



*Pacific NorthWest
Economic Region*

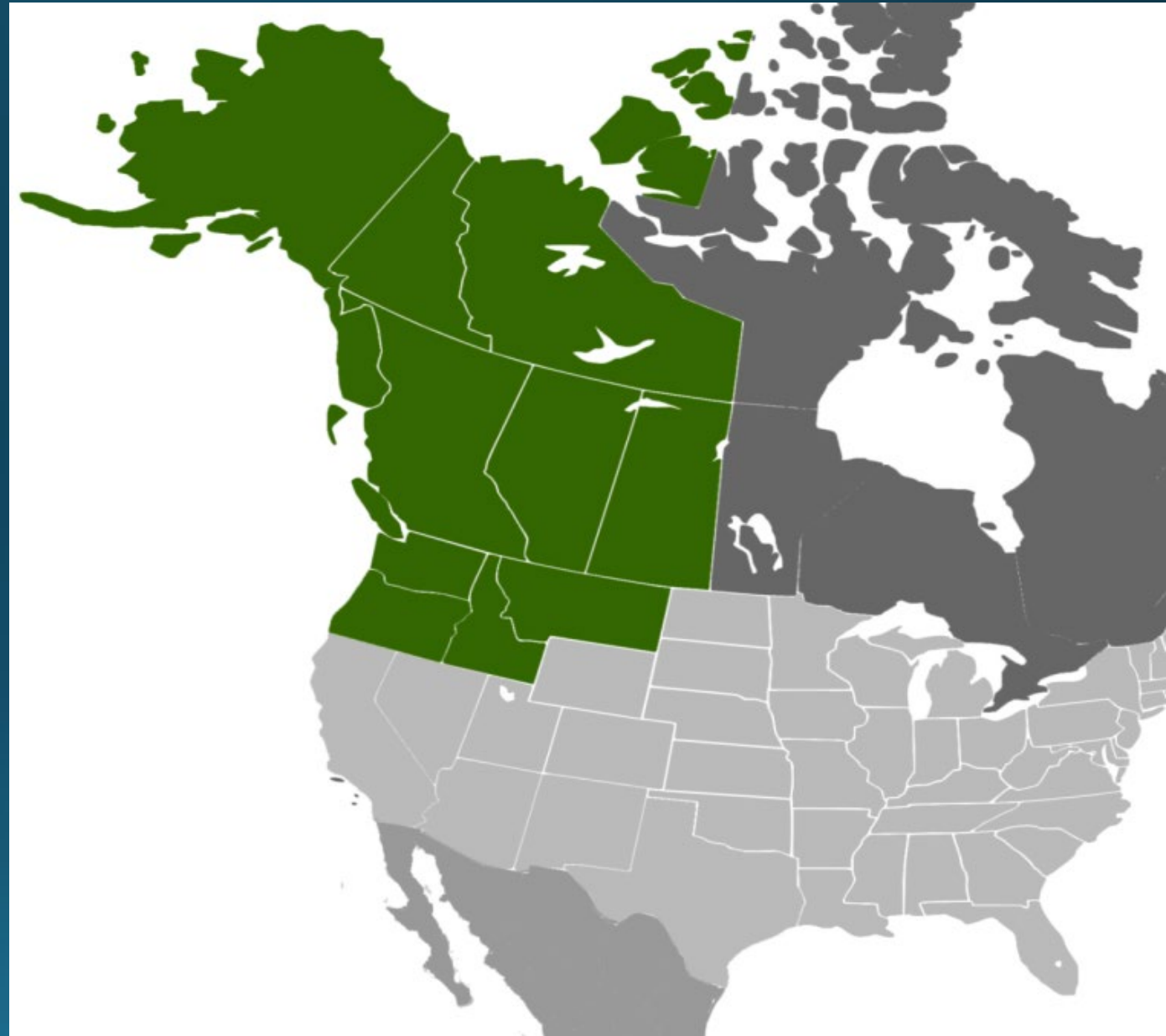
Transportation & Infrastructure Briefing



Pacific NorthWest Economic Region

PNWER is a statutory, public-private partnership chartered in 1991 by the U.S. States of Alaska, Washington, Idaho, Montana, Oregon and the Canadian Provinces of British Columbia, Alberta, Saskatchewan and the Yukon and Northwest Territories.

The Region has a GDP of over \$1Trillion, with a population of 24.4 Million people, making it the 13th Largest Economy in the world



Transportation and Infrastructure Working Group

Dedicated to improving the infrastructure of our major corridors and gateways, with a special interest on border infrastructure.

Co-chairs: Senator Chuck Winder, Idaho and Bruce Agnew, Director, Cascadia Center





16 million people
\$655 billion GDP
21st largest
economy

CASCADIA INNOVATION CORRIDOR

Cascadia Rail Corridor • Vancouver, BC to Eugene, Oregon

Key Issues

Market Access & Rail Infrastructure

Cascadia Innovation Corridor – High Speed Rail & Harbor to Harbour Air Service

Oil Train Safety & Safety in the Salish Sea

Autonomous, Connected, Electric, Shared Vehicles

Infrastructure Finance

Permit Reform

Truck Size & Weight Harmonization



PNWER has long worked with our partners to establish Harbour to Harbor floatplane service between Seattle and Vancouver, BC to advance the Cascadia Innovation Corridor. *(Consul General Brandon Lee and Microsoft COO Brad Smith pictured above took part in the announcement of the new service)*



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*Automated, Electric, Connected,
Shared Vehicles*

Automated, Electric, Connected, Shared Vehicles

- ACES: Rapid technological advances with implications on driver workforce, electric grid, productivity, and safety
- PNWER facilitates information – sharing between innovators, traditional private sector, and legislators
- We are working to prepare the NW to be an ACES leader and leverage the economic benefits of new tech

Autonomous, Connected Electric Shared Vehicle Session

2018 Annual Summit | Spokane | TVW Video

Is the public ready for an ACES world?

- Moderated by **Steve Marshall**, City of Bellevue
- **Kyle Quinn**, PACCAR Chief Technology Officer - Truck Platooning and Automation
- **Rep. Jake Fey**, Washington Legislature
- **Reema Griffith**, Executive Director, Washington State Transportation Commission - Washington's new Autonomous Vehicle advisory committee
- **Jeff Marker**, Freight Program Manager, Idaho, Transportation Department
- **Joel Fisher**, Business Development Manager, Verizon Smart Communities

The "E" in ACES – Transportation Electrification can boost our economies while enhancing our environment

- **Matthew Hepner**, Certified Electrical Workers of WA (IBEW)
- **Jeff Allen**, Executive Director, Forth
- **Jeffrey Phillips**, Managing Director, Dawson Strategic
- **Rendall Farley**, Avista

Industry Inflection Point



Autonomous



Connected



Electric

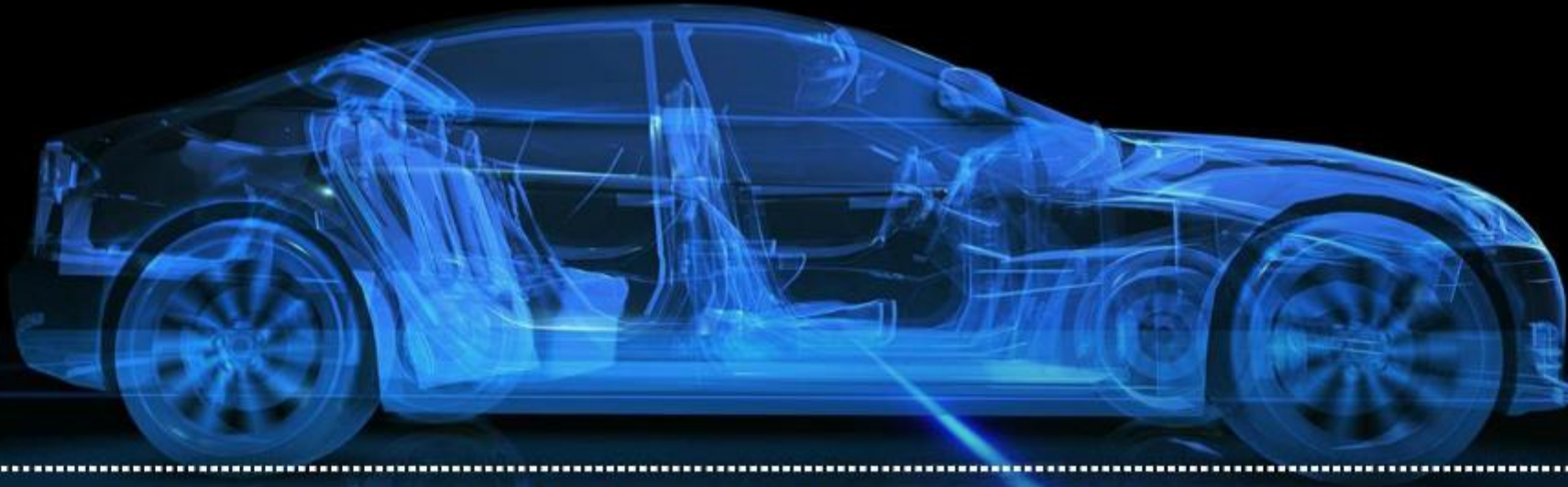


Shared



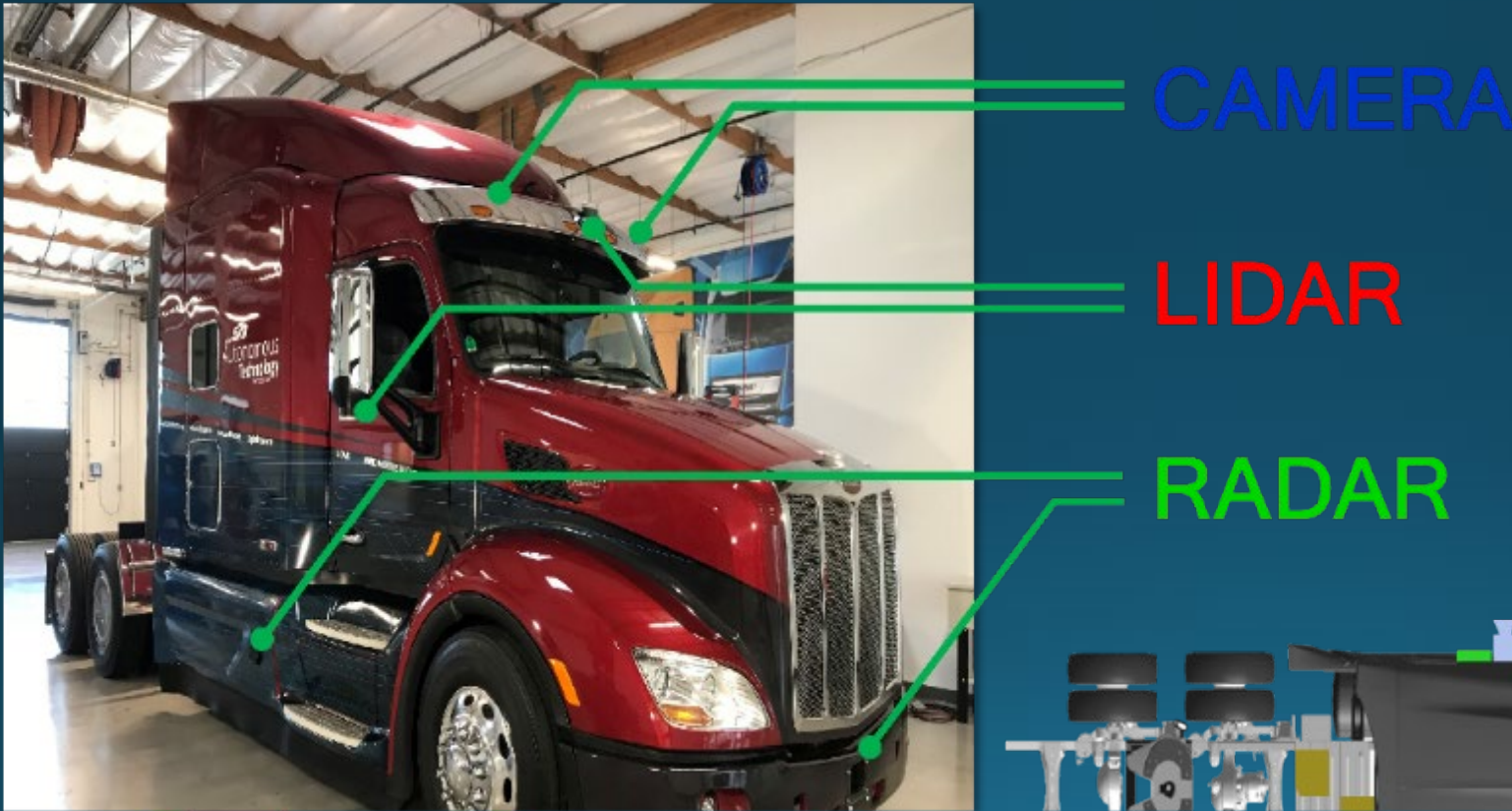
The Coming Flood of Data - Autonomous Vehicles

Cameras	Radar	LiDAR	GPS	Sonar
~20-40M	~10-100K	~10-70M	~50K	~10-100K
BYTES PER SECOND	BYTES PER SECOND	BYTES PER SECOND	BYTES PER SECOND	BYTES PER SECOND



Total: 4,000G bytes per day

PACCAR Level 4 Demonstrator



- ACES technology has significant implications for the trucking industry.
- Improve safety through lane departure technology, platooning, and automatic braking.

Emerging Autonomous Applications

Social Acceptance and Economic Feasibility

Platooning



Closed Course Autonomy



On-Highway Autonomy

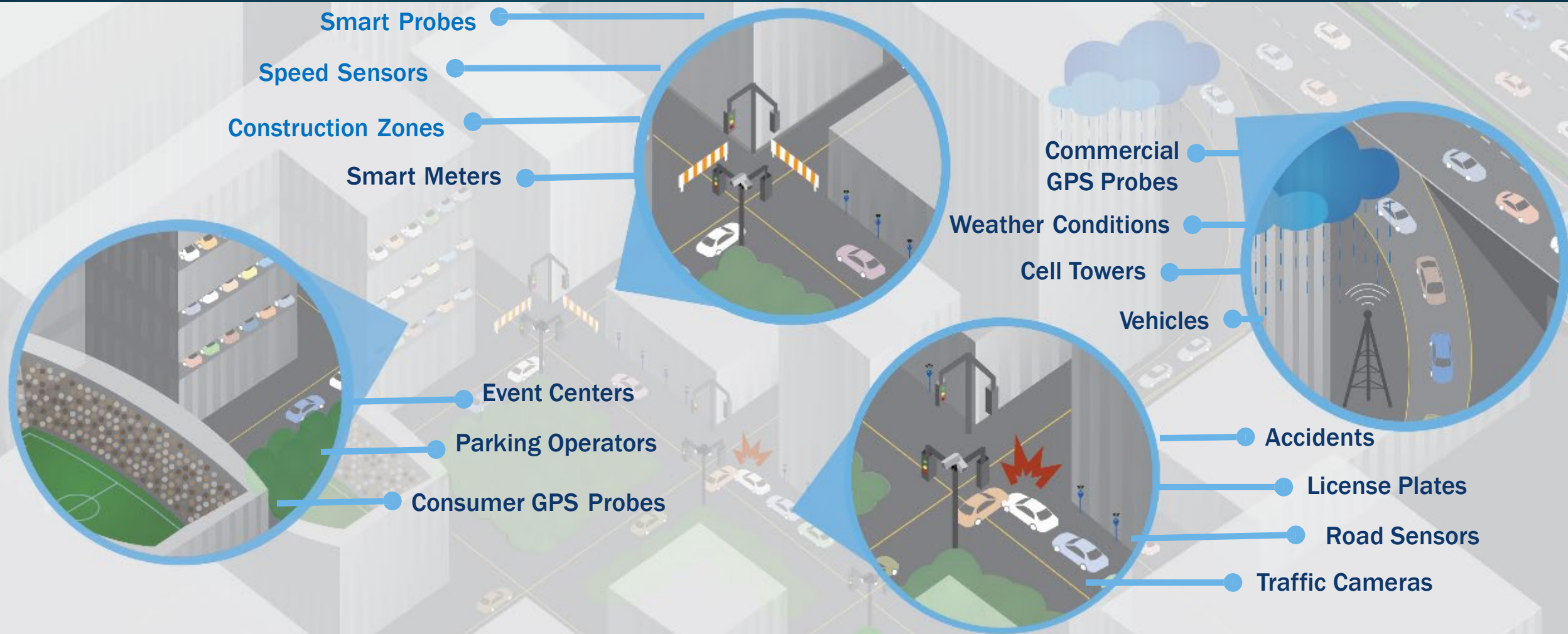


Urban Autonomy



Data Mining the Smart City

We leverage a connected network of IoT sensors, devices, cars and drivers



Benefits of ACES

- ✓ Reduced Congestion
- ✓ Increased Safety
- ✓ Lower Cost of Transportation
- ✓ More Convenient
- ✓ More Environmentally Friendly
- ✓ More Accessible



How do we get there?

- Platooning trucks (PACCAR) on interstates in WA
- Extend sales tax exemption for electric vehicle purchase
- State support for super charging stations on state corridors and authorization of public utility districts to invest in electrification infrastructure
- Tale of Two Regions: a research project with PNWER and Urbanova comparing the progress of Greater Spokane and central Puget Sound towards electrification, shared mobility (transit/TNC's), smart cities/5G, and autonomous vehicle testing.

PNWER's Role

- 2018 Spokane Summit: Forum with Idaho Transportation Department, PACCAR, Forth Mobility Network, Avista
- 2019 Saskatoon Summit in July:
 - AL/CAN/Hwy 97 Corridor: Collaboration on smart cities, electrification, highway maintenance, fiber optics and buried energy transmission lines.
- 2019 Seattle Economic Leadership Forum in November:
 - Smart cities
 - Autonomous, Electric Vehicles
 - Infrastructure

2019
PNWER
ECONOMIC
LEADERSHIP
FORUM

NOV 20-23, 2019

SEATTLE, WASHINGTON

PNWER.ORG





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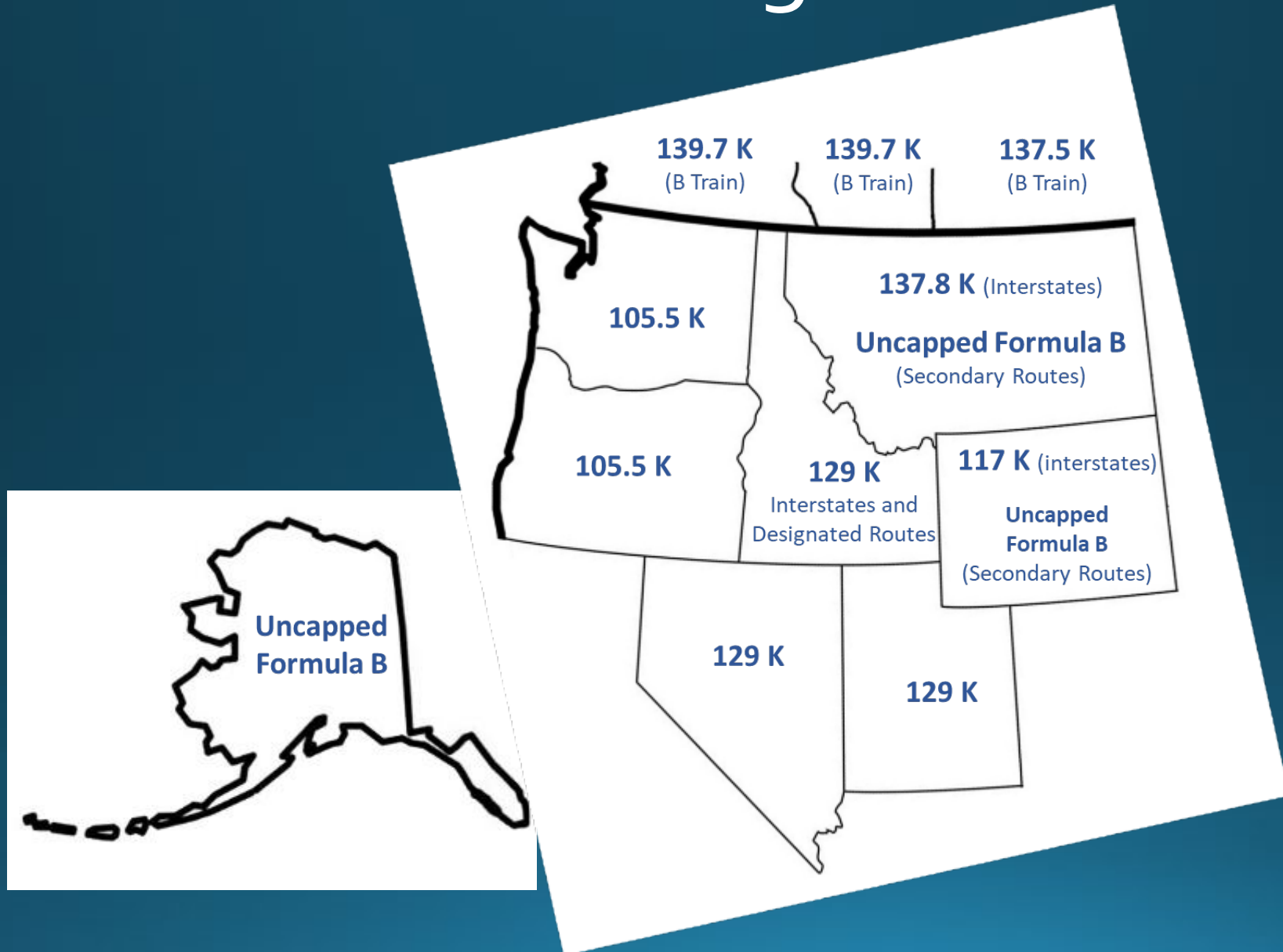
Truck Size and Weights

Producer Economics

- Many commodities from the PNWER region are both fungible and priced on a national or world market.
- Producer pays the freight cost either directly or it is deducted from the proceeds.

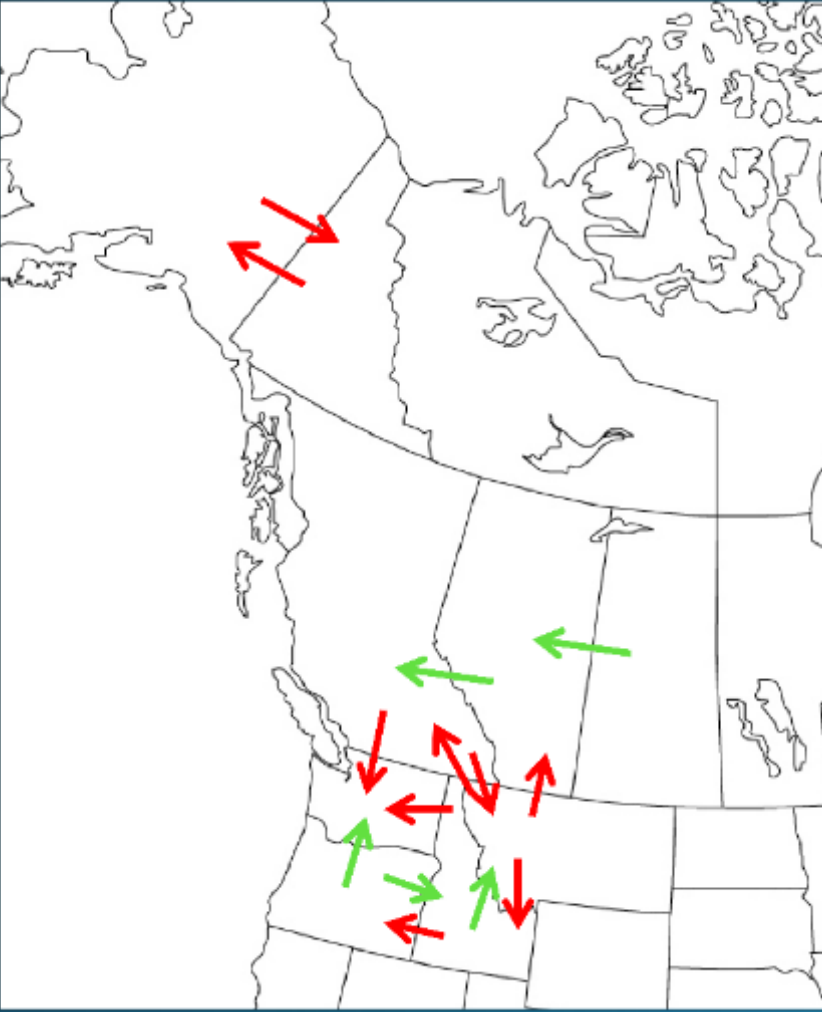


Truck Size and Weight Differences



PNWER Barriers

- Not OK to transit
- OK to transit



Differing truck size and weight measures is a significant drag on the potential profits of commodity producers.

This slide addresses the jurisdiction's most efficient vehicles only.

Recommendations

- Identify high volume destinations and appropriate routes for harmonization opportunities.
- Address “other” harmonization issues...flags, escorts, lights, signs.



Next Steps

- Convene discussions and information sharing with NW Transportation Committee Chairs
- Engage private sector
- Seek federal support
- Present at 2019 Western Association of State Highway and Transportation Officials (WASHTO) Annual Conference.



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Market Access and Rail Infrastructure

PNWER Supports

Sandpoint Junction Connector as part of the Great Northern Corridor
Enhanced investments in Asia Pacific Gateway and Trade Corridor
Five-state PNWER Rail Caucus to focus on Passenger and Freight Issues





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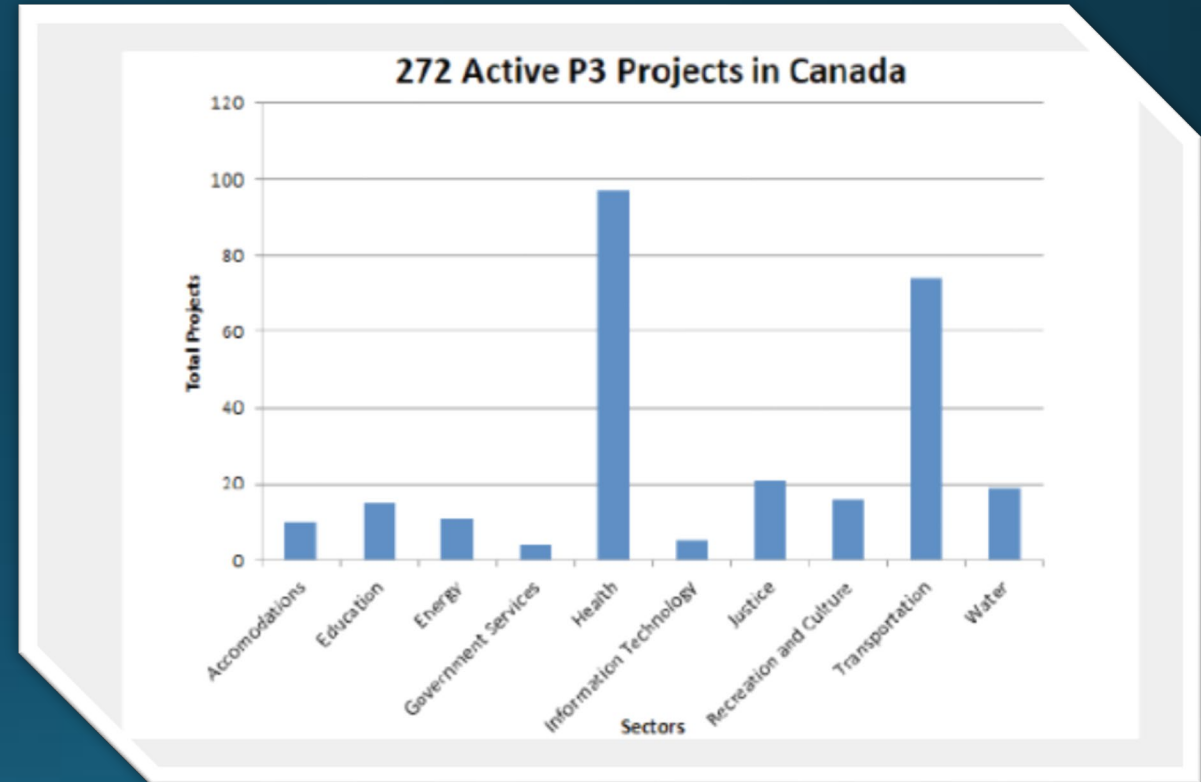
Innovative Infrastructure Finance

Innovative Infrastructure Finance

Traditional funding mechanisms for large-scale infrastructure and transportation projects are challenged by the absence of resources to explore innovative procurement methods.

The *Innovative Infrastructure Finance Taskforce* promotes best practices for public-private infrastructure financing

- Public private partnerships in Canada are applied through common contract law and have been expanded to 280 infrastructure projects (\$90 Billion) nationwide.
- Canadian experts in public-private partnerships share lessons learned with U.S. legislators and other stakeholders at PNWER conferences, webinars and tours of infrastructure networks.
- Example: Canada Line connecting downtown Vancouver to Vancouver BC Airport



Federal Engagement

FAST Act of 2015 – Sec. 1441 authorized \$12 Million competitive grant program for **Regional Infrastructure Accelerator Demonstration Program**

PNWER is currently working with Congressional leadership to secure funding appropriation for Demonstration Program and any future infrastructure programs address rural areas and small states infrastructure needs.

Demonstration Center Objectives:

- Assist states and municipalities in accessing existing funding sources
- Provide a 'Center of Excellence' to enable states to assess potential of innovative financing for proposed projects
- Support the alignment of multi-state regulations for cross border infrastructure projects
- Support the streamlining of regulatory environment
- Promote bi-lateral, multi-state and multi-use corridors

Regional Infrastructure Accelerator Demonstration Program

Sample projects –

- Rail (freight and passenger)
- Highway
- Utilities
- Telecommunications
- Water
- Unmanned Aerial Vehicles (drones)



Become Involved in PNWER

Pacific NorthWest Economic Region Annual Summit

July 21-25, 2019 - Saskatoon, SK



Pacific NorthWest Economic Region

29th Annual Summit | Saskatoon, Saskatchewan | July 21-25, 2019

The premier bi-national conference promoting regional collaboration

Delta Hotels Bessborough

www.pnwer.org/2019summit



Pacific NorthWest Economic Region

Economic Leadership Forum

Seattle, WA | November 20-23, 2019

PNWER is the premier, bi-national, non-partisan, public/private partnership in North America.

Questions:

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