Bringing Responsible Rail to Alberta

Alberta Regional Rail presentation to Big Sky Passenger Rail Authority
January 11, 2023

Agenda

1. **Intro: Who are we and why are we here?**

2. **About Alberta Regional Rail (ARR)**

3. **Project background: The history of ARR**

4. **Why does connecting Alberta with Montana make sense?**

5. **Responsible Rail Benefits to Alberta - Montana corridor.**

6. **Q&A**

7. **Next Steps**

About Alberta Regional Rail (ARR)

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We are a group under the corporate name of Alberta Regional Rail Inc. (ARR) who are passionate about bringing Responsible Rail passenger train connecting Edmonton to Calgary, with further interest in connecting Montana with Alberta.

Our vision: We envision a future where regional rail is a cornerstone of our transportation system, providing affordable and sustainable options for travel between Edmonton and Calgary, from Alberta, and to Montana.

Our mission: To develop and run a world class responsible regional rail transportation system that is reliable, efficient, and environmentally sustainable for Alberta and for the benefit of all Albertans.
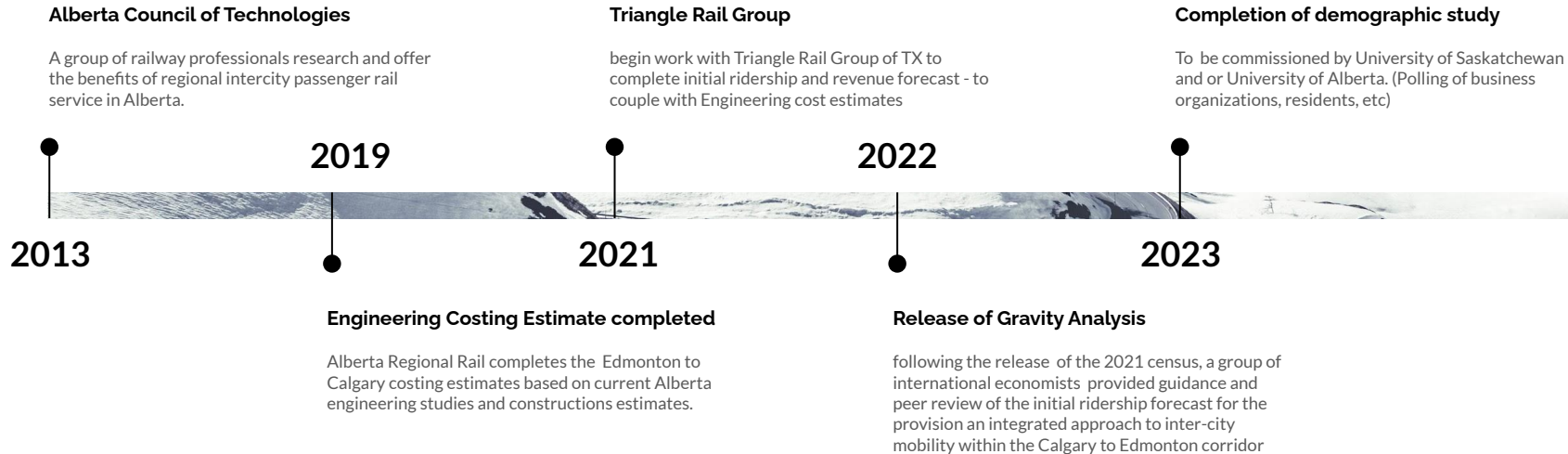
We call this "Responsible Rail"

Project background: The history of ARR.

- Over the past decade, our team has been working to develop the concept of regional rail transportation in Alberta.

- Strategic Partnerships

  - Forge alliances and relationships, including positive conversations with Canadian Pacific Railway to ensure that our project is compatible with their operations and does not disrupt access through downtown Calgary.

  - Forge alliances and relationships with indigenous leaders and nations.

- Technical Specifications

  - Develop technical specifications for the project, including the type of rolling stock and infrastructure needed.

- Created a Gravity Model to economic viability of our plan.

ARR key milestones to date.

Alberta Council of Technologies

A group of railway professionals research and offer the benefits of regional intercity passenger rail service in Alberta.

Triangle Rail Group

begin work with Triangle Rail Group of TX to complete initial ridership and revenue forecast - to couple with Engineering cost estimates

Completion of demographic study

To be commissioned by University of Saskatchewan and or University of Alberta. (Polling of business organizations, residents, etc)

2019

2022

2013

2021

2023

Engineering Costing Estimate completed

Alberta Regional Rail completes the Edmonton to Calgary costing estimates based on current Alberta engineering studies and constructions estimates.

Release of Gravity Analysis

following the release of the 2021 census, a group of international economists provided guidance and peer review of the initial ridership forecast for the provision an integrated approach to inter-city mobility within the Calgary to Edmonton corridor

Our goals

- Short Term
  - Funding and development of for an Edmonton - Calgary **feasibility study**.
  - Funding and development an Alberta - Montana regional **feasibility study**.

- Mid-Term
  - Creation a **regional rail transportation authority** to manage all aspects of the proposal process.
  - Capital expenditures (CapEx) plan and entity.

- Long-Term

  - Create a **regional passenger rail transportation system** that:

    - connects Calgary to Edmonton.

    - connects Alberta to Montana including connecting Montana airports (Bozeman and Grand Falls) to Calgary International Airport, National parks.

Why does connecting Alberta with Montana make sense?

Benefits to Alberta - Montana corridor.

We believe that a US-Canada "Responsible Rail" project like the one we are proposing has the potential to build prosperity for both countries.

- **Increased tourism.:** by connecting Banff, Glacier, Yellowstone.

- **Enhanced economic connections**: by increased trade and economic activity between Montana and Alberta.

- **Enhance the quality of life:** through better mobility and positive environmental impacts.

- **International airport/destinations connections:** by linking Calgary International Airport add additional departure airport gateways for Montana communities.
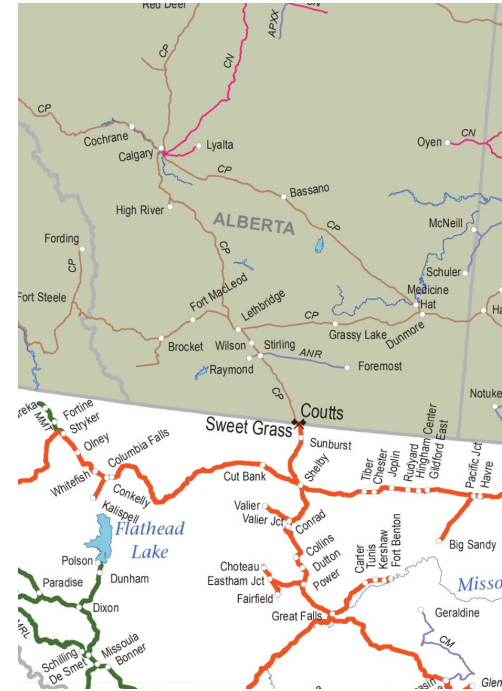
What is "Responsible Rail" and what are the benefits?

Responsible Rail (RR) approach

- **Safety:** Implementing safety measures such as redundant signaling systems, automatic train control, and collision avoidance systems to prevent accidents.

- **Sustainability:** Utilizing sustainable technologies and practices such as electric or hydrogen-powered trains, and incorporating energy-efficient design elements into infrastructure and stations.

- **Practical:** Utilizing existing technologies CFR, AAR, FRA compliant freight compatible rolling stock.

- **Accessibility:** Accessible and convenient for all. Ensuring that rail systems are accessible and convenient for all users, including providing ramps and elevators at stations, and offering special accommodations for passengers with disabilities or mobility limitations.

- **Equality:** Working all communities including indigenous communities to ensure that rail projects are developed in a way that respects the rights and interests of these communities.
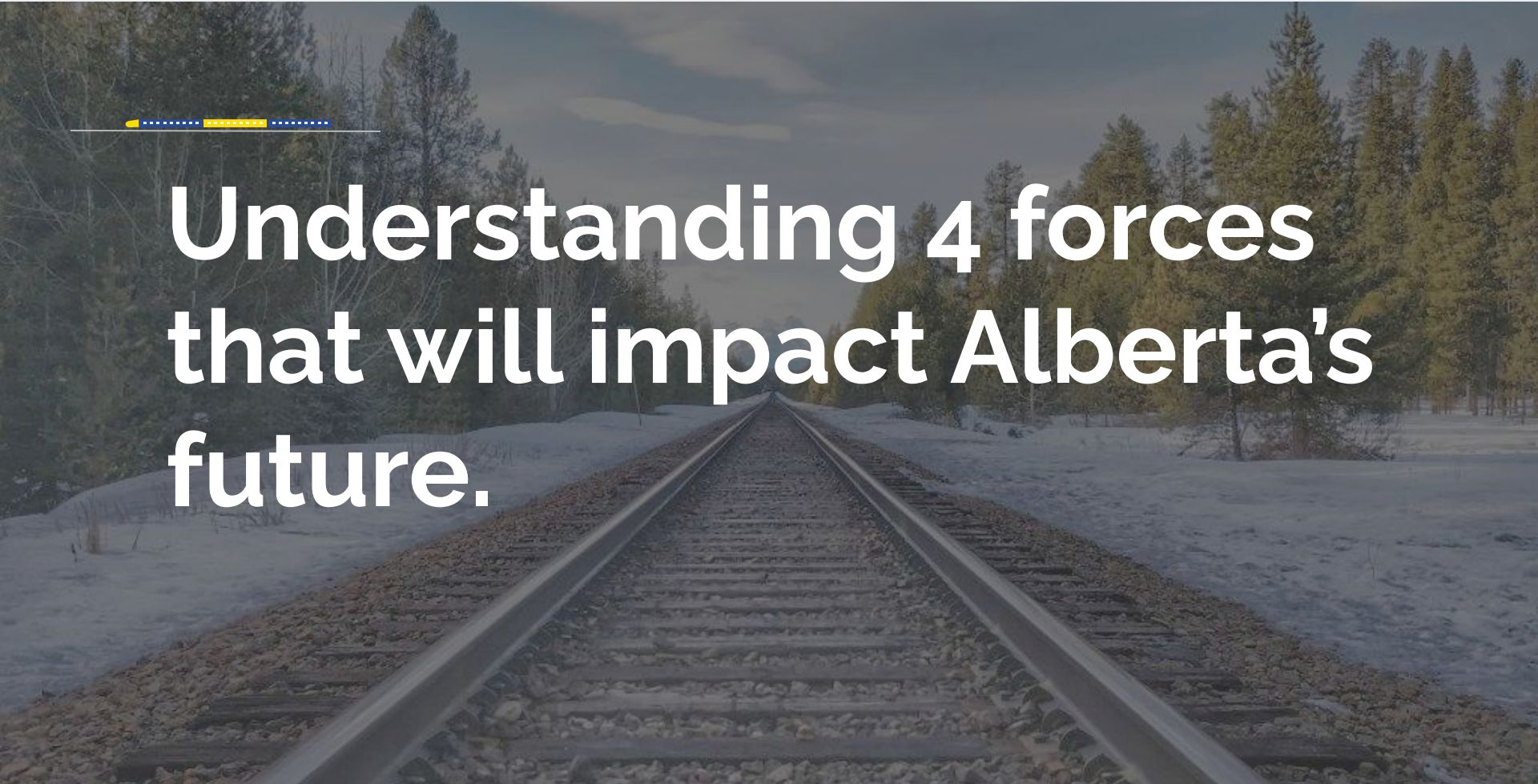
Q&A

Thank you.

Addendum

- **Understanding the marketplace: Alberta**

- **AAR teams and strategic partners**

Understanding 4 forces that will impact Alberta's future.

Top 4 forces that will impact Alberta's future.

1 **Oil and gas:** Alberta has a significant reliance on the oil and gas industry, which has faced significant challenges in recent years due to low prices and global efforts to transition to renewable energy sources.

2 **Climate change:** Alberta has been heavily impacted by the effects of climate change, including more frequent natural disasters and declining air quality. Efforts to mitigate and adapt to these changes will be necessary.

3 **Population growth:** Alberta has experienced significant population growth in recent years, and this is expected to continue in the next 20 years and increase the need to manage urbanization, infrastructure, and resources.

4 **Social and cultural changes:** Alberta is also experiencing significant social and cultural changes, including an aging population, changing demographics, and shifting values and attitudes.
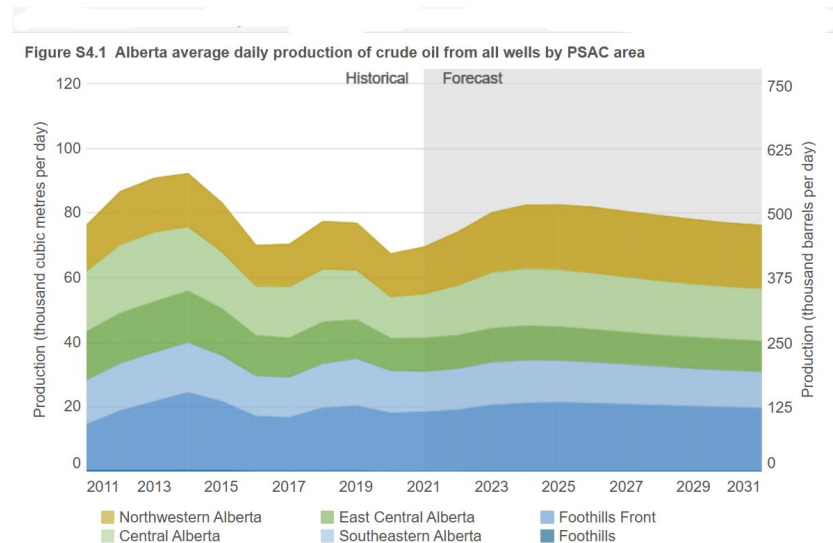
4 forces that will impact Alberta's future.

1 Oil and gas:

Oil and gas sector remains Alberta's largest industry, accounting for 16% of its GDP

- The industry is a large CO2 emissions contributor.
- While the demand is strong, production is flat.
- The province is looking to invest in renewable energy sector.

Figure S4.1 shows the average daily production of crude oil from all wells by the Petroleum Services Association of Alberta (PSAC) area.

Figure S4.1 Alberta average daily production of crude oil from all wells by PSAC area

Legend:
- Northwestern Alberta
- Central Alberta
- East Central Alberta
- Southeastern Alberta
- Foothills Front
- Foothills

2 # Climate change

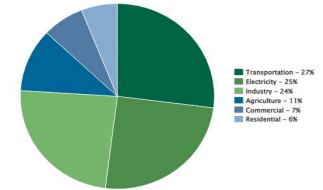Impacts on the environment and risk in Alberta and Financial and insurance implications:

- Between 1983 and 2008, Alberta averaged around $100 million a year in catastrophic losses due to extreme events (hailstorms, wildfire, flooding, etc.).

- Alberta averaged $673 million a year in insured losses from extreme weather events from 2009 to 2012.

- IBC says Alberta has experienced the 2 most costly disasters in the country's history with the Fort McMurray wildfires at $3.58 billion and the 2013 southern Alberta floods at $1.7 billion.

Figure 1: Alberta emissions profile
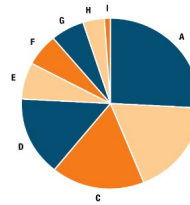
Letter	Emission source	Percentage
A	Oil sands (mining, in situ and upgrading)	26%
B	Electricity / heat generation	18%
C	Oil and gas and mining	17%
D	Transportation	15%
E	Agriculture	7%
F	Residential / commercial	6%
G	Manufacturing / construction	6%
H	Industrial	4%
I	Waste	1%

2020 U.S. GHG Emissions by Sector

- Transportation – 27%
- Electricity – 25%
- Industry – 24%
- Agriculture – 11%
- Commercial – 7%
- Residential – 6%

2020 U.S. Transportation Sector GHG Emissions by Source

- Light-Duty Vehicles – 57%
- Medium- and Heavy-Duty Trucks – 26%
- Aircraft – 8%
- Other – 5%
- Rail – 2%
- Ships and Boats – 2%
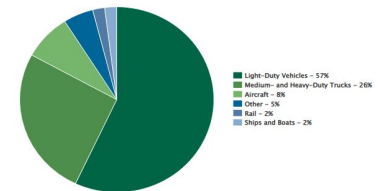
Note: Totals may not add to 100% due to rounding. Transportation emissions do not include emissions from non-transportation mobile sources such as agriculture and construction equipment. "Other" sources include buses, motorcycles, pipelines and lubricants.

③ Population growth

2046, Alberta's population is expected to:

- reach over 6.4 million people, an increase of almost 2.0 million people from 2021

- become older, with an average age of 41.7 years, up from 38.9 years in 2021

- become increasingly diverse, as arrivals from other countries account for about 55% of the expected growth over the projection period

- become more concentrated in urban centres, especially along the Edmonton-Calgary Corridor; 80% of Albertans are expected to live in this region by 2046

③ **Population trend analysis**

Historically, Interprovincial migration into Alberta was correlated to the prosperity of Alberta's energy industry.

- More Canadians left Alberta during the period of 2015 until 2017, due to decline in oil prices and layoffs.

- Post-Covid migration into Alberta is at historically high levels and Alberta leads all Canadian provinces in growth.
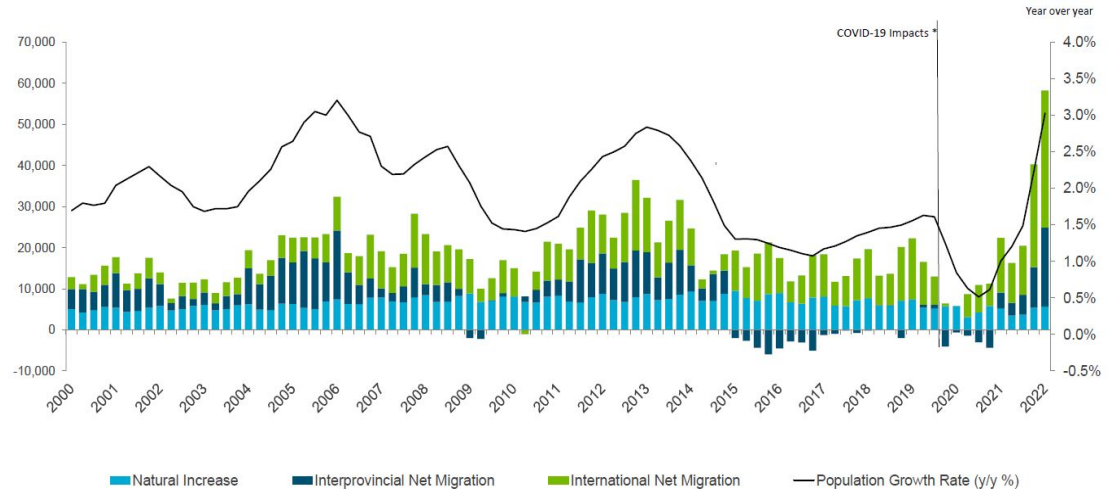
4 Social and cultural changes

Projections from the Government of Canada show major shifts in diversity mix and cultural make up Alberta's :

- In 2019, immigration from India, the greatest source of new permanent residents to Canada more than doubled by 117.6 per cent from 39,340 in 2015 to 85,590.

- In 2023, it is expected half of the immigrants to Alberta will be from Asia, where regional rail is prevalent.
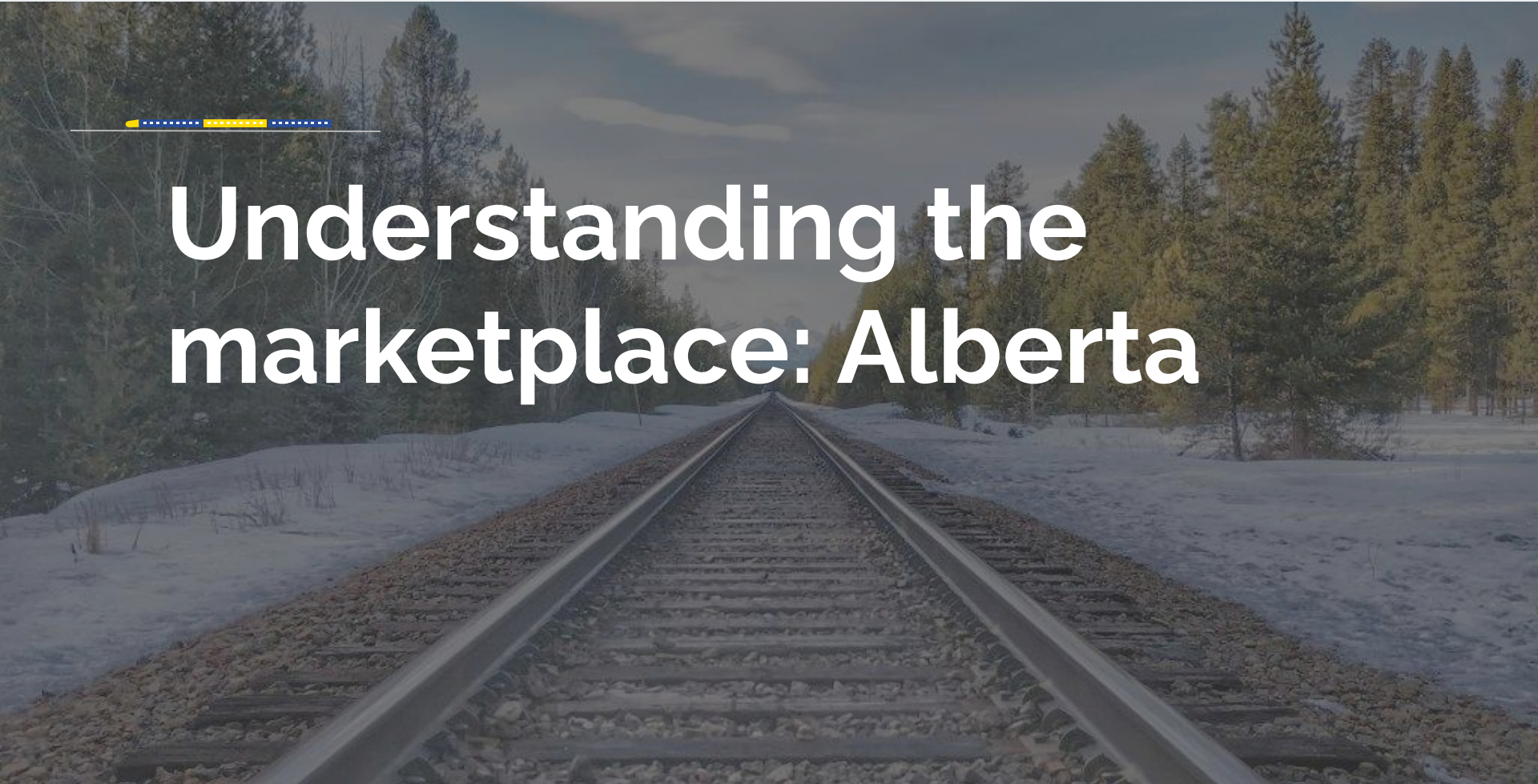
Understanding the marketplace: Alberta

Alberta today

Alberta's population growth shattered records in the third quarter of 2022

- Alberta added 58,203 residents between the beginning of July and the end of September in 2022, posting a growth rate of 1.28%.

- Estimated population of Alberta is 4,262,635

- Alberta still has the highest natural growth rate, the youngest average age, as well as the lowest proportion of people aged 65 and over.

- International migration added 33,297 net new residents to Alberta in the third quarter of 2022.

Alberta in 2046

In 2046 Alberta is expected to:

- reach over 6.4 million people, an increase of almost 2.0 million people from 2021

- become older, with an average age of 41.7 years, up from 38.9 years in 2021

- become increasingly diverse, as arrivals from other countries account for about 55% of the expected growth over the projection period

- 80% of Albertans are expected to live Edmonton-Calgary Corridor by 2046
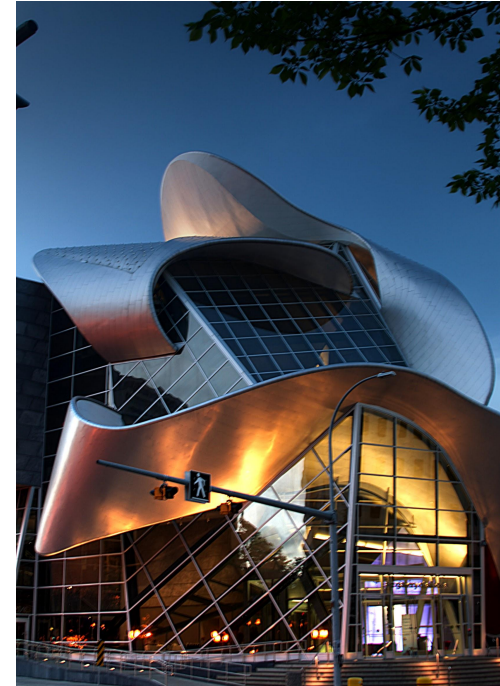
Calgary

- Calgary is the financial centre of Alberta.

- Estimated population of Calgary is 1,269,845

- Annual growth rate of 2.47%.

- Increased diversity with more than 25% of the population of Calgary belongs to a visible minority group

- Strong population growth and job growth are expected to bring the unemployment rate down, drive business creation, and boost consumption.
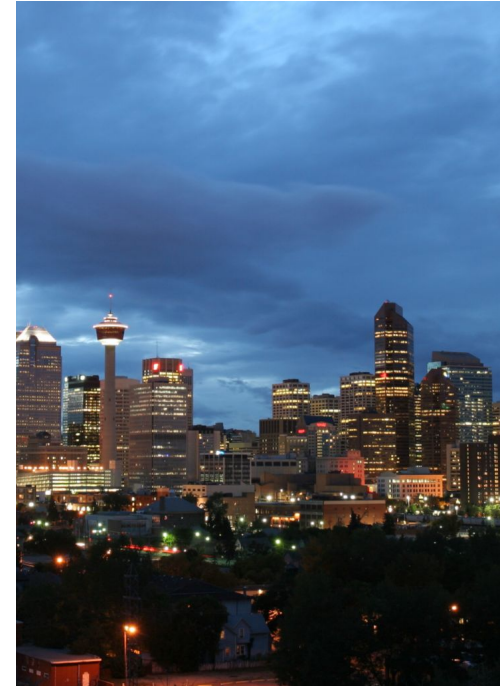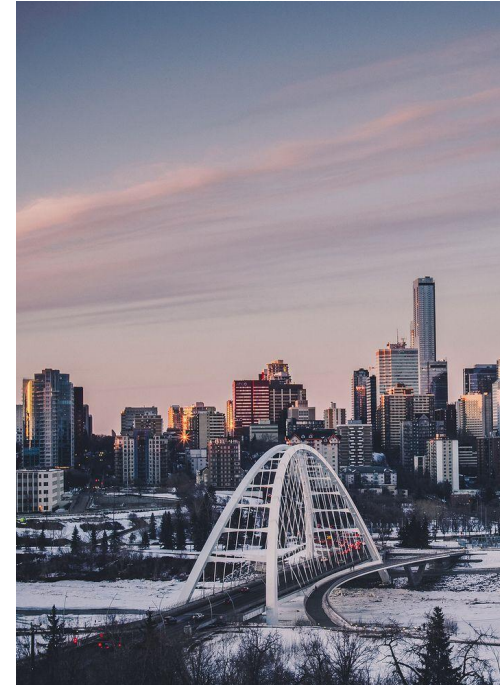
Edmonton

- Edmonton is the capital of the province of Alberta.

- Estimated population of Edmonton metropolitan area has a population estimated at 1.8 million

- Annual growth rate of 2.80%

- 4 million people visit Edmonton every year. It's the most popular destination in Alberta, CA.

- Edmonton has more than 30 annual events all year round. The Music, Fringe and Street Performers Festival are globally renowned.

Calgary–Edmonton Corridor

The Calgary–Edmonton Corridor is the most urbanized area in Alberta and is one of Canada's four most urban regions.

- 80 percent of Alberta population is concentrated in this corridor.

- Red Deer had a population of 104,392 in 2021, third in the province.

- Measured from north to south, the region covers a distance of approximately 400 km (250 mi). It includes the metropolitan areas of Calgary and Edmonton and cities of Red Deer and Wetaskiwin.
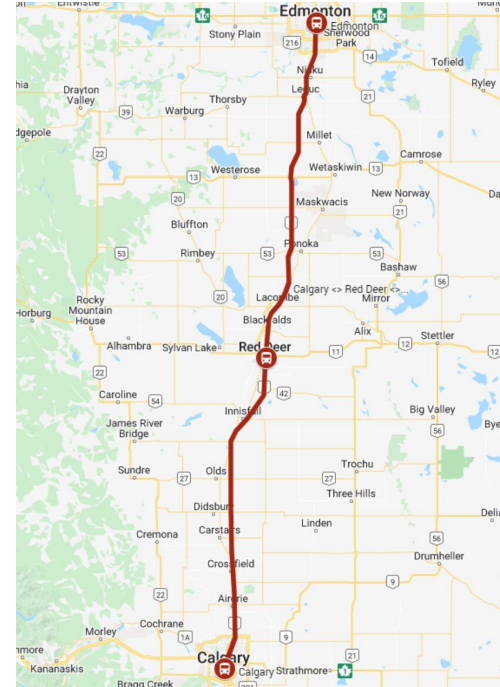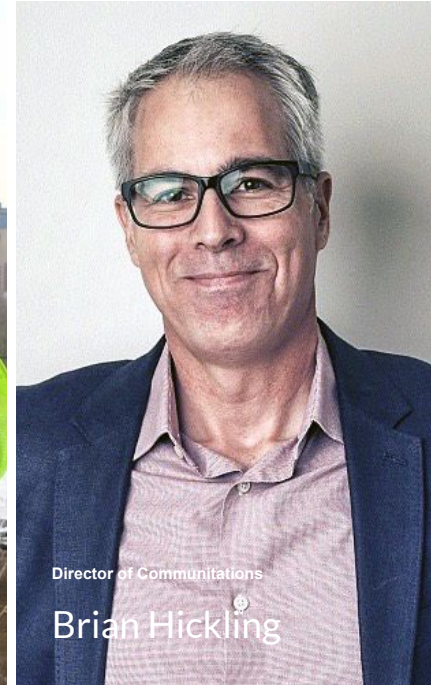
AAR teams and strategic partners

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ARR
Core Team

The ARR team is made up of experienced professionals with a diverse range of skills and expertise.

Director of Program
Thomas Fryer

Director of Partnerships
Vern Raincock

Director of Communitations
Brian Hickling

Partnerships

The ARR has both formal and informal relationships and partnerships.