



# Task Force on Vehicle Weights and Dimensions Policy

27 November 2019  
Montréal





# Agenda

- ④ Overview of FPIInnovations
- ④ Review of previous configuration research
- ④ Review of current configuration and safety research
- ④ Discussion

## FPINNOVATIONS

FPInnovations is a not-for-profit private organization that specializes in the creation of solutions in support of the Canadian forest sector's global competitiveness.

Unique industry/government partnership model

[fpinnovations.ca](http://fpinnovations.ca)



# OFFICES & LABORATORIES



- FPInnovations offices and laboratories**
  - Employees: +400
  - Budget: \$76 million CDN
  - Industry Members: 180
- Industry, Universities, Provincial and Federal Governments**

FPInnovations:  
Forest Operations, Wood Products,  
Pulp & Paper, and Bio-sourced  
products (Vancouver, BC)

Fire Operations Group (Hinton, AB)

Bio-Economy Technology Centre  
(Thunder Bay, ON)

FPInnovations Head Office:  
Forest Operations, Pulp & Paper,  
and Bio-sourced products, PIT Group  
(Pointe-Claire, QC)

FPInnovations:  
Wood Products, Forest Operations,  
Pulp & Paper, and Bioproducts  
(Québec, QC)

# OUR HISTORY



**1918**

**Forest Products Laboratories of Canada**  
Later became Forintek Canada Corp.



**1925**

**Pulp and Paper Research Institute of Canada**  
A private, not-for-profit research and technology organization



**1975**

**Forest Engineering Research Institute of Canada**  
A private, not-for-profit R&D organization aimed at improving Canadian forest operations



**1979**

**Forintek Canada Corp.**  
A private centre for the development of scientific and technical knowledge, applications and solutions to enhance the wood products sector



**2007**

On April 1, **FPIInnovations** was established as a result of the merger of the 3 institutes and created **PIT Group**

# FOCUS AREAS

## FOREST OPERATIONS



**Fibre costs and value**



**People and safety**



**Fibre supply**



**Sustainability**



**Forestry 4.0**



- Offers research and technology implementation services to freight fleets
- Over 40 partner fleets and government entities
- Best known for Energotest but projects and contracts cover maintenance issues, testing of new technologies and more



# WESTERN LOG TRUCK CONFIGURATIONS STUDY (1991-95)

- Long log configurations
- Compensating reach
- Rotating log bunks
- Multiple axle combinations and articulation points
- Testing and measurement of vehicle properties
- Development of computer model





## TRIDEM DRIVE RESEARCH AND DEVELOPMENT (1990-2005)



- Off-highway mobility and traction
- Improved gradeability
- Steering performance assessment
- Dynamic performance assessment
- Multiple configuration combinations
- Truck/tractor specification

# CONFIGURATION DEVELOPMENT AND TESTING

- FPIinnovations has been instrumental in introducing many configurations in cooperation with industry and provincial regulators
- Potential payload gains while maintaining safety
- Not just logging: mining, heavy haul, agriculture, cranes
- Examples
  - Alberta Winter weights review
  - Saskatchewan partnership program
  - Tridem tractor/ quad-axle semi-trailer in Alberta
  - Quad axle semi-trailer in Atlantic provinces
  - Hinged trailer in Ontario
  - 9-axle B-train for veneer hauling in BC
  - 9-axle B-trains for log-hauling in BC, Alberta
  - 10-axle B-trains in Alberta
  - Beetle-wood configuration study in BC
  - Corridor evaluations in NS and NB
  - Roll-coupled hitch for pony and full-trailers





# INTERNATIONAL CONFIGURATION RESEARCH

- Keeping current with international developments in heavy truck technology development and policy
- Active participation in International Forum on Road Transport Technology (IFRTT) since 1988
- Performance Based Standards (PBS) evolution From Canada (RTAC Study) to Australia and Europe.
- Asian countries are now taking interest and adopting these standards



**International Forum For  
Road Transport Technology**





## SEAMUS IS RETIRING BUT SUCCESSION PLAN IN PLACE!

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- Two transportation staff members have been mentored and trained by Seamus and have had training on vehicle dynamics and safety:
  - Adime Bonsi, Pointe Claire office
  - Jeff Meiklejohn, Vancouver office
- FPInnovations will continue to offer dynamic vehicle analysis to governments, fleets, and vehicle manufacturers

# Thank you

*"To all the cooperators in these various projects especially the staff of the provincial ministries and departments without whose cooperation none of these initiatives could have happened."*

-Seamus Parker

