicly-funded resource to public agencies exploring Performance-Based Infrastructure (PBI) options (*aka P3*)



# Role of Private Financing - West Coast Infrastructure Exchange



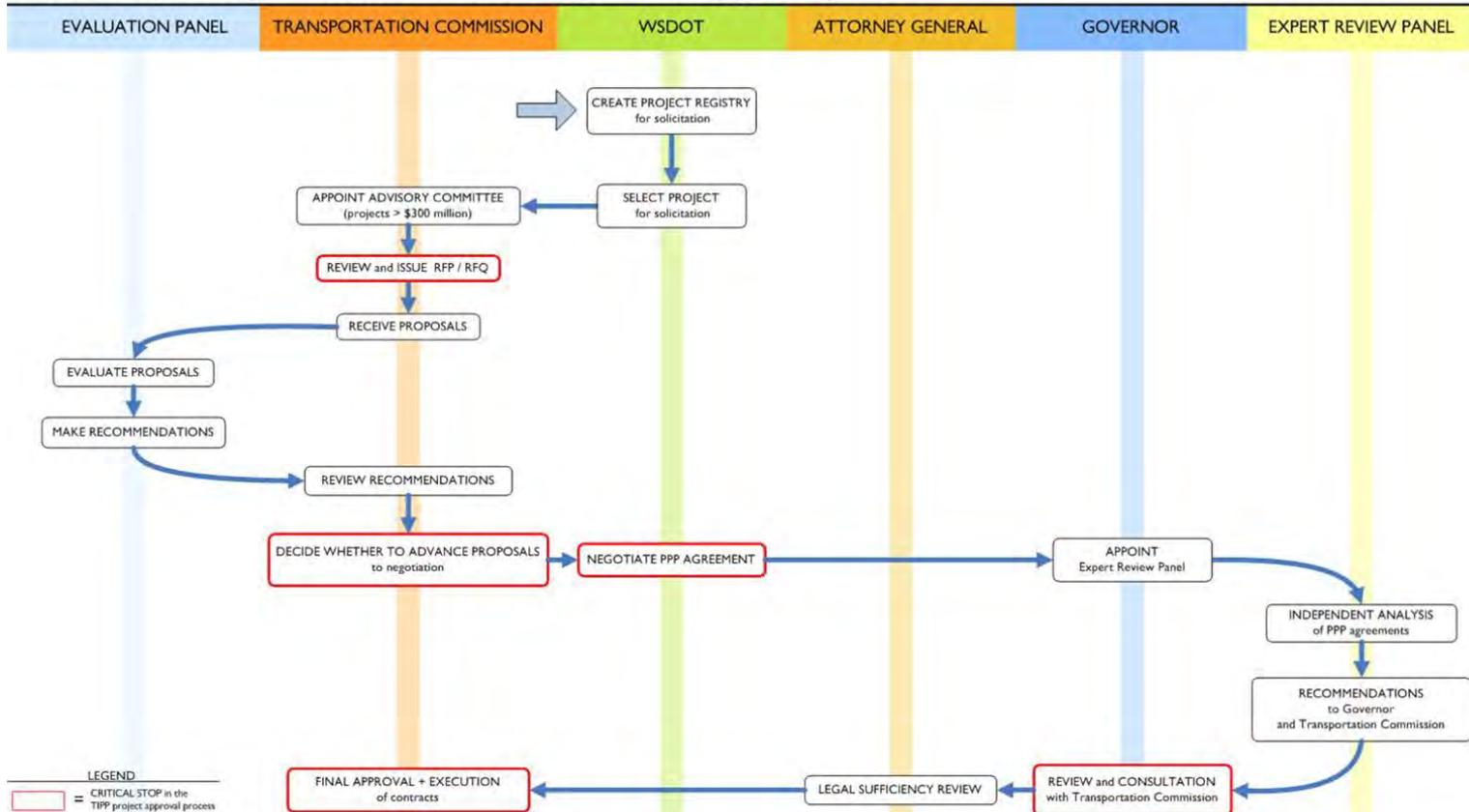
# Washington State and P-3s

- Legislature passed the Transportation Innovations Partnerships Act of 2005. Act restricts the use of private capital - requiring that debt be issued by state treasurer.
- Washington State Joint Transportation Committee study: 2005 law also imposes cumbersome approval and authorization processes, making public-private partnerships *“much less attractive, if not impossible to be attractive, to the private sector.”* (2012 AECOM report to JTC)
- WSDOT Innovative Partnership Office (Dir: Anthony Buckley) has several initiatives:
  - West Coast Electric Highway**
  - Electric Vehicle Infrastructure Program**
  - Park and Rides**



# Washington State's P-3 Approval Process (WSDOT 2011)

## TIPP Project Agreements: Critical stops in the approval process



# Transportation Commission and P-3s

Washington State Transportation Commission reports that six different entities can stop a project at any time, which is *“a risk that potential partners are unlikely to accept.”* (TIPP report January 2007)

As a result, transportation-related public-private partnerships in the state have yet to move beyond limited design-build contracts financed by the public.

# Potential WA P-3 projects

- JTC AECOM report highlighted **five highway P-3 projects**; some project funding secured in 2015 Connecting Washington revenue package
- Others:
  - **Colman Dock** and other terminals (San Francisco Ferry Building is good example) has joint development potential (WSDOT 2009)
  - Transform park and ride lots - **Smart Mobility Hubs** (Cascadia/WSDOT/Microsoft, UW, Inrix partnership on SR 520)
  - **Automated connected vehicles** and tech company partnerships (SM)
  - **Transit** for expedited project delivery (i.e. Denver Fastracks, Vancouver Canada Rail, Portland MAX Airport line) - Sound Transit 3?
  - **Passenger ferries: *Return of the Mosquito Fleet?*** (Cascadia project 2003-2010) time to revisit? Kitsap vote?

# Multi-state corridor projects

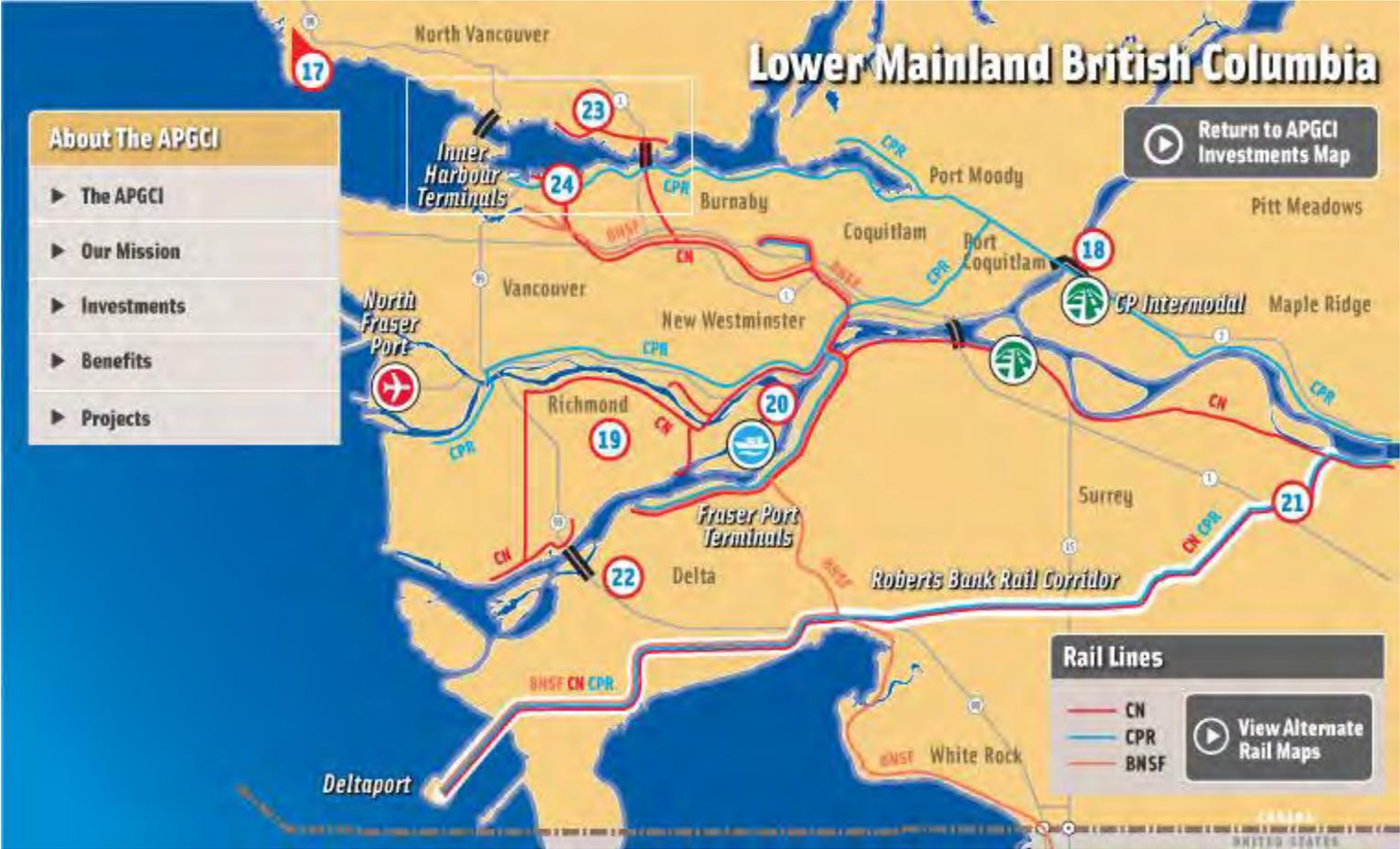
**Opportunity: June 17 CA/WA/OR Tri-state Commission** meeting in Portland

- **West Coast Electric Highway** (also featured at our Microsoft Beyond Oil sessions)
- ***Clean Green and Smart*** MCOM FHWA alternative fuels and West Coast freight study led by Caltrans (also expands smart and port access truck parking with terminals, high tech apps and truck stops) North Bend trucking congestion?
- **FAST Corridor NW** – could expand FHWA MCOM Great Northern Corridor project to explore Class One rail/buried fiber optic and electric transmission utility third-party financing. Revenue source for highway rail grade separations from WA to Midwest?
  - (Note: third party financing and rail is a recommendation in **PLAN Washington**)

# Federal FAST Act and P-3s

- Restores ability of states to use up to 10% of allocated federal highway funds to capitalize state infrastructure bank (*suspended in previous MAP-21 bill*)
- Surface transportation program funds, the most flexible of federal highway funds, may be used to create and operate a state P-3 office to assist in the design, implementation, and oversight of P-3s
- Directs the U.S. Department of Transportation, with other federal agencies, to develop guidelines for conducting coordinated environmental project reviews.
- Many other features including reducing environmental permitting and “bundling” projects, i.e. corridor highway/rail overpasses

# Asia Pacific Gateway: Competition to NW Seaport Alliance – Plan WA



# Creating gateway capacity: private sector investments

- 1 Centerm (\$2.3M)
- 2 Alliance Grain Terminal (\$22M)
- 3 Viterra (\$45M)
- 4 Columbia Containers (\$12M)
- 5 Neptune Terminal (\$300M)
- 6 Richardson International (\$120M)
- 7 Seaspan (\$62M)

## Regional road network investments

(Provincial and Federal)

- **Current:**  
Port Mann Bridge and South Fraser Perimeter Roads (SFPR) (\$5B)
- **Future:**  
George Massey Tunnel (GMT) Replacement (~\$1B)

## Gateway corridor investments

- **Current:**  
Three Trade Areas (\$700M)
- **Future:**  
Fraser River Rail capacity

## Private sector Investments

- **Burrard Inlet:**  
\$650M + ~\$500M
- **Fraser River:**  
\$20M + ~\$500M
- **Roberts Bank:**  
\$1B + ~\$2-3B (T2)



**Q&A**