



**SIEMENS**  
*Ingenuity for life*



# VIA Rail New Corridor Fleet NGEC 10<sup>th</sup> Annual Meeting

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The NGEC will provide national leadership in standardization, acquisition, financing and management of passenger rail equipment.



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97 LRC  
(CORRIDOR: 97)



205 HEP 1 & 2  
(CORRIDOR: 33 HEP1 + 7 HEP2 = 40)



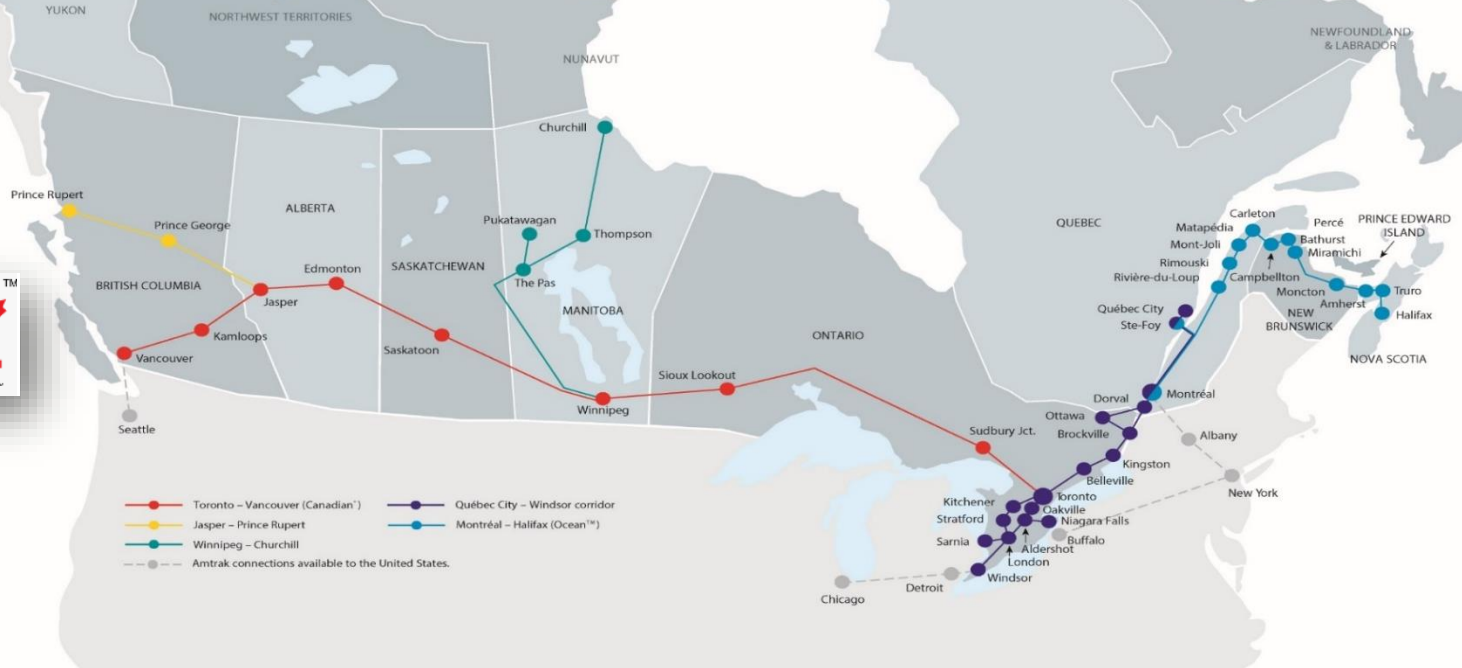
106 RENAISSANCE  
(CORRIDOR: 23)



52 GM F-40  
(CORRIDOR: 19)



21 GE P-42  
(CORRIDOR: 21)



# VIA RAIL PASSENGER NETWORK

- Canada's national passenger rail service on behalf of the Government of Canada.
- 5 M passengers in 2019
- 514 train departures/week on a 12,500-km network
- Crown Corporation serving over 400 communities with 3,115 employees

# Background

Current Corridor fleet is made up of multiple car and locomotive fleets which results in high operating costs and limits operational flexibility, as well as an uneven customer experience.

4

VIA's Corridor fleet is approaching the end of its life

A Business case was accepted by Transport Canada for replacement of the full Corridor fleet with one standard fleet, and funding was approved.



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# Project Summary



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# New Fleet – 4 Interrelated Projects

## Rolling Stock Acquisition Project

- 32 Long Diesel Trainsets
- Key features include: enhanced universal accessibility; push-pull (bi-directional trainsets); fuel efficient; ability to convert to dual-mode; adaptation for Canadian climate
- Delivered progressively between 2022 to 2024

## Maintenance Facilities Modernization

- Upgrade Montreal and Toronto Maintenance Facilities
- Installation of new Maintenance Equipment

## Information Systems Integration

- CMMIS
- Interface with On-Train boarding Technology
- Cab Simulators
- Wi-Fi
- Interfaces with key VIA corporate systems

## Maintenance Process Transformation

- Devise new maintenance procedures, processes and techniques
- Training for maintenance of the new trainset



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# Rolling Stock Acquisition Project



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# Background

- Retirement of current fleet creates urgency for new fleet, “Off-the-shelf” solution was a priority
- Contract signed with Siemens December 11, 2018
- Cab Car only new vehicle
- Design meetings in progress (Canadian regulations, standards, accessibility, interiors)
- Internal consultation: LEs, On Board and Service Design representatives
- External consultation: Customers, disabled customers and associations

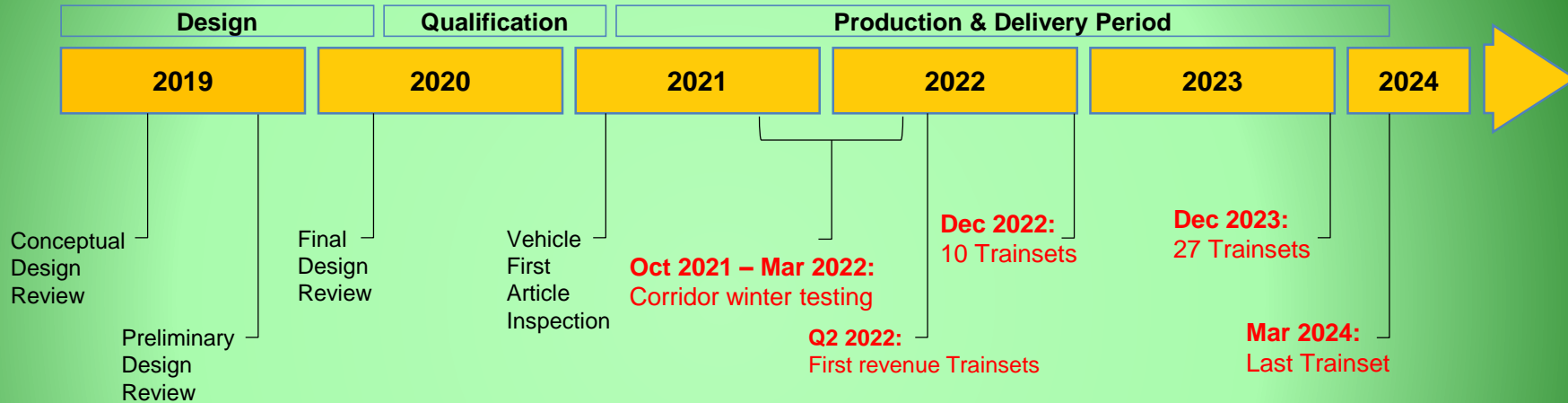


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# Calendar



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# Summary of Fleet

- 32 Bi-directional diesel trainsets (Charger locos, Venture cars)
- Base trainset: Loco / 2 Business / 2 Economy / 1 Economy Cab Car
- Base trainset capacity: 87 Business / 194 Economy
- 100 mph, qualified for 125 mph
- Provision for future electrification

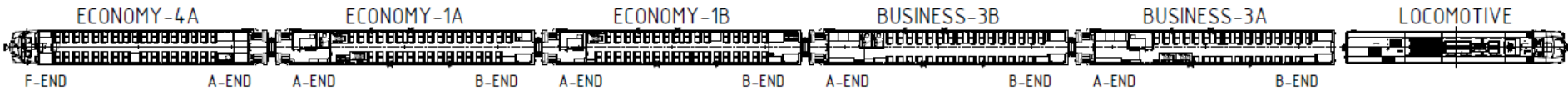


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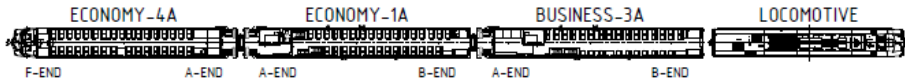


# Trainset Layouts

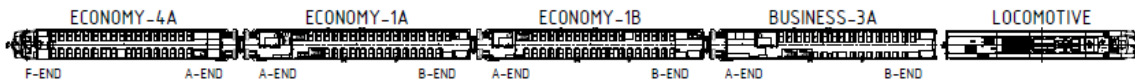
## LONG TRAINSET



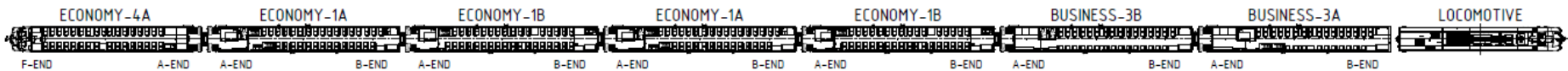
## EXTRA SHORT TRAINSET



## SHORT TRAINSET



## EXTRA LONG TRAINSET

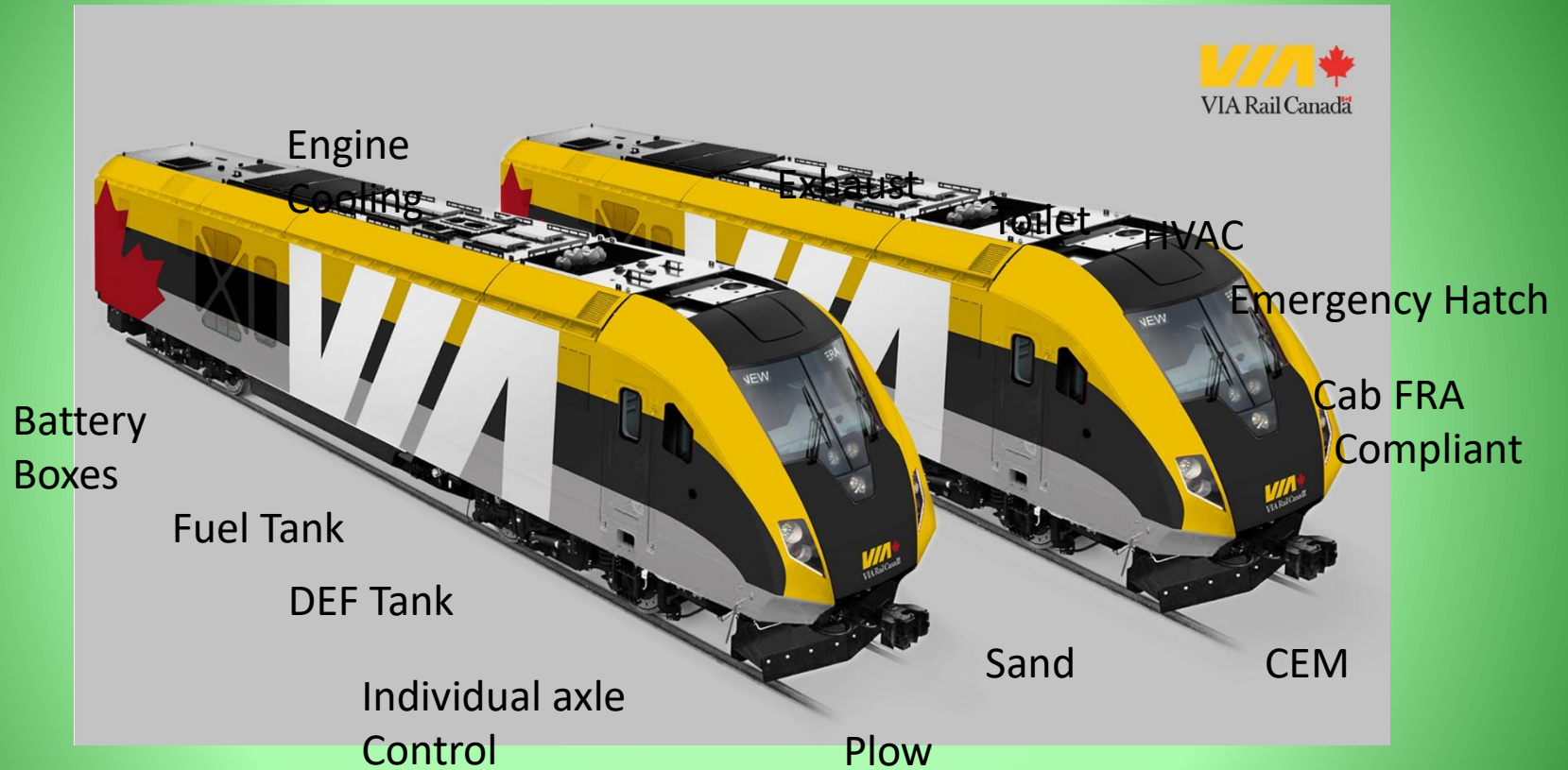


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# Locomotive Key Features

12



™ 2018, VIA Rail Canada. Dessins préliminaires seulement / Preliminary drawing only



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# Cars and Interiors

## Key Features



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## Improved Passenger Experience:

- Message screens in ceiling
- Closed circuit cameras
- Open overhead luggage storage (sloped)
- More comfortable seats
- Quiet Zone
- Privacy Quads
- Interior doors activated by motion sensors
- WIFI



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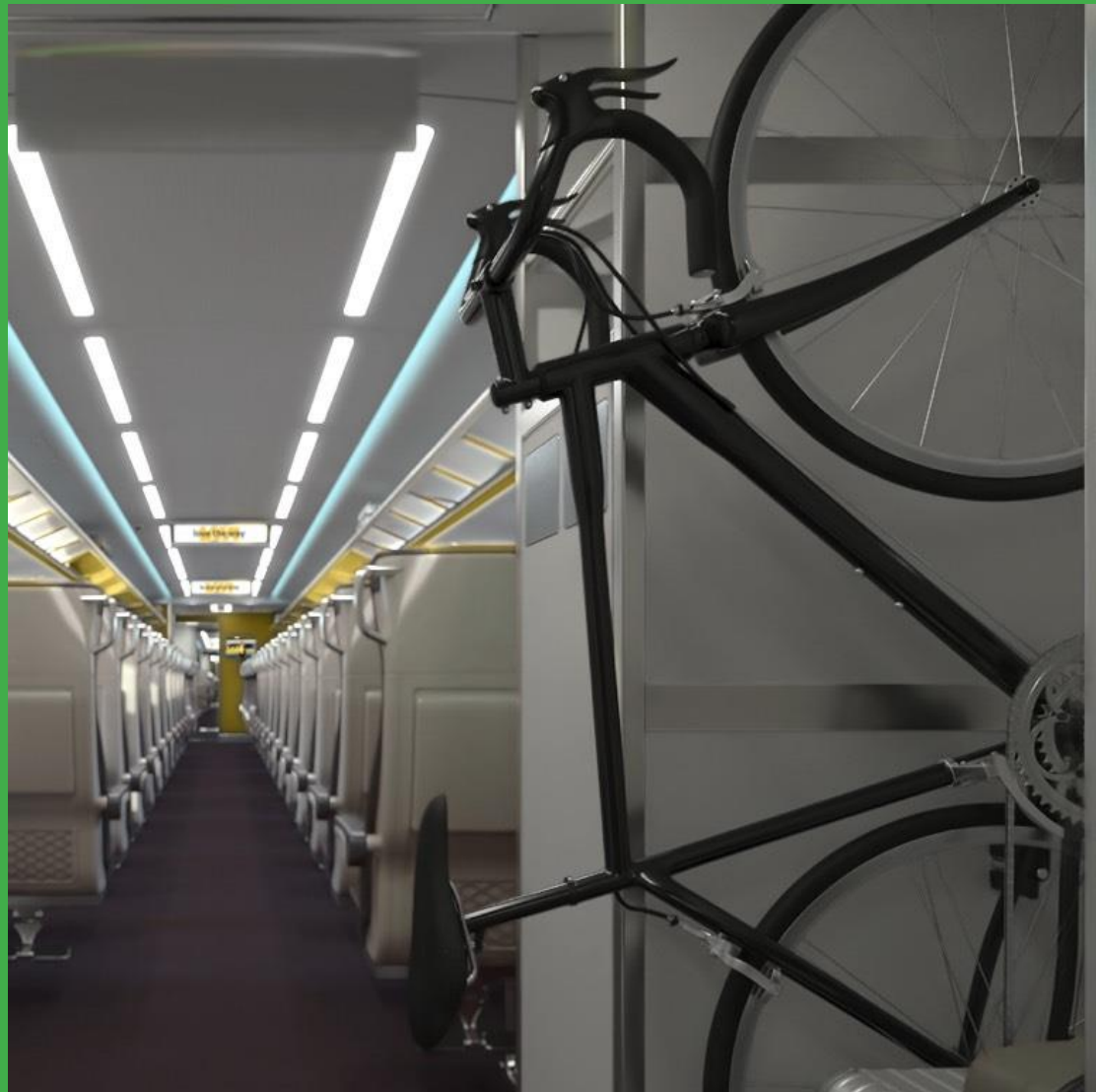


## Improved Passenger Experience:

- Bicycle spaces
- Waste/recycling/compost stations
- Water bottle filling stations
- Info screens on outside of doors
- Wider aisle

## More Accessible:

- Adapted washrooms
- Message Screens in Washrooms
- Wheelchair lifts
- Braille seat numbers



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## Improved Crew Experience:

- More galley space
- Garbage carts
- New food carts
- Jump seats and reserved seats
- Crew lockers
- Wide gangways with smooth floor (no doors)



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# Technical Support and Spares Supply Agreement (TSSSA)



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# TSSSA

- 15 year TSSSA contract, with option for 15 more years.
- Siemens provides permanent on site technical support.
- Siemens owns and manages parts inventory based on their maintenance program (including consumables).
- VIA Rail inspects and maintains fleet with own personnel.
- VIA Rail benefits from global performance data analysis of all Siemens locos and cars.



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# Concurrent Projects:

Maintenance Facilities Modernization

Information Systems Integration

Maintenance Process Transformation



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# Maintenance Facilities Modernization

- Combination of new build and upgrades/ redevelopment of Montreal and Toronto Maintenance Facilities.
- Integration of new “fit for purpose” maintenance areas.
- Installation of new “process specific” equipment such as De-icing, In line VEMS and Wheel Lathes



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# Information Systems Integration

- Computerized Maintenance Management Information System (CMMIS)
- Vehicle Equipment Measuring System (VEMS)
- On-Train Information Technology



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# Maintenance Process Transformation

- Adapting and optimizing the master maintenance program for the existing and future fleets consistent with the changes to the fleet operation model (reduced availability of spare trainsets and increased asset utilization).
- Developing optimal interface between the future state maintenance process and the new IT systems (specifically CMMIS).
- Influencing design of the Facilities consistent with the requirements of the optimized master maintenance program.



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